Directory of Annual Agricultural Research Programme of NARS Institutes 2022-2023

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Bangladesh Agricultural Research Council
Farmgate, Dhaka-1215, Bangladesh
www.barc.gov.bd

National Agricultural Research System (NARS)

The National Agricultural Research System (NARS) is composed of BARC and 13 Agricultural Research Institutes (ARIs).

Bangladesh Agricultural Research Council (BARC)

Being the Apex body of NARS, BARC has the responsibility to strengthen national agricultural research capability through research planning, coordination, integration and resource allocation. Establish national research priorities, monitor and review the research program of the institutes, contribute to govt. policy formulation, coordinate with donors and share resources with NARS institutes to conduct research in priority areas are some of the mandate of BARC.

Bangladesh Agricultural Research Institute (BARI)

Conduct research to ensure increased and stable Production of all crops (except rice, jute, sugarcane and tea) through scientific management of land, water, fertilizers, insect and diseases; develop varieties of crops with resistances to biotic and abiotic stresses; improve fanning systems to optimize production; develop tools and machinery to improve labor productivity; train scientists, extension functionaries, farmers, NGO workers, etc.; collaborate with private sector; publish newsletters,bulletins, and journals; test packages of new technologies.

Bangladesh Rice Research Institute (BRRI)

Conduct research on all aspects of rice to develop high yielding varieties for different ecosystems, develop component technologies for improving productivity of rice-based cropping systems, and transfer rice production technologies through training, workshop, seminar, and publication. Diffusion of technology to farmers through extension agencies.

Bangladesh Jute Research Institute (BJRI)

Conduct Agricultural and Technological research on jute and allied fibers. Agricultural Research: develop short duration high yielding varieties of both white and tossa jute varieties with improved fibers; short duration varieties of kenaf and mesta; agronomic analyses of jute production, prices and markets. Technological Research: identify fiber properties to produce quality products; develop processes and equipment for manufacturing new-jute products and improving the quality of conventional jute products; provide technical services to manufacturers with emphasis on establishing new jute industries.

Bangladesh Institute of Nuclear Agriculture (BINA)

To adapt advanced research techniques for the development of a stable and productive agriculture by evolving new crop varieties, technologies to improve management of crops, land and water, as well crop quality, and pest management practices.

Bangladesh Sugarcrop Research Institute (BSRI)

Develop high yielding, high sugar content cane varieties with low fiber contents which are disease and insect resistant for relined sugar and "gur" production; develop early, medium and late maturing varieties to accommodate intensive cropping sequences of major agro-ecological zones; develop improved cultural practices including intercropping and relay cropping patterns; develop varieties and practices to exploit the potential of minor sugar crops.

Bangladesh Wheat and Maize Research Institute (BWMRI)

Development and implementation of wheat and maize improvement as well as conduct basic and applied research on different issues. Production of breeders and quality seed of wheat and maize and distributed for setting demonstration and dissemination.

Soil Resources Development Institute (SRDI)

Provide soil management advisory services to farmers; assess potentials of land resources through soil survey; assist government and other agencies with planning for agriculture, forestation, soil conservation, land reclamation, settlements, irrigation, drainage, and flood protection by providing basic soil data, and information and technical support.

Bangladesh Fisheries Research Institute (BFRI)

Conduct and coordinate research on freshwater capture and pond fisheries, brackish water fisheries, and marine fisheries; and assist with development of efficient and economic but sustainable methods for fish production, management, processing and marketing.

Bangladesh Livestock Research Institute (BLRI)

Conduct research to solve problems that restrain the growth and development of livestock production at the farm level, and improve the livestock component of farming systems.

Bangladesh Forest Research Institute (BFRI)

Develop management practices to increase productivities of national forests and village groves and to convert wastelands and marginal lands to forestry and agro forestry uses; develop technologies for rational utilization of forest products; generate technologies to conserve or restore environment balances through increased stocking densities of both rural and urban forests; transfer technology through extension services and other agencies to end users.

Bangladesh Tea Research Institute (BTRI)

Mandate to conduct research for increased yields and profits by developing improved production technologies and high yielding, high quality tea clones.

Bangladesh Sericulture Research and Training Institute (BSRTI)

Develop disease, drought and water logging resistant high yielding and nutritionally rich mulberry varieties for rearing of silkworms. Develop appropriate technology for quality silkworm egg and silk production through low cost innovative technologies.

Cotton Development Board (CDB)

Conduct research on different aspects of cotton production; develop hybrid and short duration high yielding cotton varieties with desirable fiber characteristics, generation of agronomic, soil and pest management practices.

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Foreword

My pleasure goes beyond means to present the Directory of Annual Agricultural Research Programme of the NARS Institutes 2022-2023 as the Executive Chairman of Bangladesh Agricultural Research Council (BARC). The National Agricultural Research System (NARS) of Bangladesh has successfully overcome the challenges of the country's food crisis after its independence by releasing new varieties of rice, wheat, vegetables. NARS institutes always play an important role not only in determining food sufficiency to the burgeoning population of the country but also in providing the food and nutrition security for the people and alleviating poverty. It has worked much to opt appropriate agricultural research agenda and cutting-edge technologies with the agricultural policies in the country and the world for the benefits of our farmers and consumers.

I can ensure that NARS institutes will continue with time-winning research on agricultural varieties and substantial outreach of technologies that perform farmer-centric agricultural development in the country. In fact, mentoring quality research and development works of the NARS institutes with subtle decision making is our priority. In agricultural growth the success and the achievement that NARS institutes have gained would be enhanced in the coming years by exploring new strategies in agricultural research to remain food surplus.

The current annual research programme directory has accumulated new and important research and development programmes of the NARS institutes during 2022-2023. I hope that our diverse stakeholders will find the contents inside more useful and hence provide with the constructive views to bring improvements in agricultural research and human resource development thereby ensuring agriculture as a profitable business.

I must appreciate the support and contribution of the NARS scientists. Without their contribution, this directory would not have been possibly published. Finally, I thank all those who are associated with compiling, editing and printing of this report.

(Dr. Shaikh Mohammad Bokhtiar)
Executive Chairman
Bangladesh Agricultural Research Council

Executive Summary

Bangladesh Agricultural Research Council (BARC) has initiated to document the annual agricultural research programmes of thirteen NARS institutes (BARI, BRRI, BJRI, BINA, BSRI, BWMRI, SRDI, BTRI, BFRI (Forest), CDB, BSRTI, BFRI (Fisheries) and BLRI) with discipline wise number of experiments conducted during 2022-2023. The directory is the testimony of the overall contribution of the National Agricultural Research System (NARS) institutes in the agricultural sector. The performance NARS institutes showed in 2022-2023 in the economy of Bangladesh is significant. The scientists of the National Agricultural Research System (NARS) institutes have been putting their efforts to overcome the continuing challenges evolving due to biotic and abiotic factors in food production of the country. The objective of the directory is to make available of all activities in a single document which would help to undertake collaborative research programme of the NARS Institutes and avoid duplication of research work in different areas. The annual research programmes are generally prepared in accordance with the 5- years Master Plan of the organizations which is originated from the agricultural research priorities up to the year 2030 and beyond.

The individual Institute documents the information following their own style and mostly in isolated form. Therefore, it is immense necessary to prepare a consolidated documentation following a standard format incorporating the research title, objectives and location. This would also help preserving the valuable information for future reference. BARC is conducting this important activity since 2014 and eight volumes for 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 have been published over the year.

Number of Institute wise Research Programmes in 2022-23:

Name of the Institute	No. of Experiment conducted
Bangladesh Agricultural Research Institute (BARI)	2295
Bangladesh Rice Research Institute (BRRI)	980
Bangladesh Jute Research Institute (BJRI)	188
Bangladesh Institute of Nuclear Agriculture (BINA)	478
Bangladesh Sugarcrop Research Institute (BSRI)	153
Bangladesh Wheat and Maize Research Institute (BWMRI)	85
Soil Resource Development Institute (SRDI)	16
Bangladesh Tea Research Institute (BTRI)	80
Bangladesh Forest Research Institute (BFRI)	71
Cotton Development Board (CDB)	58
Bangladesh Sericulture Research and Training Institute (BSRTI)	5
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Bangladesh Livestock Research Institute (BLRI)	40

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BANGLADESH AGRICULTURAL RESEARCH INSTITUTE

BARI

BANGLADESH AGRICULTURAL RESEARCH INSTITUTE

Sl.	Research Title	Objective(s)	Location(s)
HORTICULTURE RESEARCH CENTRE			
OLERICULTURE DIVISION			
PROJECT-I: BREEDING FOR DEVELOPMENT OF OPEN POLLINATED VARIETY IN VEGETABLE CROPS			
1	Observational yield trial of eggplant	• To observe the performance of eggplant lines and to find out superior lines having good horticultural traits including tolerance to pest and diseases tolerance	Gazipur, Jasshore
2	Advanced yield trial of eggplant	• To evaluate the performance of eggplant lines in respect of yield and good quality.	Gazipur, Jamalpur
3	Regional yield trial of eggplant	• To study the adaptability of eggplant lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to pest and diseases.	Gazipur, Jamalpur, Akbarpur, Burirhat, Ishwardi, Jashore, Pathakhli, Hathazari
4	Evaluation of tomato germplasm	• To evaluate the performance of collected tomato germplasm in relation to yield, yield contributing characters;	Gazipur
5	Evaluation of tomato geneotypes for processing quality	• To identify tomato genotypes having processing quality	Gazipur
6	Observational yield trial of cherry tomato	• To determine the yield potentiality and quality of cherry tomato genotypes	Gazipur
7	Adaptive trial of BARI released tomato varieties in Chattogram region	• To observe yield potentiality and adaptability of these varieties in Chattogram region	Hathazari
8	Regional yield trial of AFACI winter tomato	• To study the adaptability of AFACI tomato lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to pest and diseases.	Gazipur, Jamalpur, Akbarpur, Burirhat, Ishwardi, Jashore, Pathakhli, Hathazari
9	Regional yield trial of semi determinate tomato	• To study the yield potentials and adaptability of tomato lines at different agro-ecological zones to develop semi determinate tomato varieties and inbred for developing hybrid tomato lines	Gazipur
10	Observational yield trial of sweet pepper	• To select the suitable sweet pepper lines having good horticultural traits including tolerance to pest and diseases tolerance	Gazipur
11	Advance yield trial of sweet pepper	• To evaluate the performance of selected sweet pepper lines in relation to yield and tolerance to wilt	Gazipur
12	Regional yield trial of sweet pepper	• To study the adaptability of sweet pepper lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		pest and diseases.	
13	Observational yield trial of summer radish	• To select high yielding heat tolerant OP radish lines	Gazipur
14	Regional yield trial OF bottle gourd	• To study the adaptability of bottle gourd lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to high temperature and diseases	Gazipur, Jamalpur, Akbarpur, Burirhat, Ishurdi, Jashore, Rahmatpur, Cumilla, Hathazari
15	Evaluation of pumpkin germplasm	• To select superior lines of pumpkin having good horticultural traits including pest and disease tolerance	Gazipur, Jamalpur
16	Regional yield trial of year-round pumpkin	• To identify year-round pumpkin lines having good horticultural traits including pest and disease tolerance	Patuakhali, Gazipur, Jamalpur, Burirhat, Ishwardi and Jashore
17	Observational Yield Trial In Bitter Gourd	• To observe yield and quality of bitter gourd germplasm. To select superior genotypes for future breeding program	Gazipur
18	Phenotypic recurrent selection in cucumber	• To develop improved population in cucumber for increasing yield and disease resistance.	Cumilla
19	Regional yield trials of cucumber	• To evaluate the yield performance of cucumber lines at different AEZs	Gazipur, Jamalpur, Kharachari, Hathazari, Cumilla, Jashore, Ishurdi and Rahmatpur
20	Observational yield trial of ridge gourd lines	• To select ridge gourd lines having good horticultural traits including disease tolerance	Gazipur
21	Evaluation of water melon	• To evaluate the performance of water melon lines in relation to yield and yield contributing characters	Gazipur
22	Evaluation of netted melon	• To select netted melon lines having good horticultural traits including pest and disease tolerance	Gazipur
23	Advanced yield trial of netted melon	• To study the performance of selected lines having good horticultural traits including pest and disease tolerance	Gazipur
24	Advanced yield trial of muskmelon lines	• To observe the performance of muskmelon lines for good horticultural traits.	Gazipur
25	Advanced yield trial of '*lalmi*'	• To select suitable lines having good horticultural traits including pest and disease tolerance will be selected	Jasshore
26	Evaluation of pointed gourd germplasm	• To find out the superior line of pointed gourd	Ishwardi
27	Evaluation of teasle gourd germplasm	• To find out the suitable of teasle gourd lines for yield and quality	Burirhat, Jamalpur Pharatali,

Sl.	Research Title	Objective(s)	Location(s)
			Chattogram
28	Advance yield trial of less seeded teasle gourd lines	• Suitable less seeded teasle gourd lines having good horticultural traits will be identified	Gazipur
29	Regional yield trial of teasle gourd lines	• To study the adaptability of less seeded and having good horticultural traits teasle gourd lines at different AEZs of Bangladesh. To select high yield with good quality teasle gourd variety	Gazipur, Narsingdi, Cumilla
30	Observational yield trial of coloured country bean	• To evaluate the performance of coloured country bean germplasm in respect of yield, quality and pest reactions	Gazipur
31	Evaluation of country bean germplasm	• To select winter country bean lines lines having good horticultural traits including pest and disease tolerance	Pahartali, Chattogram
32	Advanced yield trial of country bean	• To select country bean lines lines having good horticultural traits including pest and disease tolerance	Gazipur, RARS, Jamalpur, Ishurdi and RHRS, Lebukhali
33	Regional yield trial of yard long bean	• To study the adaptability of yard long bean lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to BCMV (bean common mosaic virus)	Gazipur, Jamalpur, Akbarpur, Ishurdi, Rahmatpur, Hathazari
34	Advanced yield trial of french bean	• To select suitable, french bean lines having good horticultural traits including disease tolerance	Raikhali
35	Regional yield trial of french bean	• To study the adaptability of french bean lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to pest and diseases	Gazipur; Hathazari; Akbarpur; Jamalpur; Jashore; Ishwardi; Burirhat, Khulshi
36	Evaluation of velvet bean in hilly region	• To see performances of velvet bean lines having good horticultural traits including pest and disease tolerance	Ramgarh, Khagrachari
37	Observational yield trial of stem amaranth	• To select stem amaranth lines having good horticultural traits including pest and disease tolerance	Akbarpur, Jamalpur and Jasshore
38	Regional yield trial of year-round stem amaranth	• To study the adaptability of stem amatanth lines at different AEZs of Bangladesh and select suitable year-round lines with good horticultural traits including tolerance to pest and diseases	Gazipur, Jamalpur, Narshingi, Burirhat, Jasshore
39	Evaluation of indian spinach germplasm	• To select indian spinach lines having good horticultural traits including pest and disease tolerance	Gazipur, Jamalpur
40	Advanced yield trial of	• To selected lines having good	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	coloured lettuce lines	horticultural traits including disease tolerance	
41	Evaluation and conservation of underutilized indigenous vegetables	• To evaluate yield potentials and conserve the collected underutilized indigenous vegetables germplasm	Gazipur
42	Evaluation of mushroom genotypes	• To select suitable mushroom genotypes from different sources. To select suitable genotype with good yield and quality	Gazipur
43	Observational yield trial of drumstick genotypes (on and off-season)	• To select suitable drumstick lines having potentiality of on and off-season drumstick production.	Gazipur
44	Evaluation of kanaidinga	• To select suitable Indian trumpet tree germplasm in respect of yield and quality	Raikhali
PROJECT-II: BREEDING FOR HYBRID DEVELOPMENT IN VEGETABLE CROPS			
45	Inbred development of eggplant [set-i: s_3-s_4), set-ii: s_3-s_4), set-iii: s_2-s_3)]	• To extract superior homozygous eggplant lines from the diverse heterozygous population (Green, purple and white color)	Gazipur
46	Heterosis study in eggplant	• To study standard heterosis in purple and green eggplant in order to select better cross combinations	Gazipur
47	Performance of purple colored eggplant hybrids	• To select purple colored eggplant hybrids tolerance to high temperature and wilt	Gazipur
48	Regional yield trial of eggplant hybrids	• To study the adaptability of eggplant hybrids at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to high temperature and diseases	Gazipur
49	Inbred development of tomato (AFACI) [set-i: s_4-s_5 (winter), set-ii: s_3-s_4 (summer)]	• To extract superior homozygous tomato lines from the diverse heterozygous population	Gazipur
50	Studies on combining ability and heterosis in tomato	• Study of GCA, SCA and heterosis to select better cross combinations of tomato	Gazipur
51	Regional yield trial of tomato hybrids	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to different diseases.	Gazipur, Akbarpur, Rangpur, Rahmatpur and Ishwardi
52	Heterosis studies in sweet pepper	• To study standard heterosis in sweet pepper in order to select better cross combinations	Gazipur
53	Performance of sweet pepper hybrids	• To select suitable sweet pepper hybrids having good horticultural traits including pest and disease tolerance	Gazipur
54	Regional yield trial of	• To study the adaptability of sweet pepper	Gazipur, Jamalpur,

Sl.	Research Title	Objective(s)	Location(s)
	sweet pepper hybrids	hybrids at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to diseases	Burirhat, Ishwardi, Rahmatpur, Akbarpur
55	Heterosis study of bottle gourd	• To study standard heterosis in bottle gourd in order to select better cross combinations	Gazipur
56	Regional yield trial of bottle gourd hybrids	• To study the adaptability of bottle gourd hybrids at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to diseases	Gazipur
57	Inbred development of pumpkin	• To extract superior homozygous pumpkin lines having better horticultural traits from the diverse heterozygous population	Gazipur and Cumilla
58	Regional yield trial of year-round pumpkin hybrids	• To study the adaptability of year-round pumpkin hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to diseases	Gazipur, Hathazari, Akbarpur, Burirhat, Patuakhali and Ishwardi.
59	Observational yield trial of bitter gourd hybrids	• To select suitable bitter gourd hybrids having good horticultural traits including disease tolerance	Gazipur
60	Development of inbred in cucumber (s_0 to s_1)	• To extract superior homozygous cucumber lines having better horticultural traits from the diverse heterozygous population.	Cumilla
61	Performance of cucumber hybrids	• To select cucumber hybrids having good horticultural traits including disease tolerance	Gazipur
62	Hybridization in cucumber	• To develop hybrid population for gynoecious and monecious parents of cucumber	Gazipur
63	Regional yield trial of ridge gourd hybrids	• To study the adaptability of ridge gourd hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to diseases	Gazipur
64	Inbred development of sponge gourd (s_1-s_2)	• To extract superior homozygous sponge gourd lines having better horticultural traits from the diverse heterozygous population	Gazipur
65	Hybridization in snake gourd	• To develop hybrid population of snake gourd	Gazipur
66	Performance of developed snake gourd hybrids	• To study standard heterosis in snake gourd in order to select better cross	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		combinations	
67	Performance yield trial of snake gourd hybrids	• To select snake gourd hybrids having good horticultural traits including disease tolerance	Hathazari
68	Inbred devolvement in ash gourd	• To extract superior homozygous ash gourd lines having better horticultural traits from the diverse heterozygous population	Gazipur
69	Inbred development of watermelon [S_3-S_4]	• To extract superior homozygous watermelon lines having better horticultural traits from the diverse heterozygous population for year-round watermelon production	Gazipur
70	Development of autotetraploid for seedless watermelon	• To get autotetraploid seedless watermelon lines	Lebukhali, Patuakhali
71	Hybridization in watermelon	• To develop high yielding watermelon cross combinations	Lebukhali, Dumki, Patuakhali
72	Heterosis study in watermelon	• To study standard heterosis in watermelon in order to select better cross combinations	Gazipur
73	Regional yield trial of watermelon	• To study the adaptability of watermelon hybrids at different AEZ_s of Bangladesh for developing high yielding watermelon hybrids tolerance to alternaria leaf spot and high temperature.	Gazipur, Patuakhali, Hathazari, Jasshore
74	Heterosis study in squash	• To study heterosis in squash in order to select better cross combinations	Gazipur
PROJECT-III: BREEDING FOR DISEASE RESISTANCE IN VEGETABLE CROPS (*Biotic stress tolerance*)			
75	Regional yield trial of insect and disease's tolerant dual purpose tomato lines	• To study the adaptability of tomao lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to insect and diseases.	Gazipur, Akbarpur, Ishwardi, Hathazari, Rahmatpur and Rangpur
76	Regional yield trial of bacterial wilt and TYLCV disease tolerant tomato	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to diseases	Gazipur, Jamalpur, Burirhat, Jasshore, Ishwardi, Cumilla
77	Screening of tomato hybrids against bacterial wilt	• To select tomato hybrids tolerant to bacterial wilt having good horticultural traits	Gazipur
78	Regional yield trials of virus tolerant summer tomato hybrids	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to high temperature.	Gazipur, Hathazari, Cumilla, Jasshore, Ishurdi, Rahmatpur

Sl.	Research Title	Objective(s)	Location(s)
79	Screening of okra against YVMV	• To identify promising okra lines with tolerance to YVMV.	Cumilla, Patuakhali
80	Performance of some okra hybrids against YVMV	• To find out the high yielding YVMV resistant okra hybrid	Lebukhali, Dumki, Patuakhali
81	Regional yield trial of YVMV tolerant okra	• To study the adaptability of okra lines at different AEZs of Bangladesh and to select high yielding OP okra lines tolerant to YVMV	Gazipur; RHRS, Patuakhali; RARS, Jashore, Burirhat, Hathazari
PROJECT-IV: BREEDING FOR SALINITY, HEAT & DROUGHT RESISTANCE IN VEGETABLE CROPS (*Abiotic stress tolerance*)			
82	Evaluation of eggplant lines in summer season	• To select summer eggplant lines having good horticultural traits including disease tolerance.	Gazipur, Jamalpur
83	Screening of eggplant varieties against salinity	• To screen out the salt tolerant BARI released eggplant varieties	Gazipur
84	Heterosis study in summer tomato (AFACI)	• To study standard heterosis in tomato in order to select better cross combinations for summer season cultivation	Gazipur
85	Regional yield trial of summer tomato hybrids (set-i & ii)	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to high temperature.	Gazipur, Hathazari, Jamalpur, Akbarpur, Jashore, Burirhat, Patuakhali.
86	Screening of tomato hybrids against salinity	• To select saline tolerant tomato hybrid	Gazipur
87	Screening of tomato for drought tolerance	• To find out drought tolerant tomato genotype (s)	Akbarpur, Moulvibazar
88	Regional yield trial of saline tolerant tomato hybrids	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to salinity	Gazipur, Patuakhali, Shatkhira and Rahmatpur
89	Screening of sweet pepper genotypes in summer season	• To select the superior sweet pepper lines/varieties tolerant to high temperature	Gazipur
90	Screening of sweet pepper against salinity at germination stage	• To select suitable sweet pepper varieties/ lines tolerate to salt stress at germination stage	Gazipur
91	Screening of pumpkin lines against waterlog conditions	• To identify the waterlogg tolerant pumpkin lines at seedling stage	Dumki, Lebukhali, Patuakhali
92	Screening of watermelon against salinity	• To screen out the salt tolerant watermelon	Gazipur
93	Observational yield trial of summer country bean	• To select summer country bean lines having good horticultural traits including high temperature and disease tolerance	Gazipur, Jamalpur
PROJECT-V: MAINTENANCE BREEDING IN VEGETABLE CROPS			
94	Maintenance breeding for	• To purify the BARI Begun-8 variety and	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	BARI Begun-8	produce the quality nucleous seed	
95	Maintenance breeding for cauliflower varieties (BARI Fulkopi-1 and 2)	• To purify the BARI Fulkopi-1, 2 variety and produce the quality nuclear seed	Gazipur
96	Maintenance breeding for BARI Lau-4	• To purify the BARI Lau-4 variety and produce the quality nucleous seed	Gazipur
97	Maintenance breeding for BARI Chalkumra-1	• To purify the BARI Chalkumra-1 variety and produce the quality nucleous seed	Hthazari
98	Maintenance of genetic purity of BARI Tomato varieties and inbreds	• To purify OP and inbred lines of hybrid tomato varieties for generating original traits of parents	Gazipur
99	Maintenance breeding of the parents of BARI hybrid tomato 4 & 8	• To purify the parents involved in BARI hybrid tomato 4 & 8 varieties and produce the quality nuclear seed	Gazipur
100	Maintenance breeding for hybrid pumpkin variety	• To purify the BARI hybrid Mistikumra-1 and BARI hybrid Mistikumra-2 variety and produce the quality hybrid seed	Gazipur
101	Maintenance breeding for amaranth varietiy	• To purify the BARI data 2 variety and produce the quality nuclear seed	Gazipur
PROJECT -VI: PRODUCTION TECHNOLOGY OF DIFFERENT VEGETABLES			
102	Effect of grafting, fertilizer application form and mulching methods on the growth, yield and quality of summer tomato varieties	• To optimize the grafting techniques, mulching methods, fertilizer application methods and suitable variety as to evaluate the combinations	Gazipur
103	Stripe cultivation of tomato in tomato+lalsak along with bitter gourd in intercropping system at acidic soil at moulvibazar	• To improve the cropping intensity and productivity through intercropping Tomato with lalshak	Akbarpur
104	Effect of sowing time on yield and quality of bari begun -12	• To find out the best sowing time of BARI Begun 12	Lebukhali, Patuakhali, Rahmatpur, Barisal, Akbarpur, Burirhat, Rangpur
105	Effect of sowing times on the growth and yield of summer tomato	• To observe the performance of summer tomato as influenced by sowing time • To extend the availability of summer tomato	Jamalpur
106	Effect of plastic mulch on growth and yield of different sweet pepper varieties	• To know the effect of plastic mulch on plant growth and yield potentiality of different sweet pepper variety (s).	Gazipur
107	Effect of biochar and irrigation level on moisture conservation and yield performance of sweet pepper on rooftop	• To study the different mixture rates of biochar on soil moisture conservation. • To the evaluate the yield performance of sweet pepper	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
108	Effect of de-topping and mulching on vegetative growth and yield of okra	• To determine the effect of topping on growth and yield of okra plant. • To determine the effect of different mulching color on growth and yield of okra plant.	Rahmatpur, Barishal
109	Impact of plant spacing on the growth, fruit quality and yield of okra in southern region of bangladesh	• To find out suitable plant spacing for maximization yield of okra in the Southern region of Bangladesh.	Rahmatpur, Barishal
110	Effect of plant spacing and plant per pit on growth and yield of bitter gourd	• To identify appropriate spacing and plant population for better yield of Bitter gourd.	Akbarpur, Moulvibazar
111	Effect of pruning on growth and yield of drumstick	• To find out the optimum pruning for drumstick growth and yield	Jamalpur
112	Improving productivity and adaption of bari developed selected vegetable crops through integrated management approaches (ima) at char-areas of northern districts	• To adapt BARI develop vegetable varieties and introducing integrated management practices for increasing productivity at char land; • To reduce malnutrition and attaining food security through safe vegetables production;	Gazipur, Sharikandi of Bogura Kaonia of Rangpur
113	Feasibility study of plastic mulch laying on vegetable cultivation	• To evaluate comparative performance of mechanized plastic mulch laying with manual mulching. • To evaluate the yield performance of vegetables using plastic mulch	Gazipur
114	Effect of sowing time on yield potentiality of radish in summer season	• To find out the suitable time of radish production in summer season	Ishwardi
115	Effects of chemical fertilizer (n p k s zn and b) on growth and yield of hybrid pointed gourd	• To find out the optimum dose of chemical fertilizer for pointed gourd cultivation.	Ishurdi, Pabna
116	Effect of foliar application of humic and salicylic acids on the growth and yield of pepper in water deficit area of moulvibazar	• To find out the optimum doses for obtaining maximum yield of hot and sweet peppers at Moulvibazar. • To find out the growth and physiological responses of pepper in the water deficit acidic soil of Moulvibazar	Akbarpur, Moulvibazar
117	Nutrient management for watermelon	• To find out suitable fertilizers dose on the yield and quality of watermelon	Lebukhali, Patuakhali
PROJECT -VII: OFF SEASON VEGETABLE PRODUCTION AND PROTECTIVE CULTURE			
118	Effect of modified hydroponic nutrient solution based on commercially available fertilizer for production of high value vegetables	• To evaluate the performance of commercially available chemical fertilizers for growing high value crops hydroponically	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
119	Iot enabled ion selective electrode based nutrient management in hydroponic culture	• To investigate the performance of EC and ISE based nutrient management for growing tomato in recycled hydroponics	Gazipur
120	Application of iron nanoparticles on the growth, yield and physiological traits of tomato in hydroponics	• To determine to effect iron nanoparticles on the growth, physiological traits, fruit yield and quality of tomato in hydroponics	Gazipur
121	Effect of biostimulants on the growth, yield and quality of sweet pepper in coco-coir substrate	• To investigate the influence of biostimulants on the performance of sweet pepper under soilless culture	Gazipur
122	Effect of led on the yield and quality of sweet pepper grown in soilless culture	• To investigate the influence of suplemental LED on yield and fruit quality of sweet pepper under greenhouse condition	Gazipur
123	Identification of production system for netted melon cultivation	• To select an improved production technique of netted melon for Bangladesh	Gazipur
124	Performance of selected vegetables grown in sensor based and iot enabled recycled hydroponics	• To find out the product efficiency of lettuce, cucumber, strawberry, tomato, sweet pepper and netted melon for cultivation hydroponics	Gazipur
125	Effect of different hydroponic nutrient solution on the growth and yield of some vegetables grown in coconut substrate under micro garden model	• To find out suitable concentration of hydroponic nutrient solution for growing sweet potato in coconut substrate under micro garden model	Gazipur
126	Study the performance of cost-effective nutrient solution in rooftop hydroponics for vegetable	• To find out effect of nutrient solution on rooftop hydroponics. • To get higher yield and quality vegetables on roof garden	Gazipur
127	Effect of nitrogen concentration at different growth stage of watermelon in hydroponic culture	• To find out optimum nitrogen dose for vegetative and reproductive growth of Watermelon	Patuakhali
128	Performance of low-cost hydroponic solution for vegetable crops	• To identify low-cost solution and get higher BCR for hydroponic vegetable production	Jamalpur
129	Production of selected vegetables through iot based hydroponic system	• To study feasibility of growing selected vegetable crops year-round through automatic hydroponic system. • To find out suitable variety and automation system for hydroponic	Jamalpur
130	Iot based hydroponic production of vegetables	• Production of fresh quality vegetables in indoor condition	Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
	under different led light in indoor condition	• To produce high antioxidant rich vegetables	
131	Year-round production of selected vegetable crops through simplified hydroponic culture in chattogram region	• To study feasibility of growing selected vegetable crops year-round production through hydroponic culture	Pahartali
132	Year-round production of selected vegetable crops through simplified hydroponic culture in barishal region	• To develop simplified hydroponic growing systems suitable for high value vegetables	Rahmatpur
133	Development of simplified hydroponic systems for growing horticultural crops at khagrachari region	• To develop simplified hydroponic growing systems suitable for high value horticultural crops in the hilly region	Khagrachari
134	Production of micronutrient fortified leafy vegetables providing human health benefits through hydroponic cultivation	• To find out the suitable doses of zinc, iron and selenium in nutrient solution for producing mineral enriched leafy vegetables	Gazipur
135	Introduction of simplified hydroponic system for growing high value vegetables at jashore region	• To develop simplified hydroponic models for urban areas of Jashore region and to produce high value vegetables through hydroponics with safety	Jashore
136	Year-round cultivation of peppermint through hydroponic system for medicinal and aromatic purposes	• To develop simplified hydroponic systems using locally available low cost materials for growing peppermint. • To evaluate the growth, yield and oil content of the peppermint vegetables in hydroponics	Rangpur
137	Suitability test of automatic hydroponic system for year-round production of selected vegetables	• To study feasibility of growing selected vegetable crops year-round through automatic mobile apps controlled hydroponic system. • To find out suitable variety and automation system for hydroponic	Jamalpur
138	In vitro regeneration of bari hybrid potol-1 from different explants	• To establish a reproducible protocol for in vitro regeneration of BARI Hybrid potol -1 from different explants	Jamalpur
139	In vitro regeneration of BARI Sajina-1 from different explants	• To establish a reproducible protocol for in vitro regeneration of BARI Sajina-1 (*Moringa oleifera* Lam.) from different explants	Jamalpur
PROJECT-VIII: PRODUCTION OF ORGANIC AND SAFE VEGETABLES			
140	Indigenous microbiome liquid preparation	• To develop crop based liquid formulation which improve the soil micro biome. Test the efficacy of formulation in the	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		specific vegetable's crops production including the quality	
141	Evaluation of microbiome on the growth, quality and yield of vegetables under organic conditions	• To observe the performance of crop based liquid formulations on vegetables	Gazipur
142	Evaluation of magic population of tomato under organic condition	• To evaluate the parents, F1, 2 F1 3 F1 and F2 population under organic condition	Gazipur
143	Third generation evaluation of magic population of pumpkin genotypes under organic condition	• To evaluate the 4th generation and evaluate the 3rd generation MAGIC Pumpkin lines under organic condition	Gazipur
144	Effect of trellis type and mulching on the yield and profitability of vine crops in organic cultivation	• To find the suitable trellis and its production method on the yield and profitability of vine vegetables crop in organic cultivation	Gazipur
145	Advanced yield trial of carrot lines in organic condition	• To select carrot lines with good horticultural traits and seed production potenyiality	Gazipur
146	Standardization of safe production package for yard long bean	• To reduce the risk of pesticide, insecticide and inorganic fertilizer in yard long bean	Gazipur
147	Effect of organic practices on quality, yield attributes and yield of bitter gourd	• To evaluate the yield and quality of bitter gourd organic practice • To identify the suitable dose of organic fertilizer combination	Gazipur
148	Effect of beneficial microorganisms for safe brinjal production	• To evaluate the beneficial effect of microorganisms on brinjal production	Jaintapur
149	Controlling disease and pest for safe brinjal production	• To observe the efficacy of botanical extract on disease and pest control • Enhancing export potentiality	Jaintapur
150	Effect of organic fertilizer on soil health, yield and quality of brinjal	• Increasing soil health • Ensuring high yield and safe brinjal production	Jaintapur
POMOLOGY DIVISION			
PROJECT I: VARIETAL DEVELOPMENT			
Jackfruit			
151	Evaluation of jackfruit germplasm	• To evaluate the jackfruit germplasm for release as variety.	HRS, Gazipur.
152	Evaluation of jackfruit germplasm	• To find out a suitable line (s) for development of a variety	RARS, Hathazari, Chattogram
153	Evaluation of existing jackfruit germplasm	• To select desirable jackfruit germplasm with higher yield and qualities for release as variety.	Breeder Seed Production Center, BARI, Debiganj, Panchagarh
154	*In-situ* evaluation of some	• To identify profuse bearing small sized	HRS, Gazipur.

Sl.	Research Title	Objective(s)	Location(s)
	selected profuse bearing jackfruit germplasm	jackfruit germplasm with high yield potentiality and edible qualities.	
155	*Ex-situ* evaluation of some selected heavy bearing family size jackfruit (*Artocarpus heterophyllus*) germplasm	• To evaluate heavy bearing family size jackfruit germplasm for release as variety	RARS, Akbarpur, Moulvibazar,
156	Evaluation of off-season jackfruit (*Artocarpus heterophyllus*l.) genotypes in Chattogram region	• To evaluate off season jackfruit germplasm and identify the best as a variety.	ARS, Khulshi, Chattogram,
157	Evaluation of year-round (off-season) jackfruit germplasm in Cumilla region	• To evaluate year-round and off-season jackfruit in Cumilla region for release as variety.	RARS, Cumilla.
158	Evaluation of jackfruit germplasm in the hilly region	• To identify superior small sized jackfruit germplasm with high yield potentiality and edible qualities.	HARS, Khagrachari.
159	Evaluation of colour fleshed jackfruit germplasm in the hilly region	• To evaluate the colour fleshed jackfruit germplasm for release as variety.	HARS, BARI, Ramgarh.
160	Comparative performance of BARI released jackfruit varieties in Narsingdi resion	• To study the performance of BARI developed 3 jackfruit varieties at Narsingdi region.	RHRS, Shibpur, Narsingdi.
161	Evaluation of exotic jackfruit germplasm	• To evaluate red exotic jackfruit germplasm which are available in the local nursery and develop good variety.	HRS, Gazipur.
162	Hybridization in jackfruit	• To incorporate important characters like colour, off-season, year-round and regular heavy bearing habit in the desired variety or cultivar	HRS, Gazipur.
Mango			
163	Hybridization in mango	• To develop hybrids to meet the local and international demand.	HRS, Gazipur.
164	Hybridization in mango	• To develop hybrids to meet the local and international demand.	FRS, Binodpur, Rajshahi.
165	Inter-varietal hybridization of mango	• To develop hybrids to meet the local and international demand.	RHRS, BARI, Chapainawabganj.
166	Inter-varietal hybridization of mango	• To develop hybrids to meet the local and international demand.	RARS, Jashore
167	Hybridization in mango	• To develop hybrids to meet the local and international demand.	RARS, Cumilla.
168	Hybridization in mango	• To develop hybrids to meet the local and international demand.	ARS, Khulshi, Chattogram.
169	Evaluation of mango germplasm	• To select suitable mango germplasm	FRS, Binodpur, Rajshahi.
170	Characterization and evaluation of late mango	• To identify the late mango germplasm with good qualitative characters.	Do.

Sl.	Research Title	Objective(s)	Location(s)
	germplasm		
171	*In-situ* evaluation of a late mango germplasm	• To extend harvesting period of mango as well as release new variety	RHRS, BARI, Chapainawabgan
172	Evaluation of early mango germplasm	• To develop regular bearing, high yielding and good quality early variety for extending fruit availability period of mango.	RHRS, BARI, Chapainawabgan
173	Improvement of local mango cultivars	• To improve local mango lines with desired traits	RARS, Jashore
174	Evaluation of collected mango (*Mangifera indica*) germplasm	• To find out the suitable mango germplasm for releasing a new variety	RARS, Akbarpur, Moulvibazar
175	Evaluation of newly collected mango germplasm	• To observe the performance of newly collected mango germplasm in Chattogram Hill Tracts which can be released as a superior mango variety for Bangladesh.	HARS, Raikhali, Rangamati.
176	Evaluation of mango germplasm at Jamalpur region	• To select suitable mango germplasm	RARS, Jamalpur.
177	Performance of kanchamitha mango germplasm at hilly region	• To assess the performance in respect to the fruit yield and quality as a green mango for recommendation as variety under the agro-chimatic conditions of Chattogram Hill Tracts.	HARS, Khagrachari.
178	Evaluation of mango germplasm for green consumption at hill valley in Chattogram hill tracts	• To study the performance of kachamitha mango germplasm in Chattogram Hill Tracts and can be released as a superior kachamitha mango variety.	HARS, Raikhali, Rangamati.
179	Evaluation of kancha-mitha mango germplasm in Chattogram region	• To select desirable mango lines for higher yield and qualities to release as a kancha- mitha variety	ARS, Khulshi, Chattogram,
180	Evaluation of local and exotic mango germplasm in Chattogram region	• To select desirable mango lines as well as variety for higher yield and qualities.	ARS, Khulshi, Chattogram.
181	Evaluation of exotic mango germplasm	• To find out the suitable exotic mango germplasm for releasing as variety.	FRS, Binodpur, Rajshahi.
182	Evaluation of exotic mango germplasm	• To find out the suitable exotic mango germplasm for releasing as variety.	ARS, Benerpota, Satkhira.
183	Characterization and evaluation of mango chance seedlings obtained from BARI Aam-4	• To identify the variability of character and select the late mango germplasm with good qualitative characters.	FRS, Binodpur, Rajshahi.
184	Performance of some mango hybrids	• To characterize the mango hybrids morphologically, physico-chemically along with growth and yield potentiality.	HRS, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		• To study the incidence of insect-pests infestation of mango hybrids grown at Chapai Nawabgonj.	
185	Performance of some mango hybrids	• To characterize the mango hybrids morphologically, physico-chemically along with growth and yield potentiality and to study the incidence of insect-pests and diseases infestation of mango hybrids grown at Chapai Nawabgonj.	FRS, Binodpur, Rajshahi.
186	Performance of BARI developed mango varieties in Chattogram hill tracts	• To observe the performance of BARI developed mango varieties in Chattogram Hill Tracts.	HARS, Raikhali, Rangamati
Banana			
187	Clonal selection of banana cv. Amritsagor	• To select Amritsagor banana with good shape, size, quality and yield.	Do
188	Collection and evaluation of banana cv. Sabri kola	• To select Sobri Kola with good shape, size, quality and yield	Do
189	Evaluation of Sobri Kola germplasm at Jamalpur region	• To evaluate the yield potential and fruit characteristics of the local lines of Sobri Kola under the Jamalpur condition	RARS, Jamalpur
190	Evaluation of banana (cv. Sabri) germplasm	• To observe the performance of collected banana (cv. Sabri) germplasm in southern region which can be released as a variety	RHRS, Lebukhali, Patuakhali
Litchi			
191	Hybridization in litchi	• To incorporate the desirable characters in the late and early litchi variety or cultivar for developing new variety.	HRS, Gazipur.
192	Intergeneric hybridization of litchi and longan	• To incorporate the desirable characters in longan.	HRS, Gazipur.
193	Evaluation of local and exotic litchi germplasm	• To collect and evaluate local and foreign germplasm for enrich litchi germplasm as well as release variety	HRS, Gazipur.
194	*In-situ* evaluation of litchi germplasm	• To evaluate a promising litchi germplasm in *In-Situ* condition for release as variety	HRS, Gazipur.
Guava			
195	Hybridization of local guava with improved/exotic guava varieties	• To transfer desirable traits to BARI Peyara-2 to develop high yielding, good quality, crispy and white/pink flesh with pleasant flavour guava variety.	HRS, Gazipur.
196	Evaluation of colour fleshed guava germplasm in off season	• To select superior colour fleshed guava germplasm having year-round bearing habit.	Do
Papaya			
197	Development of population	• To develop high yielding gynodioecious	HRS, Gazipur.

Sl.	Research Title	Objective(s)	Location(s)
	for gynodioecious papaya variety	papaya variety (s).	
198	Maintenance of dioecious inbreed lines of papaya	• To purify and maintain the dioecious inbreed lines through sib-mating process.	HRS, Gazipur.
199	Purification of Shahi papaya	• To purify the variety through sib-mating and selection and regain the original characteristics of Shahi Papaya.	FRS, Binodpur, Rajshahi.
Ber			
200	Evaluation of exotic ber germplasm	• To develop high yielding varieties with soury sweet taste and release a new soury sweet ber variety.	HRS, Gazipur.
201	Evaluation of indegenous ber germplasm at Khagrachari	• To select superior land races of ber for commercial cultivation in the hilly areas and release as variety.	HARS, Khagrachari.
202	Study on floral biology of different ber germplasms	• To know flowering behavior for hybridization and to develop variety	FRS, Binodpur, Rajshahi.
203	Evaluation of sour type ber germplasm	• To select sour type ber germplasm with a view to release a new variety.	Do
204	Evaluation of local ber germplasm	• To select the promising germplasm for recommending at farmer's level as variety.	Do
Jamun			
205	Evaluation of exotic jamun germplasm	• To evaluate the existing jamun germplasm.	HRS, Gazipur.
206	Survey, collection and evaluation of jamun germplasm	• To identify good Jamun lines for higher yield and quality and release as variety.	FRS, Binodpur, Rajshahi.
Coconut			
207	Evaluation of dwarf coconut in hilly area of Rangamati	• To identify the superior dwarf coconut varieties	HARS, Raikhali, Rangamati.
208	Evaluation of dwarf coconut in Patuakhali region	• To identify the superior dwarf coconut varieties at southern region of Bangladesh.	RHRS, Lebukhali, Patuakhali
Citrus			
209	Hybridization in citrus	• incorporate desirable characters i.e., high yielder, very sweet, quick growing habit and resistance to insect pest and diseases through hybridization.	CRS, Jaintapur, Sylhet
210	Hybridization in sweet orange (*Citrus sinensis*)	• To transfer desirable characters i.e., sweetness, yellow color in BARI Malta-1	Do
211	Hybridization in satkara (*Citrus macroptera*)	• To develop high yielding quick growing satkara variety	Do
212	Evaluation of mandarin germplasm under. North-Eastern hilly region of Bangladesh	• To develop a variety and increase mandarin production	Do
213	Evaluation of sweet orange	• To identify superior germplasm for	HARS,

Sl.	Research Title	Objective(s)	Location(s)
	germplasm in the hilly region	developing variety.	Khagrachari.
214	Evaluation of sweet orange line	• To find out the promising line of sweet orange for release as a variety.	RARS, Hathazari Chattogram.
215	Performance of exotic sweet orange germplasm	• To select suitable sweet orange line (s) for releasing as variety	CRS, Jaintapur, Sylhet.
216	Morphophysiological characterization and evaluation of pummelo germplasm	• To develop new variety and which can be used for breeding materials	CRS, BARI, Jaintapur, Sylhet
217	Evaluation of pummelo germplasm	• To select superior pummelo lines • To conserve genetic resources.	RHRS, Shibpur Narsingdi
218	Evaluation of pummelo germplasm	• To find out superior pummelo germplasm for release as new variety (s) and conserve genetic resources.	RARS, Jashore.
219	Evaluation of pummelo in hilly region of Rangamati	• To find out superior pummelo germplasm in Chattogram Hill Tracts to release as a new variety.	HARS, Raikhali, Rangamati.
220	Evaluation of local pummelo germplasm	• To select suitable pummelo line (s) for releasing as variety	RHRS, Lebukhali, Patuakhali
221	Evaluation of pummello germplasm in Chattogram region	• To select superior pummelo line(s).	ARS, Khulshi, Chattogram.
222	*In-situ* evaluation of year-round pummelo germplasm	• To find out a suitable year-round line(s) for the development of variety.	HARS, Khagrachari.
223	Evaluation of lemon germplasm	• To study the performance in respect of yield and quality of the collected germplasm.	CRS, Jaintapur, Sylhet.
224	*In-situ* morpho-physiological characterization and evaluation of lemon germplasm	• To select superior line with a view to release as a variety.	Do
225	Evaluation of lime germplasm	• To study the performance in respect of yield and quality of the collected germplasm.	Do
226	Collection and evaluation of local lime germplasm	• To find out superior lime genotypes in southern region to release as a new variety	RHRS, Lebukhali, Patuakhali
227	Collection and evaluation of lime germplasm in Chattogram region	• To record the extent of genetic diversity and elite the elite genotypes possessing desirable fruit characters.	RHRS, Hathazari, Chattogram
228	Collection and evaluation of Kaghzi lime	• To select superior line with a view to release as a variety.	RARS, Rahmatpur.
Minor Fruits			
229	*In-situ* evaluation of bael	• To study the performance of the selected	RHRS,

Sl.	Research Title	Objective(s)	Location(s)
	germplasm	bael germplasm for release as a variety and to conserve fruit genetic resources.	Chapainawabganj.
230	Evaluation of existing bael germplasm	• To find out suitable, high yielding bael germplasm for releasing as a commercial variety	RHRS, Chapainawabganj.
231	Evaluation of bael germplasm	• To find out suitable, high yielding bael germplasm for releasing as a commercial variety	CRS, Jaintapur, Sylhet.
232	Evaluation of bael germplasm	• To find out suitable, high yielding bael germplasm for releasing as a commercial variety	Breeder Seed Production Centre, Debiganj, Panchagarh
233	Evaluation of wood apple (*Feronia limonia*) in sylhet region	• To identify suitable genotypes and also to establish elite genotypes for further evaluation and improvement	RARS, Akbarpur, Moulvibazar
234	Hybridization in golden apple	• To incorporate more desirable traits in the variety.	HRC, Gazipur
235	Collection and evaluation of burmese grape germplasm	• To find out high yielding germplasm for release as variety	DO
236	Evaluation of burmese grape germplasm	• To find out high yielding germplasm for release as variety	CRS, Jaintiapur, Sylhet
237	Collection and evaluation of bullock's heart genotypes	• To find out the promising line of variegated bullock's heart for release as variety	RARS, Jashore.
238	Evaluation of bullock's heart (*Annona reticulata* l) germplasm	• To find out the promising line of bullock's heart for release as variety	HARS, Raikhali, Rangamati
239	Collection and evaluation of custard apple genotypes	• To identify superior lines of custard apple and to conserve germplasm	RHRS, Chapainawabganj
240	Collection and evaluation of custard apple germplasm	• To identify superior lines of custard apple and to conserve germplasm	FRS, Binodpur, Rajshahi
241	Evaluation of indian dillenia germplasm in Jashore	• To study the performance of Indian dillenia germplasm with a view to develop a variety.	HRC, RARS, Jashore.
242	Collection and evaluation of cowa germplasm	• To select the superior quality cowa line and to conserve and popularize among the people	RARS, Rahmatpur, Barishal.
243	Evaluation of star gooseberry (*Phyllanthus acidus* l.) germplasms	• To select the superior quality star gooseberry genotypes, to conserve and popularize among the people	HARS, Raikhali, Rangamati
244	Evaluation of star gooseberry genotypes in Chattogram region	• To select the superior quality star gooseberry genotypes, to conserve and popularize among the people	ARS, Khulshi, Chattogram
245	Collection and evaluation of local wax apple (jamrul)	• To evaluate, conserve and strengthen the base of the fruit industry of the country	RARS, Rahmatpur

Sl.	Research Title	Objective(s)	Location(s)
	germplasm		
246	Evaluation of rose apple germplasm in chattogram region	• To evaluate rose apple genotypes in order to identify the best genotype and to conserve and popularize among the people	Do
247	*In-situ* evaluation of monkey jack germplasm	• To evaluate this fruit germplasm in order to identify the best genotype and to conserve and popularize among the people	Do
248	Collection and evaluation of monkey jack germplasm	• To evaluate this fruit germplasm in order to identify the best genotype and to conserve and popularize among the people	Do
249	Collection and evaluation of velvet apple germplasm	• To identify suitable germplasm to release as a variety and to conserve and popularize among the people.	Do
250	Evaluation of bilimbi (*Averrhoa bilimbi* l.) Genotypes in Chattogram region	• To evaluate the germplasm for conservation	ARS, Khulshi, Chattogram
251	Evaluation of water chestnut germplasm	• To investigate in details of the water chestnut fruits using locally available two varieties (green and red).	RARS, Jamalpur.
252	Evaluation of star apple (*Chrysophyllum caimito* l.) germplasm	• To investigate in details of the fruit germplasm and conserve for future	HARS, Raikhali, Rangamati
253	Evaluation of para jam (*Antidesma acidum*) germplasm	• To investigate the fruit germplasm and conserve for future	Do
254	Evaluation of jaboticaba germplasm	• To find out the promising line of variegated jaboticaba release as variety.	Do
Exotic Fruits			
255	Evaluation of fig (*Ficus carica*) germplasm	• To evaluate, characterize and release a superior variety of fig in Bangladesh	HRS, Gazipur
256	Evaluation of fig genotypes in Chattogram region	• To evaluate, characterize and release a superior variety of fig in Bangladesh	ARS, Khulshi, Chattogram
257	Hybridization in dragon fruit	• To Transfer desirable characters like, color, fruit size and profuse bearing habit	CRS BARI, Jaintapur, Sylhet
258	Evaluation of promising dragon fruit germplasm in Rangamati hilly area	• To find out the suitable germplasm for higher yield and quality	HARS, Raikhali, Rangamati
259	Collection and evaluation of dragon fruit germplasm	• To find out suitable lines for releasing variety (s) and to enrich and conserve genetic resources	RHRSLebukhali , Patuakhali
260	Collection and evaluation of yellow dragon fruit germplasm	• To find out suitable lines for releasing variety (s) and to enrich and conserve genetic resources	RHRS, Hathazari, Chattogram

Sl.	Research Title	Objective(s)	Location(s)
261	Performance of exotic pummelo, pomegranate, olive and pineapple germplasm	• To develop high yielding and superior varieties of these fruit crops from exotic sources	HRS, Gazipur
262	Preliminary yield trial of exotic pineapple germplasm	• To observe the potentiality of exotic pineapple germplasm	HRS, Gazipur
263	Collection and evaluation of cashew germplasm	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country.	HARS, Raikhali, Rangamati
264	Evaluation of promising cashew nut germplasm in hill tract	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country.	Hill Tracts ARS, Ramgarh.
265	Evaluation of cashew nut germplasm	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country.	RARS, Hathazari, Chattogram
266	Evaluation of cashew nut germplasm in North-Eastern hilly region of Bangladesh	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country.	CRS, BARI, Jaintapur, Sylhet
267	Evaluation of eggfruit (*Pouteria campechiana*) in hilly area	• To evaluate and characterize for released as a new variety in Bangladesh	HARS, Raikhali, Rangamati
268	Evaluation of exoticdate palm (*Phoenix dactylifera* l.) Genotypes in chattogram region	• To evaluate exotic date palm genotypes and identify the best genotype as a variety.	ARS, Khulshi, Chattogram
269	Evaluation of exotic passion fruit (*Passiflora edulis*) germplasm	• To develop new varietie	HARS, Raikhali, Rangamati
270	Evaluation of grape germplasm at Gazipur	• To observe morphological characteristics, sizes of the bunches and berries; time of harvest; productivity and quality indices	HRS, Gazipur
271	Collection and evaluation of coffee germplasm	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	HARS, Raikhali, Rangamati
272	Evaluation and adaptability of promising coffee germplasm at Ramgarh	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	Hill Tract ARS, Ramgarh
273	Collection and evaluation of coffee germplasm in Chattogram region	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the	ReARS, Khulshi, Chattogram

Sl.	Research Title	Objective(s)	Location(s)
		people	
274	Evaluation of coffee (robusta) germplasm In the north-eastern hilly region of Bangladesh	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	CRS, Jaintapur, Sylhet
275	Study on floral biology of avocado *(Persea americana)*	• To know the floral biology of avocado to optimize yield and also perform appropriate crosses in avocado breeding programs for future.	HRS, Gazipur
276	Hybridization in avocado	• To incorporate more desirable traits in BARI Avocado-1.	HRS, Gazipur
277	Evaluation of avocado germplasm	• To identify and select the most desirable avocado germplasm; and to develop a high yielding, good quality avocado variety.	Breeder Seed Production Centre, Debiganj, Panchagarh
PROJECT II: PROPAGATION TECHNIQUE			
278	Effect of time of grafting on BARI developed jackfruit varieties	• To study the effect of time and variety on grafting success of jackfruit	HRS, Gazipur
279	In- vitro production of BARI Kola-5	• To develop a tissue culture protocol of BARI Kola-5.	Do
280	Micro propagation of papaya	• To develop a suitable protocol for *in vitro* clonal multiplication of papaya and make the plant materials available to the farmers for commercial cultivation.	Do
281	Performance of BARI strawberry varieties during in vitro propagation with leaf	• To develop a suitable protocol for mass propagation of BARI strawberry variety from leaf	Do
282	Study on the performance of grafted cashew saplings	• To test the potentiality of grafted cashew saplings for commercial cultivation	HARS, Raikhali, Rangamati
PROJECT III: CULTURAL MANAGEMENT			
283	Effect of canopy management on growth and yield of mango	• To standardize canopy architecture of mango plants planted at a closer spacing.	HRS, Gazipur
284	Effect of time and level of pruning on growth, yield and quality of BARI Aam-4	• To ensure good quality mango production by effective pruning in diverting organic substances, mineral nutrients and water to productive branches.	Do
285	Effect of different types of fruit bag on growth, yield and quality of BARI Aam-4	• To know the effects of different fruit bags on mango quality.	Do
286	Effect of different doses of paclobutrazol on off-season flowering, fruiting, yield	• To investigate the hormonal effect under climatic condition for off-season production on yield and quality attributes	Do

Sl.	Research Title	Objective(s)	Location(s)
	and fruit quality of mango cv. BARI Aam-3 and BARI Aam-4	of mango.	
287	Brick kiln smoke causes black tip on mango, an emerging threat, survey and identification in the actual condition of Rajshahi region	• To identify the present condition of black tip problem caused by brick kiln on mango production in Rajshahi region of Bangladesh for quality and safe mango production	FRS, Binodpur, Rajshahi.
288	Manipulation through grafting and pruning for dwarf shape of BARI released mango variety	• To facilitate easier ultural operations, reduce insect-pest infestation and harvest quality fruits	RHRS, Chapainawabganj
289	Effect of cocodust as growing media for mango sapling production	• To develop soilless mango production and to facilitate transport of mango sapling	Do
290	Effect of ultra high-density plantation of mango at varying spacing on yield and return	• To find out the optimum spacing for ultra-high-density plantation of mango.	Do
291	Effect of length of heading back in ultra high-density plantation on growth, stature and yield of mango	• To find out the suitable length of heading back in ultra-high-density planting for short stature, balanced branching to cope with the space and higher yield of mango	Do
292	Effect of GA_3 on seed size, fruit weight and fruit yield in litchi	• To develop seedless or small seeded litchi.	HRS, Gazipur.
293	Development of bio-rational management package(s) for fusarium wilt and sigatoka diseases of banana	• To develop integrated management package(s) against panama and sigatoka diseases of banana.	RHRS, Shibpur, Narsingdi
294	Effect of foliar spray of gibberellic acid on yield and quality of guava in off-season	• To know the physical and biochemical status of guava fruits as influenced by foliar spray of GA_3 which may help in increasing the yield and quality of fruit.	HRS, Gazipur
295	Growth, yield and quality of ber as influenced by irrigation	• To investigate the effect of fertilizer at different stages of plant growth on harvesting time, yield and quality of ber.	RARS, Jamalpur.
296	Evaluation of organic fertilizers for safe lemon production	• To find out the best possible organic fertilizers dose for lemon production.	CRS, Jaintapur, Sylhet.
297	Controlling disease and pest for safe lemon production for enhancing the export potentiality	• To find out suitable botanical product(s) for sustainable lemon cv. BARI Lebu-5 production	CRS, Jaintapur, Sylhet.
298	Evaluating beneficial microorganisms for safe and	• To find out suitable BM for maximizing the yield and profitability of lemon cv.	CRS, Jaintapur, Sylhet.

Sl.	Research Title	Objective(s)	Location(s)
	quality lemon production	BARI Lebu-5.	
299	Integrated approaches to mitigate die-back disease of citrus	• To formulate an integrated approach to control citrus die-back disease.	CRS, Jaintapur, Sylhet.
300	Effect of fertilizer dose on growth, yield and quality attributes of wax apple	• To find out the optimum fertilizer dose for growth, yield and fruit quality of wax apple.	HRS, Gazipur, Gazipur.
301	Effect of stem prunning on the growth and yield of dragon fruit	• To get a good canopy with good yield of Dragon fruit.	RARS, Jamalpur
302	Integrated nutrient management for increasing the yield of BARI dragon fruit-1 in Sylhet region	• To develop a fertilizer management package for Dragon fruit cultivation in Sylhet region of Bangladesh	RARS, Akbarpur, Moulvibazar
303	Methods of pollination for increasing the yield and quality of dragon fruit production in Bangladesh	• To investigate the pollination technique for fruit set, yield and quality Dragon fruit cultivation in Bangladesh.	RARS, Akbarpur, Moulvibazar
304	Effect of gibberellic acid (GA_3) on seedlessness of rambutan (Nephelium lappacum, linn.)	• To know the appropriate gibberellic acid concentrations on influence of seedlessness of rambutan.	HRS, Gazipur
305	Effect of pruning on growth, yield and quality of coffee	• To find out the suitable pruning method and impact of pruning on yield and quality of coffee.	HARS, Khagrachari
PROJECT IV: URBAN HORTICULTURE			
306	Effect of different growing media for dragon fruit production on the roof	• To know the performance of Dragon fruit production under different growing media (soil and soilless) on the roof	HRS, Gazipur
307	Evaluation of strawberry production in different growing methods on the roof	• To evaluate different growing methods for strawberry production on the roof.	Do
PROJECT V: AGROFORESTRY			
308	Intercropping of pineapple with citrus	• To increase income until the citrus starts giving economic returns	CRS, Jaintapur, Sylhet.
309	Year-round crops production under agroforestry system in the hill slope	• To evaluate the performance of high value crops and increase productivity.	HARS, Khagrachari
PROJECT VI: ADAPTIVE TRIAL			
310	Performances of BARI developed jackfruit varieties	• To dissemination and validation of BARI developed jackfruit varieties in four jackfruit growing regions of Bangladesh	HRS, Gazipur,
311	Adaptive trial of BARI released lemon varieties	• To test the performance of BARI released lemon varieties at Narsingdi region	RHRS, Shibpur, Narsingdi

Sl.	Research Title	Objective(s)	Location(s)
PROJECT VII: MAINTENANCE AND CONSERVATION OF FRUIT GERMPLASM			
312	Maintenance of different fruit germplasm at HRC, RARS, Jamalpur	• For conserving varietal traits from degeneration. For preparing breeder propagule for extension agencies (DAE Horticulture centers/BADC/ NGOs/private nurseries etc.)	RARS, Jamalpur.
313	Enrichment and maintenance of fruit tree repository	• For conserving varietal traits from degeneration. For preparing breeder propagule for extension agencies (DAE Horticulture centers/BADC/NGOs /private nurseries etc.)	RHRSLebukhali, Patuakhali
PROJECT VIII: TECHNOLOGY TRANSFER			
314	FT/ToT/Field Day/Workshop etc conducted during 2022-2023	• To disseminate BARI developed varieties, technologies to the farmers as well as users	All Horticulture Research Station,
315	Grafts and seedlings of fruits produced and distributed during 2022-2023	• To disseminate BARI developed varieties, technologies to the farmers as well as users	All Horticulture Research Station,
LANDSCAPE, ORNAMENTAL AND FLORICULTURE DIVISION			
316	Collection, evaluation and maintenance of gladiolus	• To evaluate the performance of different genotypes of gladiolus in order to select promising genotypes in respect of flower production.	HRC, Gazipur
317	Collection and evaluation of tuberose	• To characterize the tuberose germplasm in respect of their morphological variation, growth, yield and post- harvest life. • To know the genetic variability which can be used in tuberose improvement programme. • To identify the suitable cultivars for commercial cultivation in Bangladesh	HRC, Gazipur
318	Collection, evaluation and maintenance of lilium	• To collect the different species of lilium available in Bangladesh. • To conserve the collected germplasm for future research. Varietal development	HRC, Gazipur
319	Collection and evaluation of chrysanthemum genotypes	• To characterize the different genotypes and to find out the superior genotypes of chrysanthemum.	HRC, Gazipur
320	Collection and maintenance of cactus and succulents	• To collect and maintain cactus and succulents for decorative and commercial purposes.	HRC, Gazipur
321	Collection, evaluation and maintenance of gerbera	• To find out the suitable line (s) for cut flower as well as for future breeding program.	HRC, Gazipur
322	Collection, evaluation and	• To find out suitable line (s) for cut	HRC, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	maintenance of heliconia	flower	
323	Collection and maintenance of climbing plant at jamalpur region.	• To collect, characterize and conserve climbing germplasm for future research.	RARS, Jamalpur
324	Collection and maintenance of cactus and succulents at jamalpur region.	• To maintain Cactus and Succulents	RARS, Jamalpur
325	Collection and evaluation of foliage and ornampntals	• Collection and conservation of house plants by Floriculture Division of HRS, BARI.	HRC, Gazipur
326	Collection, evaluation and maintenance of water lily	• To collect water lily germplasm from different sources. To evaluate and characterize water lily germplasm. To conserve the collected germplasm for future research	HRC, Gazipur
327	Collection, evaluation and maintenance of amaryllis	• To evaluate the germplasm to conserve the collected germplasm and for varietal development.	HRC, Gazipur
328	Collection and maintenance of tulip (*tulipa sp*) genotypes	• To conserve the collected germplasm for future research.	HRC, Gazipur
329	Collection, evaluation and maintenance of orchids at jamalpur region	• To identify superior orchid genotype(s) under Jamalpur condition for commercial production.	RARS, Jamalpur
330	Collection and evaluation of orchid germplasm in sylhet region	• To identify superior orchid genotype(s) under Sylhet region for commercial production.	RARS, Akbarpur, Moulvibazar
331	Collection, evaluation, and maintenance of rose germplasm at jamalpur region	• To evaluate the performance of rose germplasm and their categorization for color, fragrance, and usage.	RARS, Jamalpur
332	Collection, evaluation, and maintenance of indoor foliage plant at jamalpur region	• To collect, evaluate and conserve air purifying indoor foliage plant Jamalpur region.	RARS, Jamalpur
333	Hybridization of gladiolus	• To develop new varieties	HRC, Gazipur
334	Morphological study of *bougainvillea* lines of floriculture field based on dus test characters	• Breeding of Bougainvillea varieties for particular traits. selection of suitable varieties of their interest	HRC, Gazipur
335	*In vitro* propagation of lilium	• In-vitro propagation protocol development of lilium.	Tissue culture lab, HRC, Gazipur
336	*In vitro* propagation of gladiolus hybrids	• In-vitro propagation protocol development of gladiolus hybrids of BARI.	Tissue culture lab, HRC, Gazipur
337	Effect of bulblet size and planting depth on the bulb	• To find out proper size of bulblets and optimum planting depth for obtaining the	HRC, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	production of lilium from bulblet	best quality bulb from bulblets.	
338	Performance of commercial cultivars of gerbera collected from various sources under protected condition	• To study the performance of different cultivars of gerbera collected from different sources of Bangladesh.	HRC, Gazipur
339	Performance of chrysanthemum cutting influenced by different dates and media	• To observe the performance of chrysanthemum cutting related to different times. To standardize the perfect media for chrysanthemum cutting	HRC, Gazipur
340	Influence of planting dates on the production of asiatic lilium under protective condition	• To find out the optimum planting time for better flower production • To extend the flowering duration of lilium	HRC, Gazipur
341	Effect of potting media on growth and yield of spider lily	• To find out the suitable media(s) for spider lily. To produce the quality foliage	HRC, Gazipur
342	Germination and seedling quality of zinnia and aster influenced by seed priming	• To accelerate the germination. To obtain quality seedlings	HRC, Gazipur
343	Performance of marigold at different pinching times	• To study the effect of pinching times on the growth and yield of marigold. • To extend the availability and fulfil the demand of marigold at different festivals of Bangladesh	RARS, Jamalpur
344	Observation trial of season flowers under live shade	• To study the effect of live shade on the growth and yield of seasonal flowers. • To the increase the income of farmers	RARS, Jamalpur
345	Adaptive trial of lilium and gypsophila at farmers field	• To evaluate the performance of the varieties in farmer's field	Jashore, Rangpur, and Gazipur
346	Determining optimum storage temperature with packaging for vase life extension of lilium flower	• To find out the optimum storage temperature and packaging for extend the vase life of Lilium flower.	Postharvest Section, HRC, Gazipur
347	Survey on botrytis blight disease in lilium	• To recorded incidence and severity botrytis gray mold disease of lilium.	Pathology Section, HRC, Gazipur
348	Survey and monitoring of insect pests of lilium, gerbera, cactus and succulents	• To find out the insect pest status and its severity at lilium, gerbera, cactus and succulents.	Entomology Section. HRC, Gazipur
AGRICULTURAL ECONOMICS & STATISTICS SECTION			
349	Adoption and Profitability of BARI Dragon fol 1 at farm level in the Chattogram Hill Tracts of	• Tto estimate the adoption status and the factors affecting the production of BARI Dragonfol 1 in the Chattogram hill tracts. • To evaluate the impact of dragon	Rangamati, Khagrachari, Bandarban

Sl.	Research Title	Objective(s)	Location(s)
	Bangladesh	cultivation on household income and family labouruse patternd. • To explore the problems and opportunities of BARI Dragonfol 1 cultivation in these areas.	
350	Cost and Return Analysis of Different Vegetables Cultivation	• To determine the level of inputs use and estimate the cost and return of selected vegetables cultivation at the farmer level and • To identify problems and opportunities related vegetables cultivation at the farm level.	Most vegetables growing areas of Bangladesh
POSTHARVEST TECHNOLOGY SECTION			
351	Extension of bitter gourd marketable life through modified atmospheric packaging at controlled storage condition	• To test the efficacy of polyethylene wrapping in maintaining quality and extending marketable life of bitter gourds	Gazipur
352	Determination of maturity indices and shelf life of broccoli	• To study the maturity indices of broccoli • To study the efficacy of packaging material on quality and shelf life of broccoli	Gazipur
353	Effect of preservatives and drying conditions in retaining food quality of mango slice	• To identify the suitable food preservative for semi solid mango slice. • To identify the suitable drying percentage for prepared mango	Gazipur
354	Standardization of ethyphon dose for uniform and safe ripening of banana using low-cost ethylene generator	• To standardize the treatment dose of ethephon • Uniform ripening of mature fruits	Gazipur
355	Selection of suitable cutting size and cultivar for semi solid dry mango slice	• To identify the suitable cutting size for semi solid dry mango. • To identify the suitable drying percentageand storage period for prepared mango	Gazipur
356	Determining optimum storage temperature with packaging for vase life extension of lilium flower	• To find out the optimum temperature and packaging for vase life extension of lilium flower	Gazipur
357	Impact of sodium lauryl sulfate as safe sanitizing agent on postharvest quality of tomato	• To identify suitable sanitizing agent for washing of tomato. • To evaluate postharvest impacts on quality and marketable life of tomato	Gazipur
358	Fresh cut processing techniques of broccoli using different packaging materials	• To identify the influence of packaging properties on shelf life of fresh cut broccoli. • To evaluate postharvest impacts of packaging materials on quality of fresh	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		cut broccoli	
359	Survey on postharvest practices and losses in pineapple value chains	• To assess the post-harvest practices and losses existed in pineapple value chain	Growing areas viz. Moulovibazar, Tangail & Rangamati Three city areas namely, Chattogram, Dhaka & Gazipur
PLANT PHYSIOLOGY SECTION			
360	Effect of plant growth regulators on the performance of lady's finger	• To investigate the influence of plant growth regulators (PGRs) on growth, yield attributes and yield of lady's finger. To find out the suitable PGR with optimum dose on yield of lady's finger.	HRC, Gazipur
361	Effect of gibberellic acid on growth, flowering and yield of lady's finger varieties during off-season	• To evaluate the influence of GA_3 on physio-morphological characters of lady's finger in off -season. • To find out the suitable GA_3 concentration on higher yield of off-season lady's finger. • To identify suitable okra varieties for off-season production.	HRC, GAZIPUR
362	Response of tomato to gibberellic acid application under salinity stress at lab condition	• To improve germination percentage of tomato under salinity stress. • To select suitable GA_3 concentrations under salinity stress.	HRC, GAZIPUR
363	Effect of gibberellic acid and humic acid on germination and seedling growth in tomato (*Solanum lycopersicum* L.) under induced salinity stress	• To identify appropriate concentration of GA_3 and HA for maximum germination percent, germination related parameters and growth of seedlings under salinity stress.	HRC, GAZIPUR
364	Salinity stress mitigation by gibberellic acid and humic acid application in tomato (S*olanum lycopersicum* L.)	• To find out suitable plant growth regulators, either GA_3 or humic acid (HA) for better growth, physiological parameters, yield attributes and yield of tomato. • To find out suitable dose of GA_3 or HA for better growth, physiological parameters, yield attributes and yield of tomato.	HRC, GAZIPUR
365	Screening of bitter gourd genotypes against salinity at germination and early seedling growth stage	• To investigate the effect of salinity stress on germination performance and seedling growth of bitter gourd genotypes.	HRC, GAZIPUR

Sl.	Research Title	Objective(s)	Location(s)
		• To identify salt tolerant bitter gourd genotypes at seed germination and early seedling growth stages.	
366	Screening of bottle gourd genotypes against salinity at germination and early seedling growth stages	• To investigate the influence of salinity stress on germination performance and seedling growth of bottle gourd genotypes. • To identify the suitable bottle gourd genotypes tolerant to salt stress at seed germination and early seedling growth stages.	HRC, GAZIPUR
367	Influence of biochar on the growth and yield of tomato under salinity stress	• To investigate the effect of biochar on the growth and yield of tomato under salinity stress. • To find out the suitable doses of biochar for adaptation of tomato plants under saline condition.	HRC, GAZIPUR
368	Evaluation of hyacynth bean varieties for drought tolerance through yield-based selection indices	• To study the changes in various physiological and morphological parameters of hyacinth bean plant under drought stress condition. • To find out the suitable variety (ies) tolerant to drought stress.	HRC, GAZIPUR
369	Germination and seedling growth of brinjal as influenced by seed priming agents	• To improve germination percentage of brinjal. • To investigate the influence of seed priming on early seedling growth.	HRC, GAZIPUR
370	Response of seed priming by gibberellic acid and potassium nitrate to germination and seedling growth of sweet pepper (*Capsicum annuum* L.) in seed bed	• To investigate the influence of seed priming agents, GA_3 and KNO_3 on seedling emergence and other plant growth characters. • To find out the suitable concentrations of GA_3 and KNO_3 for better seed germination in seed bed.	HRC, GAZIPUR
371	Response of seed priming by gibberellic acid and potassium nitrate to germination and seedling growth of sweet pepper (*Capsicum annuum* L.)	• To examine the influence of GA_3 and KNO_3 on seed germination performance and seedling growth. • To find out the suitable concentration of GA_3 and KNO_3 for better seed germination.	HRC, GAZIPUR
372	Effect of foliar spray of boron on flower retention and pod yield of summer country bean	• To identify the suitable doze of boron for controlling flower drop of summer country bean. • To investigate the influence of boron on pod yield of summer country bean.	HRC, GAZIPUR
373	Incidence of spongy tissue in BARI Aam-3	• To investigate spongy tissue problem in BARI Aam-3.	HRC, GAZIPUR

Sl.	Research Title	Objective(s)	Location(s)
		• To deteramine percentage of spongy tissue in affected fruit.	
PLANT PATHOLOGY SECTION			
374	Screening of eggplant germplasm against bacterial wilt caused by *Ralstonia solanacearum*	• To identify resistant source of eggplant against bacterial wilt	HRC, Gazipur
375	Screening of tomato germplasm against bacterial wilt caused by *Ralstonia solanacearum*.	• To identify resistant source of tomato against bacterial wilt (*Ralstonia solanacearum*) in tomato.	HRC, Gazipur
376	Screening of eggplant germplasm against root-knot nematode caused by *Meloidogyne* sp.	• To identify resistant source against root-knot nematode in eggplant.	HRC, Gazipur
377	Screening of tomato germplasm against root-knot nematode caused by *Meloidogyne* spp.	• To identify resistant source against root-knot nematode in tomato.	HRC, Gazipur
378	Screening of okra germplasm resistance to okra yellow vein mosaic virus	• To find out suitable germplasm for resistance to OYVMV of okra	HRC, Gazipur
379	Screening of tomato germplasm for resistance to tomato yellow leaf curl virus	• To find out suitable germplasm for resistance to TYLCV of tomato	HRC, Gazipur
380	Screening of country bean germplasm against Bean yellow mosaic virus	• To find out resistant germplasm to *Bean yellow mosaic virus* of country bean.	HRC, Gazipur
381	Screening of cucumber germplasm against cucumber mosaic virus	• To identify resistant germplasm of cucumber against *Cucumber mosaic virus*	HRC, Gazipur
382	Survey on bacterial wilt of solanaceous vegetable crops	• To assess the incidence and severity of bacterial wilt of eggplant, tomato and other solanaceous crops. Isolation and identification of *R. solanacearum* isolates	Gazipur, Thakurgaon Narshingdi, Jashore, Rangpur and Bogura
383	Integrated disease management of bacterial wilt of eggplant	• To find out effective management option	HRC, Gazipur
384	Integrated disease management of bacterial wilt of tomato	• To find out effective management option	HRC, Gazipur
385	Integrated management of tomato yellow leaf curl virus infecting tomato in	• To develop effective integrated management option	BARI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Bangladesh		
386	Efficacy of chemical, biological and cultural approach on management of foliar and fruit rot disease in strawberry	• To determine the effective management options against foliar and fruit rot diseases on strawberry.	HRC, Gazipur
387	Survey of botrytis blight disease of lilium	• To assess the incidence and severity of botrytis blight disease of lilium	HRC, Gazipur
ENTOMOLOGY SECTION			
Vegetable crops			
388	Field screening of different BARI released brinjal varieties against major insect pests	• To identify the resistant or tolerant BARI released brinjal variety (ies) against major insect pests	HRC, Gazipur
389	Field screening of different BARI released tomato varieties against major insect pests	• To identify the resistant or tolerant BARI released tomato variety (ies) against major insect pests.	HRC, Gazipur
390	Development of management approach against tomato leaf miner, *Liriomyza sativae*	• To develop an effective management approach against tomato leaf miner, *Liriomyza sativae*	HRC, Gazipur
391	Survey and documentation of insecticide use pattern on summer tomato production at Jashore and Satkhira districts	• To find out the type of insecticides used on summer tomato. To investigate the insecticide use pattern on summer tomato production	Farmer's field of Jashore and Satkhira
Fruit crops			
392	Development of integrated management package against red banded mango caterpillar, *Deanolis sublimbalis*	• To find out an effective integrated management strategy against red banded mango caterpillar	RHRS, Chapainawabganj And HRC, Gazipur
393	Survey and monitoring of insect pests of cashew nut and coffee in Bangladesh	• To document the insect pests of cashew nut and coffee	HARS, Khagrachari, Rangamati, Bandarban, Tangail (Madhupur), Mymensingh (Haluaghat), Moulvibazar Sherpur
394	Survey and monitoring of insect pests of roof top garden	• To know the insect pest's status and its severity at roof garden	HRC, Gazipur
395	Development of bio-rational management of guava	• To develop eco-friendly sustainable bio-rational management approach against	HRC, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	mealybug and spiraling whitefly at rooftop garden	guava mealybug and whitefly at rooftop garden	
Flowers and ornamental crops			
396	Survey and monitoring of insect pests of lilium, gerbera, cactus and succulents	• To find out the insect pest status and its severity at lilium, gerbera, cactus and succulents	HRC, Gazipur
SOIL AND WATER MANAGEMENT SECTION			
397	Application of Zinc Oxide and Boron nitride Nanoparticles in Improving the Plant Tolerance to Drought and Temperature with higher Productivity, Nutrient Uptake and Quality of Summer Tomato (*Solanum lycopersicum* L.)	• Determine the appropriate doses of zinc oxide and boron nitride nano-fertilizer for yield maximization and quality improvement of summer tomato under high temperature	BARI, Gazipur
398	Effect of foliar application of NPK nano-fertilizer on the production of Cauliflower	• To improve the growth and yield of cauliflower using nano-fertilizers and to compare of nano fertilizer with chemical fertilizers	BARI, Gazipur
399	Effect of boron nitride nano fertilizer on growth, yields and quality of broccoli	• Investigate theeffect of boron nitride nano-fertilizer as foliar application on growth, yield and quality of broccoli and • To find out the optimum dose boron nitride nano fertilizer	BARI, Gazipur
400	Evaluation of nutrient use efficiency and yield potential of tomato genotypes under elevated fertilizer dose	• Study the growth and yield responses of tomato genotypes to higher fertilizer levels and • Determine the fertilizer use efficiency and yield potential of tomato genotypes.	BARI, Gazipur
401	Dissemination of Water Saving Technologies for Horticulture Crops in Hilly Area	• Promote the water saving technologies among the farmers in hilly area and • To study the suitability of the water saving technologies	Khagrachari and Raikhali
402	Effect of micronutrients on plant growth, fruit setting and quality of dragon fruit (*Hylocerus polyrhizus*)	• Study the response of dragon fruit to foliar application of boron. • To determine appropriate boron management to improve yield and quality of dragon fruit	BARI, Gazipur
403	Effect of boron and magnesium on growth, yield and quality of okra	• To find out the effective dose of B and Mg for yield maximization of okra	BARI, Gazipur
404	Integrated nutrient management for Gardenpea-Bitter gourd-Indian spinach-red amaranth cropping system to increase system	• Determine the effective fertilizer management package toimprove system productivity, vegetavle quality and sustaining soil fertility and. • To study nutrient uptake and make	BARI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	productivity	nutrient balance sheet	
405	Integrated nutrient management on growth, yield and quality of Ber (*Zizyphus spp*)	• Determine the suitable dose of organic and inorganic fertilizer combination for yield maximization and quality improvement of ber	BARI, Gazipur
TUBER CROPS RESEARCH CENTRE			
406	Hybridization in potato (set-I, II, III, IV, V and VI)	• To create variants for subsequent variety selection. • To improve the genetic base of the parent population	Gazipur and Debiganj
407	Production of seedling tubers of the potato hybrid populations (F_1C_0)	• Production of F1 seedling tubers for selection and variety development	Gazipur and Debiganj
408	Field Evaluation of F_1 Seedling Tubers (F_1C_1)	• Selection of superior clones for variety development.	Debiganj
409	Preliminary Observation Trial with Clonal Potato Hybrids (F_1C_2)	• Selection of superior plant-rows for variety development.	Debiganj
410	Secondary Observation Trial with Clonal Potato Hybrids (F_1C_3)	• Selection of superior genotypes (one clone per one plot) for variety development	Debigonj
411	Seed Multiplication with Clonal Potato Hybrids (F_1C_4 &F_1C_5)	• To increase seed. To evaluate of clones by crop cutting in nethouse.	Debigonj
412	Preliminary Yield Trial with Clonal Potato Hybrids (F_1C_5)	• To select the superior genotype (s) for secondary yield trial of variety development process	Gazipur and Debiganj
413	Secondary Yield Trial with Clonal Potato Hybrids (F_1C_5)	• Selection of superior genotypes for advanced yield trial (open field).	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshigonj
414	Advanced Yield Trial with Clonal Potato Hybrids (F_1C_6)	• To select stable clones and finalized the clone(s) for RYT	Do
415	Participatory Variety Selection of AYT Materials(F_1C_6)	• To select suitable clones in collaboration with farmers and other stakeholders for releasing varieties	Do
416	Regional Yield Trial with Clonal Potato Hybrids (F_1C_7)	• Selection of suitable varieties for release	Do
417	Participatory Variety Selection of Regional Clonal Potato Hybrids (F_1C_7)	• To select suitable varieties in collaboration with farmers and other stakeholders for releasing varieties	Do
418	Secondary Observation Trial (50 hills) with Late Blight Resistant Clonal Potato Hybrids (F_1C_3)	• Selection of superior genotypes (one clone per one plot) for late blight resistant potato variety development	Debiganj and Rangpur
419	Preliminary Yield Trial	• To select superior genotype (s) for	Gazipur,

Sl.	Research Title	Objective(s)	Location(s)
	(PYT) of Late Blight Resistance Potato Germplasm (TB11) Derived MAS	subsequent program of late blight resistance variety development. • To improve germplasms of potato	Debiganj and Rangpur
420	Regional Yield Trial (RYT) of Combined PVY and PLRV Resistant Germplasm	• To select superior genotype (s) for subsequent program of PVY and PLRV resistance variety development. • To improve germplasms of potato	Gazipur, Debiganj, Bogura, Jamalpur, Munshiganj, Jeshore
421	Participatory Variety Selection of Combined PVY and PLRV Resistant Clonal Potato Hybrids	• To select suitable varieties in collaboration with farmers and other stakeholders for releasing varieties	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshigonj
422	Preliminary Observation Trial and Seed Increase of Exotic Potato Varieties (1st Generation)	• To increase seed and to observe physio-morphological characters in order to develop varieties	Gazipur and Debiganj
423	Secondary Yield Trial of Exotic Potato Varieties	• To select superior exotic variety in contest of Bangladeshi environment	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshigonj
424	Advanced Yield Trial of Exotic Potato Varieties	• Selection of suitable varieties for Table, Export and Processing Purposes.	Do
425	Participatory Variety Selection of AYT Exotic Potato Varieties	• To select suitable varieties in collaboration with farmers and other stakeholders for releasing varieties	Do
426	Evaluation of Exotic Varieties and Advanced Hybrid Clones for Early Heat Tolerance	• To identify varieties suitable for early planting.	Debiganj,
427	Secondary Observation Trial (50 hills) with Heat Tolerant Clonal Potato Hybrids (F_1C_3)	• Selection of superior genotypes (one clone per one plot) for heat tolerant potato variety development	Gazipur and Debiganj
428	Advanced Yield Trial of CIP Biofortified (Fe & Zn rich) Potato Clones	• To identify high yielding and nutritous clones. • To enrich the germplasm which can be used in breeding program	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshigonj
429	Advanced Yield Trial of CIP Late Blight Resistant Potato Germplasm	• To develop late blight resistant verieties. • To enrich the germplasm which can be used in breeding program	Gazipur, Debigonj and Rangpur
430	Secondary Yield Trial of	• To develop heat tolerant varieties.	Rajshahi and

Sl.	Research Title	Objective(s)	Location(s)
	CIP Heat Tolerant Potato Germplasm	• To enrich the germplasm which can be used in breeding program	Patuakhali
431	Regional Yield Trial of Colored Flesh Potato Varieties	• To develop color flesh nutrient rich potato varieties	Bogura, Debiganj, Gazipur, Jamalpur, Jashore, Munshigonj
432	Morphological Characterization of Advanced Breeding Lines of Potato	• To fulfill the DUS test requirement • To characterize the advanced breeding lines and released varieties	Gazipur and Debiganj
433	Screening of Parental Lines for TPS Production Under Extended Photoperiod	• To identify the genotypes capable of producing flowers and berries under extended photoperiod	Gazipur and Debiganj
434	Selfing in Diploid Potato Germplasm	• To develop an inbred line of potato. • To develop hybrid potato at the diploid level	Gazipur and Debiganj
435	Production of Seedling Tubers of the Selfed Populations (F_1S_o)	• Production of seedling tubers for evaluation and inbred line selection	Gazipur
436	Preliminary Yield Trial (PYT) of Diploid Potato Germplasm	• To select superior genotype (s) for subsequent program of diploid variety development. • To improve germplasms of potato	Gazipur and Debiganj
437	Maintenance of Released Potato Varieties, Germplasm, Lines and TPS Parents	• To maintain the released potato varieties, germplasm and lines for future breeding programme	Debiganj
438	Seed Multiplication of Potato Breeding Materials	• To increase seed for fulfillment the requirement of research	Debiganj
439	Multiplication, Purification and Maintenance of Indigenous Potato Varieties	• To improve the quality as well as maintain the indigenous potato varieties for future breeding programme	Rangpur and Chattogram
440	Hybridization of Sweet Potato Using Polycross Method	• To create variability and diversity over the existing genotypes of sweet potato	Gazipur
441	Collection and Maintenance of Sweet Potato Germplasm	• To find out the diversity of collected germplasms. To select high yielding, high dry matter and carotene containing, early bulker, weevil tolerant sweet potato varieties.	Gazipur
442	Preliminary Yield Trial of Sweet Potato Germplasm	• To find out promising genotypes of sweet potato germplasms. • To develop early bulker and high yielding sweet potato varieties.	Gazipur, Jamalpur and Bogura
443	Regional Yield Trial of Sweet Potato Clones	• To select high yielding sweet potato clones	Gazipur, Bogura,

Sl.	Research Title	Objective(s)	Location(s)
		• To select high dry matter, carotene and anthocyanin containing sweet potato clones.	Jamalpur, Jashore and Chattogram
444	Participatory Variety Selection Trial of Sweet Potato Clones	• Selection of suitable varieties obtained from RYT in collaboration with farmers • To know the farmers choice and opinion	Gazipur, Jamalpur, Bogura, Jossore and Chattogram
445	Observational Yield Trial of White Skin and White Fleshed Sweet Potato Germplasm	• To find out promising genotypes of white fleshed germplasms. To develop high yielding and white fleshed sweet potato varieties.	Debiganj
446	Screening of Suitable Sweet Potato Variety for Northern Part of Bangladesh	• To find out suitable variety from BARI released sweetpotato varieties for northern part of Bangladesh	Debiganj
447	Collection and Maintenance of Aroids	• To increase the genetic resources of aroids. • To maintain aroids germplasm for future use in breeding programme.	All over Bangladesh
448	Hybridization of Panikachu	• To incorporate stolon and rhizome in same lines and quality development.	Gazipur
449	Advanced Yield Trial of Mukhikachu Lines	• To evaluate the Mukhikachu lines. • To select high yielding Mukhikachu line(s) for utilization in next year	Gazipur, Jamalpur, Bogura
450	Regional Yield Trial of Mukhikachu Lines	• To select high yielding Mukhikachu line(s) for releasing variety.	Gazipur, Jamalpur, Jashore, Bogura and Barishal
451	Regional Yield Trial of Rhizome Producing Panikachu Lines	• To evaluate the selected lines. • To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one(s) for release.	Gazipur, Bogura, Jamalpur, Jashore and Barishal
452	Regional Yield Trial of Stolon Producing Panikachu Lines	• To evaluate the selected lines. • To select high yielding stolon producing Panikachu line(s) for utilization in next year as a better one for release.	Gazipur, Bogura, Jamalpur, Jashore and Barishal
453	Participatory Variety Selection Trial of Rhizome Producing Panikachu Lines	• To evaluate the selected lines. • To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one for release with farmers' participation.	Gazipur, Jamalpur, Bogura and Munshigonj
454	Secondary Yield Trial of Ghataman kachu in Relation to Spacing	• To evaluate the line. • To select high yield performance of Ghataman Kachu with optimum spacing.	Gazipur and Barishal
455	Advanced Yield Trial of Panchamukhi kachu in	• To evaluate the line. • To select high yield performance of	Gazipur and Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
	Relation to Spacing	Panchamukhi Kachu with optimum spacing.	
456	Secondary Yield Trial of Yam (*Dioscorea* Spp.) Germplasm	• To identify high yielding and commercially important genotype. • To enrich the germplasm which can be used in breeding program	Gazipur, Bogura, Jashore
457	Preliminary Yield Trial of Yam (*Dioscorea* Spp.) Germplasm	• To identify high yielding and commercially important genotype. • To enrich the germplasm which can be used in breeding program	Gazipur, Bogura, Jashore
458	Regional Yield Trial of Some Exotic Cassava (*Manihot Esculenta*) Lines	• To identify high yielding and commercially important genotype. • To enrich the germplasm which can be used in breeding program	Gazipur, Cumilla
459	Preliminary Yield Trial of Some Local Cassava (*Manihot Esculenta*) Lines	• To identify high yielding and commercially important genotype. • To enrich the germplasm which can be used in breeding program	Gazipur
460	Secondary Yield Trial of Jicama (*Pachyrhizus tuberosus*) Lines	• To identify high yielding and commercially important genotype. • To enrich the germplasm which can be used in breeding program	Gazipur
461	Evaluation of BARI Alu-7 (Diamant) from Different Sources on Common Scab Disease Development at Munshiganj Region	• To find out the safe sources of seed tuber of BARI Alu-7 (Diamant) to produce common scab free potato. • To grow awareness about the common scab diseases among the farmers	Munshiganj
462	Evaluation of Potato Varieties in Raise Bed Cultivation for Adverse Climatic Condition at Munshiganj Region	• To select a suitable potato variety (es) for the adverse climatic condition. • To make the potato production more profitable.	Munshiganj
463	Effect of Spacing on Seed Size Potato Tuber Under Different Varieties	• To produce seed size potato tuber. • To find out suitable spacing for seed size potato tuber.	Munshiganj
464	Integrating Biochar and Vermicompost on Yield and Quality of Potato	• To find out the optimum combination of biochar and vermicompost for improving yield and quality. • To minimize the use of chemical fertilizers	Munshiganj
465	Relaying of Different Crops with Potato at Munshigonj Region	• To earn more income. To reduce loss of time. • To increase cropping intensity.	Munshiganj
466	Storability of Different Sweet Potato Varieties Under Natural Storage Condition	• To find out the suitable variety for longer storage capacity. • To supply sweet potato in lean period	Munshiganj

Sl.	Research Title	Objective(s)	Location(s)
467	Storability of Different Sweet Potato Varieties Under Cold Storage Condition	• To find out the suitable variety for longer storage capacity. • To supply sweet potato in lean period	Munshiganj
468	Effect of Legume Intercrop and Conventional Methods of Weed	• To select suitable mulching materials for quality potato production as well as improvement of soil health	Munshiganj
469	Controlling of Potato Common Scab Development by Sulphur and Irrigation Regimes In Munshiganj Region	• To evaluate the cultural management of potato common scab using irrigation regimes and application of sulphur-containing fertilizers	Munshiganj
470	Effect of Alternative Inhibitors on Sprout Suppression of Stored Potato in Ambient Condition.	• To find out the superior alternative(s) to toxic CIPC for potato sprout control in ambient storage condition. • To assess the efficacy of botanical sprout inhibitors for extending keeping quality of safe organic potato in natural condition.	Munshiganj and Gazipur
471	Storability of Potato as Affected by Different Storage Methods in Munshiganj Region.	• To evaluate storage of potatoes in heap and pit method. • To identify better storage method for extending keeping quality of potato in natural condition.	Munshiganj
472	Effect of Different Types of Mulching and Plant Spacing on Weed Control and Yield of Sweet Potato at Munshiganj Region	• To determine the effectiveness of different types of mulching and plant spacing on weed control and yield of sweet potato in Munshiganj region.	Munshiganj
473	Determination of Fertilizer Dose for BARI Mate Alu 1	• To determine a suitable dose of N, P, K fertilizers for enhancing the productivity and profitability of BARI Mate Alu 1	Gazipur
474	Effect of Plant Spacing on Yield of Rhizome Producing Panikachu	• To evaluate the performance of spatial arrangement rhizome producing Panikachu	Gazipur and Jamalpur
475	Effect of Planting Geometry on the Yield of Mukhikachu	• To select the appropriate spacing for maximum yield of Mukhikachu. • To find out optimum land use in cultivating mukhikachu	Gazipur and Bogura
476	Determination of Application Schedule of N Fertilizer in Panikachu	• To observe the response of applied N fertilizer schedule in Panikachu. • To update and optimize the N fertilizer application schedule for maximization the yield of Panikachu	Gazipur and Jamalpur
477	Suitable Planting Date and Genotype Determination for off Season Sweet Potato	• To find out promising off-season genotypes of sweet potato. • To find out suitable planting date for developing off season genotypes of	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		sweet potato	
478	Effect of Planting Times and Spacing on the Yield of BARI Mistialu-17	• To find out the appropriate combination of planting time and spacing for maximum output	Gazipur
479	Effects of Seed Tuber Size and Variety on Yield and Quality Performance of Processing Potato Varieties Under Field Conditions	• To find out the effect of seed size and varieties growth performance and yield response of processing potato varieties. • To find out optimum seed tuber size for maximum yield of processing potato varieties.	Debiganj
480	Effect of Planting Time and Varieties on Yield of Mukhikachu in Level Barind Tract (AEZ-25)	• To find out the optimum date of sowing for desirable growth and yield of mukhikachu. • To determine a suitable variety for enhancing the productivity of mukhikachu. • To evaluate the combined effects of sowing date and variety for growth and yield of mukhikachu	Bogura
481	Impact of Organic and Inorganic Fertilizers on Growth, and Yield of BARI Alu-90	• To assess a suitable dose of organic and inorganic fertilizers for getting uniform size of tuber and higher yield of potato. • To evaluate the effects of organic and inorganic fertilizers for enhancing the productivity and profitability of BARI Alu 90	Bogura
482	Effect of NPK on Growth and Yield of Panikachu Varieties	• To determine a suitable variety for enhancing the productivity of paniikachu. • To determine a suitable dose of N, P and K fertilizers for enhancing the productivity of paniikachu. • To evaluate the effects of varieties and fertilizers for enhancing the productivity and profitability of paniikachu.	Bogura
483	Validation Trial of Newly Developed Red Skin Potato Varieties in the Farmers Field	• Dissemination of red skin new variety (s) among the farmers. • To increase production and income through technology dissemination	Bogura
484	Performance of Newly Developed High Yielding Early Potato Variety in Banana-Potato Intercropping System	• Dissemination of early variety (s) among the farmers. • To increase production and income	Bogura
485	Development of potato-based cropping pattern for increasing cropping intensity and productivity	• To increase the cropping intensity and productivity through crop intensification. Sustain food security, poverty reduction, resource management	Gazipur, Bogra, Debigong

Sl.	Research Title	Objective(s)	Location(s)
		and livelihood improvement of ever-increasing populations. • To increase farmer's income, access to food and nutrition, employment opportunity and woman's participation in agriculture.	
486	Effect of Intercropping Potato with Onion	• To find out Effective cropping pattern of Potato with Onion	Bogura
487	Validation of Stolon Producing Panikachu Varieties in farmers Field Condition	• To validate stolon producing panikachu varieties among the farmers. • To collect the feedback of the newly released varieties	Joypurhat
488	Validation of BARI Released Late Blight Tolerant Potato Varieties in Joypurhat	• To evaluate the performance of LB resistance varieties in late blight prone areas. To collect the feedback of the newly released varieties.	Joypurhat
489	Effects of seed tuber size and variety on yield and quality performance of processing potato varieties under field conditions	• To find out the effect of seed size and varieties growth performance and yield response of processing potato varieties. • To find out optimum seed tuber size for maximum yield of processing potato varieties.	Debiganj
490	Effect of seed tuber size and spacing on yield and processing quality of potato varieties.	• To determine optimum tuber size and spacing for maximum yield and quality of processing potato	Debiganj
491	Effect of different organic manure and chemical fertilizers on the yield of BARI Mistialu-17	• To find out the best performing compost for BARI Mistialu-17. • To find out the suitable combination of organic manure and chemical fertilizers for BARI Mistialu-17. To evaluate post-harvest soil health	Bogura
492	Effect of nutrient and vine nodes on the growth yield of BARI Mistialu-17	• To determine the suitable combination of fertilizer dose and vine for the production of BARI Mistialu-17. • To determine suitable vine (desired number of nodes) for higher yield of BARI Mistialu-17. To evaluate the post-harvest properties of soil	Bogura
493	Effect of Different Botanical Pesticides to Control Potato Tuber Moth (PTM) under Storage Conditions	• To evaluate the potentials of some plant extract as organic pesticides for protecting the organic potato tubers from PTM infestation during storage condition. •	Munshigonj and Bogura
494	Effects of Botanicals to Control Late Blight Disease in Organic Potato	• To identify the potential alternatives among the botanicals for controlling late blight in organic potato cultivation.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Production Under Laboratory and Field Conditions		
495	Evaluation of Sweet Potato Varieties Under Organic Cultivation System	• To identify the superior sweet potato varieties for organic cultivation system	Gazipur
496	Effect of integrated fertilizer management on productivity and profitability of organic potato production	• To select safe and profitable potato production system through application of biofertilizers	Gazipur
497	Effects of some botanicals to control soft rot disease of potato under laboratory and storage conditions	• To evaluate some plant materials for the management of tuber soft rot bacteria caused by Erwinia carotovora	Gazipur, Munshigonj
498	Integrated Nutrient Management for Potato-Groundnut-T. Aman cropping Pattern	• To develop a suitable fertilizer package for the cropping pattern	Debiganj, Gazipur
499	Assessment of Atmospheric Carbon Absorption Through Potato	• To find out suitable potato variety in respect of carbon absorption. • To assess the total carbon absorption trough potato cultivation in Bangladesh in climate change aspect. • To estimate the organic carbon adding in soil through potato residues.	Debiganj, Gazipur
500	Determination of Fertilizer Dose for Cassava Production in Grey Terrace Soil	• To observe the response of cassava to different nutrients. • To develop a suitable fertilizer package for the cassava production. • To increase crop productivity and sustain soil health	Gazipur
501	Effects of Organic Manure and Inorganic Fertilizer on Anthocyanin Rich BARI Mishtialu-17	• To develop a suitable fertilizer package in combination of organic manure and chemical fertilizers. • To study the quality components and storability of sweet potato root under different nutrient management. • To study the post-harvest soil properties	Gazipur, Jamalpur,
502	Effect of Salinity on Growth, Yield and Quality of some Selected Sweet Potato Genotypes	• To find out the thresh hold level of salinity tolerance of promising sweet potato genotypes • To select salt tolerant promising sweet potato genotypes	Gazipur
503	Survey and Monitoring of New Tuber Crops Diseases in Bangladesh	• To assess the abundance and severity of tuber crops diseases • To identify the new disease with their causal organisms	Gazipur, Munshiganj, Chattagram, Jamalpur, Jashore,

Sl.	Research Title	Objective(s)	Location(s)
			Debiganj, BADC seed production block and farmers field, Rangpur, Bogura, Cumilla etc.
504	Survey, Isolation and Identification of *Candidatus Liberibacter* sp. Causing Zebra Chips (ZC) Disease of Potato	• To Identify the pathogens using morphological characters. • To isolation and purification of the pathogen	Major potato growing areas like Panchagarh, Thakurgaon, Dinajpur, Rangpur, Debiganj, Nilphamari, Lalmonirhat, Kurigram, Jamalpur, Joypurhat and Bogra
505	Survey and Morphological Characterization of *Helmonthosporium solani* Causing Silver Scurf Disease of Potato	• To Identify incidence and severity the diseases. • To collect the sample and characterize associated organisms to assess the market preferences	Do
506	Screening of Selected Potato Varieties and Germplasm against Late blight Disease Under Field Condition	• To confirm the resistant ability of varieties/germplasms. To reduce the yield loss due to disease	Rangpur, Panchagarh
507	Efficacy of Fungicides against Leaf Blight of Panikachu and Mukhikachu	• To select effective fungicides against Phytophthora leaf blight. • To reduce the yield due to the disease	Gazipur and Bogura
508	Efficacy of Different Bio-fungicides Against Soil Borne Fungal Diseases at Seedling Stages of Potato	• To identify the effective biofungicides against soil borne disease of Potato	Gazipur
509	Monitoring of Disease Status of BARI Released Potato Varieties Against Common Scab	• To study the tolerance level of BARI released potato varieties against common scab disease	Gazipur, Panchagarh
510	Management of Bacterial wilt Disease on Early Potato Varieties in Nilphamary and Panchagarh Districts	• To find out the effective chemical against the disease	Farmers field, Natunbondar, BSPC, Debiganj Kishoreganj, Nilphamari
511	Effect of Planting Date on the Incidence of Bacterial	• To find out the suitable planting date in early season to avoid. Bacterial wilt	Farmers field, BSPC,

Sl.	Research Title	Objective(s)	Location(s)
	Wilt Disease of Early Potato in Nilphamari and Panchagarh district	disease.	Debiganj, Panchagarh
512	Efficacy of Bactericide in Controlling Bacterial wilt of Potato in Panchagarh District	• To find out the effective bactericide against the disease	Farmers field, Debiganj, Panchagarh
513	Evaluation of Potato Varieties/Germplasm against PLRV and PVY	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
514	Observational trial of Sweet Potato Varieties/Germplasm against Virus Diseases	• To identity the resistant or tolerant sources of germplasm	Gazipur
515	Detection of Potato Viruses (PLRV, PVY, PVX, PVM and PVS) in the Supplied Sample of Different Companies through DAS-ELISA	• To identify the potato viruses (PLRV, PVY, PVX, PVM and PVS) from samples of different companies for enhancing virus free seed potato production	Gazipur
516	Monitoring of Different Released Potato Varieties against Post-Harvest Diseases	• To find out the suitable varieties for long term storage under natural environmental condition	Gazipur, Debiganj, Panchagarh
517	Development of Biorational Based Management Approach Against Red Spider Mite Infesting Panikachu	• To find out the most effective management option for miteon panikachu • To know the damage severity of the pest	Bogura
518	Development 0f Biorational Based Management Approach Against Root Aphid (*Pemphigus* Sp.) Attacking Potato	• To find out the most effective management option for root aphid on potato • To know the damage severity of the pest	Joypurhat
519	Evaluation of Advanced Materials of Potato Against Potato Cutwrom (*Agrotis Ipsilon*) in Field Condition	• To evaluate advanced lines of potato against cut worm in the field	Bogura and Debiganj
520	Development of Management Package Against Sweet Potato Weevil in Field Condition	• To develop eco-friendly, cost effective and compatible IPM measures for the management of sweet potato weevil	Bogura
521	Integrated Management of Cutworm (*Agrotis Ipsilon*) in Potato	• To find out an effective management approach for potato cutworm	Bogura and Debiganj
522	Management of Potato Tuber Moth (PTM) in Storage Condition	• To find out an effective management approach for potato tuber moth (PTM) in storage. • To estimate the extent of damage by	Bogura

Sl.	Research Title	Objective(s)	Location(s)
		PTM	
523	Survey and Monitoring of New Pest Arthropods Infesting Tuber Crops	• Identification of insect pests attacking tuber crops. • Determination of damage severity of insect pests	Experimental and seed production field of Tuber Crops research Centre (Gazipur, Bogura, Debiganj and Munshiganj), seed production blocks of BADC and farmer's field
524	Screening of Different Sweet Potato Varieties/Lines Against Potato Weevil *(Cylas Fromicarius Fab.)*	• To identify the suitable varieties/lines resistance/tolerant to sweet potato weevil infestation. • To determine the effects of sweet potato weevil infestation on the yield	Bogura, Gazipur, Munshiganj and Debiganj
525	Studies on Succession of Insect-Mite Pests on Jicama	• Identification of insect pests attacking jicama • Determination of damage severity of insect pests	Bogura
526	Development of Biorational Based Management Approach Against Red Spider Mite Infesting Panikachu	• To find out the most effective management option for miteon panikachu. • To know the damage severity of the pest	Bogura
527	Production and *In Vitro* Conservation of Potato Varieties/Germplasm	• To maintain the genetic purity of the varieties, • To increase the number of propagules. To conserve the genetic materials for future program	Tissue culture lab, TCRC, Gazipur & BSPC Debigonj
528	Study on Minituber Production Potentiality and Tuberization Behaviour of Newly Release Processing and Export Potential Varieties	• To produce G0 generation seeds in net house and green house conditions from disease free plantlets. • To see the tuberization behavior of procesing and export-oriented potato varieties	Tissue culture lab, net house and green house, TCRC, Gazipur
529	Improvement of Indigenous Promising Potato Cultivars Through Meristem Culture and their Yield Performance Study with Traditional Cultivars	• To produce virus free plantlets through meristem culture. • To see yield performance between the virus free cultivars and conventional cultivars	Tissue culture lab, TCRC, BARI, Gazipur
530	In Vitro Propagation of Cassava (*Manihot esculenta* crantz)	• To establish an efficient in vitro regeneration protocol. • To enrich high quality planting materials of cassava. To see the regeneration efficiency	Tissue culture lab, Gazipur
531	Standardization of *In Vitro*	• To conserve tuber crops for long time.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Protocol for Short, Medium and Long-Term Conservation in Potato	• To conserve advanced breeding lines for future use	
532	*In Vitro* Propagation of Late Blight Resistant and Heat Tolerant Potato Varieties and Standardization of Nutrient Film Technique Protocol for Quality Seed Production Round the Year	• To develop a new breeder seed production system in TCRC. • To produce high quality potato breeder seeds year-round • To get clean and disease-free potato seed	TCRC research field, Greenhouse, TCRC, Gazipur and BSPC Debiganj
533	*In Vitro* Propagation Technique Development for Mukhi-Kachu, Olkachu and Panchamukhi Kachu	• In vitro multiplication of mukhikachu, olkachu and Panchamukhi to validate plantlets at field conditions	Tissue culture lab, TCRC, Gazipur
534	Validation of Tissue Culture Based Apical Rooted Cuttings (ARC) Technology to Enhance Seed Potato Production	• Adoptation of ARC technique in Bangladesh as an alternative to minitubers in current seed potato production system.	TCRC, Gazipur and BSPC, Debigonj
535	Molecular Characterization and Finger Printing of BARI Released Potato Varieties Using SSR/SNP Marker	• To study the genetic variation and diversity of Potato varieties. DNA fingerprinting and documentation. Phylogenetic tree establishment among the varieties. • To know the genetic linkage mapping among the varieties	Molecular Biology lab. TCRC, Gazipur and Molecular marker lab, MSU, USA
536	Molecular Characterization of BARI Released Sweet Potato Varieties Using SSR Marker	• To characterize and identify the genetic variation of sweet potato varieties using SSR marker. • To examine the level of genetic diversity within the released varieties	Molecular Biology lab. TCRC, Gazipur
537	Molecular Characterization of BARI Released Yam Varieties and Advanced Lines Using SSR Markers	• To characterize and identify the genetic variation of yam varieties using SSR marker. • To examine the level of genetic diversity within the released varieties	Molecular Biology lab. TCRC, Gazipur
538	Molecular Characterization of BARI Released Cassava Lines Using SSR Marker	• To characterize and identify the genetic variation of cassava lines using SSR marker. • To examine the level of genetic diversity within the released varieties	Molecular Biology lab. TCRC, Gazipur
539	Secondary Yield Trial (SYT) of Late Blight Resistance Potato Derived from QTL Mapping Populations TB8, TB10 and TB17	• To select superior genotype (s) for subsequent program of late blight resistance variety development. • To improve germplasms of potato	TCRC, Gazipur, BSPC, Debiganj and RARS, Rangpur
540	Preliminary Yield Trial	• To select superior genotype (s) for	TCRC, Gazipur,

Sl.	Research Title	Objective(s)	Location(s)
	(PYT) of Heat Tolerant Potato Germplasm Derived MAS	subsequent program of heat tolerant variety development • To improve germplasms of potato	BSPC, Debiganj and OFRD, Shyampur, Rajshahi
541	Molecular Diagnosis and Study of Genetic Diversity of Potato Viruses in Bangladesh	• To identify strain of PVY and PLRV diseases in Bangladesh. To know the incidence of PVY and PLRV through-out the country. • To develop platform of developing PVY and PLRV resistance variety development using PVY and PLRV strains in the breeding program	Molecular biology lab of TCRC, Gazipur and RARS, Burirhat, Rangpur
542	Genome Sequence of *Ralstonia Solanacearum*	• To identify the causal agent's strain of bacterial wilt of potato in Bangladesh. • To develop the genetic markers to identy the causal agent of bacterial wilt in Bangladesh. • To develop platform of developing wilt resistance variety development using PVY and PLRV strains in the breeding program	Molecular biology lab, Greenhouse of TCRC, Gazipur
543	Identification and Characterization of R-Genes for Late Blight Disease of Potato Germplasm	• To identify R-genes from CIP germplasm Varieties with R-genes will be used in the breeding program to pyramid R-genes for durable resistance of late blight. • To characterize CIP germplasms of potato	TCRC research field, Molecular biology lab, GazipurRARS, Rangpur and BSPC, Debiganj
544	Marker Assisted Selection (MAS) of Disease Resistance R-Genes in Tetraploid Potato for Late Blight and Viruses	• To develop resistance variety of potato against late blight and virus diseases. Varieties with R-genes will be used in the breeding program to pyramid R-genes for durable resistance of late blight and viruses	TCRC research field Molecular biology lab, Gazipurand RARS, Rangpur, BSPC, Debiganj
545	Morpho-Molecular Characterization of BARI Released Varieties and Developed Advanced Panikachu and Mukhikachu Lines	• To study the genetic variation and diversity of popular BARI released aroid varieties. DNA fingerprinting and documentation. Phylogenetic tree establishment among the varieties to know the genetic linkage mapping among the varieties	Molecular Biology lab. TCRC, Gazipur
546	Molecular Characterization and Determination of Diversity of Advanced Breeding Lines of Potato Using SSR Markers	• To assess the genetic diversity and polymorphism of advanced breeding lines of potato which can be used in future breeding program. • To develop parental stock for gene pyramiding	Molecular Biology lab. TCRC, BARI, Gazipur
547	Mitochondrial Genome	• To represent a valuable shortcut way to	Molecular

Sl.	Research Title	Objective(s)	Location(s)
	Sequencing of BARI Released Two Salt Tolerant Potato Varieties	check genomes from parents to offsprings more easily. • To know the genetic, make up of the varieties	Biology lab. TCRC, BARI, Gazipur
548	Morpho-Molecular Characterization of Causal Agent of Zebra Chip Disease of Potato in Bangladesh	• To identify the pathogens (including strains/bio-var level) through morpho-molecular characterization and PCR based detection.	Major potato growing areas (like Panchagarh, Thakurgaon, Dinajpur, Rangpur, Debiganj, Nilphamari, Lalmonirhat, Kurigram), Jamalpur Joypurhat, Bogra, Jamalpur, Rahmatpur, Jashore, Chottogram, etc.
549	*In Vitro* Regeneration Protocol Development in Sweet Potato (*Ipomoea Batatas* L.) for Transgenic Development	• To develop an efficient plant regeneration protocol for genetic transformation of sweet potato in future	Tissue culture and Molecular biology Lab, Gazipur
550	Performance of BARI Potato Varieties under Aeroponic Culture	• To evaluate performance of BARI released varieties in the formation of mini tuber.	Gazipur
551	Production of Quality Potato Seeds	• Ensuring the demand of quality seeds throughout the country • Producing breeder seed for BADC	Debigonj
552	Production and Preservation of Sweet Potato Vines	• Ensuring the demand of quality seeds throughout the country	Gazipur, Bogura, Jamalpur, Jashore, Barishal, Chattagram
553	Production and Preservation of Aroids Seeds	• Ensuring the demand of quality seeds throughout the country	Do
554	Studies on Storage Behavior of Potato Varieties/Germplasm under Natural Storage Conditions	• To assess the keeping quality of tubers, which is one of the major criteria for selection of varieties/germplasms • To observe the marketability of the different varieties/germplasm under storage.	Gazipur
555	Evaluation of Potato Varieties and Germplasm/Lines for Processing Qualities	• To select suitable varieties and germplasm lines for chips and French fries. • To select the optimum colour and texture	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		of the chips and French-fries	
556	Effect of Pre-Frying Time on the Quality of Frozen French Fries Made from Processing Potato Varieties	• To find out optimum pre-frying time for frozen French fries. • To select suitable varieties for making frozen French fries. • To find out the optimum quality and nutritional value of French fries.	Gazipur
557	Evaluation of Sweet Potato Varieties and Germplasm/Lines for Processing Qualities	• To select suitable varieties for chips and French fries. • To select the optimum colour and texture of the chips and French-fries	Gazipur
558	Adaptive Trial with Newly Released Potato Varieties	• To popularize the newly released improved potato varieties. • To collect the feedback of the newly released varieties.	Barishal, Bhola, Borguna, Bogura, Chittagonj (Pahartoli& RARS), Chandpur, Coxesbazar, Cumilla, Dinajpur, Faridpur, Gibandha, Gopalgonj, Gazipur, Jamalpur, Jashore, Jhenaidah, Khulna, Kishoregonj, Kushtia, Madaripur, Manikgonj, Munshiganj, Mymensing, Norshindi, Noakhali, Panchogor, Patuakhali, Rajshahi, Rangpur, Sherpur, Satkhira, Tangail, Thakurgoan, Khagrachari, Bandarban and Rangamati
559	Promotion and Dissemination of Newly Released Late Blight Resistant Potato Variety	• To popularize the newly released improved potato varieties. • To collect the feedback of the newly released varieties. • To increase the production as well as income of the growers	Dinajpur, Rangpur, Bogura, Jamalpur, Rajshahi, Niphamary, Panchagarh, Thakurgoan, and Jashore 10-20 trials in each of the above districts

Sl.	Research Title	Objective(s)	Location(s)
560	Promotion and Dissemination of Newly Released Climate Smart (Heat and Salt Tolerant) Potato Variety	• To popularize the newly released improved potato varieties. • To collect the feedback of the newly released varieties. • To increase the production as well as income of the growers.	Barishal, Patuakhali, Barguna, Khulna, Satkhira, Chattagram, Cox's Bazar, Noakhali, Bhola and Jashore. 10-20 trials in each of the above districts
561	Adaptive Trial with Proposed Anthocyanin Rich Potato Varieties	• To popularize the newly proposed improved potato varieties.	Barishal, Bogura, Coxesbazar, Cumilla, Dinajpur, Gazipur, Tangail, Jamalpur, Munshiganj, Panchagarh, Rajshahi, Rangpur, Jeshore and Thakurgoan
562	Participatory Adaptive Trial of Early Bulking Potato Varieties	• Identify early bulker (65 days) potato variety/es to catch up the early segment of potato market in Bangladesh. • Provide scope to the farmers to select the early bulker varieties suitable to their socio-economic conditions.	Two farmers field trials at Debigonj, Panchagarh and Domar, Nilphamari
563	Adaptive Trials with Sweet Potato Varieties	• To popularize the newly released improved sweet potato varieties. • To collect the feedback of the newly released varieties.	Locally adapted varieties will be identified by the farmers. Gazipur, Bogura, Gaibanda, Jamalpur, Sherpur, Kishoregong, Sylhet and Barishal
564	Demonstration of BARI Released Varieties of Panikachu	• To study the performance of the improved varieties of Panikachu at farmers' level. • To know the farmer's choice among the varieties	Gazipur, Narsingdi, Bogura, Joypurhat, Gaibanda, Rangpur, Jamalpur, Sherpur, Kishoregong, Jashore, Kushtia, Sylhet, Moulovibazar, Barishal, Gopalgonj, Tangail, Mymensingh, Munshigonj,

Sl.	Research Title	Objective(s)	Location(s)
			Khagrachhari, Chattagram, Cox's Bazar, Cumilla and Satkhira
565	Demonstration of BARI Released Varieties of Mukhikachu	• To study the performance of the improved varieties of Mukhikachu at farmers' level.	Gazipur, Bogura, Joypurhat, Jamalpur, Jashore, Kushtia, Meherpur, Sylhet, Barishal, Tangail, Mymensingh, Khagrachhari and Rajshahi
566	Demonstration of BARI Released Varieties of Olkachu	• To study the performance of the improved varieties of Olkachu at farmers' level.	Gazipur, Bogura, Kishoregonj, Jashore, Khagrachhari
567	Demonstration of BARI Released Varieties of Sahebikachu	• To study the performance of the improved varieties of Sahebikachu at farmers' level.	Barishal
PULSE RESEARCH CENTRE			
Variety development			
568	Hybridization of blackgram	• To obtain genotypes having desired gene combinations	PRC, Ishurdi, Pabna
569	Confirmation F_1 generation of blackgram	• To confirm the crosses made during 2021-22	PRC, Ishurdi, Pabna
570	Growing and evaluation of F_2 generation of blackgram	• To advance the generation	PRC, Ishurdi, Pabna
571	Growing and evaluation F_3 generation of blackgram	• To advance the generation	PRC, Ishurdi, Pabna
572	Growing and evaluation of blackgram F_4 generation	• To advance the generation	PRC, Ishurdi, Pabna
573	Growing and evaluation of blackgram F_5 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
574	Growing and evaluation of F_6 generation of blackgram	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
575	Preliminary yield trial of blackgram	• To evaluate them in the preliminary yield trial in a single or multiple location(s) to assess their performance at different locations	PRC, Ishurdi, Pabna, PRSS Gazipur, RPRS, Madaripur, RARS, Jamalpur and RARS, Jashore
576	Participatory variety selection of blackgram	• To investigate the performance of Blackgram genotypes at farmers' field	Do
577	Hybridization of lentil	• To obtain genotypes having desired gene combinations	PRC, Ishurdi, Pabna

Sl.	Research Title	Objective(s)	Location(s)
578	Confirmation of F_1 plants in lentil	• To confirm the crosses made during 2021-22	PRC, Ishurdi, Pabna
579	Growing and evaluation of lentil F_2 generation	• To advance the generation	PRC, Ishurdi, Pabna
580	Growing and evaluation of lentil F_3 generation	• To advance the generation	PRC, Ishurdi, Pabna
581	Growing and evaluation of lentil F_5 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
582	Observation trial of lentil	• To assess the performance over existing varieties	PRC, Ishurdi, Pabna
583	Regional yield trial of lentil	• To assess the performance of lentil genotypes over locations	PRC, Ishurdi, RARS, Jamalpur, PRSS, Gazipur, RPRS, Madaripur, RARS, Barishal, RARS, Jashore and RARS, Jamalpur
584	Screening of lentil germplasm for resistance to stemphylium blight disease	• To identify resistant source of SB for developing resistant variety.	PRC, Ishurdi, Pabna; RARS, Jashore
585	Screening of lentil germplasm for tolerance to terminal heat stress	• To investigate the effects of terminal heat stress during the reproductive phase; Recording phenotyping data to use in marker trait association mapping; and identify tolerant germplasm to use as parent for future breeding.	PRC, Ishurdi, Pabna
586	Hybridization and advancement of fillial generations in grasspea	• To obtain genotypes having desired gene combinations	PRSS, Gazipur
587	Confirmation of F_1 of grasspea	• To confirm the crosses made during 2021-22	PRC, Ishurdi, Pabna
588	Growing and evaluation of F_2 generation of grasspea	• To advance the generation	PRC, Ishurdi, Pabna
589	Growing and evaluation of F_3 generation of grasspea	• To advance the generation	PRC, Ishurdi, Pabna
590	Growing and evaluation of grasspea F_4 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
591	Growing and evaluation of grasspea F_5 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
592	Preliminary yield trial of grasspea (Set-1)	• To assess the performance of grasspea genotypes over locations	PRC, Ishurdi, Pabna; PRSS, Gazipur; RPRS, Madaripur; RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
			and RARS, Jamalpur
593	Preliminary yield trial of grasspea (Set-2)	• To assess the performance of grasspea genotypes over locations	PRSS, Gazipur and RPRS, Madaripur
594	Regional yield trial of grasspea	• To assess the performance of grasspea genotypes over locations	PRC, Ishurdi, Pabna; PRSS, Gazipur; RPRS, Madaripur; RARS, Jashore and RARS Jamalpur
595	Evaluation of some exotic grass pea genotypes	• To find high yielding and disease tolerant, superior genotypes over the existing varieties	PRSS, Gazipur
596	International grass pea yield trial (ICARDA)-1st year	• To have variable genotypes the morphological characterization of germplasms collected from exotic sources	PRSS, Gazipur
597	Collection and evaluation of local and exotic grass pea germplasm for genetic perspective in Bangladesh	• To have variable genotypes and the morphological characterization of germplasms	PRSS, Gazipur
598	Evaluation of grasspea germplasm under waterlogging stress at seedling stage	• To identify waterlogging tolerance at seedling to use them in breeding for developing tolerant variety	PRC, Ishurdi, Pabna
599	Hybridization of chickpea	• To obtain genotypes having desired gene combinations	PRC, Ishurdi, Pabna
600	Confirmation of chickpea F_1 generation	• To confirm the crosses made during 2021-22	PRC, Ishurdi, Pabna
601	Growing and evaluation of F_2 generation of chickpea	• To advance the generation	PRC, Ishurdi, Pabna
602	Growing and evaluation of chickpea F_3 generation	• To advance the generation	PRC, Ishurdi, Pabna
603	Growing and evaluation of chickpea F_5 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
604	Observation trial of chickpea	• To assess the performance over existing varieties	PRC, Ishurdi, Pabna
605	Preliminary yield trial of chickpea	• To assess the performance of chickpea genotypes over locations	PRC, Ishurdi; RARS, Barishal, PRSS, Gazipur; RPRS, Madaripur and RARS, Jashore
606	Regional yield trial of chickpea	• To assess the performance of chickpea genotypes over locations	PRC, Ishurdi; Barind, Rajshahi; RARS,

Sl.	Research Title	Objective(s)	Location(s)
			Barishal, PRSS, Gazipur; RARS, Barishal and RARS Jashore
607	On-farm yield trial of promising chickpea genotypes	• To find out stable, high yielding and disease resistant genotypes to develop superior variety	Farmers' field of Barind, Rajshahi; Jashore; Ghior, Manikganj and Madaripur
608	Hybridization of fieldpea	• To obtain genotypes having desired gene combinations	PRC, Ishurdi, Pabna
609	Growing and evaluation of F_2 generation of fieldpea	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
610	Growing and evaluation of fieldpea F_4 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
611	Growing and evaluation of fieldpea F_6 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
612	Preliminary yield trial of fieldpea	• To assess the performance of fieldpea genotypes over locations	PRC, Ishurdi, Pabna; PRSS, Gazipur; RARS, Jashore; RARS, Barishal; RPRS, Madaripur
613	Regional yield trial of fieldpea	• To assess the performance of fieldpea genotypes over locations	PRC, Ishurdi, Pabna; PRSS, Gazipur; RARS, Jashore; RARS, Barishal
614	Screening of fieldpea (*Pisum sativum* L.) genotypes based on qualitative and quantitative morphological traits analysis related to yield	• To assess the diversity of qualitative and quantitative morphological characteristics concerning yield among the fieldpea genotypes	PRC, Ishurdi, Pabna
615	Adaptation of cowpea genotypes for southern region	• To find out the best cowpea lines for southern region	RARS, Rahmatpur, Barishal
616	Evaluation of cowpea exotic lines	• To evaluate selected IITA cowpea exotic germplasm	RARS, Rahmatpur, Barishal
617	Hybridization of mungbean	• To obtain fruitful crosses having desired genetic combinations	PRC, Ishurdi, Pabna
618	Confirmation of mungbean f_1 generation	• To confirm crosses made during 2022	PRC, Ishurdi, Pabna
619	Growing and evaluation of mungbean F_2 generation	• To advance the generation	PRC, Ishurdi, Pabna
620	Growing and evaluation of mungbean F_3 generation	• To advance the generation	PRC, Ishurdi, Pabna

Sl.	Research Title	Objective(s)	Location(s)
621	Growing and evaluation of mungbean F_4 generation	• To advance the generation	PRC, Ishurdi, Pabna
622	Growing and evaluation of mungbean F_5 generation	• To advance the generation	PRC, Ishurdi, Pabna
623	Growing and evaluation of mungbean F_6 generation	• To advance the generation towards homozygosity	PRC, Ishurdi, Pabna
624	Regional yield trial of mungbean	• To identify robust genotypes with high yields across different environments and suitable environments	Ishurdi, Gazipur, Barishal, Madaripur and Jashore
625	Participatory varietal selection of mungbean	• To identify genotypes with high yields across different environments	OFRD, Tangail, RARS, Barishal and RPRS, Madaripur
626	Interspecific hybridization involving *Vigna radiata* with *Vigna mungo*	• For creating the genetic variability among the existing germplasm for desired gene pool	PRC, Ishurdi, Pabna
627	Identification and quantification of volatiles compounds through bio-chemicals analysis in aromatic mungbean	• To estimate major aroma compound 2-Acetyl-1-pyrroline (2AP) and select superior mungbean genotypes for high yield with aroma	PRC, Ishurdi, Pabna
628	Screening of mungbean genotypes on germination stage using peg-induced drought stress levels	• To study genetic variation and terminal drought stress on yield related traits in mungbean	PRC, Ishurdi, Pabna
Crop in Soil Management			
629	Efficacy of *Rhizobium* on nitrogen compensation and yield of lentil	• To evaluate the response of Rhizobium on nitrogen compensation and yield of lentil	PRC, Ishurdi, Pabna
630	Effect of seed rate and fertilizer management on growth yield of BARI masur-8	• To evaluate the optimum plant density and fertilizer management for higher yield of BARI Masur-8	PRC, Ishurdi, Pabna
631	Effect of bio-fertilizer and phosphorus on yield of chickpea (BARI chola-10)	• To evaluate the effect of bio-fertilizer and phosphorus on growth and yield of chickpea	PRC, Ishurdi, Pabna
632	Efficacy of different source of bio and chemical fertilizer on growth and yield of chickpea	• To find out the response of chick pea to different bio and chemical fertilizer on growth and yield.	PRC, Ishurdi, Pabna
633	Effect of bio-fertilizer and phosphorus levels on growth and yield of black gram	• To find out the response of black gram to different levels of phosphorus, and bio-fertilizer on growth and yield	PRC, Ishurdi, Pabna
634	Effect of *Rhizobium*	• To evaluate the biological nitrogen	PRC, Ishurdi,

Sl.	Research Title	Objective(s)	Location(s)
	inoculant on nitrogen compensation and yield of mungbean	fixation potential of Rhizobium inoculant in Mungbean	Pabna
635	Performance of different pulse-based cropping pattern in the high Ganges River floodplain (AEZ-11)	• To find out the more profitable cropping pattern in High Ganges River floodplain (AEZ-11)	PRC, Ishurdi, Pabna
636	Adaptation of pigeon pea germplasm in different agro-ecological locations in Bangladesh	• To find out the high yielding and short duration germplasm across locations for developing variety.	PRC, Ishurdi, RARS, Rangpur, Jamalpur, Jashore; RPRS, Madaripur
637	Selection of suitable herbicides for controlling *Parthenium* weed in field pea	• To find out the suitable herbicide to control Parthenium weed in field pea.	PRC, Ishurdi, Pabna
638	Competition dynamics of parthenium weed infestation in field pea	• To assess the yield loss of field pea due to Parthenium weed infestation.	PRC, Ishurdi, Pabna
639	Effects of pulse-based cropping pattern on crop performance and soil health	• To increase cropping intensity and soil health through pulse crops.	PRC, Ishurdi, Pabna
640	Development of weed management package for summer mungbean	• To find out the suitable weed management for controlling weeds in summer mungbean.	PRC, Ishurdi, Pabna
641	Determination of optimum dose of Panida for weed control in mungbean	• To find out the appropriate dose of Panida for weed control in mung bean	PRC, Ishurdi, Pabna
642	Growth and yield of grass pea as influenced by foliar spray of potassium nitrate	• To find out the effect of foliar spray of potassium nitrate on grasspea grown in rainfed lowland rice fallows	RPRS, Madaripur
643	Response of rhizobium and Trichoderma on growth and productivity of lentil at Madaripur	• To evaluate the performance of Lentil var. BARI Masur-8 treated with Rhizobium and Trichoderma	RPRS, Madaripur
644	Response of rhizobium and Trichoderma on growth and productivity of chickpea at Madaripur	• To evaluate the performance of Chickpea var. BARI Chola-10 treated with Rhizobium and Trichoderma	RPRS, Madaripur
645	Profitability analysis of pulse-based cropping patterns against rice-based cropping systems in Madaripur	• To find out the suitable pulse-based cropping pattern for Madaripur district	RPRS, Madaripur
646	Performance of field pea under different sowing conditions	• To investigate the suitable sowing condition for better crop establishment and higher yield of green pod and grain	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
647	Development of integrated weed management practices of lentil in Jashore region	• To find out suitable integrated weed management practice for lentil in Jashore region.	RARS, Jashore
648	Effect of plant growth regulators on mungbean	• To identify the effects of plant growth regulators on mungbean flowering and yield	RARS, Rahmatpur, Barishal
649	Effect of foliar spray of boron on yield of relay lentil	• To find the efficacy and effective dose of Boron foliar spray on relay lentil	RARS, Rahmatpur, Barishal
650	Performance of cowpea as influenced by sowing dates in Barishal	• To Know the growth pattern of cowpea under late seeded heat stress conditions	RARS, Rahmatpur, Barishal
651	Effects of different levels of Zn on the growth, yield, yield attributes and nutrient uptake by lentil	• To evaluate the effects of different levels of Zn on the growth, yield, yield attributer and nutrient uptake by of lentil	BARI, Gazipur
652	Effects of different application strategies of Zn on the growth, yield, seed Zn, protein content and Zn uptake by lentil	• To evaluate the effects of different application strategies of Zn on the growth, yield, seed Zn, protein content and Zn uptake by lentil	BARI, Gazipur
Disease Management			
653	Efficacy of fungicide for control of stemphylium blight disease of lentil in natural condition	• To evaluate the effectiveness of the application schedule of this fungicide on a susceptible and tolerant lentil variety for management of SB of lentil.	PRC, Ishurdi, Pabna
654	Screening of lentil germplasm against stemphylium blight	• To exploit genetic host resistance in existing varieties and germplasms for the identification of resistant sources	PRC, Ishurdi, Pabna
655	Screening of blackgram lines resistant to yellow mosaic virus	• To find out the resistant sources against YMV.	PRC, Ishurdi, Pabna
656	Prevalence of pathogens associated with root rot disease of lentil	• To (i) conduct a field survey to determine the diversity of soil borne pathogens associated with lentil roots, (ii) identify the major root rot pathogen groups, and (iii) determine the severity of these major pathogen groups	PRC, Ishurdi, Pabna
657	Effect of biological agents and chemical fungicides for controlling foot and root rot of lentil	• To find out the effective management practices for the management of foot rot disease in lentil.	RARS, Rahmatpur, Barishal
658	Effect of biological agents and chemical fungicides on fusarium wilt disease in chickpea	• To find out an effective and suitable control measure of the disease.	RARS, Rahmatpur, Barishal

Sl.	Research Title	Objective(s)	Location(s)
Insect Management			
659	Survey and documentation of insect pests of pigeon pea and their natural enemies	• To study the occurrence of insect pests in pigeon pea	PRC, Ishurdi, Pabna
660	Development of eco-friendly management approach against pulse beetle, *Callosobruchus chinensis* (coleoptera: bruchidae) in mungbean	• To find out an integrated approach for protecting mungbean seed from the attack of pulse beetle	PRC, Ishurdi, Pabna
OILSEED RESEARCH CENTRE			
PROJECT I: VARIETY DEVELOPMENT			
Rapeseed-mustard (*Brassica* spp.)			
Sub-Project I: Collection, evaluation and maintenance of oilseed crops germplasm			
661	Collection of rapeseed mustard germplasm	• To enrich and widen the genetic base of the gene pool of oilseed crops	Different agro-ecological zones of Bangladesh
662	Evaluation of rapeseed mustard germplasm	• To explore the genetic diversity of *Brassica rapa*, *B. Juncea* and *B. Napus* germplasm. To identify the germplasm having useful traits.	Gazipur
Sub-Project II: Development of high yielding short duration variety in *Brassica rapa* L. and *Brassica napus* L.			
663	Hybridization in *Brassica rapa* L.	• To incorporate earliness in *B rapa* existing genotypes.	Gazipur
664	Hybridization in *Brassica rapa* L. (Set-I)	• To incorporate earliness in *B rapa* existing genotypes.	Jamalpur
665	Evaluation of F1 generation of *Brassica rapa* L.	• To know the hybrid performance of the crosses involving 6 parents and to advance F_1 to F_2 generation.	Jamalpur
666	Evaluation of segregating generation of *Brassica rapa* L. (Set-I)	• To evaluate segregating generation and to select high yielding genotypes.	Gazipur
667	Evaluation of segregating generations of *Brassica rapa* L.	• To development of homogenous line; to advance the filial generations from F_1 to F_6.	Gazipur
668	Evaluation of F1 generation of *Brassica Rapa*	• To know the hybrid performance.	Gazipur
669	Observation trial of *Brassica rapa* L. (Set-I)	• To select short duration high yielding lines with better agronomic traits.	Gazipur
670	Observation trial of *Brassica rapa* L. (Set-II)	• To select short duration high yielding lines with better agronomic traits.	Gazipur
671	Observation trial of *Brassica rapa* L. (Set-III)	• To select high yielding RIL genotypes with better agronomic traits.	Gazipur
672	Observation trial of *Brassica rapa* L. (Set-IV)	• To select high yielding RIL genotypes with better agronomic traits.	Gazipur
673	Preliminary yield trial of *Brassica rapa* L. (Set-I)	• To select(s) early, high yield potential and stable lines based on yield and yield	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		contributing characters.	
674	Preliminary yield trial of *Brassica rapa* L. (Set-II) (yellow seed)	• To find out short duration high yielding genotypes.	Jamalpur
675	Preliminary yield trial of *Brassica rapa* (Set-III) (brown seed)	• To find out short duration high yielding genotypes.	Jamalpur
676	Regional yield trial of *Brassica rapa* L.	• To select short duration high yielding lines with better agronomic traits and wider adaptability.	Gazipur
677	Hybridization in *Brassica napus* (Set-I)	• Is to bring together desired traits found in different plant lines into one plant line via crossing.	Jamalpur
678	Hybridization in *Brassica napus* L. (Set-II)	• To bring together desired traits found in different plant lines into one plant line via crossing.	Gazipur
679	Evaluation of F1 generation of *Brassica napus*	• To know the hybrid performance to generation.	Jamalpur
680	Selection in segregating generation (F2-F6) of brassica spp.	• To select desirable populations on the basis of phenotypic performance, maturity, disease's reaction, physical grain quality etc. For advancing generation.	Jamalpur
681	Observation yield trial of *Brassica napus*	• To find out the high yield potential lines.	Jamalpur
682	Adaptive yield trial of *Brassica napus*	• To fine toning the performance of previously selected advanced lines or technologies	Jamalpur
683	Confirmation of F1 generation of canola germplam	• To know the hybrid performance of the crosses involving 6 parents and to advance F_1 to F_2 generation.	Jamalpur
684	Observation yield trial of *Brassica napus* (Canola)	• To find out the high yield potential lines.	Jamalpur
685	Regional yield trial of *Brassica rapa* (Canola)	• To find out the high yield potential lines.	Jamalpur
686	Observation yield trial of *Brassica napus* L. (Set-II)	• To select shattering resistance, short duration with high yield potential lines of *B. Napus*.	Gazipur
687	Preliminary yield trial of *Brassica napus*	• To find out the high yield potential lines.	Jamalpur
688	Regional yield trial of *Brassica napus* (Canola)	• To find out the high yield potential lines.	Jamalpur
689	Regional yield trial of *Brassica napus*	• To find out the high yield potential lines of rapeseed.	Jamalpur
Sub project-III			
690	Regional yield trial of *Brassica juncea* L.	• To select(s) the high yield potential and stable lines of this species based on yield and yield contributing characters.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
691	Interspecific hybridization in *B. napus* L.; *B. rapa* L. and *B. carinata*	• To create genetic variability in rapeseed-mustard and to broadening of genetic diversity.	Gazipur
692	Evaluation of segregating generation of interspecific crosses	• To advance generation and to select short duration plants/families having desirable traits	Gazipur
693	Preliminary yield trial of entries developed from interspecific hybridization among *B. carinata* and *B. napus*	• To observe the overall performance of developed lines in different locations of Bangladesh and select the high yield potential lines.	Gazipur
Sub project-IV			
694	Maintenances of CMS, maintainer and restorer lines of *B. napus*	• To maintain and increase seed of CMS, maintainer and restorer lines for utilizing in future breeding programme.	Gazipur
695	Development of hybrid variety in rapeseed	• To develop short duration parental lines, to develop and evaluate test cross hybrids and maintenance of selected parental lines for hybrid variety in rapeseed.	Gazipur
696	I. Development of short duration parental lines	• To develop short duration parental lines, to develop and evaluate test cross hybrids and maintenance of selected parental lines for hybrid variety in rapeseed.	Gazipur
697	II. Development of test cross hybrid in *Brassica napus* L.	• To develop short duration parental lines, to develop and evaluate test cross hybrids and maintenance of selected parental lines for hybrid variety in rapeseed.	Gazipur
698	III. Evaluation of test cross hybrids in *Brassica napus* L.	• To develop short duration parental lines, to develop and evaluate test cross hybrids and maintenance of selected parental lines for hybrid variety in rapeseed.	Gazipur
699	Heterosis study of hybrids developed through selected restorers	• To select better performing the hybrid, the experiment was conducted with the newly developed restorer and CMS lines.	Gazipur
700	Evaluation of hybrid rapeseed-mustard	• To observe the performance of recently proposed promising hybrid rapeseed-mustard variety.	Gazipur, RARS, Burirhat, Rangpur and OFRD, Khukna
Sub project-V			
701	Hybridization in double low *B. napus* L.	• To develop double low genotypes through hybridization and selection subsequent generations.	Gazipur
702	Evaluation of segregating generation of *Brassica*	• To advance generation and to select short duration plants/families having desirable	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	napus L.	traits.	
Sub project-VII			
703	Development of multi-parent advanced generation inter-cross (MAGIC) populations	• To develop MAGIC population to accumulate all favorable genes from multi-parents into a single parent and to create genetic variability.	Gazipur
704	Development of hexaploidy *Brassica* spp.	• To incorporation of sufficient genetic diversity to form a basis for breeding and improvement of this potential crop species and to improvement of agronomic traits to the level of "elite" breeding material in the diploid and allotetraploid crop species.	Gazipur
705	Development of nested association mapping (NAM) populations	• To develop NAM population to create genetic variability and to phenotyping of NAM lines under multiple stresses.	Gazipur
706	Maintenance of BARI released rapeseed-mustard varieties (Set-I)	• To maintain purity of released varieties.	Gazipur
707	Maintenance of short duration inbred lines in *Brassica rapa* L. (Set-II)	• To maintain genetic purity of these advance lines.	Gazipur
708	Maintenance of convergent cross lines of *Brassica rapa* (Set-III)	• To maintain of these convergent cross lines of *B. rapa.*	Gazipur
709	Maintenance of 15 doule low genotypes of *B. napus* L. (Set-IVA)	• To maintain previously developed 'double low' genotypes of *Brassica napus* for using in the future breeding programme.	Gazipur
710	Maintenance of double low genotypes of *Brassica napus* (Set-IVB)	• To maintain previously developed 'double low' genotypes of Brassica napus for using in the future breeding programme.	Gazipur
711	Maintenance of inbred lines of *Brassica juncea* (Set-V)	• To maintain inbred lines of *Brassica juncea*.	Gazipur
712	Maintenance of inbred lines of *Brassica juncea* (Set-VI)	• To maintain inbred lines of *Brassica juncea*.	Gazipur
Sub project-IX			
713	Introgression of heat tolerance gene in rapeseed-mustard from wild relatives	• To introgression of heat and aphid tolerance gene and to broadening of genetic diversity.	Gazipur
714	Adaptive trail of advanced lines of *Brassica rapa* L.	• To evaluate the performance of advanced lines of *Brassica rapa*; and • To develop high yielding short duration variety of *Brassica rapa.*	MLT site Barura in Cumilla
715	Adaptive trail of advanced lines of *Brassica napus* L.	• To evaluate the performance of advanced lines of *Brassica rapa*;	Chandina in Cumilla

Sl.	Research Title	Objective(s)	Location(s)
		• To develop high yielding short duration variety of *Brassica nupus L.*	
716	Evaluation of BARI, BINA, and BAU developed rapeseed-mustard varieties at saline prone areas Satkhira	• To observe the performance of BARI and BAU developed rapeseed-mustard varieties in saline affected areas in Bangladesh.	Benarpota, Satkhira
717	Evaluation of BARI and BAU developed rapeseed mustard varieties at saline prone areas Khulna	• To examine the variation in salt tolerance of selected mustard genotypes up to maturity and to select salt tolerant mustard genotypes under salinity condition.	Koyra, Khulna
718	Screening of mustard varieties/lines against *Alternaria blight* and white mold disease	• To select all blight tolerant lines	Rangpur
Sesame			
719	Maintenance of germplasm of sesame	• To enrich and widen the genetic base of the gene pool of sesame	Gazipur
720	Hybridization of sesame	• To create genetic variation and to find out desirable genotypes.	Gazipur
721	Evaluation of F_3, F_5 and F_6 generation of sesame	• To select desirable segregate in subsequent generation	Gazipur
722	Observation trial of sesame	• To find out sesame lines having higher seed yield along with other desirable characters	Gazipur
723	Preliminary yield trial of sesame	• To find out sesame lines having higher seed yield along with other desirable characters.	Gazipur, Ishurdi, Jashore and Dinajpur
724	Regional yield trial of sesame	• To find out sesame lines having higher seed yield along with other desirable characters.	Gazipur, Ishurdi, Jashore, Kushtia and Dinajpur
725	Screening of sesame genotypes under water logged condition	• To find out genotypes with water logged tolerant and high yield potential.	Gazipur
726	Maintenance of released varieties and advanced line of sesame	• To maintain the genetic purity in germplasm of sesame	Gazipur
Groundnut (*Arachis hypogaea* L.)			
727	Collection of groundnut germplasm	• To enrich and widen the genetic base of the gene pool of groundnut	All over Bangladesh
728	Maintenance and evaluation of groundnut germplasm	• To find out the desired potential genotypes and maintain the accessions of the collected germplasm.	Gazipur
729	Hybridization in groundnut	• To incorporate earliness and cluster bearing character from Golachipa, ICGV-36-1 and ICGV-07219 to modern	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		varieties.	
730	Evaluation of segregating generations of groundnut	• To advance the generation from F2, F3, F4, F5 and F6 for evaluating and selecting the progenies having desirable combinations of traits	Gazipur
731	Observation trial of groundnut (Set-I)	• To find high yield potential groundnut genotypes.	Gazipur
732	Observation trial of groundnut (Set-II)	• To find bold seeded, short duration and high yield potential groundnut genotypes.	Gazipur
733	Observation trial of groundnut (Set-III)	• To find high yield potential groundnut genotypes.	Jamalpur
734	Observation trial of groundnut (Set-IV)	• To find high yield potential groundnut genotypes.	Jamalpur
735	Preliminary yield trial of groundnut (Set-I)	• To find out high yield potential lines suitable for that char area under the prevailing climatic condition.	Jamalpur
736	Preliminary yield trial of groundnut (Set-II)	• To find out high yield potential lines suitable for that char area under the prevailing climatic condition.	Jamalpur
737	Regional yield trial of groundnut (Set-I)	• To identify high yielding lines of ground with early maturity which would be suitable to cultivate at the river bed areas in our country.	Gazipur
738	Regional yield trial of groundnut (Set-II)	• To identify high yielding lines of ground with early maturity which would be suitable to cultivate at the river bed areas in our country.	Gazipur
739	Regional yield trial of groundnut (Set-III)	• To identify high yielding lines of ground with early maturity which would be suitable to cultivate at the river bed areas in our country.	Jamalpur
740	Maintenance of released varieties of groundnut	• To maintain the genetic purity of that variety	Gazipur
741	Adaptive trial of groundnut (Set-I)	• To select high yielding more resistant lines to get new varieties for higher nut yield and economic return.	Noakhali
742	Adaptive trial of groundnut (Set-II)	• To find out high yield potential lines suitable for that char area under the prevailing climatic condition.	Jamalpur
Soybean (*Glycine max* L.)			
743	Maintenance and evaluation of soybean germplasm	• To find out the desired potential entries and maintain the accessions of the collected germplasm.	Different agro-ecological zones of Bangladesh
744	Hybridization in soybean	• To create genetic variability and accumulate more favorable genes from several parents into a single hybrid	Burirhat, Rangpur

Sl.	Research Title	Objective(s)	Location(s)
745	Development of recombinant inbred lines (RIL) of soybean	• To create RILs and select of single plant or family with higher seed yield and agronomic traits.	Gazipur
746	Observation trial of soybean	• To find out the desired potential entries with high seed yields to be cultivated in the farmer's field.	Gazipur
747	Preliminary yield trial of soybean	• To find out the desired potential entries with higher seed yields to be cultivated in the farmer's field.	Gazipur
748	Regional yield trial of soybean	• To find out the desired potential entries with higher seed yield to be cultivated in the farmer's field.	Gazipur
749	Maintenance of released variety and advanced lines of soybean	• To maintain the genetic purity of released varieties and advanced lines of soybean	Gazipur
Sunflower (*Hellianthus annus* L.)			
750	Maintenance of sunflower germplasm	• To maintain the existing collection of sunflower lines in ORC, BARI.	Gazipur
751	Regional yield trial of sunflower	• To develop a suitable medium dwarf high yielding variety of sunflower.	Gazipur, Cumilla, Jessor and Ishurdi
752	Development of synthetic sunflower variety	• To develop potential synthetic sunflower variety.	Gazipur
753	Creating new genetic variability in sunflower using induced mutation: Evaluation of M6 mutant's family created by gamma radiation	• To develop mutants with desired changed agronomic traits and then to investigate productivity and stability of this mutants in comparative trial.	Gazipur
754	Creation of sunflower mutant through EMS: I) Evaluation of M4 mutants	• To create variation within the variety BARI Surjamukhi-2 and thereby to develop dwarf sunflower variety by chemical mutagenic agent EMS.	Gazipur
755	Molecular characterization of sunflower dwarf mutants: by the expression analysis of genes regulating gibberalic acid (ga) pathway	• To analyze sunflower dwarf mutants molecularly.	Gazipur
756	Molecular characterization of sunflower mutants: by the expression analysis of fad, sad and oleic gene sequences	• To analysis the FAD, SAD and Oleic gene expression in mutant sunflower and its wild type.	Gazipur
757	Screening of diverse genotypes of oilseed crops using SSR primers: assessment of genetic diversity in *Brassica rapa*	• To identifying genetically diverse genotypes this study has been taken to estimate the genetic diversity of variety and germplasm using ssrs markers.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	genotypes using SSR markers		
758	Nucleus seed production of BARI Surjamukhi-3 and seed increase of dwarf advance lines of sunflower	• To be increased for developing dwarf high yielding sunflower variety to meet the farmers need.	Gazipur
759	Evaluation of different sunflower varieties under saline soil	• To compare the performance of BARI Surjamukhi -2, BARI Surjamukhi -3 and different lines with locally popular variety Hysan-33 variety.	Borguna
Linseed			
760	Maintenance and evaluation of linseed (*Linum usitatissimum* L.) Germplasm	• To characterize collected germplasm to identify lines suited for new variety development.	Gazipur
761	Regional yield trial of linseed (*Linum usitatissimum* L.)	• To characterize collected germplasm to identify lines suited for new variety development.	Gazipur
762	Adaptive trial of linseed	• To find out high yielding salt tolerant lines for southern coastal area.	Borguna, Kuakata, Barishal, Khulna, Nokhali
Niger			
763	Maintenance and evaluation of niger (*Guizotia abyssinica*) germplasm	• To characterize collected germplasm to identify lines suited for new variety development.	Gazipur
764	Observation trial of niger (*Guizotia abyssinica*)	• To find out better genotypes for next season preliminary yield trial.	Gazipur
Safflower			
765	Observation trial of safflower (*Carthamus tinctorius*)	• To find out the desired potential entries with high seed yields to be cultivated in the farmer's field.	Gazipur
PROJECT II: CROP AND SOIL MANAGEMENT			
766	Intercropping bunching onion with groundnut	• To find out the optimum row arrangement of bunching onion for intercropping with groundnut for higher productivity and return.	Gazipur
767	Development of mustard-T. Aus- T. Aman cropping pattern for increasing cropping intensity and productivity at Tangail	• To improve the existing cropping patterns, and thereby increasing cropping intensity and economic return.	Tangail
768	Developed alternate cropping pattern mustard-Boro-T. Aus against existing cropping pattern Boro-Fallow-T. Aus at	• To popularize and evaluate the new cropping pattern among the farmers.	Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
	Jamalpur		
769	Development of cropping pattern for increasing cropping intensity and productivity	• To find out the suitability of four crop-based cropping pattern to increase cropping intensity and productivity through crop intensification in rice-based cropping system and to improve farmer's income, access to food and nutrition, employment opportunity and livelihood improvement.	Gazipur
770	Development of mustard - sesame - T. Aman cropping pattern for increasing cropping intensity and productivity	• To find out the suitability of oilseed based three crops cropping pattern.	Gazipur
771	Effect of relaying maize with mustard	• To identify the suitable relaying time of maize into the mustard field.	Gazipur
772	Performances of mustard based different cropping patterns in Barishal region	• To examine the performances of mustard based different cropping patterns in Barishal region.	Barishal
773	Performance of intercropping garlic, onion, fenugreek, black cumin with groundnut in char land area (Jamalpur)	• To the suitable combination of groundnut for higher productivity and profitability of charland area stakeholders.	Jamalpur
774	Performance of intercropping garlic, onion, fenugreek, black cumin with groundnut in charland areas (Tangail)	• To find out the suitable intercrop combination of groundnut for higher productivity and profitability of charland areas stakeholders.	Tangail
775	Performance of mustard varieties at haor areas in Kishoreganj	• To assess the performance and to introduce new varieties in different haor area to meet up the oil scarcity as well as increase productivity.	Kishoreganj
776	Performance of sunflower variety at haor areas in Kishoreganj	• To introduce as a new variety in the haor area to meet up the oilseed scarcity.	Kishoreganj
777	Performance of soybean varieties in southern region of Bangladesh	• To find out the suitable soybean variety(s) for the coastal area.	Noakhali
778	Performance of sunflower varieties in southern region in Bangladesh (Borguna)	• To compare the performance of BARI Surjamukhi-2, BARI Surjamukhi-3 with locally popular variety Hysun-33 variety.	Borguna
779	Performance of sunflower varieties in southern region of Bangladesh (Barisal)	• To compare the performance of BARI Surjamukhi -2, BARI Surjamukhi -3 with locally popular variety Hysun-33 variety.	Barishal
780	Performance of sesame varieties at charland areas in	• To find out the performance of the modern varieties in farmer's field	Faridpur

Sl.	Research Title	Objective(s)	Location(s)
	Bangladesh (Faridpur)	condition.	
781	Performance of groundnut varieties at charland in Faridpur	• To find out a suitable groundnut variety for char land and to popularize the varieties) among the char farmers.	Faridpur
782	Validation of intercropping of fenugreek with groundnut at Sangu River bank of Bandarban hill district	• To evaluate the performance of intercropping fenugreek with groundnut in this area.	Bandarban
783	Effects of different tillage conditions on the growth and yield of soybean varieties in southern region of Bangladesh	• To evaluate the performances of soybean varieties under different tillage conditions.	Barishal
784	Effect of different sowing methods and times on the yield of mustard in south-western saline areas	• To find out optimum sowing time for the selected mustard cultivars in saline areas • To observe the effect of different sowing methods on mustard yield in saline areas • To know the performance of mechanized mustard production	Binerpota, Satkhira
785	Performance of mustard in high Barind tract (Barind, Rajshahi)	• To select suitable genotype of mustard for Barind areas.	Barind, Rajshahi
786	Performance of mustard varieties in Barind tract areas (Joypurhat)	• To screen out high yield potential mustard varieties capable of giving yield with minimum exploitation of water in level Barind areas of Joypurhat.	Joypurhat
787	Effect of seed priming on yield and seed quality of groundnut	• To find out importance of seed priming's and suitable priming agent for better crop establishment in groundnut.	Gazipur
788	Effect of planting time on yield and seed quality of perilla	• To find out the optimum planting time of perilla for getting maximum yield.	Gazipur
789	Effect of spacing on growth and yield of Bari soybean-7	• To know the optimum spacing of BARI soybean-7.	Gazipur
790	Effect of different transplanting time on yield and seed quality of sunflower variety	• To maintain the optimum sowing time of sunflower by scheduling different transplanting dates for getting maximum yield.	Gazipur
791	Growth and maturity pattern of different mustard species	• To select the varieties with high yield potential and wider adaptability this experiment was designed for different species of rapeseed mustard in Bangladesh.	Gazipur
792	Study on branching behavior of sunflower variety	• To observe the branching behavior of sunflower under different conditions for getting maximum yield.	Gazipur
793	Effect of two different plant growth regulators on	• To know the effect of plant growth regulators on seed yield and oil content	Cumilla

Sl.	Research Title	Objective(s)	Location(s)
	production traits of sunflower	of sunflower.	
794	Field performance evaluation of Bari seeder for oil seed crop	• To study the field performances of BARI seeder in farmer's field • To find out the farmers reaction on the seeder	Jamalpur, Rajshahi and Jashore
795	Effect of irrigation on growth and yield of canola type mustard variety	• To study the effect of different irrigation regimes at different growth stages on the growth and yield of canola type mustard variety.	Gazipur
PROJECT III: INSECT PEST MANAGEMENT			
796	Effect of insecticides on foraging behavior of honeybee (*Apis mellifera* L.) On mustard (*Brassica rapa*)	• To know to the adverse effect of insecticides on honeybee • To determine the safe time for beekeeper to set their hive.	Gazipur
797	Insect pollinators and their role to yield of sunflower (*Helianthus annuus* L.)	• To identify the proper pollinating option for improving yield of sunflower	Gazipur
798	Development of IPM package against the major insect pests of sesame	• To develop management package(s) against major insect pests of sesame.	Gazipur
799	Relative susceptibility of groundnut cultivars against sucking insect pests, hairy caterpillar and leaf roller	• Designed to check the relative resistance of those BARI released groundnut varieties.	Gazipur
800	Survey on the insect pests of sunflower and documentation of their natural enemies	• To appropriate management package, documenting pest status and population fluctuation of insect pests of the sunflower.	Gazipur
801	Development of a management approach against flea beetle (*Phyllotreta striolata*) attacking mustard	• To record the incidence of flea beetle in mustard • To estimate damage severity of the pests in mustard varieties.	Gazipur
802	Relative susceptibility of soybean varieties to sucking pest, hairy caterpillar and leaf roller	• To evaluate the performance of some soybean varieties/entries against sucking pests, leaf roller and hairy caterpillar.	Gazipur
803	Screening of rapeseed and mustard genotypes against aphid (*Lipaphis erysimi*, Kalt.) Under natural field condition	• To evaluate the performance of some mustard varieties/ entries against aphids.	Gazipur
SPICES RESEARCH CENTRE			
PROJECT-I: VARIETAL DEVELOPMENT			
SUB-PROJECT-1: VARIETAL DEVELOPMENT OF ONION			
804	Characterization and evaluation of onion	• To study the performance of winter onion lines. To select promising one for	SRC, Bogura

Sl.	Research Title	Objective(s)	Location(s)
	germplasm for winter season	releasing variety.	
805	Evaluation of onion advanced lines for winter season	• To evaluate the onion advanced lines for winter season and to select promising winter onion line(s).	SRC, Bogura
806	Collection and evaluation of summer onion germplasm (set-i)	• To search good breeding line from collected germplasm.	SRC, Bogura
807	Collection and evaluation of summer onion germplasm (set-ii)	• To find out the superior summer onion line (s) and • To develop new summer onion variety with good keeping quality.	SRC, Bogura
808	Development of diverse onion germplasm through hybridization (Advancing of generation F_2 bulbs to F_3 seeds)	• To create variability in onion and to develop superior inbred lines of onion.	SRC, Bogura
809	Searching of male sterile and maintainer lines of onion	• To search male sterile and maintainer lines of onion	SRC, Bogura
810	Development of inbred lines of onion through hybridization (Set-2: Advancing of generation F_1 seed to F_1 bulb)	• To develop superior inbred lines of onion.	SRC, Bogura
811	Advance yield trial of onion	• To evaluate onion lines. • To identify suitable genotypes for RYT.	SRC, Bogura
812	Mass selection for onion population development	• To develop high yielding and higher storability type onion population.	RSRC, Gazipur
813	Evaluation of selected polycrossed onion bulb population	• To study the variability of poly-crossed fourth generation onion populations and • To select the better genotypes in respect of bulb and seed production from the population.	RSRC, Gazipur
814	Development of s_1 bulb generation in onion	• To develop homogenous inbred source population of onion.	RSRC, Gazipur
815	Development of s_2 bulb generation in onion	• To Advance S2 seed to S2 bulb generation of onion for inbred line.	RSRC, Gazipur
816	Regional yield trial of white onion	• To study the performance of white onion lines. To select promising one for releasing a variety specially for dry powder.	SRC, Bogura, RSRC, Gajipur, RSRC, Magura, SRSC, Lalmonirhat and Faridpur
817	Regional yield trial of winter onion against thrips	• To study the regional adaptability of the selected winter onion lines. To study of winter onion line (s) against thrips infestation at different region. To select	SRC, Bogura, RSRC; Gazipur, Magura and Cumilla, SRSC;

Sl.	Research Title	Objective(s)	Location(s)
		the promising line (s) for releasing a variety (s)	Lalmonirhat and Faridpur
818	Regional yield trial of onion	• To evaluate the performances onion lines at multiple locations. To identify suitable genotypes for releasing as a variety	SRC, Bogura, Lalmonirhat, Gazipur, Faridpur, Sylhet, Cumilla and Magura
819	Regional yield trial of winter onion (*Allium cepa* l.)	• To identify the superior open pollinated onion line/s prone to be higher yield and quality.	SRSC, Faridpur and RSRC, Magura
820	Maintenance of onion germplasm	• To maintain the existing onion germplasm and • To preserve the existing variability for future breeding program.	SRC, Bogura
821	Regional yield trial of negi onion (*Allium fistulosum* L.) Genotypes	• To evaluate the performance of advance Negi onion line at different agro ecological zones.	SRSC, Faridpur; SRC, Bogura; SRSC, Lalmonirhat; RSRC, Magura and RSRC, Gazipur
SUB-PROJECT-2: VARIETAL DEVELOPMENT OF GARLIC			
822	Evaluation of garlic germplasm	• To collect and conserve garlic germplasm from different areas of Bangladesh. • To select superior germplasm for further study.	SRC, Bogura
823	Advance yield trial of garlic line	• To study the performance of different garlic lines. • To select the promising one for releasing a variety.	SRC, Bogura
824	Regional yield trial of promising garlic line	• To study the regional adaptability of the selected garlic lines	Bogra, Faridpur, Lalmonirhat, Magura, and Gazipur,
825	Regional yield trial of garlic (*Allium sativum* L.)	• To evaluate the performance of different advance garlic lines at different agro ecological zones as compared to the recommended variety. • To select the promising one for releasing as a variety.	SRSC, Faridpur, SRC, Bogura, SRSC, Lalmonirhat, RSRC, Gazipur, RSRC, Magura
SUB-PROJECT-3: VARIETAL DEVELOPMENT OF CHILLI			
826	Collection and evaluation of local germplasm of chilli in cumilla region	• To find out superior chilli lines regarding yield and quality. • To conserve the genetic resources.	RARS, Cumilla
827	Development of inbred lines	• To develop superior homozygous inbred	SRC, Bogura

Sl.	Research Title	Objective(s)	Location(s)
	of chilli (Set-1: Advancing of generation S_3 to S_4)	lines.	
828	Development of inbred lines of chilli (set-2: advancing of generation s_0 to s_1)	• To develop superior homozygous inbred lines.	SRC, Bogura
829	Evaluation of chilli genotypes	• To select superior chilli germplasm for higher yield.	SRC, Bogura
830	Evaluation of test cross hybrids of chilli	• To identify superior hybrids of chilli. • To study the heterosis of the crosses. • To study the combining ability of inbred.	SRC, Bogura
831	Advanced yield trial of chilli genotypes against thrips and mite	• To identify the promising chilli germplasm resistance to thrips and mites for releasing a variety.	SRC, Bogura
832	Advance yield trial of chilli	• To evaluate chilli lines in large plots. • To identify suitable genotypes for RYT.	SRC, Bogura
833	Advancing f_2 generation of chilli	• To grow and select individuals from segregating population.	RSRC, Gazipur
834	Regional yield trial of chilli (set-i)	• To identify superior genotype(s) of chilli over the location and to recommend for releasing as a variety.	Bogura, Lalmonirhat, Gazipur, Faridpur, Sylhet, Cumilla and Magura
835	Regional yield trial of chilli (set-ii)	• To evaluate regional adaptability of superior chilli lines	Gazipur, Lalmonirhat, Cumilla and Magura
836	Maintenance of chilli germplasm (set-i)	• To maintain and develop superior pure lines locally.	RSRC, Gazipur
837	Maintenance of chilli germplasm (set-ii)	• To enhance, increase and conserve chilli germplasm to utilize in the crop improvement of chilli.	RSRC, Gazipur
838	Evaluation of perennial chilli germplasm	• To evaluate the growth and yield performance of perennial chilli. To find out the best cultivar(s) for homestead (Ekti bari ekti khamar) and farmer's field.	RSRC, Gazipur
839	Regional yield trial of naga chili lines	• To study the for regional adaptability. To select promising naga chili line for releasing variety.	Jaintapur, Faridpur, Bogura, Gazipur, Magura and Lalmonirhat.
840	Regional yield trial of ornamental chilli	• To evaluate the performance of advanced ornamental chilli germplasm at different Agro-Ecological Zones and • To select the promising one (s) for releasing a variety.	SRC, Bogura; RSRC, Gazipur; RSRC, Magura; SRSC, Faridpur; SRSC,

Sl.	Research Title	Objective(s)	Location(s)
			Lalmonirhat and CRS, Jaintapur.
SUB-PROJECT-4: VARIETAL DEVELOPMENT OF GINGER			
841	Evaluation of ginger germplasm	• To collect and conserve ginger germplasm from different areas of Bangladesh. • To select superior germplasm for further study.	SRC, Bogura
842	Advanced yield trial of promising ginger lines	• To study the performance of different ginger lines. To select the promising one for releasing a variety.	SRC, Bogura
843	Regional yield trial of promising ginger line	• To study the performance of different ginger lines. To select the promising one for releasing a variety.	SRC, Bogura, and SRSC, Lalmonirhat
844	Secondary yield trial of exotic ginger lines	• To assess some promising exotic ginger lines in respect of yield and yield contributing characters.	RSRC, Gazipur.
845	Advance yield trial of mutant ginger	• To evaluate the yield and yield components attributes of mutant ginger line at different locations.	SRC, Bogura, SRSC, Lalmonirhat, RSRC, Gazipur.
SUB-PROJECT-5: VARIETAL DEVELOPMENT OF TURMERIC			
846	Advance yield trial of turmeric	• To evaluate promising turmeric lines. • To identify suitable genotypes for RYT.	SRC, Bogura
847	Preliminary yield trial of turmeric (*Curcuma longa L.*) Germplasms	• To assess the performance of turmeric genotypes.	SRSC, Faridpur
848	Regional yield trial of turmeric	• To study the regional adaptability of the selected turmeric lines.	Bogura, Lalmonirhat, Faridpur, Gazipur and Cumilla
849	Maintenance of turmeric germplasm	• To maintain the existing turmeric germplasm with the aim to preserve the existing variability for future breeding program	SRC, Bogura
SUB-PROJECT-6: VARIETAL DEVELOPMENT OF MINOR SPICES			
850	Evaluation of coriander germplasm	• To evaluate the germplasm collected from different sources. • To identify the best line/lines with high yield and other desirable characters.	SRC, Bogura
851	Evaluation of black cumin germplasm	• To evaluate the germplasm collected from different sources. • To identify the best germplasm with high yield and other desirable characters.	SRC, Bogura
852	Evaluation of fenugreek germplasm	• To evaluate the germplasm collected from different sources.	SRC, Bogura

Sl.	Research Title	Objective(s)	Location(s)
		• To identify the best germplasm with higher yield and other desirable characters.	
853	Evaluation of sickle fruit fenugreek germplasm	• To evaluate the germplasm collected from different sources. • To identify the best germplasm with higher yield and other desirable characters.	SRC, Bogura
854	Evaluation of cumin germplasm	• To collect the cumin germplasm from different sources. • To evaluate the best germplasm with high yield and other desirable characters adaptable to our agro-climate.	SRC, Bogura
855	Evaluation of fennel germplasm (set-i)	• To evaluate the germplasm collected from different sources. • To identify the best germplasm with high yield and other desirable characters.	SRC, Bogura
856	Evaluation of fennel (*Foeniculum vulgare*) germplasm (set-ii)	• To evaluate the performance of fennel germplasm.	Faridpur
857	Evaluation of ajowan germplasm	• To evaluate the germplasm collected from different sources. • To identify the best line/lines with high yield and other desirable characters.	SRC, Bogura
858	Evaluation of dill germplasm	• To evaluate the germplasm collected from different sources. • To identify the best line/lines with high yield and other desirable characters.	SRC, Bogura
859	Evaluation of celery germplasm	• To evaluate the performance of different celery germplasm. • To select the promising one(s).	SRC, Bogura
860	Evaluation of black pepper germplasm	• To evaluate the performance of collected black pepper germplasm for releasing a new variety which can be grown all over the Bangladesh.	SRC, Bogura
861	Evaluation of bay leaf germplasm	• To select the superior line(s) for releasing a variety.	CRS, Jaintapur
862	Characterization and evaluation of vanilla germplasm	• To characterize and evaluate the vanilla germplasm suitable for cultivation in Bangladesh.	SRC, Bogura
863	Collection, conservation, and characterization of small and large cardamom germplasm	• To evaluate the performance of collected germplasm which can be grown all over the Bangladesh.	CRS, Jaintapur
864	Physio-morphological study on Betel leaf *(piper betle* L. Cv. Khasia pan)	• To identify suitable germplasm for releasing as variety. To enrich gene pool for future research.	CRS, Jaintapur

Sl.	Research Title	Objective(s)	Location(s)
865	Prospects of BARI golmorich-1 cultivation as bush pepper	• To validate suitability of BARI Golmorich -1 as a bush pepper. • To identify suitable method of bush pepper cultivation.	CRS, Jaintapur
866	Evaluation of cinnamon germplasm	• Characterization of cinnamon genotypes collected from different region of Bangladesh. • To select suitable germplasm releases as variety.	CRS, Jaintapur
867	Preliminary yield trial of basil	• To evaluate germplasm for quality and yield. • To Select superior genotype (s).	RSRC, Gazipur
868	Regional yield trial of black cumin	• To evaluate the performance of advanced black cumin germplasm at different agro ecological zones. • To select the promising one(s) for releasing a variety.	SRC, Bogura, RSRC, Gazipur, RSRC, Magura RSRC Cumilla, SRSC, Faridpur and SRSC, Lalmonirhat.
869	Regional yield trial of fenugreek	• To evaluate the performance of advanced fenugreek germplasm at different agro-ecological zones. • To select the promising one(s) for releasing a variety.	Do
870	Regional yield trial of mint	• To study the regional adaptability of the selected mint lines on different areas and • To select promising mint line(s).	Do
PROJECT-II: STRESS BREEDING			
871	Screening of black cumin germplasm for salinity tolerance	• To evaluated the performance of onion across environments under different stress and non-stress conditions.	ARS, Benarpota, Satkhira
PROJECT-III: CULTURAL MANAGEMENT			
872	Effect of intercropping bulb set and seedling transplanting onion with brinjal for proper utilization of interspace	• To find out the combinations of brinjal and onion which can be profitable than monocropping.	SRSC Faridpur
873	Study of maturity indices on the true seed production of different winter onion varieties	• To study the proper maturity indices on the seed production of onion. • To find out the greater excellency of quality of onion seed.	SRSC, Lalmonirhat
874	Weed management practices in garlic (*Allium sativum* L.)	• To find the best weed management practice for profitable garlic production.	Faridpur
875	Effect of mulching and different weed management practices on weed control and yield of garlic	• To study the effect of weed management practices of garlic. • To assess the yield of garlic.	SRSC, Lalmonirhat
876	Effect of different polythene	• To ascertain the effect of different plastic	RSRC, BARI,

Sl.	Research Title	Objective(s)	Location(s)
	mulch on weed control efficiency and yield of chilli	(polythene) mulching on weed control efficiency and yield of Chilli.	Gazipur
877	Effect of different rhizome size for ginger seedling production under pro-tray technique	• To evaluate the performance of different rhizome size for raising ginger seedling under pro-tray technique. • To ensure sustainable ginger production under adverse climatic condition.	SRC, Bogra
878	Integrated weed management in turmeric	• To know the optimum management practices for controlling weed of Turmeric.	RSRC, Magura
879	Effect of leaf cuttings on seed yield of coriander	• To study the effect of leaf cuttings on seed yield and quality of coriander.	SRC, Bogura
880	Effect of sowing time on the yield and yield components of black cumin in Cumilla region	• To observe the yield performance of high yielding black cumin varieties in charland area of Cumilla.	RARS, Cumilla
881	Effect of sowing time on the yield and yield components of fenugreek in Cumilla region	• To find out the optimum sowing time for fenugreek in Cumilla region.	RARS, Cumilla
882	Effect of planting and irrigation method for cumin	• To determine optimum planting and irrigation method on yield and yield components of cumin.	SRC, Bogura
883	Observation trial of selected spices, fruits and vegtables for roof top gardening	• To study the performance of some selected spices, fruits and vegetable crops for rooftop gardening. Year-round supply of fresh spices, fruits and vegetables. Effective utilization of space available at the roof top. Increases the monetary value of land /apartment	SRC, Bogura
PROJECT-IV: SOIL AND WATER MANAGEMENT			
884	Nutrient management on growth and bulb yield of onion	• To identify the suitable nutrient management packages for bulb production of onion. To improve shelf life of onion and nutrient balance sheet of onion.	RSRC, Gazipur
885	Effect of different levels of nutrients on growth, yield and storage capacity of winter onion	• To assess the effect of different levels of nutrients on growth and yield. • To study the effect of different levels of nutrients on storage capacity. • To evaluate financial performance of treatments against yield.	SRC, Bogura
886	Effect of different organic fertilizers on yield and quality of onion	• To know the effect of different organic fertilizers on yield and quality of onion.	SRC, Bogura.
887	Effect of different organic fertilizers on yield and storage quality of garlic	• To determine the effect of different organic fertilizers on yield and Quality of garlic.	SRSC, Lalmonirhat

Sl.	Research Title	Objective(s)	Location(s)
	(*Allium sativum* L.)	• To assess the economic viability of different organic manures.	
888	Study on nitrogen and variety for secondary sprouting of garlic	• To find out the reason of secondary sprouting of garlic.	RSRC, Magura
889	Study on irrigation and variety for secondary sprouting of garlic	• To find out the reason of secondary sprouting/splitting of garlic.	RSRC, Magura
890	Effect of foliar application of different micronutrients on reducing tip burn of garlic	• To find out optimum dose of micronutrients for reducing tip burn of garlic.	SRC, Bogura
891	Effect of different organic fertilizers on yield and quality of ginger	• To assess the effect of different organic fertilizers on yield and quality of ginger. • To study the economic viability of different organic composts applied in this experiment.	SRC, Bogura
892	Nutrient management on growth and rhizome yield of turmeric	• To evaluate the different nutrient management packages for turmeric cultivation. • To nutrient use efficiency and nutrient balance sheet of turmeric.	RSRC, Gazipur
893	Effect of integrated nutrient management on seed yield of coriander	• To study the effect of integrated nutrient management on growth and yield of coriander. • To make a nutrient balance sheet for proper soil management.	RSRC, Gazipur
894	Growth and yield of black cumin influenced by integrated nutrient management	• To find out the suitable nutrient management level for maximum yield of black cumin	RSRC, Gazipur
895	Plant growth promoting rhizobacteria on the growth and yield of fenugreek	• To study the effect of PGPR on growth and yield of fenugreek. • To evaluate the additive or synergistic effect of co-inoculation with rhizobia and other PGPB.	RSRC, Gazipur
896	Development of fertilizer recommendation for mint	• To find out the optimum dose of fertilizers on mint. To increase the leaf yield of mint.	SRSC, Lalmonirhat
PROJECT-V: INSECT AND DISEASE MANAGEMENT			
897	First record of fall armyworm, spodoptera frugiperda (J.E. Smith) (lepidoptera: noctuidae) on ginger (*Zingiber officinale*) in Bogura, Bangladesh	• To identify fall armyworm species in ginger.	SRC, Bougra.
898	First record of fruit borer,	• To identify fruit borer species in	SRC, Bougra.

Sl.	Research Title	Objective(s)	Location(s)
	Virachola isocrates on Alu bukhara in Bangladesh	Alubokhara.	
899	Development of bio-rational based management approach against major insect and mite pests complex of chilli	• To develop a bio-rational based management approach against major insect and mite pest's complex of chilli.	SRC, Bougra.
900	Effect of different chemical in controlling pod borer complex of black cumin	• To find out the effect of different chemical in controlling pod borer complex of black cumin.	RSRC, Magura
901	Effect of fungicides on quality seed production by reducing purple blotch and stemphylium blight of onion	• To find out the effective fungicidal package for quality onion seed production. • To increase quality onion seed production.	SRSC, Lalmonirhat
902	Control of foot and root rot disease of chilli	• To find out the suitable management practice in controlling wilt/foot and root rot disease of Chilli.	SRC, Bogura
903	Management of leaf spot disease of ginger	• To find out the effective fungicides in controlling leaf spot disease of ginger.	SRC, Bogura
904	Management of foot and root rot disease of black cumin	• To find out the suitable control measures in controlling foot and root rot disease of Black cumin.	SRC, Bogura
905	Effect of fungicides, bio-agent in controlling alternaria disease of black cumin	• To find out the effectiveness of different fungicides and bio-agent in controlling Alternaria blight of black cumin.	RSRC, Magura
906	Management of rust disease of fenugreek	• To find out the effective fungicides in controlling rust disease of Fenugreek.	SRC, Bogura
PROJECT-VI: INFORMATION AND COMMUNICATION TECHNOLOGY			
907	Assessment of onion production trend in onion growing area of Bangladesh through remote sensing technique	• To estimate the onion acreage in the study area. • To estimate the onion production trends in the study area. • To validate the accuracy of remote sensing derived results with the field.	Rajshahi and Pabna
908	Assessment of in-season machinery determination in garlic cultivation using geo-spatial technique	• To identify and estimate the garlic cultivated area • To estimate in-season machinery requirement in garlic cultivation. • To validate the accuracy of remote sensing derived results with the field	Baraigarm upazila in Natore and Khanshama upazila in Dinajpur.
909	Land Suitability Assessment for spices crop Production through Remote Sensing and GIS in southern saline region of Bangladesh	• To assess potential land areas for spices crop production. • To create salinity-based land zoning map for southern areas of Bangladesh • To compare satellite-based data with	Kolapara upazila of Patuakhali and Dacope upazila of Khulna district

Sl.	Research Title	Objective(s)	Location(s)
		field data	
PROJECT-VII: AGRICULTURAL ENGINEERING TECHNOLOGY			
910	Field performance evaluation of BARI power tiller operated multi-crop seeder in spices crop production	• To test the field performance of the seeder with differentspices crop seeds. • To evaluate technical and financial performance of the seeder	SRC, Bogura
PROJECT-VIII: POST-HARVEST TECHNOLOGY			
911	Effect of curing method on the storability and quality of onion bulbs (*Allium cepa* L.)	• To find out suitable curing method for better storability of onion bulbs.	SRSC, Faridpur
912	Effect of stacking height on the storability and quality of onion bulbs (*Allium cepa* L.)	• To find out optimum stacking height of onions for better storability of onion bulbs.	SRSC, Faridpur
913	Effect of different preservative, packaging material and temperature on onion paste	• To prepare onion paste from fresh onion. • To study the effects of different types of preservatives (in different concentration and combination of potassium metabisulphite and sodium benzoate) on the keeping quality of the pastes; • To study the effects of packaging materials (Foil pack, glass container and plastic bottle) on the keeping quality of the above spices. • To study the effects of storage conditions (ambient and refrigerated temperature) on the keeping quality of onion paste.	SRC, Bogura
914	Nutritional and microbiological study of SRC developed spices powder	• To analyse chemical and proximate composition of different spices powder developed by SRC, BARI. To assess the microbiological study.	SRC, Bogura
915	Suitability study of SRC developed plum in fried rice	• Find out the processing technique of plum for fried rice. • To assess the acceptability of the processed products.	SRC, Bogura
PROJECT-IX: SOCIO-ECONOMIC STUDY			
916	Baseline survey for generating information on spices production in different areas of Bangladesh	• To generate information on spices production and consumption of Bangladesh.	One or two upazila of 40 districts of Bangladesh
PROJECT-X: TECHNOLOGY VALIDATION AND TRANSFER			
917	Performance of different fenugreek varieties in charland area of Cumilla	• To observe the yield performance of high yielding fenugreek varieties in charland area of Cumilla.	Roghunathpur, Meghna, Cumilla

Sl.	Research Title	Objective(s)	Location(s)
PLANT GENETIC RESOURCE CENTRE			
918	Exploration and collection of PGR diversity during 2022-23	• To enhance diversity of collection and minimize genetic erosion.	Different agro-ecological zone of Bangladesh (28 upazilas of 11 districts)
919	Characterization of Pumpkin Germplasm	• To study the genetic diversity. • To identify the salient features of collected germplasm	PGRC, Gazipur
920	Characterization of Amaranth Germplasm	• To explore the genetic diversity. • To identify diserable traits and germplasm	PGRC, Gazipur
921	Characterization of Brinjal Germplasm	• To study the genetic diversity of brinjal germplasm collection. • To identify the desired germplasm for future use in plant breeding	PGRC, Gazipur
922	Characterization of Coriander Germplasm	• To study the genetic diversity in coriander germplasm. • To identify salient features of studied germplasm.	PGRC, Gazipur
923	Characterization of Hyacinth bean Germplasm	• To explore the genetic diversity of newly collected hyacinth bean germplasm. • To identify desirable qualitative and quantitative characters of studied germplasm	PGRC, Gazipur
924	Characterization of Indian spinach Germplasm	• To explore the genetic diversity of Indian spinach germplasm. • To identify salient features of qualitative and quantitative characters among the germplasm	PGRC, Gazipur
925	Characterization of Muskmelon Germplasm	• To study the genetic diversity in muskmelon germplasm. • To identify the salient features of germplasm	PGRC, Gazipur
926	Characterization of Snake gourd Germplasm	• Assessment of genetic diversity in collected snake gourd germplasm. Identification of salient morphological features of the germplasm studied for crop improvement program	PGRC, Gazipur
927	Characterization of Ash gourd germplasm	• To study the genetic diversity in ash gourd germplasm. • To find out suitable trait or germplasm for future use in breeding program	PGRC, Gazipur
928	DNA fingerprinting of sona mugh germplasm in Bangladesh	• To estimate genetic diversity and relationship among germplasm studied. • To develop a DNA fingerprint by using a set of microsatellite markers for distinct sona mugh germplasm.	Molecular Biology Laboratory, PGRC, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
929	DNA Fingerprinting of Popular Rapeseed-mustard Varieties in Bangladesh	• To estimate genetic diversity and relationship among popular varieties of rapeseed and mustard. • To develop a DNA fingerprint by using a set microsatellite marker for distinct rapeseed and mustard germplasm.	Molecular Biology Laboratory, PGRC, Gazipur
930	Conservation of Germplasm in Active and Base Collection	• To preserve the collected for long time for future use. • To retain viability of the germplasm for long time	PGRC, Gazipur
931	Monitoring of Germplasm in Active and Base Collection	• To check the viability of conserved germplasm. • To check the germination of seeds of germplasm/accession stored in the gene bank for future use	PGRC, Gazipur
932	Distribution of Germplasm	• To ensure the utilization of PGR	PGRC, Gazipur
933	Regeneration of Conserved Accessions of Different Crops	• To increase the viability and increase the number of seeds of the conserved accessions for future utilization and conservation.	PGRC, Gazipur; RARS, Jamalpur & RARS, BARI, Ishurdi; RARS, Rangpur & HARS, Khagrachari; RARS, Jashore
934	Maintenance and Development of Field Gene Bank	• To maintain germplasm at the field gene bank.	PGRC, Gazipur
935	Database Development and Data Entry for Germplasm Documentation	• To store the passport, conservation and characterization information in computer • To share the information of germplasm available to the user involved in crop improvement. To develop a data base	PGRC, Gazipur
PLANT BREEDING DIVISION			
936	Characterization of oat germplasm	• To characterize, maintain and enrich genetic resources of oat germplasm	Gazipur
937	Hybridization of barley for high nutrition and fiber	• To incorporate high nutrients and fiber containing gene in high yielding hull-less barley.	Gazipur
938	Growing of F_1generation of barley	• Advancing of generation to select desirable segregates	Gazipur
939	Growing of F_2 generation of barley (2 Sets)	• To advance the generation • To select individual plant on the basis of desirable characters.	Gazipur
940	Growing of F_3 generation of barley	• To advance the generation • To select individual plant on the basis of desirable characters	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
941	Growing of F_4 generation of barley	• To advance the generation • To select individual plant on the basis of desirable characters	Gazipur
942	Growing of F_5 generation of barley	• To advance the generation • To select desirable family on the basis of desirable characters	Gazipur
943	Growing of F_6 generation of barley	• To select desirable lines	Gazipur
944	Advancing of F_2, F_3 and F_4 generation of barley under saline condition	• To selected salt tolerant plants of F_3, F_4 and F_5 generation	Gazipur, Benarpota, Satkhira and Koira, Khulna
945	Observation trial of promising barley lines	• To test the performance of the selected genotypes and • To identify short duration, dwarf and high yielding barley lines.	Gazipur
946	Preliminary yield trial of hull-less barley	• To select better performing high yielding hull-less barley lines	Gazipur
947	Advanced yield trial of hull-less barley	• To assess the performance of some hull-less barley lines and verify the influence of different environments at different locations of Bangladesh. • To select better performing hull-less barley line(s)	Rangpur, Jashore and Akberpur
948	Regional yield trial of hull-less barley	• To assess the stability of some hull-less barley lines and verify the influence of different environments at different locations of Bangladesh • To select better performing hull-less barley line(s)	Gazipur, Rangpur (Burirhut), Jashore, Jamalpur and Panchagarh (BSPC, Debigonj)
949	International barley yield trial for arid and semi-arid regions (IBYT-ASA-23)	• To test the performance of exotic barley lines in Bangladesh condition.	BARI, Gazipur
950	International barley observation nursery (IBON-23)	• To test the performance of exotic barley lines in Bangladesh condition.	BARI, Gazipur
951	Screening of barley entries/lines against spot blotch disease caused by *Bipolaris sorokiniana* through artificial inoculation	• To search resistant sources of barley against spot blotch disease	RARS, BARI, Burirhat, Rangpur
952	Induced mutagenesis in foxtail millet to develop variability	• To create variability in the existing germplasm	BARI, Gazipur
953	Growing of M_1 generation of foxtail millet for	• To evaluate M_1 generation and • To select desired variable traits	BARI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	identification and selection of mutants for desirable traits		
954	Regional yield trial of foxtail millet	• To test the regional adaptability for early maturity and high yielding foxtail millet lines	Gazipur, Debigonj, Burirhat, Jashore and Jamalpur
955	Observation trial of selected proso millet germplasm	• To select high yielding and logging tolerant proso millet lines	BARI, Gazipur
956	Preliminary yield trial of proso millet lines	• To test the performance of the selected proso millet lines over different regions • To develop high yielding and short statured proso millet variety	Gazipur, Rangpur and Jashore
957	Advanced yield trial of proso millet	• To develop high yielding and logging tolerant proso millet variety	Gazipur, Jamalpur, Burirhat and Jashore
958	Advanced yield trial of finger millet	• To develop short stature and early maturing finger millet variety	Gazipur, OFRD Rangpur and Jashore
959	Development of base population in sorghum	• To develop source population for the production of short and medium height genotypes	Gazipur
960	Evaluation of sorghum genotypes for waterlogging tolerance	• To evaluate waterlogging tolerance and yield performances of selected sorghum genotypes	Gazipur
961	Screening of M_2 generation of oat for yield and quality traits	• To evaluate M_2 generation and • To select desirable variable mutants	Gazipur
962	Evaluation of Oat germplasm for early and high yield	• To evaluate the performance of the collected germplasm for early and high yield	Gazipur
963	Evaluation of Chia germplasm	• To evaluate performance of the newly selected lines	Gazipur
964	Multilocation trial of Chia lines	• To assess the performance of selected lines	Gazipur, Jashore and Burirhat
965	Selection and identification of mutants for desirable traits in M_2 generation of buckwheat	• To evaluate M_1 generation and • To select desirable variable mutants' traits	Gazipur
966	Advanced yield trial of Quinoa	• To assess the stability and adaptability quinoa lines at different locations of Bangladesh • To select better performing quinoa line(s)	Gazipur, Jashore, Moulvibazar (Akbarpur), and Burirhat
967	Genetic diversity analysis of	• Assessing the genetic diversity in	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	sorghum (*Sorghum bicolor* L.) genotypes for drought tolerant using SSR markers	sorghum genotypes for drought tolerance at molecular level using stay-green specific SSR markers	
968	Screening of sorghum genotypes (*Sorghum bicolor* var. *moench*) for drought tolerance at seedling stage using polyethylene glycol	• To determine the suitability of various seedling traits for selection of tolerant or susceptible genotypes of drought stress	Gazipur
969	In silico genomic characterization of the aquaporin gene (AQP) family in sorghum bicolor (L.) using bioinformatics tools	• To characterize sorghum AQP genes using a genome-wide scale, including factors such as their relationship with other species, chromosome distribution and sequence analysis	Gazipur
970	Modulation of drought induced oxidative stress tolerance mechanism of finger millet by Trehalose and Methyl Jasmonate	• To insight the drought tolerance mechanism of finger millet	Gazipur
971	Nutritional analysis of BARI released varieties of high value cereals	• Analysis of nutrient contents in barley, millets, sorghum, oat, buckwheat and quinoa grains	BARI, Gazipur and BIRTAN, Araihazar, Narayanganj
972	Characterization of pumpkin (*Cucurbita pepo* L.) genotypes based on DNA marker and β-carotene content	• To analyses the genetic variability and phylogenetic relationships among pumpkin genotypes of *C. pepo* using DNA markers and β-carotene content	Gazipur
973	Identification of bean common mosaic virus (BCMV) resistance genes in country bean through DNA marker and determination of BCMV strain in Bangladesh	• To identify BCMV resistance genes in common bean through the DNA markers (at Plant Breeding Division). • To determine strains found in Bangladesh (at Plant pathology Division)	Gazipur
974	Breeder seed production of barley	• To maintain and increase seed of the released variety. • To supply seeds producing agency likeBADC, DAE or NGOs and farmers.	Gazipur, Ishurdi, Debigonj, RajRahmatpur, Khulnaand Burirhat
975	Breeder seed production of foxtail millet, proso millet, sorghum, oat and chia varieties	• To maintain and seed increase of the released variety to supply to BADC, DAE or NGOs and farmers.	Gazipur, Burirhat, Debigonj, Rahmatpur, Jessor, Akberpur, Rajbariand Jamalpur
976	Maintenance and seed	• To maintain and seed increase of	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	increase of barley lines	advanced lines	
977	Maintenance and seed increase of foxtail millet germplasm	• To maintain and seed increase of foxtail millet germplasm	Gazipur
978	Maintenance of proso millet germplasm	• To maintain of prosomillet germplasm for future breeding program	Gazipur
979	Maintenance of pearl millet germplasm	• To maintain pearl millet germplasm for future breeding program.	Gazipur
980	Maintenance and seed increase of BARI released oat variety and germplasm	• To maintain and seed increase of released variety and collected germplasm	Gazipur
981	Maintenance of chia germplasm	• To maintain the genetic resources of Chia germplasm	Gazipur
982	Maintenance and seed increase of buckwheat lines	• To increase seed of buckwheat lines	Gazipur
983	Seed increaseof quinoa germplasm	• To maintain the genetic resources of quinoa germplasm	Gazipur
984	Adaptive trials with BARI barley varieties and lines in Southern belt and Barind areas	• To observe the performance of BARI barley varieties in dry and saline areas • To disseminate and popularize BARI barley varieties to the farmers.	Saline areas Satkhira (2 sites), Khulna (2 sites) and Barind tract (2 sites)
985	Adaptive trials with BARI barley,oat,finger millet andchia varieties in Char areas	• To observe the performance of BARI barley varieties in dry and char areas • To popularize and disseminate BARI barley varieties to the farmers of dry areas.	OFRD Bogura (2sites: 1 site chia and 1 site finger millet), OFRD Tangail (2 sites barley), Rangpur (2 sites barley), Faridpur (1site oat), OFRD Manikgong (1site chia) and OFRD Gaibandha (4sites: Barley 2 sites and Oat 2 sites).
986	Field days on the performance of BARI released barley and millet varieties	• To popularize BARI Barley and Foxtail millet varieties among the farmers and private agencies.	Khulna (barley) andGaibandha (Cheena, kaon and oat)
AGRONOMY DIVISION			
Crop Management			
987	Growth and yield of barley as influenced by spacing and seed rate	• To find out the optimum spacing and seed rate for maximizing yield of barley.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
988	Effect of sowing date on growth and yield of Oat (*Avena sativa*)	• To evaluate the crop growth pattern and yield under different temperature resulted from different sowing time.	Gazipur
989	Growth and yield of chia (*Salvia hispanica*) as influenced by sowing time and row spacing at different AEZS	• To determine the most promising sowing date and row spacing in terms of growth and yield of chia in the different study areas.	Gazipur, Jashore, Jamalpur, Burirhat, Hathazari, Dinajpur and Rajshahi
990	Growth and yield of chia (*Salvia hispanica* L.) Under different nutrient management	• To find out the effect of nutrient level on yield of chia.	Gazipur and Jashore
991	Determination of seed rate and row spacing for potential yield of chia	• To select optimum seed rate and row spacing for higher yield of chia crop.	Gazipur
992	Effect of irrigation on growth and yield of chia	• To find out the optimum water requirement of chia for higher yield.	Gazipur
993	Effect of fertilizer dose and variety on the yield and yield attributes of sunflower in Rangpur region	• To find out the optimum fertilizer dose for sunflower varieties for Rangpur region.	Burirhat, Rangpur
994	Effect of folic acid as seed treating chemical on growth and yield of sunflower	• To find out the effect of seed treatment with folic acid on growth and yield of sunflower.	Gazipur
995	Nutrient management in sunflower for Rangpur region	• To evaluate the response of sunflower to different nutrient management on growth, yield.	Burirhat, Rangpur
996	Effects of spacing and fertilizer dose on transplanted sunflower under zero tillage condition in Barishal region	• To find out the optimum spacing and fertilizer dose for getting higher yield of transplanted sunflower under zero tillage condition in Barishal region	Rahmatpur, Barishal
997	Improvement of lentil productivity through increasing potassium (k) fertilizer	• To know the effect of K on productivity and quality of lentil under late and optimum sown condition.	Ishurdi, Pabna
998	Performance of BARI released blackgram varieties in acidic soil of semi hill valley at Moulvibazar under rainfed condition	• To know the yield performance of blackgram variety in semi-hilly areas of Moulvibazar.	Akbarpur, Moulvibazar
999	Influence of foliar application of boron and humic acid on yield of blackgram at acid soil of	• To find out suitable foliar application dose of boron and humic acid on improvement of yield in black gram.	Akbarpur, Moulvibazar

Sl.	Research Title	Objective(s)	Location(s)
	Moulvibazar		
1000	Effect of plant spacing on the yield of mukhikachu at Moulvibazar	• To know the proper spacing for production of maximum yield of Mukhikachu.	Akbarpur, Moulvibazar
1001	Effect of planting time on yield of onion varieties at Dinajpur	• To find out the appropriate seedling transplanting time and variety to get maximum yield with an optimum quality of onion.	Rajbari, Dinajpur
1002	Yield performance and storage quality of onion under integrated nutrient management at AEZ-9	• To observe the yield performance and storage quality of onion under integrated nutrient management at AEZ-9 for higher yield and economic return.	Jamalpur
1003	Effect of management practice for year-round production of coriander as condiment in relation to weather condition	• To determine the best management method for growing coriander as a year-round leafy vegetable in order to maximize yield regardless of weather conditions.	Jamalpur
1004	Effect of priming with gibberellic acid on growth and yield of black cumin	• To determine appropriate concentration of GA_3 and time of sinking for treating black cumin to promote rapid seed germination.	Jamalpur
1005	Growth and yield of black cumin influenced by integrated nutrient management	• To growth and yield performance of black cumin under integrated nutrient management at AEZ-9 for higher yield and economic return.	Jamalpur
1006	Performance of bitter gourd varieties at Dinajpur region	• To find out suitable variety of bitter gourd for Dinajpur region.	Rajbari, Dinajpur
1007	Effects of apical stem cutting on yield of sweet gourd at Rangpur region	• To develop the suitable vine pruning stages for maximizing vine and fruit production of sweet gourd.	Burirhat, Rangpur
1008	Effect of vermicompost and rice husk ash on the yield of summer tomato	• To ascertain the effect of vermicompost and ash on yield components and yield of summer tomato.	Rajbari, Dinajpur
1009	Effect of planting date and nutrient management on yield of broccoli	• To find out the response of broccoli to different levels of nutrient management in early planting condition at Dinajpur region.	Rajbari, Dinajpur
1010	Off-season sweet gourd production under different field management	• To increase sweet gourd yield during the off-season.	Jamalpur
1011	Effect of soil amendments on tomato growth yield and soil characteristic in acid soil at Moulvibazar	• To ascertain the benefits of using soil amendments in tomato growth, yield and soil properties are the concern of this study.	Akbarpur, Moulvibazar
Weed Management			
1012	Efficacy of different herbicide for controlling weeds in mustard field	• To find out the optimum dose and weed control efficiency of different herbicide for controlling weed in mustard field.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1013	Effect of integrated weed management on sunflower	• To find out the suitable and appropriate weed control method in sunflower.	Ishurdi, Pabna
1014	Effect of integrated weed management on sunflower in Barishal	• To find out the suitable methods and cost-effective management options for sunflower weed control in the southern region of Bangladesh.	Rahmatpur, Barishal
1015	Determination of crop weed competition of lentil	• To know the critical period for weed control (CPWC) of BARI Masur-9 (lentil) which will help to manage the weed effectively.	Jashore
1016	Weed management of mukhikachu (*Colocasia esculenta*)	• To find out the effective weed management technique for *C. esculenta*.	Jashore
1017	Weed and nutrient management practice on yield of sweet gourd	• To find out the suitable fertilizer dose and weed management practice on sweet gourd for getting higher fruit yield and economic returns.	Gazipur
1018	Efficacy of different herbicides for controlling weeds in onion field	• To find out the efficacy of different herbicides for controlling weed in onion field and their weed control efficiency for getting maximum yield	Gazipur
1019	Effect of herbicide 'Stella 24 EC (Oxyflurofen 24%)' on weed control in tomato	• To find the optimum dose, spraying time and weed control efficiency of herbicide "Stella 24 EC (Oxyflurofen 24%)" for controlling weed in tomato	Gazipur
1020	Effect of different herbicides for controlling weeds in potato field	• To find out the efficacy of different herbicides for controlling weeds in potato field.	Gazipur and Rajbari, Dinajpur
1021	Crop-weed association in oilseed and spice crops in Gangachara Upazilla of Rangpur district	• To identify different weed species prevailing and plan effectively to reduce weed infestation in oilseed and spice crops for the future.	Gangachara, Rangpur
1022	Effect of weed control methods on groundnut at Charland	• To find out the suitable weeding methods for controlling weeds in groundnut.	Jamalpur
1023	Effect of integrated weed management on sorghum cultivation	• To find out the suitable weed control method for sorghum.	Gazipur
Multiple Cropping			
1024	Maize-legume strip cropping for resource conservation	• To evaluate the effect of strip cropping for maintain sustainable productivity and conserve soil health and soil moisture.	Gazipur
1025	Barley-legume strip cropping for higher productivity and soil health	• To evaluate the effect of strip cropping for maintain sustainable productivity and conserve soil health, and soil moisture.	Gazipur
1026	Long term effect of four crop-based cropping pattern on soil health and crop	• To compare different intensive cropping patterns in terms of productivity and to find out the effect of those patterns on	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	productivity	soil nutrients.	
1027	Performance of intercropping bushbean with sorghum	• To find out suitable planting systems of sorghum and bush bean (short duration crop) intercropping for higher productivity and economic return.	Gazipur
1028	Sorghum- legume strip cropping for resource conservation	• To evaluate the effect of strip cropping on maintain sustainable productivity and conserve soil health.	Gazipur
1029	Sunflower- legume strip cropping for resource conservation	• To evaluate the effect of strip cropping on maintain sustainable productivity.	Gazipur
1030	Performance of cowpea intercropping with maize at Chottogram region	• To evaluate the performance of maize-cowpea intercrop as influence by planting arrangement for higher productivity.	Hathazari, Chottogram
1031	Intercropping cowpea with sorghum under different planting system	• To find out suitable planting systems of sorghum and cowpea as intercropping for higher productivity, economic return and national nutritional food security.	Hathazari, Chottogram
1032	Productivity of chilli-onion intercropping system as influenced by fertilizer	• To find out economic fertilizer dose for chilli-onion intercropping system for getting maximum economic return.	Cumilla
1033	Yield of leafy vegetables intercrop with chilli	• To find out optimum chilli leafy vegetables combination for higher productivity and economic return and study the effect of intercropping on component crops.	Hathazari, Chottogram
1034	Intercropping of vegetables and spices with chilli in Chottogram region	• To find out optimum vegetables and spices combination for higher productivity and economic return.	Hathazari, Chottogram
1035	Performance of relay snake gourd in brinjal +onion intercropping at medium high land under aez-9 without trellis	• To observe the performance of onion and snake gourd as intercropping and relay cropping with brinjal at medium high land under AEZ-9 for higher yield and economic return.	Jamalpur
1036	Performance of intercropping coriander with sunflower	• To find out the suitable intercrop combination of coriander with sunflower for increasing cropping intensity and productivity.	Cumilla
1037	Effects of management practices on growth and yield of pineapple under coconut orchard in Barishal region	• To develop suitable management package for increasing the yield and quality of pineapple in Barisal region.	Rahmatpur, Barishal
1038	Performances of different pulse crops under mango orchard in southern region of Bangladesh	• To select the appropriate pulse crop(s) for growing under mango orchard	Rahmatpur, Barishal

Sl.	Research Title	Objective(s)	Location(s)
1039	Integrated nutrient management on garlic-maize -T. aman rice cropping pattern in Rangpur region	• To find out best fertilizer dose and economic return by using organic manure in Garlic- Maize – T. Aman cropping pattern.	Burirhat, Rangpur
1040	Integrated nutrient management on garlic-T.aus rice -T. aman rice cropping pattern in Rangpur region	• To find out the best fertilizer dose and economic return by using organic manure in Garlic- T.aus – T. aman Rice cropping pattern.	Burirhat, Rangpur
1041	Integrated nutrient management on onion seed production- T.aus -T. aman rice cropping pattern in Rangpur region	• To find out the best fertilizer dose and economic return for Onion-T. Aus-T. Aman cropping pattern of Rangpur areas	Burirhat, Rangpur
1042	Performance of different agro-forestry crops as intercrop with Areca nut (Areca catechu)	• To introduce and determine economic performance of different crops as intercrop along with Arecanut and to motivate farmers to cultivate inter crops in Arecanut orchards.	Kurigram
Unfavourable Eco-System			
High Temperature			
1043	Estimation of temperature co-efficient of wheat for adjusting proper sowing time	• To observe the growth behaviour and yield of wheat as influenced by prevailing air temperature as well as other weather elements based on sowing time.	Gazipur
Water Logging			
1044	Effects of different production systems on the performance of vegetables in low-lying areas of Barishal region	• To evaluate the effects of different production systems on the performance of vegetables in low-lying areas of Barishal region.	Rahmatpur, Barishal
Hill Agriculture			
1045	Performance of BARI released minor cereal crops in acidic soil at Moulvibazar	• To evaluate the performances of minor cereal crops at acidic soil condition.	Akbarpur, Moulvibazar
1046	Performance of BARI released groundnut varieties in acidic soil at Moulvibazar	• To evaluate the performances of groundnut varieties at acidic soil of Moulavibazar	Akbarpur, Moulvibazar
1047	Strip cultivation of tomato in tomato and lalsak along with bitter gourd in intercropping system at acidic soil at Moulvibazar	• To find out the suitable crop combination of tomato along with red amaranth	Akbarpur, Moulvibazar

Sl.	Research Title	Objective(s)	Location(s)
Challanbel			
1048	Effect of management practices on mustard yield in chalanbeel area	• To find out suitable management practices in mustard at Chalan beel area	Tarash, Sirajgonj
1049	Effect of management practices on potato at chalanbeel area	• To determine optimum management for potato production in chalanbeel area.	Tarash, Sirajgonj
Charland			
1050	Nutrient management o BARI Sarisha-18 in char lan ecosystem underAEZ -11	• To find out suitable nutrient management for higher yield of BARI Sarisha-18	Ishurdi, Pabna
1051	Performance of sweet potato varieties at char land area in Rangpur	• To find out the yield performance of different sweet potato verities in char land	Gangachara, Rangpur
1052	Effects of companion crops of seed rate on yield of onion at Tista char land area of Rangpur region	• To determine the optimal seeding rate of onion in terms of production and financial return.	Shibdav Char, Pirgachha, Rangpur
1053	Performance of early vegetable production in Charland area	• To find out the suitable early sowing and early market for increase productivity and economic development of charland farmers.	Jamalpur
Sorjan Agriculture “Sorjan Based Eco-Friendly Farming Systems Research for Agricultural Intensification in Southern Bangladesh” Project (Funded by KGF)			
1054	Improvement of sorjan based cropping systems for increasing crop productivity in southern Bangladesh	• To develop location specific sorjan based cropping systems for increasing crop productivity and profitability in southern region of Bangladesh.	Nesarabad, Pirojpur
1055	Intercropping of vegetables with new guava orchard (BARI peyara-2) under sorjan system in Barishal region	• To develop suitable intercropping system(s) of vegetables with new guava orchard (BARI Peyara-2) for sorjan system in Barishal region.	Banaripara, Barishal
1056	Effects of USG and NPK briquette on the yield and economic return of bottle gourd under sorjan system in Barishal region	• To find out the optimum fertilizer dose for getting higher yield and economic return from bottle gourd.	Banaripara, Barishal
1057	Effects of USG and NPK briquette on the yield and economic return of ridged gourd under sorjan system in Barishal region	• To examine the effects of USG and NPK briquette on the yield and economic returns of ridged gourd on sorjan bed.	Banaripara, Barishal
1058	Performances of ginger varieties under existing fruit orchard on sorjan bed	• To introduce ginger crop in the existing fruit orchard and increasing the profitability of the sorjan system.	Jhalokathi Sadar
1059	Performances of turmeric	• To find out the suitable variety(ies) of	Jhalokathi

Sl.	Research Title	Objective(s)	Location(s)
	varieties under existing fruit orchard on sorjan bed	turmeric for introduction under sorjan system.	Sadar
1060	Performances of fodder crop species with different planting position on bed slope under sorjan farming systems	• To find out the suitable fodder species and transplanting position on sorjan slope under sorjan base integrated farming systems.	Banaripara, Barishal
1061	Performances of different fish species in canal water under sorjan farming systems	• To find out the suitable fish species for increasing farmers' income under sorjan based farming systems.	Banaripara, Barishal
1062	Pilot production programme of grafted BARI peyara-2 replacing local Swarupkati guava variety on sorjan bed	• To examine the performance of grafted BARI Peyara-2 over the existing local Swarupkati variety under sorjan system in Barishal region.	Banaripara, Barishal
SOIL SCIENCE DIVISION			
Chemical Aspects of Soil Management			
1063	Determination of crop coefficient values of cauliflower through lysimeter study	• To determine the crop coefficient values (Kc) of cauliflower using a Lysimeter	BARI Gazipur
1064	Different ages compost influence carbon dioxide emission, soil properties, and yield of red amaranth	• To evaluate the CO2 emission trend at different ages of compost. To observe the changes in soil physico-chemical properties • To observe the performance of crop yield	BARI Gazipur
1065	Effect of conservation tillage and IPNS based nutrient management on cabbage-Indian spinach-T. aman cropping system and soil physico-chemical properties	• To investigate the crop performance in said cropping pattern. • To observe the soil physic-chemical properties	BARI Gazipur
1066	Requirement of nitrogen for mustard-okra- T. aman cropping system under on conservation tillage pratices	• To investigate the suitable tillage and nitrogen rate on crop performance • To evaluate the effects of tillage and nitrogen on soil physico-chemical properties	BARI Gazipur
1067	Integrated nutrient management for cutting of kangkong under minimum tillage system	• To determine the suitable rate of balance fertilization for kangkong production. • To observe the changes of soil physico-chemical properties	BARI Gazipur
1068	Integrated nutrient management for cutting of Indian spinach under minimum tillage system	• To observe the crop performance under minimum tillage and IPNS based fertilizer management. • To observe the changes of soil physico-	BARI Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		chemical properties	
1069	Response of mustard to fertilizer management under zero tillage in mustard-fallow-B. aman cropping pattern in Cumilla region	• To determine the effects of zero tillage on mustard yield in Mustard-Fallow-B. Aman Cropping Pattern. • To provide balanced fertilizer recommendations for maximizing the yield of mustard in zero tillage conditions.	RARS Cumilla
1070	Response of sunflower to fertilizer management under zero tillage in sunflower-fallow-T. aman cropping pattern in Cumilla region	• To figure out the effects of zero tillage on sunflower yield in Sunflower-Fallow-B. Aman Cropping Pattern. • To provide balanced fertilizer recommendations for maximizing the yield of sunflower in zero tillage conditions.	RARS Cumilla
Chemical Aspects of Soil Management			
1071	Nutrient management for sustaining soil fertility and yield of Wheat-Mungbean-T. Aman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-T. Aman cropping pattern for sustainable yield. To monitor soil health after each cropping cycle of the pattern. To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients.	Ishurdi and Jashore
1072	Nutrient management for sustaining soil fertility and yield of Mustard-Mungbean-T. Aman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-T. Aman cropping pattern for sustainable yield; • To monitor soil health after each cropping cycle of the pattern. • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients.	Ishurdi and Jashore
1073	Long-term integrated nutrient management for sustaining soil fertility and yield of Maize-Mungbean-T. Aman cropping pattern	• To find out judicious fertilizer recommendation for Maize-Mungbean-T. Aman cropping pattern for sustainable yield. • To monitor soil health after each cropping cycle of the pattern. To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients.	Gazipur
1074	Efficacy of different form of urea on nitrogen availability and yield of maize	• To find out use efficiency of different form of urea. • To find out the yield and yield components of maize as influenced by different form of urea. • To analyze cost and return of maize	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		produced from different form of urea.	
1075	Effect of different form and dose of urea fertilizer on nitrous oxide emission, nitrogen use efficiency and yield of broccoli	• To determine nitrous oxide emission from cauliflower field as influenced by different form, application method and dose of urea. • To increase nitrogen, use efficiency by cauliflower. decrease CO_2 gas emission from soil thus mitigating GHG emission. • To find out suitable form, application method and optimum dose of urea for cauliflower yield.	Gazipur
1076	Effect of different organic manures on carbon accumulation in soil and yield of crops in Mustard-Mungbean-T. aman cropping pattern	• To increase soil organic carbon and improve soil fertility • To increase yield of Mustard-Mungbean-T.aman	Gazipur & Jamalpur
1077	Effect of co-composting biochar on Cabbage-Indian spinach- T. aman productivity	• To find out the soil health improvement after amendment. To accelerate the sustainable carbon sequestration in to soil. • To develop a low-cost biochar-based fertilizer dose.	Gazipur
1078	Development of fertilizer recommendation for chilli with onion intercropping system	• To find out a suitable and economic fertilizer dose for maximizing the yield of chilli with onion intercropping system	Gazipur
1079	Effect of kitchen waste compost on broccoli yield and carbon accumulation in soil	• To minimize waste disposal problem and increase soil fertility. • To improve the stock of organic carbon in the soil. To increase crop yield.	Gazipur
1080	Integrated nutrient management for pineapple in Barishal region	• To find out the effect of different fertilizer on pineapple production. • To find out the optimum dose of fertilizer for maximizing pineapple yield.	RARS, Rahmatpur, Barishal
1081	Integrated potash management for mustard	• To find out judicious application of potassium fertilizer for maximum production of mustard. • To estimate the uptake of nutrients and make a balance sheet of nutrients.	RARS, Jamalpur
1082	Application of vermiwash on yield and nutritional quality of tomato	• To investigate the foliar application of vermiwash on yield and nutrient uptake of tomato. • To improve nutritional quality of tomato by effective and organic vermiwash application.	RARS, Jamalpur
1083	Development of fertilizer recommendation for linseed	• To find out a suitable and economic fertilizer dose for maximizing the yield	RARS, Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
	groundnut intercropping system	from the intercropping system.	
1084	Development of fertilizer recommendation for maize with knolkhol intercropping system	• To find out a suitable and economic fertilizer dose for maximizing the yield from the intercropping system.	BARI central farm, Gazipur
1085	Study on soil properties variation through the soil profile in saline areas of seven upazilas of Satkhira district	• To evaluate the spatial variability of physico-chemical properties through the soil profile in saline areas of Satkhira.	Seven upazillas of Satkhira
1086	Utilization of banana peel on increasing tomato yield and improving soil fertility	• To minimize banana peel disposal problem. To find out the effect of banana peel fertilizer on tomato yield. • To find out nutrient uptake and to increase soil fertility by the application of banana peel fertilizer	BARI central farm, Gazipur
1087	Effect of different compost on potato productivity and soil health	• To reduce the use of chemical fertilizer for potato production by organic manure. • To improve carbon stock in soil	RARS, Jamalpur
1088	Nutrient management for watermelon	• To develop a suitable fertilizer recommendation for onion with linseed intercropping system. • To increase crop yield and crop diversity	RHRC, Lebukhali, Patuakhali, BARI
1089	Effect of different levels of sulphur and boron on yield and nutrient uptake of sesame	• To assess different levels of S and B on growth, yield & nutrient uptake of sesame. • To increase yield and oil content of sesame	Central Research Farm, BARI, Gazipur& RARS, Jamalpur
1090	Integrated nutrient management on yield, quality and nutrient uptake of linseed (*linumusitatissimum* l.)	• To find out a suitable and economic fertilizer dose for maximizing the yield of linseed.	BARI Central farm, Gazipur
1091	Integrated nutrient management on yield and quality of safflower	• To determine the effect of fertilizer application on soil properties. • To determine the effect of fertilizer on yield and quality of safflower seed	Central farm, BARI, Gazipur
1092	Fertilizer recommendation for BARI Sarisha-18	• To find out suitable fertilizer dose for growth and yield of BARI Sarisha-18.	RARS, Jamalpur
1093	Effect of tricho compost on the yield of chilli.	• To investigate the effect of Trichocompost application in different growth stage. • To find out suitable dose of Tricho compost application for maximizing the yield of chilli • To find out a better way of bio-agent in	RARS, Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
		crop and disease management in chilli production	
1094	Effect of variety and phosphorus fertilizer on the yield of lentil	• To find out the response of lentil varieties to levels of phosphorus fertilizer on growth and yield.	PRC, Ishurdi and Gazipur
1095	Integrated nutrient management for yield and quality of potato in Jamalpur region	• To reduce the use of chemical fertilizer for potato production by organicmanuring. To improve carbon stock in soil.	RARS, Jamalpur
1096	Fertilizer Recommendation of Winter Stem Amaranth in Cumilla Region	• To find out the optimum and economic fertilizer dose for maximizing the yield of winter stem amaranth.	RARS, Cumilla
1097	Evaluation of physical, chemical and microbiological soil properties of six unfavorable ecosystem of Bangladesh	• To assess the physical properties of unfavorable ecosystem. • To evaluate the essential nutrient status of unfavorable ecosystem. • To determine the status of microbial population in unfavorable ecosystem. • To find out the heavy metal status of unfavorable ecosystem.	Rajshahi Kishoregonj, Kurigram, Potuakhali, Satkhira and Khagrachori
Micronutrient Aspect of Soil Management			
1098	Determination of heavy metal status of different vegetables from industrially polluted and non-polluted areas	• To study the accumulation of heavy metals in vegetables. • To correlate the heavy metals uptake with essential plant nutrients. • To compare the heavy metal status of vegetables grown in polluted and non-polluted areas.	Vegetables and soil samples collected from industrial polluted and non polluted areas, kodda, Gazipur
1099	Effect of boron on yield and quality of bitter gourd	• To study the effect of boron on number of flower setting and yield of bitter gourd; and • To find out the optimum level of boron for maximizing the yield and quality of bitter gourd	Gazipur, Gazipur
1100	Foliar application of boron on reproductive growth of sunflower	• To determine the effect of foliar spray of boron on yield contributing characters of sunflower. • To find out the optimum rate of boron for maximizing the yield and quality of sunflower.	Gazipur, Gazipur
1101	Foliar application of manganese on yield and nutrient uptake of groundnut	• To investigate the effect of manganese on yield and quality of groundnut. • To find out the optimum dose of manganese to maximizing the yield of	Gazipur, Gazipur.

Sl.	Research Title	Objective(s)	Location(s)
		groundnut.	
1102	Bioremediation of arsenic in contaminated soils using microbes and biochar	• To evaluate the role of microbes and biochar in arsenic availability. • To find out the suitable microbes and biochar for soils in reducing arsenic contamination. • To mitigate arsenic contamination and to improve crop quality	Shade house, SSD, Gazipur, Gazipur
1103	Assessment of heavy metal pollution and health risks in the soil-plant-human systems	• Determine the contamination levels of chromium (Cr), lead (Pb), cadmium (Cd), nickel (Ni), and arsenic (As) in soil and plants. Evaluate the potential health risks caused by heavy metals and metalloids in different age groups via different pathways. • Analyze the bioaccumulation factor of heavy metals and metalloids in soil-plant systems.	Crops and soil samples collected from selected different locations.
1104	Bioremediation of heavy metals polluted soil from industrial effluents polluted areas using microbes and biochar	• To evaluate the efficiency of microbes and biochar as a bioaccumulator for heavy metal in contaminated soil. • To determine the uptake pattern of heavy metal in the root, shoot and grain/fruit system of tested crop as influenced by microbes and biochar. • To quantify the heavy metal status of polluted soils.	Shade house, SSD, Gazipur, Gazipur
1105	Nanoscale zinc oxide particles for improving yield and quality of tomato	• To study the effects of ZnO nano particles on the yield and quality of tomato. • To calculate zinc content and uptake of tomato. • To evaluate the efficiency of $ZnSO_4$ and ZnO nanoparticles.	Micronutrient experimental field, SSD, Gazipur, Gazipur.
1106	Determination of critical limit of zinc for chickpea	• To evaluate the available Zn status of Calcareous and Non-Calcareous soils using DTPA extraction reagents and to correlate extractable Zn with soil properties, dry matter yield and Zn content by chickpea. • To determine and update of critical limit of zinc in different soils for chickpea.	Shade house, SSD, Gazipur
1107	Effect of foliar application of zinc in sweet orange	• To determine the efficiency of Zn sources in providing the plants with sufficient micronutrients. • To compare new doses of sweet orange orchards with traditionally used sources	RARS, Cumilla
1108	Estimation of greenhouse	• To obtain quantitative estimates of	Experimental

Sl.	Research Title	Objective(s)	Location(s)
	gas emission and carbon sequestration from crop fields	greenhouse gases (CO_2, CH_4 and N_2O) and the carbon sequestration for dominant cropping patterns. • To determine the impact of management practices for carbon sequestration under different cropping patterns.	Field, SSD, and other suitable cropping pattern from other Divisons, Gazipur.
1109	Estimation of CO_2 and N_2O emission from organic manures and amenders in maize field	• To evaluate the CO_2 and N_2O emission from terrace soils due to application of biochar, cowdung, poultry manure and vermicompost • To observe the maize yield and nutrient uptake, • To enhances soil physicochemical properties.	BARI Central Farm, Gazipur
1110	Effect of zinc and biochar on the yield and nutrient content of squash	• To assess the effect of Zn and biochar on the yield of squash. • To find out the Zn concentation and uptake of squash • To identify a suitable combination of Zn application with biochar.	BARI Central Farm, Gazipur
1111	Effect of soil and water quality on Arsenic uptake by irrigated winter upland crops in southwest Bangladesh	• To observe the effect of soil and water salinity on as mobility invegetables • To find out the relationship (synergetic/ antagonistic) between salinity and as in plant growth	ARS, Satkhira
1112	Effect of zinc and boron on the yield of BARI Sarisha 18 (canola type)	• To estimate optimum dose of Zinc and Boron on yield and yield components of BARI Sarisha-18. • To study the effect of Zincand Boron on yield and yield components of BARI Sarisha-18. • To find out Zinc and Boron use efficiency of BARI sarisha-18	RARS, Jamalpur
1113	Effect of foliar application of boron trioxide and zinc oxide nanoparticles on the yield and fruit quality of Sweet Orange	• To determine the appropriate concentration of nano-zinc and nano-boron to reach the best fruits yield of sweet orange and improve its chemical and morphological traits.	RARS, Cumilla
Microbiological Aspect of Soil Management			
1114	Study on collection, isolation and screening of indigenous *Rhizobium* strains, arbuscular mycorrhizal fungi, *Azotobacter,* phosphate solubilizing bacteria and *Azospirillium* strain(s) for different crops from	• To select the best indigenous *Rhizobium* strain(s), arbuscular mycorrhizal fungi, *Azotobacter,* phosphate solubilizing bacteria and *Azospirillium* strain(s) from different AEZs of Bangladesh. • To prepare biofertilizer for different legume and other crops	Rahmatpur, Jashore, Gazipur, Hathazari, Rajshahi, Dinajpur, Rangpur, Ishurdi, Khagrachari,

Sl.	Research Title	Objective(s)	Location(s)
	different AEZs of Bangladesh		Raikhali, Patuakhali, Sathkhira, Noakhali, Cox's Bazar, Sylhet
1115	Assessment of Arbuscular mycorrhizal association in diffirent plants and crops	• To study the percent root colonization and AM fungal spore population in the rhizosphere soil. • To produce suitable AM inoculum for future use in different plants and crops	Khagrachori, Jamalpur, Gopalgonj, Rangpur, Jashore
1116	Effect of *Azotobacter* on the growth and yield of Chilli	• To study the role of *Azotobacter* on the growth and yield of chilli. • To find out the nutrient uptake as influenced by *Azotobacter*	Net House of SSD, Gazipur
1117	Effect of Arbuscular mycorrhizal fungi and phosphorus on vegetables, spices and legume crops	• To study the effect of combined use of arbuscular mycorrhiza and phosphorus on the performing of vegetables spices and fruit crops under field condition. • To reduce to use of P-fertilizer for vegetables, spices and legume crops	Gazipur
1118	Effect of biofertilizer, vermicompost and chemical fertilizers on cowpea	• To study the effect of bio-fertilizer and vermicompost on yield of cowpea. • To find out nutrient uptake as influence by bio-fertilizer and vermicompost. • To reduce the chemical fertilizer in cowpea cultivation	Gazipur, Jamalpur
1119	Study on the rhizobial population and other soil microorganism status of different soils (AEZs) of Bangladesh	• To study the native rhizobial and other soil microorganism population of different soils of Bangladesh. • To know the effect of climate change on the rhizobial population and other soil microorganisms	Different AEZs of Bangladesh.
1120	Response of lentil varieties to elite strains of *Rhizobium*	• To study the response of *Rhizobium* inoculation with different varieties of lentil • To study the effect of *Rhizobium* inoculation and varieties at different locations. • To popularize the use of *Rhizobium* inoculant instead of applying urea-N for lentil production	Gazipur, Ishurdi, Jamalpur and Jashore
1121	Validation of biofertilizer on different legumes (Mungbean, lentil, chickpea, groundnut, soybean etc.)	• To popularize the rhizobium biofertilizer technology for producing pulse and oilseed legumes in the farmer's level.	Kushtia, Faridpur, Patuakhali, Bhola, Satkhira, Sylhet, Cox's Bazar Meherpur,

Sl.	Research Title	Objective(s)	Location(s)
			Jashore, Jamalpur Rajshahi, Pabna, Rangpur, Kishoregonj, Noakhali, Lakhmipur
1122	Bio control of fusarium wilt disease of cowpea by dual inoculation with *Rhizobium* and arbuscular mycorrhiza	• To observe the effect of pre-inoculation of AM and *Rhizobium leguminosarum* on the disease resistance of cowpea crops infected by pathogen. • To produce healthy and vigorous seedlings of cowpea crops	Net House, SSD, Gazipur, Gazipur
1123	Study on symbiotic, biochemical and molecular characterization of Rhizobial strains isolated from different AEZs and their PGPR activity and N_2 fixation properties in pulse and oil seed legume	• To isolate and identify effective rhizobial strains from acidic, drought, saline and hilly areas of Bangladesh. To measure nodulation test of collected strains in respective crops. • To measure plant growth promoting activity and N fixation capacity in respective crops. Genomic DNA isolation, PCR amplifications and sequencing to know family, genus and species of effective rhizobial strains.	Rahmatpur, Jashore, Gazipur, Hathazari, Rajshahi, Dinajpur, Rangpur, Ishurdi, Khagrachari, Raikhali, Patuakhali, Sathkhira, Noakhali, Cox's Bazar, Sylhet and different AEZs.
1124	Effect of Arbuscular mycorrhizal inoculation on maize at different salinity levels	• To evaluate the role of AMF and the percentage of AM colonization on growth and nutrient uptake of maize under salinity stress condition. • To observe the effect of AM under salinity stress condition. In order to further understand salt tolerance mechanisms in inoculated plants.	Gazipur
1125	Effect of bio-fertilizer and chemical fertilizers on nodulation pattern, nodule initiation date and yield of pulse crop varieties	• To know the microbial population status, nodulation pattern and nodule initiation date of chickpea varieties. • To increase the yield of chickpea by using bio-fertilizer with low input cost	BARI, Gazipur, RARS, Jamalpur and RARS Ishurdi, Pabna.
1126	Effect of Arbuscular mycorrhizal fungi, biochar and vermicompost on maize in saline soil	• To evaluate the effect of indigenous Arbuscular Mycorrhizal Fungi (AMF), biochar and vermicompost on nodulation, colonization and yield character of maize in 8 dS m^{-1} saline soil.	Net house, Soil Science Division, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1127	Isolation of salt tolerant *Rhizobium* and their characterization, plant growth promoting and symbiotic performance on pulse and oilseed legume	• To isolate and identify effective rhizobial strains from coastal saline areas of Bangladesh. • To characterize morphological, biochemical and PGPR of effective rhizobial strains. • To measure nodulation test of collected strains in respective crops.	Noakhali, Lakhmipur, Cox's Bazar, Chittagong, Satkhira, Bhola, Borguna, Patuakhali, Satkhira and different coastal AEZs
1128	Effects of biofertilizer, biochar and chemical fertilizers on yield and qualitative properties of Groundnut-Dhaincha- T. aman rice cropping pattern	• To study the effects of bio-fertilizer and biochar on yield and qualitative properties of groundnut. • To reduce the use of chemical fertilizer in groundnut and rice cultivation. • To estimate the nutrient uptake by crops and recording other quality of the soil	Gazipur, Gazipur
1129	Isolation of phosphate solubilizing bacteria and their efficacy on the growth of barley	• To isolate the phosphate solubilizing bacteria (PSB) from rhizosphericsoil from different AEZs of Bangladesh. • To evaluate the efficacy of PSB on growth of barley. To monitor the soil fertility status	BARI, Gazipur
1130	Effect of different biofertilizers on the growth and yield of onion	• To find out the effectiveness of different biofertilizers for minimizing the use of chemical N and P in respect of growth and yield of Onion.	BARI, Gazipur
1131	Effect of different fertilizer combination on groundnut in Barishal region	• To findout the response of BARI Chinabadam -9 to different fertilizer. • To determine the optimum dose of nutrient to maximizing the yield of BARI Chinabadam-9	Barishal
PLANT PATHOLOGY DIVISION			
1132	In vitro screening of endophytic microorganism against wilt disease causing pathogen *Nalanthamala psidii* of Guava	• To find out effective endophytic bio-control agents to control *Nalanthamala psidii*, causing wilt disease of guava	PPD, Gazipur
1133	Identification of diseases of strawberry in Bangladesh	• To identify the diseases associated with the strawberry cultivation	PPD, Gazipur
1134	Multiplication, purification and maintenance of indigenous potato varieties	• To be maintained and purified the indigenous potato varieties	
1135	Screening of lentil lines against *Stemphylium* blight disease	• To find out the resistant sources against *stemphylium* blight disease of lentil	BSPC, Debiganj, Panchagarh
1136	Screening of mustard varieties/lines against	• To identify the resistant source of mustard against Alternaria blight and	RARS, Ishurdi, Pabna

Sl.	Research Title	Objective(s)	Location(s)
	alternaria blight and white mold diseases	white mold diseases	
1137	Screening of barley entries/lines against spot blotch disease caused by *Bipolaris sorokiniana* through artificial inoculation	• To find out the resistant entries/lines against spot blotch disease	RARS, Burirhat, Rangpur
1138	Screening of onion varieties and lines against purple blotch disease	• To find out the resistant varieties of onion against purple blotch disease	PPD, Gazipur
1139	Selection of resistant guava seedlings against *Nalanthamala psidii* wilt disease pathogen	• To find out a resistant seedling of guava against *Nalanthamala psidii*, causing wilt disease	PPD, Gazipur
1140	Evaluation of new fungicides against Early blight of Tomato	• To find out the appropriate chemical fungicide to control the disease	RARS, Jashore
1141	Comparison of bio-fungicide and chemical fungicides for the management of early blight of tomato grown on floating beds	• To find out suitable bio-rational control measures against early blight of tomato on floating beds	RARS, Barishal
1142	Efficacy of new fungicides in controlling late blight of potato	• To select effective new fungicide(s) for managing potato late blight disease	RARS, Burirhat, Rangpur
1143	Efficacy of new fungicides in controlling powdery mildew of pumpkin	• To find out the new effective chemical fungicides for controlling powdery mildew of pumpkin	PPD, Gazipur
1144	Chemical and biological management of anthracnose disease of strawberry	• To find out the effective chemical and bio-control agents against anthracnose disease of strawberry	RARS, Ishurdi, Pabna
1145	Efficacy of different new chemical and bio-fungicides in controlling sigatoka disease of banana	• To find effective new chemical and bio-fungicides against the disease	Shibgonj, Bogra
1146	Cultural, chemical, and biological control of fusarium wilt in watermelon	• To find out a suitable management package against the disease.	RARS, Barishal
1147	Effect of fungicides in controlling purple blotch disease of onion	• To evaluate the efficacy of fungicides against purple blotch disease of onion	PPD, Gazipur
1148	Evaluation of new fungicides for controlling purple blotch disease of onion	• To find out the new effective chemical fungicides for controlling purple blotch of onion	PPD, Gazipur
1149	Management of Fusarium wilt disease of chilli	• To develop a management option (s) against Fusarium wilt disease of chilli	PPD, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1150	Management of white mold disease of bush bean caused by *Sclerotinia sclerotiorum* through the application of bio-control agents and different organic amendments	• To find out the suitable management practice to control *S. sclerotiorum*	RARS, Ishurdi, Pabna
1151	Management of botrytis blight of marigold	• To find out the effective treatments against blight of marigold	PPD, Gazipur
1152	Efficacy of fungicides against white mold of sunflower	• To evaluate the fungicides for controlling white mold of sunflower	RARS, Burirhat, Rangpur
1153	Bio-rational based integrated management of powdery mildew disease of pumpkin	• To develop bio-rational based management technology against powdery mildew disease of pumpkin	PPD, Gazipur
1154	Efficacy of and chemical and bio-fungicides against downy mildew disease of cucumber	• To identify the effective chemical or bio-fungicide against the disease	PPD, Gazipur
1155	Screening of new bio-fungicides against seedling disease caused by *Sclerotium rolfsii* and *Fusarium oxysporum* of lentil	• To find out the effective new bio-fungicides against seedling disease of lentil	PPD, Gazipur
1156	Bio-agent based management practice against foot and root rot of lentil	• To control foot and root rot of lentil by using bio-control agents.	RARS, Jashore
1157	Effect of biological agents and chemical fungicides for controlling foot and root rot of lentil	• To find out the effective management practices for the management of foot rot disease in lentil	RARS, Barishal
1158	Evaluation of microbial products for controlling Fusarium wilt of chickpea	• To observe the efficacy of microbial products against fusarium wilt of Chickpea	PPD, Gazipur
1159	Effect of biological agents and chemical fungicides on fusarium wilt disease in chickpea	• To find out a suitable management package against the disease	RARS, Barishal
1160	Effect of bio-fungicides in controlling purple blotch disease of onion	• To find out the effective bio-fungicides in controlling purple blotch disease of onion.	PPD, Gazipur
1161	Evaluation of bio-agents, botanicals and chemical fungicides against Alternaria leaf spot of	• To find out effective tools against alternaria leaf spot of gerbera.	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
	gerbera		
1162	Eco-friendly management of foot rot of gerbera	• To find out effective tools for controlling foot rot of gerbera.	RARS, Jashore
1163	Effect of date of sowing on the incidence and severity of purple blotch disease of onion	• To find out the suitable date of planting in controlling purple blotch disease of onion.	PPD, Gazipur
1164	Effect of sowing time on the development of sclerotinia rot disease of sunflower	• To find out the actual scenario for disease development in different sowing times.	RARS, Ishurdi, Pabna
1165	Integrated management for controlling early blight of tomato	• To find out suitable integrated management practice to control early blight of tomato.	RARS, Jashore
1166	Development of integrated disease management (idm) package in controlling purple blotch disease of onion	• To develop integrated management package(s) against purple blotch disease of onion	BARI, Gazipur, SRSC, Faridpur and SRC, Shibgonj, Bogura
1167	Integrated management of anthracnose of chilli	• To develop integrated management package(s) against anthracnose disease of chilli	RARS, Jashore
1168	Efficacy of chemical seed disinfecting methods for tomato seeds against bacterial leaf spot	• To assess the efficacy of chemical seed disinfecting methods for tomato seeds against bacterial leaf spot disease	PPD, Gazipur
1169	Interactions between BARI Bt-brinjal varieties and *Ralstonia solanacearum* in field condition	• To find out the tolerance level of BARI Bt brinjal varieties in relation to bacterial wilt disease caused by *Ralstonia solanacearum*.	PPD, Gazipur
1170	Control of bacterial wilt in advanced lines of brinjal	• To control the bacterial wilt of eggplant in the advanced lines viz. SM Hat 04, SM Hat 09 and SM Hat 12.	RARS, Hathazari
1171	Testing efficacy of new *Bacillus* species for control of panama disease of banana	• To know the efficacy of new Bacillus species to control the panama disease	RARS, Hathazari
1172	*In-vitro* and *In-vivo* test of Bacillus based EMOs with molecular study for controlling greening disease on sweet orange	• To control the greening disease by the novel *Bacillus* sp. YC7007 and YC7012	RARS, Hathazari
1173	Test of an antagonistic bacillus (*bacillus velezensis* gl6) against *In-vitro* growth of Lasiodiplodia *theobromae* causing stem end rot of mango	• To find out the efficacy of endophytic *Bacillus* strains to degrade the propiconazole properties as well as to control the SER of mango	RARS, Hathazari
1174	Heterologous expression of recombinant truncated coat	• Express the recombinant fused CP of PVY, PVX & PLRV in *E. coli*	RARS, Hathazari

Sl.	Research Title	Objective(s)	Location(s)
	protein of three potato infecting viruses (PVY, PLRV AND PVX) in Escherichia *coli*		
1175	Identification of the viruses that infecting country bean and associated weeds which acts as a reservoir of the viruses	• To identify the viruses which infecting country bean in Bangladesh • To find out the alternative weed hosts of the viruses	PPD, Gazipur
1176	Identification of the Citrus tristeza virus (CTV) genotypes and their interactions on different citrus species	• To identify the CTV genotypes and their symptomatic variability on different citrus species	PPD, Gazipur
1177	Studies on symptomatic variability of PRSV-P	• To Know the symptomatic variability of PRSV-P and synergistic interactions among papaya infecting viruses in Bangladesh	PPD, Gazipur
1178	Induce systemic resistance against *cucumber mosaic virus* of chilli by *trichoderma harzianum*	• To study the induce systemic resistant against CMV of chilli	PPD, Gazipur
1179	Screening of country bean germplasm against bean mosaic viruses	• To identify of resistant source	PPD, Gazipur
1180	Screening of papaya germplasm against *papaya ring spot virus* (PRSV)	• To find out resistance source against PRSV	PPD, Gazipur
1181	Bio-rational based management of *cucumber mosaic virus* (CMV) of cucumber	• To develop bio-rational based management option (s) against Cucumber mosaic virus of CMV	PPD, Gazipur
1182	Management of leaf curl disease of tomato by using beneficial microbes and vector control	• To manage leaf curl disease of tomato by beneficial microbs and vector control.	RARS, Jashore
1183	Molecular characterization of root-knot nematodes (*Meloidogyne* spp.) Of tomato	• To identify the causal agent of root-knot of tomato using PCR and DNA sequencing	PPD, Gazipur
1184	Screening and evaluation of tomato varieties against root-knot nematode, *Meloidogyne* spp.	• To evaluate BARI released tomato variety by screening method against root knot nematode *Meloidogyne*. spp	PPD, Gazipur
1185	Screening of new bio-fungicides against root-knot nematode *Meloidogyne incognita* of tomato	• To identify the effective new bio-fungicides against root-knot nematode of tomato	PPD, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1186	Test of composts and biochars against root knot nematode of tomato	• To test the efficacy of available biochars and organic compost against root knot nematode of tomato.	PPD, Gazipur
1187	Development of bio-rational management package against root knot nematode of bottle gourd	• To develop biorational based eco-friendly integrated management packages against root knot of bottle gourd	PPD, Gazipur
1188	Survey, isolation and identification of diseases of summer tomato	• To know the present disease scenario of summer tomato	Benerpota, Shatkhira
1189	Survey and identification of watermelon diseases in Bangladesh	• To Identify the major diseases and their causal agents of watermelon	Southern part of Bangladesh
1190	Survey of major diseases of selected fruits and vegetables in northern region	• To monitor major diseases along with proper characterization of the pathogens of selected commercial fruits and vegetables	Different areas
1191	Survey of the major diseases of citrus sp in southern part of Bangladesh	• To determine the incidence of different citrus diseases in different cultivated citrus species in Bangladesh.	RARS, Akbarpur
1192	Survey and monitoring of major guava diseases at Ishurdi region	• To Identify the major diseases of guava in the Ishurdi region	Ishure, Pabna
1193	Survey on pre and post-harvest diseases of onion in Bangladesh	• To identify the diseases of Malta • To determine the severity of the diseases	
1194	Survey of major diseases of Cashew nut and Coffee in Bangladesh	• To know the present status of diseases of Cashew nut and Coffee in Bangladesh	Sylhet
1195	Validation of selected chemicals in controlling common scab disease of potato	• To confirm the effectiveness of selected chemical(s) for controlling common scab disease under field conditions	Burirhat, Rangpur
1196	Demonstration of management technology for different foliar diseases (purple blotch, stemphylium leaf blight, downy mildew and botrytis leaf blight) of onion	• To confirm effectiveness of selected chemical against the disease under field condition	Burirhat, Rangpur
1197	Validation trial of EMOs for controlling the bacterial wilt in tomato	• To confirm the effectiveness of EMOs made by *Bacillus oryzicola* YC7007, and *B. velezensis* BARI/HAT/GL6 against bacterial wilt of tomato	RARS, Jashore
ENTOMOLOGY DIVISION			
1198	Management of whitefly, *Bemisia tabaci* for suppressing tomato leaf curl	• To develop a management option for whitefly, *Bemisia tabaci* for suppressing tomato leaf curl virus	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	virus		
1199	Biorational based management of fruit borer in tomato	• To develop suitable biorational for the control of tomato fruit borer and • To produce toxic chemical pesticides free tomato	Gazipur
1200	Management of pod borer attacking yard long bean	• To develop appropriate strategy for managing the pod borer attacking Yard long bean	Gazipur
1201	Management of sucking insect pests of yard long bean	• To develop appropriate strategy for managing the sucking pests attacking yard long bean	Gazipur
1202	Development of bio-rational management package against major insect pests attacking country bean	• To develop IPM package(s) against major insect pests infesting country bean. • To produce toxic pesticide free country bean	Gazipur
1203	Development of bio-rational management approach against insect pest complex of okra	• To develop a bio-rational based IPM package to manage the insect pest complex of okra.	Gazipur
1204	Development of economic threshold level (ETL) of cotton jassid on okra	• To determine an ETL for cotton jassid on okra in order to use in the IPM system	Gazipur
1205	Efficacy of different pheromone lures against fruit fly attacking bitter gourd	• To test the efficacy of different pheromone impregnated sticky traps against fruit fly attacking bitter gourd	Gazipur
1206	Survey and monitoring of incidence of leaf miner in cucumber and its natural enemies	• To document the incidence of leaf miner in cucumber. To record the natural enemies of cucumber leaf miner	Gazipur
1207	Effect of fruit bagging against fruit fly and its impact on the yield and quality of mango	• To find out the effect of bagging on mango quality. To know the keeping quality of mango after use of bagging	Gazipur
1208	Population dynamics and bio-rational management of whitefly complex infesting guava	• To document the damage severity and seasonal population fluctuation of whitefly complex attacking guava. To develop bio-rational based management option against whitefly complex of guava.	Gazipur
1209	Assessment of the pest status of asian citrus psyllid (*Diaphorina citri*) and documentation of its natural enemies	• To document the status of Asian citrus psyllid (*Diaphorina citri*) and its natural enemies.	Gazipur
1210	Seasonal fluctuation of major insect pests and their natural enemies of citrus in	• To know the status of major insect pest of citrus and their natural enemies.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Gazipur region		
1211	Biorational management of citrus leaf miner infesting sweet orange	• To develop bio-rational based management option against leaf miner infesting sweet orange	Gazipur
1212	Biorational based management of major insect pests of chilli	• To find out the best management approach to combat major insect pests of chilli	Gazipur
1213	Mass Rearing of phytoseiid predator, *Neoseiulus longispinosus* in vitro on bean plants harbouring the prey, *Tetranychus urticae*	• To develop mass rearing techniques of phytiseiid predators, *Neoseiulus longispinosus* Evans and also know the optimum time of harvest of maximum number of predatory mites on bean plants grown in net house	Gazipur
1214	Study on predation efficiency of predatory mite (*Neoseiulus longispinosus*)	• To assess the predatory potential of a phytoseiid predator, *Neoseiulus longispinosus* on the different life stages (egg, larva, nymphs and adults) of *T. urticae* under laboratory conditions	Gazipur
1215	Study on Efficacy of predatory mite, *Neoseiulus longispinosus* (Evans) against two spotted spider mite, *Tetranychus urticae* Koch under field conditions	• To determine the efficiency of predatory mite, *N. longispinosus* for the management of pest mite *T. urticae* at field condition	Gazipur
1216	Development of mass rearing protocol of prey mite (*Tetranychus urticae*) on brinjal plant under laboratory condition	• To Develop mass rearing protocol of prey mite	Gazipur
1217	Mass rearing of *Spodoptera litura* under laboratory condition	• To develop rearing technique(s) of *S. litura* for continuous supply of eggs for *Telenomus remus* rearing under laboratory condition	Gazipur
1218	Rearing of predatory mite (*Neoseiulus longispinosus* Evans*)* in vitro on bean plants harbouring the prey, *Tetranychus urticae* Koch	• To develop mass rearing techniques of phytiseiid predators on bean plants grown in net house condition	Gazipur
1219	Study on predation efficiency, prey stage preference of predatory mite (*Neoseiulus longispinosus*) under laboratory condition	• To determine the predatory potential, prey stage preference of *N. longispinosus* under laboratory condition	Gazipur
1220	Field parasitism of egg parasitoids (*Telenomus remus*/ *Trichogramma pretiosum*) in *Spodoptera frugiperda* egg mass at	• To know the field efficiency of parasitism of egg parasitoids	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	different maize growing districts in Bangladesh		
1221	Development of mass rearing protocol of predatory mite (*Neoseiulus longispinosus*) on brinjal under laboratory condition	• To develop suitable protocols for mass rearing of predatory mites (*Neoseiulus longispinosus*)	Gazipur
1222	Efficacy study of the joint effort of seed treatment with Cyantraniliprole (Fortenza 60 FS) and egg parasitism for the management of initial FAW infestation in laboratory	• To know the joint effort of seed treatment with Cyantraniliprole (Fortenza 60 FS) and egg parasitism	Gazipur
1223	Determination of pre harvest interval for lambda-cyhalothrin and chlorpyrifos in major vegetables	• To determine the pre harvest interval (PHI) for lambda-cyhalothrin and chlorpyrifos in hyacinth bean and red amaranth	Gazipur
1224	Determination of pre harvest interval for lambda-cyhalothrin, cypermethrin and acetamiprid in mango	• To determination of pre harvest interval (PHI) for lambda-cyhalothrin, cypermethrin and acetamiprid in mango	Gazipur
1225	Determination of pre harvest interval for cypermethrin, lambda-cyhalothrin, and acetamiprid in litchi	• To determination of pre harvest interval (PHI) for cypermethrin, lambda-cyhalothrin and acetamiprid in litchi	Gazipur
1226	Study on residue degradation of newly registered along with some commonly used insecticides in selected vegetables under supervised field trial	• To determine the rate of degradation of residue level of lambda-cyhalothrin in coriander and chlorpyrifos and cypermethrin in broccoli	Gazipur
1227	Quantification of pesticide residue load in major vegetables collected from different regions of Bangladesh	• To detect and quantify the amount of left over residues of pesticides in different vegetable samples collected from local market of different regions of Bangladesh	Gazipur
1228	Development of analytical method for the determination of cypermethrin and metalaxyl using Gas Chromatography Triple Quadrupole Mass Spectrometry	• To develop and validate an analytical method for the analysis of cypermethrin and metalaxyl using gas chromatography triple quadrupole mass spectrometry	Gazipur
1229	Monitoring of multiple pesticide residues in fruits collected from different	• To develop and validate an analytical method for the analysis of commonly used pesticides in apple, grape, hog	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	regions of Bangladesh	plum, dates fruit and dragon fruit using QuEChERS Extraction and Gas Chromatography. • To monitor pesticide residues in apple, grape, hog plum, dates fruit and dragon fruit collected from different regions of Bangladesh	
1230	Monitoring of multiple pesticide residues in betel leaf collected from different regions of Bangladesh	• To develop and validate an analytical method for the analysis of pesticide residues in betel leaf. • To monitor pesticide residues in betel leaf samples collected from different regions of Bangladesh	Gazipur
1231	Determination of multiple pesticide residues in capsicum, green chilli, lettuce leaf and coriander leaf collected from different markets of Bangladesh	• To develop and validate an analytical method for the analysis of commonly used pesticides in capsicum, green chilli, lettuce leaf and coriander leaf using QuEChERS Extraction and Gas Chromatography • To monitor pesticide residues in capsicum, green chilli, lettuce leaf and coriander leaf collected from different regions of Bangladesh	Gazipur
1232	Determination of pre harvest interval for neonicotinoid insecticides in selected vegetables under supervised field trial	• To determine the pre harvest interval (PHI) of acetamiprid in broccoli, lettuce and red amaranth	Gazipur
1233	Determination of pesticide residues in poultry meat using QuEChERS Extraction and Gas chromatography	• To monitor pesticide residues in poultry meat using QuEChERS Extraction and Gas Chromatography.	Gazipur
1234	Risk assessment of selected pesticide residues in major fruits	• To assess the health risk of the selected pesticide residues found in apple, grape, hog plum, dates fruit and dragon fruit	Gazipur
1235	Development and validation of analytical methods for pesticide residue determination using HPLC-UV	• To develop and validate analytical methods for the analysis of thiamethoxam, carbofuran, and cartap using High Performance Liquid Chromatography (HPLC) with UV detector	Gazipur
1236	Detection and quantification of different pesticide residues in dry fish and their associated health risk assessment	• To detect and quantify the pesticide residue levels in dry fish collected from Chittagong, Khulna and Natore. • To assess health risk assessment of the selected pesticides in the collected dry fish	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1237	Monitoring of pesticide residues in dry fruits	• To validate the detection and quantification method in dry fruits. • To monitor pesticide residues in dry fruit collected from different markets of Bangladesh.	Gazipur
1238	Detection and quantification of pesticide residue in herbal medicine	• To develop and validate an analytical method for the analysis of pesticide residues in herbal medicine. • To monitor pesticide residues in herbal medicine collected from different markets of Bangladesh	Gazipur
1239	Detection and quantification of pesticide residue in spices	• To develop and validate an analytical method for the analysis of pesticide residues in coriander powder, garlic and ginger. • To detect and quantify the pesticide residue level in marketed coriander powder, garlic and ginger	Gazipur
1240	Determination of multiple pesticide residues in milk collected from different markets of Bangladesh	• To develop and validate an analytical method for the analysis of pesticide residues in milk • To monitor pesticide residues in milk collected from different markets of Bangladesh	Gazipur
1241	Purity analysis of different brands of marketed pesticides	• To quantify the active ingredient, present in different marketed brands of selected pesticides. To know the purity level of different formulated products of different pesticides	Gazipur
ON-FARM RESEARCH DIVISION			
On-Farm Soil Fertility Management			
1242	Effect of potassium fertilizer on groundnut in charland	• To identify the suitable dose of potassium fertilizer for groundnut production char land condition.	Chilmari, Kurigram
1243	Development of fertilizer recommendation for foxtail millet at charland of bogura	• To determine the fertilizer dose on yield of foxtail millet • To evaluate the efficacy of fertilizer on yield maximization of foxtail millet.	Sariakandi, Bogura
1244	Development of fertilizer recommendation for lentil-maize- t. aman rice cropping pattern	• To find out a cropping pattern based economically viable fertilizer dose and increase crop productivity. `	Paba, Rajshahi
1245	Development of fertilizer recommendation for garlic/ brinjal-t.aman rice cropping pattern	• To find out a cropping pattern based economically viable fertilizer dose and increase crop productivity	Shibpur, Rajshahi
1246	Effect of boron on seed yield of sunflower in acidic	• To determine the optimum dose of boron • To achieve better yield of sunflower in	Hakaluki haor, Moulvibazar

Sl.	Research Title	Objective(s)	Location(s)
	soil of sylhet region	the Sylhet region	
1247	Effect of lime on seed yield of sunflower in acidic soil of sylhet region	• To determine the optimum dose of lime • To achieve better yield of sunflower in the Sylhet region.	Hakaluki haor, Moulvibazar
1248	Effect of rice straw burn ash on yield of mustard	• To select a profitable practice for mustard cultivation by managing rice straw burn ash.	Madhobpur, Habigonj
1249	Efect of spacing and fertilizer on yield of sunflower in bhola	• To optimize suitable spacing for maximization yield of sunflower. • To find out the optimum doses of fertilizer. • To find out the combined effect of spacing and fertilizer doses on sunflower yield.	Sadar and Dawlatkhan, Bhola
1250	Fertilizer dose for stolon producing bari panikachu-2	• To study the effect of developed fertilizer package • To determine the feedback of newly developed package for sustainable aquatic taro production.	Nakla, Sherpur
1251	Performance of water hyacinth residue as an organic manure for cauliflower production at aez-14	• To determine suitable amount of water hyacinth residue for cauliflower production.	Gopalganj sadar of Gopalganj and Nazirpur of Pirojpur
1252	Nutrient management for oat production in faridpur	• To determine the suitable fertilizer dose on the yield of oat. • To evaluate the efficacy of fertilizer on yield maximization.	Sholakundu, Faridpur
1253	Validation of biofertilizer on legume crop	• To study the effect of biofertilizer on the yield of legume crops. • To calculate the yield increased and economic benefit legume crops. • To evaluate the efficacy of biofertilizers.	Faridpur, Patuakhali, Noakhali and Sherpur
1254	Effect of organic fertilizer to mitigate soil salinity and maximize yield of potato in coastal saline soil	• To the effect of organic fertilizer on yield of potato. • To reduce soil salinity.	Kuakata, Patuakhali
1255	Response of vermicompost on growth, yield and fruit quality of watermelon in coastal saline soil	• To study the effect of organic fertilizers on yield and fruit quality of watermelon. • To determine the amount of organic manure.	Kuakata, Patuakhali
1256	Development of fertilizer management on fruit yield of bt-brinjal	• To study the effects of STB dose on yield of Bt brinjal. • To evaluate the efficacy of fertilizers used in production of Bt brinjal.	Shibaloya upazila in Manikganj
1257	Integrated nutrient management for cabbage	• To evaluate the efficacy of nutrient management of cabbage under	Ganggarampur, Pabna

Sl.	Research Title	Objective(s)	Location(s)
	under agroforestry system	agroforestry.	
1258	Effect of nitrogen on crop productivity and soil health under different rice-based cropping systems	• To evaluate the effect of inclusion of pulses in the puddled rice system under different nitrogen (N) management indices	Pabna
1259	Effects of tillage, residue retention and phosphorus management on the performance of lentil in rice-based system	• To evaluate the effects of P management in CA on the performance of mustard in rice-based system of northern Bangladesh.	Ishurdi, Pabna
1260	Effect of nitrogen fertilizer and weed management on weed and yield of t. aman rice-wheat cropping pattern under conservation agriculture systems	• To evaluate the effect of nitrogen fertilizer and weed management on weed and crop yield of *aman* rice and wheat in rice-wheat-mungbean cropping pattern under conservation agriculture systems.	Gazipur
Improvement of cropping systems			
1261	Development of lentil-millet-t. Aman rice cropping pattern against lentil-fallow-t. aman rice in barind area	• To assess diversification and intensification of Lentil-fallow-T. Aman rice cropping pattern in terms of productivity, production efficiency, land use efficiency and economic return.	Basantapur, Rajshahi
1262	Development of four crops-based cropping pattern potato-mungbean-t. Aus-t. Aman against potato-d. Aush-t. aman rice cropping pattern in bhola	• To observe the performance of Potato-Mung-T. Aus-T. Aman rice cropping pattern.	Daulatkhan, Bhola sadar
1263	Development of alternate cropping pattern potato-maize + coriander-t. Aman rice against potato-maize-t. aman rice cropping pattern in cumilla region	• To utilize the gaps between the two lines of maize in the seedling stage, • To increase production and economic return of the farmers by improving the cropping system.	Daudkandi, Cumilla
1264	Development of improved cropping pattern potato/aroid-t. Aman rice against potato-fallow-t. aman rice	• To increase the cropping intensity and productivity through improved cropping pattern. • To increase production and economic return of the farmers by improving the cropping system.	Barura, Cumilla
1265	Development of improved cropping pattern mustard-sesame- b. aman rice in cummila region	• Increase cropping intensity and productivity through inclusion of sesame in rice-based cropping system, and Increase farmer's income, access to food and nutrition.	Kesobpur, Titas
1266	Development of improved cropping pattern potato-mungbean-t. Aus-yard long	• To increase the cropping intensity and productivity through improved cropping pattern.	Sayedpur, Sadar Cumilla

Sl.	Research Title	Objective(s)	Location(s)
	bean against potato-yard long bean-t.aus-t. aman rice	• To increase the income of the farmers.	
1267	Development of alternate cropping pattern potato-maize + leafy vegetable-t. Aman rice against potato-maize-t. aman rice cropping pattern	• To utilize the gaps between the two lines of maize in the seedling stage • To increase production and economic return of the farmers by improving the cropping system.	Kishanbazar, Sadar, Dinajpur
1268	Development of improved cropping pattern wheat-mungbean-t. Aman against wheat- fallow-t. aman rice in medium highland of aez-1	• To improve the existing cropping pattern for increasing cropping intensity and productivity by inclusion of Mungbean and to increase farmer's income.	Pirganj, Thakurgaon
1269	Development of improved cropping pattern maize-mungbean-t. Aman against maize- fallow-t. aman rice in medium high lanf of dinajpur region	• To improve the existing cropping pattern for increasing cropping intensity and productivity by inclusion of Mungbean and to increase crop yield and farmer's income.	Raniganj, Dinajpur
1270	Development of improved cropping pattern wheat-summer onion-t. Aman against wheat- fallow-t. aman rice in medium high land of aez-1	• To introduce summer onion (var. BARI Piaz-5) in the fallow period.	Raniganj, Dinajpur
1271	Development of alternate cropping pattern boro-t. Aman rice-mustard against boro-t. aman-fallow in faridpur	• To increase yield and economic return.	Faridpur
1272	Development of existing cropping pattern mustard-sesame- t. aman in faridpur (epoc project)	• To improve the existing cropping pattern, increase yield and economic return through rice-based cropping system.	Faridpur
1273	Development of alternate cropping pattern sunflower-jute-t. Aman rice against existing cropping pattern lentil-jute-t. aman in faridpur (epoc project)	• To increase yield and economic return through rice-based cropping system.	Faridpur
1274	Development of alternate cropping pattern mustard-boro-t. Aman rice against fallow-boro-t. aman rice in active brahmaputra jamuna floodplain of gaibandha	• To intensify cropping system from double to triple as well as to increase the productivity and profitability.	Saghata, Gaibandha
1275	Development of mustard-	• To increase the cropping intensity and	Saghata,

Sl.	Research Title	Objective(s)	Location(s)
	sesame-t. Aman cropping pattern against boro-fallow-t. aman in active brahmaputra jamuna floodplain of gaibandha	productivity by integrating short-term mustard in rice-based cropping patterns.	Gaibandha
1276	Development of alternate cropping pattern wheat-jute-t. Aman against farmers existing fallow-jute-t. aman pattern in gopalganj region	• To introduce wheat which can supplement grain demand of this district.	Tungipara, Sadar and Muksudpur under Gopalganj
1277	Development of alternate cropping pattern fieldpea-boro-t. Aman against mustard-boro-t. aman cropping pattern	• To develop alternate cropping pattern Fieldpea-Boro-T. Aman cropping pattern against Mustard -Boro-T. Aman cropping pattern in AEZ-11.	Jhikargacha, Jashore
1278	Development of alternate cropping pattern mustard-jute-t. Aman against lentil-jute-t. aman croppig pattern	• To develop alternate cropping pattern Mustard-Jute-T. Aman cropping pattern against Lentil -Jute-T. Aman cropping pattern in AEZ-11	Shalikha, Magura
1279	Development of alternate cropping pattern t. aus-cauliflower + knolkhol – relay pointed gourd against t. aman – cauliflower – fallow	• To get higher market price and system productivity in the existing T. Aman - Mustard - Boro cropping pattern of Satkhira district	Satkhira
1280	Development of alternate cropping pattern through t. aman–mustard–jute against t. aman–fallow–fallow	• To develop an alternate cropping pattern through T. Aman–Mustard-Jute in Satkhira.	Satkhira
1281	Development of potato-groundnut-fallow cropping pattern against existing fallow-boro-fallow	• To increase cropping intensity and productivity through introduction of potato and groundnut for altering the existing Fallow-Boro-Fallow cropping pattern.	Nikli, Kishoreganj
1282	Development of potato-jute leaf-cucumber-t. Aman rice cropping pattern against existing maize-fallow-t. aman rice	• To the farmers. Therefore, the present study was conducted for higher economic return.	Hossainpur, Kishoreganj
1283	Development of potato-jute-t. Aman rice cropping pattern against wheat-jute-t. aman rice cropping pattern	• To evaluate the cropping patterns at farmer's field and hence to increase economic return, employment opportunity and woman's participation, cropping intensity with nutritious food.	Hossainpur, Kishoreganj
1284	Improvement of sweet gourd-kenaf-fallow cropping pattern against existing cropping pattern in	• To increase cropping intensity, productivity, and income of the farmers.	Nikli, Kishoreganj

Sl.	Research Title	Objective(s)	Location(s)
	haor areas of kishoreganj		
1285	Improvement of mustard-boro-t. aman cropping pattern in kushtia	• For higher yield and economic return	Kushtia
1286	Development of alternate cropping pattern vegetable-vegetable-t. Aman rice against vegetable- fallow-t. aman rice	• To popularize and evaluate the new cropping pattern among the farmers. With this view in mind, the trial was undertaken	Shibpur, Narsingdi
1287	Development of alternate cropping pattern vegetable-jute-t. aman rice against wheat-jute - t. aman rice	• To popularize and evaluate the new cropping pattern among the farmers. With this view in mind, the trial was undertaken	Shibpur, Narsingdi
1288	Improvement of t. aman rice-mustard-boro rice cropping pattern	• To motivate the farmers. Considering these views in mind the study has been conducted in said areas.	Ganggarampur, Pabna
1289	Improvement of t. aman-mustard-sesame cropping pattern	• To find out suitable varieties for maximizing the yield and profitability of system.	Ganggarampur, Pabna
1290	Development of alternate cropping pattern relaying maize with potato -fallow- t. aman rice against farmers existing potato-fallow–t. aman rice pattern in coastal region	• To increase production and income of the coastal farmers.	Kalapara, Patuakhali
1291	Development of alternate cropping pattern onion/groundnut-t. aman instead of groundnut–t. aman in charland area	• To increase cropping intensity, productivity and income of farmers.	Ulipur, Kurigram
1292	Development of four crops-based cropping pattern potato-potato-jute-t. Aman rice instead of tobacco-maize-t. aman rice	• To assess the agro-economic performance of the alternate pattern Potato-Potato-Jute-T. Aman rice.	Magura, Kesorganj, Nilphamari
1293	Increase cropping intensity and productivity by adoption of short duration mustard varieties in rice-based cropping system (sherpur region)	• To popularize and evaluate the new cropping pattern among the farmers.	Tarakandi, Sherpur
1294	Increase cropping intensity and productivity by adoption of short duration mustard varieties in rice-based cropping system (jamalpur region)	• To popularize and evaluate the new cropping pattern among the farmers. With this view in mind, the trial was undertaken.	Sarishabari, Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
1295	Development of onion-based cropping patterns against onion-jute- t aman rice cropping pattern	• To screen suitable, productive and profitable patterns.	Shyampur, Rajshahi,
1296	Improvement of cropping patterns withsummer vegetables and t. aus rice	• To screen suitable, productive and profitable patterns.	Shyampur, Rajshahi,
1297	Improvement from fallow-t. Aus-t. Aman rice to mustard-t. Aus-t. aman rice under aez 20 of sylhet region	• To determine productivity and economic feasibility of an improved package of technologies over the farmer's existing practices.	Moulvibazar,
1298	Improvement of existing cropping pattern mustard-t. Aus-t. aman rice through inclusion of modern varieties of mustard and rice in aez 20 of sylhet region	• To determine productivity and economic feasibility of an improved package of technologies over the farmer's existing practices.	Sylhet
1299	Development of alternative cropping pattern mustard-sesame - t. aman rice against mustard – fallow - t. aman cropping pattern in hibiganj	• To increase productivity and income of farmers in AEZ-20.	Baniachang, Hobiganj
1300	Intercropping of sweet gourd with cabbage	• To evaluate the performance of sweet gourd as intercrop with cabbage as well as increasing farmer's income.	Dhirashram, Gazipur
1301	Performance of bush bean intercropped with groundnut in haor areas of sylhet region	• To find out the suitable intercrop combination.	Hakaluki Haor, Moulvibazer
1302	Intercropping of cabbage and cauliflower with sugarcane	• To find out the suitable crop for intercropping with sugarcane under farmers' field condition.	Delduar, Tangail
1303	Intercropping of onion and potato with sugarcane	• To increase increase productivity and economic returns.	Delduar, Tangail
1304	Intercropping of potato with brinjal	• To find out the most suitable intercropping system and increase the yield and economic return.	Delduar, Tangail
1305	Utilization of inter space of watermelon through spices production in saline area	• To utilize inter-space of watermelon field.	Shubarnachar, Noakhali
1306	Effect of intercropping onion with okra at charland of mymensingh	• To find out the suitable intercrop combination of onion with okra for higher productivity and profitability.	Gouripurunder Mymensingh
1307	Performance of intercrops with panikachu in charland of sherpur	• To find out the appropriate intercrop combination for higher yield and economic return.	Tarakandi under Sherpur
1308	Validation of intercropping	• To find out the suitable intercrop	Bhuapur,

Sl.	Research Title	Objective(s)	Location(s)
	garlic, onion, fenugreek, black cumin with groundnut in charland areas	combination of groundnut for higher productivity and profitability of charland areas stakeholders.	Tangail
1309	Performance on mixed cropping system of lentil, mustard and linseed under aez-11	• To get higher economic return	Atghoria, Pabna
1310	Mixed cropping of mustard with lentil at a different seed ratio	• To verify the agroeconomics performance of mixed cropping of lentil with mustard in farmer's field.	Shibpur and Paba, Rajshahi
1311	Mixed cropping of black cumin with lentil at different seed ratios	• To see adoption and yield potential of lentil and black cumin under mixed cropping system.	Paba and Rajshahi
1312	Performance of mixed lentil and linseed under the stripand conventional tillage method	• To get higher economic return	Shibpur and Rajshahi
1313	Effect of sowing time of mustard variety in eastern surma-kushiyara floodplain soil of sylhet	• To find out the optimum planting date for mustard.	Sylhet
1314	Planting date influence phenology, growth and yield of lentil in high barind tract	• To find out (i) the suitable planting date of chickpea, (ii) days to phenologies (iii) growing degree days (GDD) and (iv) yield performance of chickpea varieties with different planting dates.	Godagari, Rajshahi
1315	Effect of planting time on sweet potato in char land condition	• To find out a suitable plantation time for sweet potatoes in char lands.	Saghata, Gaibandha
1316	Effect of sowing dates and varieties on early planted potato	• To find out the suitable sowing date and variety (s) for early potato cultivation with compared to local verities.	Kishoreganj, Nilphamari
1317	Effect of selective herbicide in black cumin in faridpur	• To find out the optimum herbicidal dose of Oxadiazon and to reduce cost of production and increase yield in black cumin.	Faridpur
1318	Effect of fungicide to control foot and root rot disease of lentil in faridpur	• To find out suitable fungicide controlling foot and root rot of lentil.	Faridpur
1319	Effect of post harvest stacking on the quality of sesame seed	• To find out the performance of stacking methods on sesame yield and oil in farmer's field condition.	Faridpur
1320	Effect of growth regulator on late sowing lentil in faridpur	• To find out suitable PGR and apply them to increase yield of lentil.	Madaripur
1321	Effect of sunflower rows for onion seed production in faridpur	• To find out suitable sunflower rows for onion seed production and to increase sustainable yield of onion seed	Sholakundu, Faridpur

Sl.	Research Title	Objective(s)	Location(s)
		production.	
1322	Performance of country bean varieties to pod borer infestation at farmers field	• To monitor the performance of country bean varieties concerning their yield and yield contributing characters, as well as the severity of pod borer infestation at farmers' field.	Trishal, in Mymensingh
1323	Effect of different sowing dates on the yield of mungbean in coastal area	• To find out the optimum sowing date as well as ensure higher yield in coastal area.	Patuakhali Sadar
1324	Performance of different mustard varieties under late sowing condition	• To evaluate the performance of different mustard varieties under late sowing condition in Khulna Gopalganj bill aera	Tungipara, Gopalganj Sadar
1325	Maximizing the yield of existing cashewnut garden through improved management practices in chittagong hill tracts	• To increase quality production through introducing improved production management technologies in the existing gardens.	Bandarban sadar
1326	Bio-Rational based management techniques for the control of mango fruit fly, bactrocera dorsalis in rajshahi region	• To manage the mango fruit fly, which is eco-friendly and safe for the environment.	Charghat and Bagha upazilla of Rajshahi
1327	Icm techniques in reducing flower and fruit dropping of mango in high barind tract	• To validate ICM technologies for increased mango production by reducing flower and fruit dropping caused by mainly insects, diseases, inadequate and improper application of fertilizers and irrigation in high Barind regions.	Godagari of Rajshahi and Sapahar of Naogaon
1328	Bio-Rational based management of pod borer, helicoverpa armigera hubner infesting chickpea	• To evaluate the efficacy of different biorational based IPM package (s) against chickpea pod borer.	Godagari,
1329	Integrated management approach for controlling root rot (caused by sclerotium rolfsii) of sunflower	• To find out suitable management approach for controlling root rot disease and to reduce root rot disease incidence in sunflower field in southern region of Bangladesh.	Dumki, Patuakhali
1330	Performance of early planted tomato under agroforestry system as affected by planting time	• To find out the optimum planting time for better performance of summer tomato under agroforestry system.	Ganggarampur, Pabna Sadar
1331	Nutrient management for mango-based agroforestry system in cumilla region	• To evaluate the response of nutrient management on crops for higher production and economic return of farmers.	Chandina, Cumilla
On-Farm Trials with Advance Lines and Technologies			
1332	On-Farm trial of bari brinjal varieties	• To evaluate the performance of BARI released brinjal varieties under farmer's	Gaibandha & Kushtia

Sl.	Research Title	Objective(s)	Location(s)
		field condition and to popularize those varieties among the farmers to promote their adoption.	
1333	On Farm trail of bari hybrid brinjal varieties	• To evaluate the adaptability and performance of BARI developed Hybrid brinjal varieties under farmer's field conditions and to popularize the variety among the farmers in different areas of Bangladesh.	Sherpur, Bhola, Dinajpur, Gopalganj and Rajshahi
1334	On-Farm trial of bari country bean variety	• To evaluate the performance of BARI developed country bean varieties in the farmers' field.	Faridpur Dinajpur and Bandarban
1335	On-Farm trial of bari bitter gourd varieties	• To evaluate the performance of BARI developed bitter gourd varieties in the farmers' field.	Cumilla and Rampur under Mymensingh
1336	On-Farm trial of bari hybrid pumpkin variety	• To evaluate the performance of BARI developed Hybrid and open pollinated pumpkin varieties in the farmers' field.	Mymensingh, Sherpur, Sylhet and Tangail
1337	On-Farm trial of bari developed broccoli variety	• To determine the best suited variety for Noakhali region	Subarnachar, Noakhali
1338	Adaptive trial of bushbean varieties in jashore region	• To evaluate the performance of bushbean varieties in farmers' field and to popularize BARI varieties among the farmers.	Jhikorgacha, Jashore
1339	On-Farm trial of bari winter hybrid tomato varieties	• To evaluate the performance of BARI winter Hybrid Tomato varieties and to popularize the varieties among the farmers.	Bhola, Manikganj, Narsingdi, Patuakhali and Sherpur
1340	On-Farm trial of bari winter tomato varieties	• To evaluate the performance of BARI developed tomato varieties at different locations and to increase production and economic return of farmers.	Bhola, Gaibandha, Gopalganj, Manikganj, Rajshahi, and Kushtia
1341	On-Farm trial of bari developed lemon varieties in the hilly areas of bandarban	• To evaluate the performance of BARI lemon varieties and to select suitable variety for the hill areas of Bandarban.	Bandarban
1342	Performance of bari mango varieties in the hilly areas of bandarban	• To evaluate the performance of BARI mango varieties along with other popular commercial varieties to find out the suitable one in hilly areas of Bandarban.	Bandarban
1343	On-Farm trial of kharif watermelon varieties in costal region	• To observe the yield performance and to find out suitable watermelon varieties for this region.	Amtoli, Borguna
1344	Adaptive trial of robusta and arabica coffee in the hill	• To explore the potential of coffee cultivation as a means of economic	Bandarban

Sl.	Research Title	Objective(s)	Location(s)
	valleys of bandarban, sherpur and mymensingh district	development.	
1345	On-farm trial of bari gladiolus varieties in mymensingh region	• To find out suitable variety of gladiolus for AEZ-9 and to observe the yield and economic return.	Mymensingh
1346	Adaptive trial with newly released potato varieties in different locations	• To assess the performance of the 10 (Ten) high-yielding potato varieties and learn about farmers' preferences regarding the varieties.	Cumilla, Chandpur, B. Baria, Faridpur, Manikganj, Gaibandha, Narsingdi, Kushtia, Rangpur, Rajshahi, Khulna, Sherpur, Tangail, Bandarban, Mymensingh, Bhola, Kishoreganj, Gopalganj, Patuakhali, Noakhali
1347	Promotion and dissemination of late blight-resistant potato varieties in different locations	• To evaluate and popularize the varieties under farmer's field conditions in the northern districts (Gaibandha, Lalmonirhat, Kurigram, Rajshahi, and Rangpur).	Gaibandha, Rajshahi, Lalmonirhat, Kurigram, Rangpur, Nilphamari
1348	Promotion and dissemination of newly released climate-smart (heat and salt tolerant) potato varieties	• To be evaluated at the farmers field condition before the expansion of potato cultivation	Khulna, Bhola, Coxs bazar, Noakhali, Patuakhali, Borguna
1349	On-farm trial of potato varieties in different locations	• To evaluate their performance and to increase potato production and farmer's income.	Sherpur and Tangail
1350	Adaptive trial with anthocyanin rich potato varieties	• To evaluate their yield performance and to know farmer's opinions about the newly released improved potato varieties in different locations of Bangladesh	Rangpur
1351	Adaptive trial of promising sweet potato varieties in different locations	• To locate acceptable cultivars in various regions of Bangladesh and to encourage farmer participation.	Jamalpur, Kishoreganj, Gaibandha, Khulna, and Sylhet
1352	On-Farm trial of bari released sweet potato varieties	• To raise the farmers' incomes through cultivation of BARI released sweet potato varieties and to get their feedback.	Kushtia, Tangail and Mymensingh.
1353	Adaptive trials with	• To assess this variety's performance and	Narsingdi,

Sl.	Research Title	Objective(s)	Location(s)
	mukhikachu varieties in different locations	to popularize and disseminate it throughout the nation.	Chuadanga, Magura, Mymensingh and Sherpur
1354	Adaptive trials with newly released panikachu varieties in different locations	• To assess the performance of the aroid varieties and promote and propagate them throughout the nation.	Sherpur, Magura, Kishoregonj, Mymensingh, a nd Sylhet
1355	On-Farm trial of stolon producing taro varieties in different locations	• To assess the effectiveness of the stolon-producing aroid and to popularize and distribute it among the farmers.	Gazipur, Munshiganj and Gaibandha
1356	On-Farm trial of lentil varieties in faridpur	• To find out the suitable one for Faridpur.	Faridpur
1357	Validation of biofertilizer on the performance of lentil	• To demonstrate the performance of *Rhizobium* biofertilizer for lentil as a potential technology to reduce yield gap.	Gangarampur, Pabna
1358	On-Farm trial of grass pea varieties	• To find out which one is best performer among BARI developed grass pea varieties.	Faridpur, Gopalganj and Patuakhali
1359	On-Farm adaptive trial of chickpea varieties in differernt locations of bangladesh	• To evaluate the performance of BARI chickpea varieties and to popularize those varieties among the farmers at different locations of Bangladesh.	Paba, Rajshahi; Godagari, Rajshahi, Saghata, Gaibandha, and Faridpur
1360	On Farm trial of promising chickpea varieties in hbt	• To select suitable chickpea variety under drought prone area	Godagari, Rajshahi
1361	regional yield trial of chickpea in hbt	• To select suitable chickpea variety through regional yield trial (RYT) under drought prone area	Godagari, Rajshahi
1362	On-Farm trial of field pea varieties	• To popularize and disseminate those varieties among the farmers at char land as well as plain land of Faridpur and coastal area of Patuakhali.	Faridpur and Patuakhali
1363	Regional yield trial of fieldpea in hbt	• To develop variety(s) through farmer's selection under Barind environments	Godagari, Rajshahi
1364	Adaptive trial of different varieties of mungbean in coastal area	• To evaluate the performance of released mungbean varieties in coastal area	Bauphal, Patuakhali
1365	On Faram trial of blackgram varieties in netrakona	• To increase popularities among the farmers and economic return.	Netrokona
1366	Participatory variety selection of blackgram in hbt	• To select suitable blackgramvariety for High Barind Tract (HBT) under drought prone area	Godagari, Rajshahi
1367	Adaptive trial of different genotypes of cowpea in coastal area	• To evaluate the performance of cowpea genotypes in coastal area.	Kalapara, Patuakhali
1368	On-Farm trial of short	• To observe their performances. of short	Atgharia, Pabna,

Sl.	Research Title	Objective(s)	Location(s)
	duration mustard varieties in different location of bangladesh	duration mustard varieties	Reicha of Bandarban, Shibpur, Puthia, and Tanor, Rajshahi, Bhola sadar and Doulatkhan under Bhola, Godagari, Rajshahi and at Nikli, Karimganj, Hossainpur and Kishoreganj sadar in Kishoreganj
1369	On-Farm trial of medium duration mustard varieties in different location of bangladesh	• To select medium duration variety for this region.	Shibpur, Puthia, and Tanor, Rajshahi, Basantapur, Godagari, Rajshahi and Joypurhat
1370	Adaptive trial of advanced lines of brassica rapa l. of different location of bangladesh	• To see the performance of the tested lines of mustard at farmers' field.	Ganggarampur, Pabna, Barura in Cumilla, Atia, Tangail and Challisha under Netrokona
1371	Adaptive trail of advanced lines of brassica napus l.	• To select short duration high yielding variety of rapeseed to fit in between T. Aman – Boro rice.	Chandina in Cumilla
1372	On-Farm trial of bari sunflower varieties in southern region of bangladesh	• To observe the performance of sunflower varieties under farmers' field condition.	Noakhali, Amtoli, Borguna, Bhola sadar and Dawlatkhan upazila under Bhola and Muktagacha, Mymensingh
1373	On-Farm trial of groundnut varieties in different locations of bangladesh	• To find out the suitable groundnut variety(s) for different locations	Tungipara, Gopalganj, Amtoli, Borguna and Faridpur and Chilmari, Kurigram
1374	Adaptive trial of groundnut	• To select high yielding more resistant lines to get new varieties for higher nut yield and economic return.	Sadar upazilla of Noakhali
1375	Adaptive trial of advanced lines of sesame	• To find out the performance of the advance lines in farmer's field condition.	Bheramara, Kushtia and Faridpur and Rajbari
1376	On Faram trial of sesame varieties in different location of bangladesh	• To evaluate the performance of BARI released sesame varieties in the farmer's field.	Faridpur and Rajbari and Rajendrapur,

Sl.	Research Title	Objective(s)	Location(s)
			Netrokona and Vabokhali Mymensingh
1377	On-Farm trial of soybean varieties in saline area	• To select suitable soybean variety(s) for salinity affected char lands under rainfed condition.	Sadar upazilla in Noakhali
1378	On Farm trial of onion varieties in charland	• To popularize onion varieties among the farmers of char areas of Bangladesh.	Bogura, Gaibandha, Tangail and Pabna
1379	On Farm trial of onion varieties	• To evaluate the performance of winter onion varieties throughout the country.	Shyampur, Rajshahi, Gaibandha and Sylhet
1380	On-Farm trial of garlic varieties	• To test the performance of BARI garlic varieties in the farmer's field.	Rajshahi, Patuakhali and Bhola
1381	On-Farm trial of chilli varieties at farmers filed	• To evaluate the performances the chilli varieties at farmer's field for higher yield and economic return.	Rajendrapur, Netrakona and Vabokhali, Mymensingh
1382	On Farm trial of turmeric varieties	• To find out the appropriate variety for turmeric.	Gopalganj and Narsingdi
1383	On-Farm trial of coriander in char land of mymensingh	• To promote the BARI developed coriander variety in the Mymensingh region	Trishal in Mymensingh
1384	Effect of different seedling ratios on the performance of coriender field pea mixed cropping system	• To investigate the effect of different mixed cropping arrangements of coriander and field pea and to find the land use advantage in the intercropping system	Debiddar, Cumilla
1385	Validation of intercropping garlic, onion, fenugreek, black cumin with groundnut in charland areas	• To find out the suitable intercrop combination of groundnut for higher productivity and profitability of charland areas stakeholders	Bhuapur, Tangail
1386	Performance trial of mint varieties for yield and quality in sylhet region	• To evaluate comparative performance of four mint (Mentha sp.) genotypes for high yield and quality.	Kamalbazar, Sylhet
1387	On-Farm trial of bari developed barley varieties	• To observe the performance and popularize BARI barley varieties among the farmers.	Rajshahi, Tangail, Khulna and Faridpur
1388	Performance of bari released barley in manikgonj and khulna	• To test the performance of BARI Barley in the farmer's field.	Shibaloy, Manikganj and Koyra, Khulna
1389	Advanced yield trial of quinoa	• To assess the stability and adaptability quinoa lines at coastal area of Bangladesh and to select better performing quinoa line(s).	Koyra, Khulna

Sl.	Research Title	Objective(s)	Location(s)
1390	Advancing of f2, f3 and f4 generation of barley under saline condition	• To develop saline tolerant barley variety through screening during generation advancing.	Koyra, Khulna
1391	Adaptive trials with bari barley and oat varieties in char areas	• To observe the performance of BARI Barley and Oat varieties in the Char areas	Saghata, Gaibandha
1392	Up-Scaling of bari foxtail millet and proso millet varieties in char areas	• To disseminate and popularize BARI foxtail millet and proso millet varieties to the farmers of char areas.	Saghata, Gaibandha
1393	On-Farm trial of foxtail millet varieties at farmers field	• To evaluate the performance of BARI developed high yielding foxtail millet varieties	Rajshahi, Jamalpur, Mymensingh and Rangpur
1394	On Farm trial of proso millet varieties in the char land and high barind tracts	• To evaluate the performance of modern proso millet variety under farmers' field conditions.	Sonatola, Bogura and Basantapur, Godagari, Rajshahi
1395	Adaptive trials with finger millet lines in char areas	• To observe the performance of five finger millet lines	Ulipur, Kurigram
Integrated Farming			
1396	Integrated farming research and development for livelihood improvement in the plainland ecosystem	• To develop integrated farming technologies, fine tune the technologies generated by NARS institutes, integrate component technologies with efficient use of farm resources and thereby improve family income and livelihoods.	Sholakundu (Faridpur), Gangarampur (Pabna), Ajoddhapur (Rangpur), Tarakandi (Sherpur) and Atia, Delduar (Tangail)
1397	Integrated farming of drought ecosystem for improving livelihood of resource poor farm households in a participatiory approach	• To utilize the present resources in a better and systematic way, to enlarge the current income level and to determine the effect of integrated farming intervention on total development of a farm family.	Basantapur, Rajshahi; and Kamal Bazar, Sylhet
1398	Livelihood improvement of coastal house holds through participatory mixed farming system approach	• To maximize farm productivity and efficient use of resources and to integrate component technologies for improving farm practices and livelihood pattern of the coastal farmers.	Kalapara Upazila of Patuakhali
1399	Climate resilient farming systems research and development for the coastal ecosystem	• To maximize farm productivity and efficient use of resources, to modify/fine tune of technologies generated by BARI for coastal ecosystems and to integrate component technologies for improving the livelihood of coastal farm families.	Subarnachar, Noakhali

Sl.	Research Title	Objective(s)	Location(s)
Socioeconomic Studies			
1400	Adoption and profitability of bari hybrid tomato in some selected areas of bangladesh	• To know the adoption status of BARI hybrid tomato variety along with its cultivation. • To estimate the input use pattern and profitability of BARI hybrid tomato cultivation. • To identify the constraints to BARI hybrid tomato production at farm level.	Bandarban, Bhola, Bogura, Brahmanbaria, Faridpur, Gopalganj, Jashore, Satkhira, Kishoreganj, Noakhali, Pabna, Sherpur, Rajshahi, Moulvibazar and Tangail
1401	Adoption of nano input in brinjal farming of mymensingh district	• To understanding the risks and benefits of nanotechnologies	Mymensingh
1402	Economy of coriander cultivation in selected areas of kishoreganj	• To improve farmers' income and livelihoods	Kishoreganj
Transfer of Technology			
1403	On-Farm trial of bari released bt brinjal varieties in bangladesh	• To observe the performance of transgenic BARI Bt brinjal varieties at the farmers' field.	Bagura, Bhola, Faridpur, Gopalganj, Jashore, Khulna, Kishoreganj, Kushtia, Manikganj, Narsingdi, Noakhali, Rangpur, Sherpur and Tangail
1404	Pilot production of mustard varieties in different locations across the country	• Enhance technology to the farmers	Cumilla, Bandarban, Gopalganj, Barishal, Bhola, Cox's bazar, Kushtia, Mymensingh, Pabna, Tangail, Rajbari, Gaibandha, Norsindi, Rangpur, Manikganj, Sherpur, Sheympur Rajshahi, Sylhet, Patukhali, Noakhali, Khulna, Faridpur, Borendro

Sl.	Research Title	Objective(s)	Location(s)
			Rajshahi, Bogura and Kishoreganj
1405	Pilot production of groundnut varieties in different areas	• Enhance technology to the farmers	Tangail, Sylhet, Gaibandha Mymensingh and Faridpur
1406	Pilot production of sesame in different locations	• Enhance technology to the farmers	Cumilla, Faridpur Sylhet, Mymenshing and Borandro Rajshahi
1407	Pilot production of soybean varieties in different locations at farmers field	• Enhance technology to the farmers	in Cumilla, Faridpur, Gaibandha, Khulna, Kishoreganj, Sylhet, Patukhali, Kushtia and Bhola
1408	Pilot production of sunflower varieties in different locations at farmers field	• Enhance technology to the farmers	Khulna and Satkhira
1409	Pilot production of wheat varieties in south-western region of bangladesh	• Enhance technology to the farmers	Khulna and Bagerhat
1410	Pilot production of hybrid maize varieties in south-western region of bangladesh	• Enhance technology to the farmers	Khulna and Bagerhat
1411	Pilot production of barley varieties in different char land areas	• Enhance technology to the farmers	Gaibandha, Manikganj and Faridpur
1412	Production program of bari oat-1 in faridpur	• Enhance technology to the farmers	Faridpur
1413	Performance of bari chia-1 in manikganj	• Enhance technology to the farmers	Shibaloya upazila of Manikganj
1414	Pilot production of bari released foxtail millet variety in the char land areas	• Enhance technology to the farmers	Saghata of Gaibandha
1415	Pilot production of bari released proso-millet varieties	• Enhance technology to the farmers	Gaibandha and Rajshashi
1416	Pilot production of lentil varieties	• Enhance technology to the farmers	Faridpur, Manikganj, Pabna,

Sl.	Research Title	Objective(s)	Location(s)
			Gaibandha, Rajshahi, Rajshahi (Barind tract), Kushtia, Khulna, Satkhira, Bagerhat and Cumilla
1417	Production program of lentil under strip planting and conventional system at pabna region	• Enhance technology to the farmers	Gangarampur, Pabna
1418	Pilot production of mungbean in different locations at farmers field	• Enhance technology to the farmers	Bhola and Patuakhali
1419	Pilot production of field pea in different locations at farmers field	• Enhance technology to the farmers	Faridpur and Bagerhat
1420	Pilot production program of garden pea variety	• Enhance technology to the farmers	Faridpur and Bagerhat
1421	Pilot production of chickpea varieties in different areas of farmers field	• Enhance technology to the farmers	Faridpur, Madaripur, Rajshahi and Barind
1422	Pilot production of bari released grasspea varieties in different locations at farmers field	• Enhance technology to the farmers	Bhola, Faridpur, Tangail, Gaibandha, Bagerhat, Khulna, Satkhira and Kurigram
1423	Pilot production of blackgram in different locations	• Enhance technology to the farmers	Gaibandha and Barind Rajshahi
1424	Production program of bari felon-1 in bhola	• To observe their field performance and to make familiar among the farmers	Sadar, Borhanuddin and Daulatkhan and char fashion Bhola
1425	Production program of bari mash-3 under zero tillage in faridpur	• To demonstrate the performance of BARI Mash-3 and to popularize among the growers in the locality	Madaripur and Faridpur
1426	Production programme of grass pea as relay crop with t. aman rice	• To increase crop productivity through fallow land utilization.	Pabna, Rajbari, Faridpur, Noakhali, Feni and Patuakhali
1427	Production program of relay lentil variety (bari masur-8)	• Enhance technology to the farmers	Atgharia, Pabna
1428	Production program of relay field pea variety (bari motor-3)	• Enhance technology to the farmers	Atghoria, Pabna

Sl.	Research Title	Objective(s)	Location(s)
1429	Up-Scaling of improved variety of cowpea in patuakhali district	• Enhance technology to the farmers	Patuakhali
1430	Production program of bari mango varieties in the hilly areas of bandarban region	• Enhance technology to the farmers	Bandarban
1431	Production program of bari begun-12 at farmers field in different locations	• Enhance technology to the farmers	Faridpur, Gopalganj, Mymensingh, Sylhet, Khulna, Bagerhat, Bhola and Jashore
1432	Production program of bari developed country bean varieties	• Enhance technology to the farmers	Faridpur, Bagerhat and Tangail
1433	Production program of bari developed bottle gourd variety	• Enhance technology to the farmers	Bandarban, Sylhet and Bagerhat
1434	Pilot production of sweet gourd and red amaranth intercropping system in hill valleys of bandarban	• Enhance technology to the farmers	Bandarban
1435	Production program of bari mistymorich-2 in bhola	• Enhance technology to the farmers	Bhola
1436	Production programme of broccoli variety in tangail	• Enhance technology to the farmers	Madhupur, Tangail
1437	Pilot production of bari hybrid mistikumra varieties in char areas	• Enhance technology to the farmers	Saghata, Gaibandha
1438	Pilot production programme of bari developed watermelon varieties in south-western part of bangladesh	• Enhance technology to the farmers	Koyra, Khulna
1439	Pilot production program of okra in kishoreganj	• Enhance technology to the farmers	Kishoreganj sadar
1440	Pilot production of onion varieties at different location	• Enhance technology to the farmers	Faridpur, Mymensing, Manikganj, Pabna, Gaibandha, Khulna and Satkhira and Kushtia
1441	Onion bulb production of bari piaz-4 under zero tillage condition in shariatpur	• Enhance technology to the farmers	Munshikanda, Jajira, Shariatpur
1442	Pilot production program of	• Enhance technology to the farmers	Atghoria,

Sl.	Research Title	Objective(s)	Location(s)
	zero tillage garlic at pabna region		Pabna
1443	Pilot production programme of bari developed turmeric varieties	• Enhance technology to the farmers	Atghoria, Pabna
1444	Production program of potato	• Enhance technology to the farmers	Gazipur, Bhola, Pabna, Tangail, Faridpur, Gaibandha, Khulna, Rajshahi, Sylhet, Kushtia Mymensingh
1445	Production program of sweet potato	• Enhance technology to the farmers	Gaibandha and Mymensingh
1446	Production program of pai kachu variety	• To increase Panikachu production and to popularize the variety among the farmers.	Sherpur sadar
1447	Seed production programme of garden pea at farmers field	• To produce quality seed of BARI Motorshuti-3 at farmer's field	Mirzapur, Tangail
IRRIGATION AND WATER MANAGEMENT DIVISION			
1448	Response of Barley to Different Irrigation Regimes	• To assess the impacts of different irrigation regimes on the growth and yield of barley. • The results will benefit farmers and inform future planning for climate change challenges.	Gazipur
1449	Modelling Potato-Maize-Aman Cropping System as Influenced by Sowing Dates and Climate Change	• Calibrating and validating a crop simulation model for the potato-maize-aman system, ensuring its accuracy. Estimating crop yields and water usage across different sowing dates to devise effective adaptive strategies.	Gazipur
1450	Response of Mungbean to Different Levels of Irrigation	• To mitigate the impact of drought stress and ensure sustainable crop production in the area.	Gazipur
1451	Optimum Water and Nitrogen Management of Dwarf Sunflower Using APSIM	• To calibrate and validate the model using field experimental data, and finally to simulate the model.	Gazipur
1452	Validation of BARI Irrigation Advisory for Sunflower at Gazipur	• To validate the smart irrigation technology for a particular crop at a particular location. Sunflower was selected to validate this device at the Gazipur field.	Gazipur
1453	Feasibility of Surface Drainage for Winter Crop	• Determine the optimal surface drainage for sunflower.	Dacope Khulna

Sl.	Research Title	Objective(s)	Location(s)
	for Greater Resilience of Smallholder Farm Income in Food Security in Southern Bangladesh	• Determine the long-term crop yield variability of sunflower.	
1454	Optimization of Surface Drainage for Potato in Southern Bangladesh	• Determine the optimal surface drainage for sunflower. • Determine the long-term crop yield variability of sunflower.	Dacope Khulna
1455	Growth and Yield of Chilli as Influenced by Different Levels and Intervals of Drip Irrigation	• To determine an efficient and economic irrigation schedule for chilli with the use of drip irrigation at different amounts and timing.	Gazipur
1456	Effect of Irrigation Interval and Mulching on Growth, Flowering and Corm Production of Gladiolus in Winter Season	• To determine the best irrigation schedule and the impact of mulching on Gladiolus performance during the winter season. The results of this research will be highly beneficial to farmers who are interested in improving their gladiolus irrigation practices.	Gazipur
1457	Effect of Irrigation on Mango Fruit Cracking in Chattogram Region	• To find out the critical stage of irrigation • To mitigate mango fruit cracking of mango.	Chattogram
1458	Evaluation of Alternate Furrow Irrigation and Irrigation Interval with Supplemental Every-Furrow Irrigation for Eggplant Cultivation	• To evaluate the yield, water saving, water productivity and benefit cost ratio of the AFI compared with traditional EFI method.	Gazipur
1459	Feasibility Study of the IOT Based Precision Agriculture for Sustainable Crop Production in Bangladesh	• To develop and test the IoT based machine learning precision agriculture system for improving crop productivity. Monitor and evaluate the water and fertilizer use efficiency using IoT based precision agriculture. Analysis the economic profitability and feasibility of IoT based precision agriculture for crop production.	Gazipur
1460	Evaluation of Sprinkler Irrigation for Improving Water productivity of Watermelon/Sunflower in Coastal Zone of Bangladesh	• To develop the sprinkler irrigation system and evaluated at field for increasing water productivity.	Kalapara, Patuakhali
1461	Yield and Water Productivity Indices of Garlic Varieties under Sprinkler Irrigation	• To find out the comparative performance of two garlic varieties under sprinkler irrigation and to estimate the critical level of ET for obtaining maximum WP and maximum yield.	Gazipur
1462	Effect of Fertilizer and	• To find out the appropriate irrigation and	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Irrigation Frequency on the Yield and Quality of Export and Processing Potato	fertilizer management for higher tuber yield, dry matter content and quality of processing potato.	
1463	Effect of Saline Water Irrigation with Different Doses of Potassium on Crop Growth and Yield of Mung bean	• By adopting potassium fertilization and cultivating adaptable crops like mungbean, there is hope for mitigating the impact of salinity and promoting sustainable development.	Gazipur
1464	Adaptation of Raised Bed Furrow Irrigation Technique for Increasing Yield and Water Productivity of Sunflower in Saline Zone	• To increase crop and WP in salt response areas where irrigation water resources are limited.	Kalapara, Patuakhali
1465	Effect of Cyclic use of Non-Saline and Saline Water Irrigation on Yield, Water Productivity and Solute Potential of Zero-Tilled Potato	• To the cyclic use of NS and SW at different growth stages of potato in the salt-affected areas of Bangladesh.	Kalapara, Patuakhali & Dacope, Khulna
1466	Response of Zero-Tilled Garlic with and without Mulch to Saline Water Irrigation in Coastal Saline Soil	• To identify the better irrigation schedule with straw mulching on yield and water productivity of garlic in coastal clay soils.	Dacope, Khulna
1467	Effect of Mulch and Irrigation Interval on Yield and Water Productivity of Watermelon in Coastal Saline Soil	• To identify the effect of plastic mulch and irrigation interval on yield and water productivity of watermelon with medium saline water.	Dacope, Khulna
1468	Deep Learning Emulators for Salt Water Intrusion Management Modelling in Coastal Aquifers	• To propose a deep learning based coupled S-O approach to prescribe optimal abstraction rates to control saltwater intrusion in the coastal aquifers.	Patharghata and Barguna Sadar, Barguna
1469	Interpretable and Explainable Machine Learning Algorithms for Predicting Saltwater Intrusion in Coastal Aquifers	• To explore the interpretability and explain ability of the commonly used ML algorithms in saltwater intrusion prediction in coastal aquifers.	Illustrative study area
1470	Accuracy and Computational Time of GA and PSO Based Multi-objective Optimization Algorithms for Saltwater intrusion Management Model in Coastal Aquifers	• To determine the accuracy and robustness of multiple objective optimization algorithms in a coupled simulation-optimization framework. Address the stochastic nature of multi-objective optimization algorithms in obtaining global optimal solutions.	Illustrative study area
1471	Assessment of Groundwater Quality for Irrigation and	• To analyze the groundwater quality of some research stations of BARI to	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Drinking Purposes in Some Selected BARI Research Station	determine the physico-chemical parameters with special emphasis on its irrigation and drinking suitability.	
1472	Conservation of Groundwater and Raising its use Efficiency and Productivity in Irrigated Agriculture in Bangladesh (MoA Funded Project)	• Conduct a socio-economic, institutional and technical survey to understand the effectiveness of five element of a proposed necessary interventions (volume basis water charge, individual smart card, AWD technology, supply-side efficiency, community-based water management) for groundwater conservation, raising water use efficiency and water productivity in BADC and BMDA deep tube well (DTW) areas.	Dhaka, Rangpur, Rajshahi, Chattogram, Khulna Mymensingh & Sylhet
1473	Project (SACP-IWM Part): Dissemination of Water Saving Technologies for Non-Rice Crops in Saline Prone Areas of Bangladesh	• To evaluate drip fertigation technology to cultivate watermelon in the Kuakata and Noakhali Districts in Bangladesh	Kuakata, Patuakhali; Amtali, Barguna & Noakhali Sadar
FARM MACHINERY AND POST-HARVEST ENGINEERING DIVISION			
1474	Development and evaluation of four-wheel tractor operated seeder	• To design and fabricate four-wheel tractor operated seeder. • To evaluate the performance of the seeder	Gazipur
1475	Design and development of a tractor operated vegetable seedling transplanter	• To design and fabricate a tractor operated vegetable seedling transplanter. • To test and performance evaluation of the vegetable seedling transplanter. • To compare the performance of tractor operated vegetable seedling transplanter with the conventional method	Gazipur
1476	Energy use analysis of conservation agriculture tillage systems for Rice-Soybean cropping pattern	• To assess productivity of conservation agriculture (CA) tillage practices. • To quantify input- output energy flow in Rice-Soybean cropping pattern. • To evaluate energy efficiency and financial profitability of the systems	Gazipur
1477	Design and development of onion and garlic detopper	• Design and fabrication of the detopper. Testing and performance of the developed machines	Gazipur
1478	Establishment of CA park at BARI and adaptive trial of conservation machinery and water management systems in the southern delta of Bangladesh	• Establishment of CA platform to visualize the benefits of conservation agriculture in yield and soil properties with long term experiment. Testing and demonstration and adoption of selected conservation agriculture and irrigation machinery and methods in the selected areas	Gazipur, Barishal, Patuakhali and Khulna

Sl.	Research Title	Objective(s)	Location(s)
1479	Design and development of tractor operated potato harvester	• To design and fabricate of tractor operated potato harvester. • To evaluate performance and cost effectiveness of the machine	Gazipur, Panchagor
1480	Development of a four-wheel tractor operated onion and garlic planter	• To design and develop 4WT operated onion and garlic planting. • To test the performance of the planter with onion bulb and garlic clove. • To evaluate technical and economic performance of the planter	Gazipur
1481	Development of a boom sprayer for coconut tree	• To develop a boom sprayer for coconut tree • To test the sprayer in farmers field	Gazipur
1482	Improvement and validation of automatic irrigation device	• To improve the automated irrigation device from last year's feedback. • To validate the device for *Rabi* and horticultural crops	Gazipur
1483	Improvement and validation of barley thresher	• To improve the barley thresher. To validate the barley thresher	Gazipur
1484	Development of a power operated coconut tree climber	• To design and fabricate of a power operated coconut tree climber. • To evaluate the performance of the coconut tree climber. • To study the economic feasibility of the climber	Gazipur and Barishal
1485	Testing and evaluation of combine harvester for harvesting mungbean and soybean	• To evaluate the performance of the combine harvester for harvesting mungbean and soybean. Modification and improvement for harvesting mungbean andsoybean	Gazipur, Noakhali and Patuakhali
1486	Development of an oat dehulling machine	• To develop a small scale oat dehulling machine. • To evaluate performance of the developed oat dehulling machine	Gazipur
1487	Design and Development of a mungbean dehulling machine	• To develop a mungbean dehuller that can efficiently dehulled mung beans. • To evaluate performance of the mungbean dehuller	Gazipur
1488	Design and development of a jute decorticator	• To design, draw and fabricate a suitable, portable and handy jute decorticator without damage of jute sticks. • To evaluate performance of the jute decorticator	Gazipur, Bogura and Faridpur
1489	Improvement of power tiller operated potato harvester	• To improve power tiller potato harvester. • To evaluate improved potato harvester in the farmers' field of potato growing areas.	Gazipur, Rajshahi and Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
		• To build up capacity among the machinery manufacturer and rural young people in potato machinery activities.	
1490	Design and development of a power operated tomato seed separator cum pulper	• To design and develop a power operated tomato seed separator cum pulper. • To test and performance evaluation of the tomato seed separator cum pulper	Gazipur
1491	Development of a four blades automatic cashew shelling machine	• Design and fabrication of four blades automatic cashew shelling machine. Performance evaluation of the cashew shelling machine. Financial analysis of the four blades automatic cashew shelling machine	Gazipur and Bandarban
1492	Improvement of mechanical coconut dehusker	• Improvement and fabrication of mechanical coconut dehusker. Performance evaluation of the mechanical coconut dehusker. Financial analysis of the mechanical coconut dehusker	Gazipur and Noakhali
1493	Upscaling of coffee postharvest processing machinery	• To upscale of coffee pulper, dehuller, roaster and grinder. • To evaluate the performance of pulper, dehuller, roaster and grinder in laboratory. • To determine the quality of coffee and study the economic analysis of the machine	Gazipur, Bandarban and Khagrachari
1494	Farm Machinery and Postharvest Process Engineering	• To design and develop a seasome seed dehuller. • To evaluate the performance of the developed machine	Gazipur
1495	Development of a suitable fruits bagging tool	• To design and fabricate of a suitable fruits bagging tool. • To evaluate the performance of the fruits bagging tool	Gazipur and Rajshahi
1496	Improvement of BARI oil expeller for higher oil recovery	• To improve the existing BARI oil expeller for higher oil recovery of different oil seeds. • To evaluate performance of the oil expeller in BARI and farmers' field	Gazipur, Jashore and Manikganj
1497	Development of an IoT based seed storage for high value spices and vegetable seeds	• To develop an automatic cooling system (using internet of things, sensor, etc. in existing seed storage. To test the system in an existing cold storage of Postharvest Technology Division, BARI	Gazipur
1498	Development of cost-effective, intensified and sustainable recirculating	• To develop a cost-effective RAS using locally available resources.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	aquaculture system (RAS) in Bangladesh	• To assess efficiency of RAS to maintain water quality parameters, solid removals and biofilter system. Business model development of RAS	
1499	Development of a fertilizer sensor using fluorescence technology and field mapping	• Development of a portable fertilizer sensor by fluorescence (FL) response. Characterize the fluorescence compound in soil and fertilizer • Fertilizer mapping by the sensor with smartphone GPS.	Gazipur
1500	Development of an automated squirrel repellent	• To design and develop a sensor-based squirrel repellent. • To test the prototype on fruit trees	Gazipur and Moulvibazar
1501	Improvement of BARI solar cabinet dryer	• To improve the developed dryer for better performance. • To evaluate and compare the performance of developed dryer	Gazipur
1502	Development of a fruit grader using machine learning technique	• To design and develop a fruit grader using machine learning technique. • To test the prototype for grading mangoes, guava etc	Gazipur
1503	Adaptability testing of BARI developed agricultural machinery for high value crop production in coastal area	• Evaluation of the performance of BARI developed machinery for crop establishment in coastal area. • Dissemination of these machinery in coastal area	Patuakhali, Barguna, Bhola, Shatkhira, Noakhali and Laximipur
1504	Adaptation of BARI developed farm machinery in the selected areas of Bangladesh	• To conduct adaptive trials in the selected farmers' fields. Buildup the skillness of the farmer, operator, mechanic and manufacturer • Dissemination of the machines to the farmers and users	Gazipur, Kishorganj, Jamalpur, Dinajpur, Rajshahi, Bogura, Patuakhali, Jashore, Sunamganj, Noakhali and Bandarban
1505	Adaptive trial of BARI orchard weeder cum mini tiller	• To design and fabricate the power weeder suitable for both orchard and kitchen yard. • To evaluate financial and social viability of the machine	Gazipur, Dinajpur, Rajshahi and Bandarban
1506	Adaptive trials of suitable technology for hygienic food production	• To improve and adopt BARI slicer for rural region to enhance healthy and quality potato slices. • To design and develop a low-cost solar tunnel dryer for efficient and hygienic drying of potato slices.	Gazipur, Bogura and Tangail

Sl.	Research Title	Objective(s)	Location(s)
		• To design and develop a spiral potato slicer for value addition of potato chips	
1507	Securing the food systems for climate and livelihood resilience through appropriate scale farm mechanization	• Evaluation and selection of BARI developed machinery for crop production in the southern and northern areas of Bangladesh. Dissemination of the selected farm machinery in the southern and northern areas of Bangladesh	Patuakhali, Barguna, Bhola, Khulna, Shatkhira, Rangpur and Lalmonirhat
POST HARVEST TECHNOLOGY DIVISION			
1508	Physicochemical properties and bioactive compounds of some selected coffee lines and cashew nut in hilly areas of Bangladesh	• To analyze physicochemical and bioactive compounds of some selected coffee and cashew nut lines in hilly areas of Bangladesh	PHTD, Gazipur
1509	Effect of heat stress and edible coating on improving quality retention and shelf life of mango fruit during ambient storage	• To determine the best combination of heat stress temperature with duration of selected fruits. • To evaluate the edible surface coating by assessing the overall fruit quality and shelf life	PHTD, Gazipur
1510	Effect of vacuum frying on the nutritional and keeping quality of pineapple chips	• To investigate the frying temperature-time on the physicochemical parameters of pineapple chips. • To improve fried product quality and reduced oil oxidation	PHTD, Gazipur
1511	A comparative study on the use of cooking oils, food habits, dietary habits, lifestyle habits and health attitudes with the focus to rural, peri-urban and urban people in Bangladesh	• To find out the different cooking oils and mostly used cooking oils and explore the health attitudes regarding food and lifestyle habits of the respondents	PHTD, Gazipur
1512	Shelf-life extension of pineapple pomace ball (laddu) through postharvest treatments	• To increase the shelf life of the pineapple pomace ball (laddu). • To determine the applied preservative doses and compare to the recommended value.	PHTD, Gazipur
1513	The nutritional, physicochemical, minerals and bioactive compounds analysis of cooked lentil	• To utilize the lentil peel into processing of human food with minimizing the milling cost of lentil	PHTD, Gazipur
1514	Effect of moisture content on recovery percentage of lentil during dehulling process	• To study the effect of moisture content on dehulled lentil during milling. • To minimize the broken percentage of lentil during dehulling/milling	PHTD, Gazipur
1515	Effect of different milling methods on recovery percentage of lentil	• To study the effect of different milling performance on the recovery percentage of lentil	PHTD, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1516	Optimization of processing method for plum jam and analysis of the changes in quality characteristics during storage	• To optimize the processing method for plum jam at various concentrations of sugar and plum pulp percentage. • To analyze the quality characteristics of plum jam during storage.	PHTD, Gazipur
1517	Standardization of processing method for osmo dehydrated sugar coated plum	• To enhance plum utilization, minimize losses, and extend shelf life through value-added product development	PHTD, Gazipur
1518	Optimization of processing method for dragon fruit jam	• To optimize the processing method for dragon fruit jam and assess its quality parameters during long-term storage at ambient temperature	PHTD, Gazipur
1519	Standardization of processing method for dragon fruit jelly	• To standardize its processing method and assess the changes in quality characteristics of dragon fruit jelly during storage at ambient temperature	PHTD, Gazipur
1520	Blanching effect on the quality and shelf life of taro root	• To evaluate the physicochemical quality parameters of the frozen taro roots; and investigate the shelf life of the product for long time storage	PHTD, Gazipur
1521	Preservation of Aonla by osmotic dehydration method	• To optimize the dehydration condition for Aonla; and to produce value-added products	PHTD, Gazipur
1522	Effect of moisture level on processing and quality of lentil chips	• To develop lentil chips through find out the proper moisture level and barrel temperature of the single screw extruder	PHTD, Gazipur
1523	The physicochemical, nutritional, minerals and bioactive compound analysis of different edible parts of selected BARI Kachu varieties	• To analyze the physicochemical, nutritional, bioactive compounds and minerals of different edible portions of the BARI Pani Kachu varieties	PHTD, Gazipur
1524	Physicochemical and quality evaluation of dried tomato slices	• To investigate the physicochemical and quality evaluation of dried tomato slices	PHTD, Gazipur
1525	Effect of maltodextrin and sugar coating on nutritional and bioactive compounds of freeze-dried jackfruit chips	• To develop the freeze-dried jackfruit chips and evaluate their quality	PHTD, Gazipur
1526	Efficacy of clove essential oil and carnauba wax in extending shelf life of mango	• To extend shelf life of mango	PHTD, Gazipur
SEED TECHNOLOGY DIVISION			
Seed Production Management			
1527	Effect of flower stalk (scape) retention on seed	• To identify a suitable flower stalk retention for higher seed yield and	Seed Technology

Sl.	Research Title	Objective(s)	Location(s)
	yield and quality of onion	quality of onion with economic consideration	Division, Gazipur
1528	Effect of vermi-compost stimulated integrated nutrient management on seed yield and quality of onion	• To find out a suitable vermicompost based integrated nutrient management for quality seed production of onion	ARS, Dinajpur
1529	Influence of paclobutrazol on growth, seed yield and quality in onion	• To know the effect of different concentrations of paclobutrazol on growth, yield and quality seed production of onion.	Seed Technology Division, Gazipur
1530	Effect of different threshing method(s) on seed quality of mungbean	• To find out the suitable threshing method for better seed quality of mungbean	Seed Technology and Farm Machinery & Post Harvest Engineering Division, Gazipur
1531	Effect of different weed management practices on yield and seed quality of groundnut	• To find out the suitable weed managements practice(s) for better seed yield and seed quality of groundnut	Seed Technology Division, Gazipur
1532	Effect of water stress on seed yield and seed quality of chickpea	• To find out the effect of water stress on seed yield and quality of chickpea varieties	Do
1533	Seed quality of chilli as influenced by different drying methods	• To evaluate the impact of drying methods on seed quality of Chilli (*Capsicum annuum* L.) seeds	Do
1534	Seed yield and quality of sweet pepper as influenced by nutrient management	• To determine the suitable nutrient management system for quality seed of sweet pepper	Do
1535	Determination of harvest maturity and seed quality of okra as influenced by picking time of fruits	• To determine the harvest maturity and seed quality of Okra through fruit picking time.	Do
1536	Growth, seed yield and seed quality parameters of okra as influenced by different growth regulators	• To evaluate the effect of GA_3 and NAA alone and at their different combinations on growth, yield and seed quality of okra	Do
1537	Determination of seed maturity index of capsicum	• To determine the appropriate seed maturity index of sweet pepper	Do
1538	Germination and seedling performance of watermelon as influenced by seed priming	• To know the effect of seed priming on germination and seedling establishment of watermelon. • To find out the suitable priming technique of watermelon for higher germination and good quality seedling	Do

Sl.	Research Title	Objective(s)	Location(s)
1539	Effect of seedling age on flowering and seed yield potential of capsicum	• To find out the optimum age of seedling on seed yield of sweet pepper varieties	Do
1540	Quality seed production of mustard under unfavorable condition (drought)	• To determine the irrigation scheduling at critical stages of mustard crop for quality seed production.	Do
Seed Storage Management			
1541	Assessment of seed quality of rapeseed-mustard through accelerated aging method	• To study certain changes associated with loss of viability during accelerated ageing of rapeseed-mustard. To predict duration of rapeseed-mustard seed storability	Do
1542	Effect of different storing methods on seed quality of groundnut under ambiant condition	• To know the effect of storing methods on seed quality of groundnut	Do
1543	Seed quality status of soybean as influenced by packaging materials and time after outlet from the cool room	• To identify the period of longevity of seed after outlet from the cool room	Do
4IR Based Program			
1544	Develop a user-friendly germinator assistant using internet of things	• To develop a user-friendly Germination assistant system using IoT	Do
Seed Production Program			
1545	Breeder seed production of onion	• To produce quality seed of onion	Do
1546	Quality seed production of garden pea	• To produce better quality seed of garden pea	Do
1547	Quality seed production of mungbean	• To produce quality seed of mungbean	Do
1548	Breeder seed production of Country bean	• To produce quality seed of country bean	Do
1549	Breeder seed production of Bottle gourd	• To produce quality seed of Bottle gourd	Do
1550	Quality seed production of Water melon	• To produce quality seed of water melon	Do
1551	Quality seed production of Chia	• To produce quality seed of water melon	Do
BIOTECHNOLOGY DIVISION			
1552	Development of *in vitro* propagation protocol for gerbera	• To develop a suitable *in vitro* propagation protocol of gerbera.	BARI, Gazipur
1553	Micropropagation of lilium (*Lilium longiflorum*)	• To develop a suitable micropropagation protocol for lilium.	Do
1554	Tissue culture propagation of BARI strawberry	• To produce a large number of propagating materials for BARI	Do

Sl.	Research Title	Objective(s)	Location(s)
	varieties for field evaluation	Strawberry varieties.	
1555	Large-scale production of BARI released banana varieties through tissue culture	• To produce a large number of propagating materials for BARI-released banana varieties.	BARI, Gazipur
1556	Development of an efficient *in vitro* regeneration protocol for BARI mung bean varieties	• To develop a reproducible *in vitro* plant regeneration protocol of BARI mung bean varieties for future transformation work.	Do
1557	*In vitro* regeneration of country bean (*Lablab purpureus L. Sweet*)	• To develop an *in vitro* plant regeneration protocol of country beans for future transformation work.	Do
1558	Rescue of Amritsagar banana from extinction through Biotechnological approaches	• Collection and *in vitro* propagation of Amritsagar banana variety. Large-scale propagation through tissue culture to prevent the extinction of Amritsagar banana variety and to reintroduce its cultivation at farmers level.	Do
1559	Development of an *in vitro* regeneration protocol for blackgram (*Vigna mungo L.*)	• To develop a reproducible *in vitro* plant regeneration protocol of black gram varieties for future transformation work	Do
1560	Development of an efficient *in vitro* regeneration protocol for field pea (*Pisum sativum L.*)	• To develop an efficient *in vitro* plant regeneration protocol of field pea varieties for future transformation work	Do
1561	Varietal improvement of oyster mushroom (*Pleurotus sp.*) through induced variation	• Development of different lines of Oyster mushrooms to increase yield and quality. To quantify the enzyme linked to the browning of the fruiting body	Do
1562	*In vitro* conservation of mycelia of oyster mushroom (*Pleurotus sp.*)	• To develop an inexpensive and simple method to preserve mushroom cultures in a viable state for an extended period	Do
1563	Transformation of tomato for broad-spectrum resistance against leaf curl viruses	• Construction of appropriate plasmid vectors for virus-derived resistance against ToLCV. Transformation of tomato plants with vectors harboring cloned virus sequences.	Do
1564	Exploring the development of gametophyte–mediated genetic transformation systems in crop plants	• Exploring gametophyte-mediated genetic transformation systems in model plants. Application of gametophyte–mediated genetic transformation systems in crop plants.	Do
1565	Development of an efficient regeneration and an agrobacterium-mediated transformation and gene editing protocol for an elite	• To develop an efficient and reliable regeneration protocol for BARI lentil variety • To develop an efficient transformation and gene editing protocol for BARI lentil	Do

Sl.	Research Title	Objective(s)	Location(s)
	BARI lentil variety	variety	
1566	Performance evaluation of black gram mutants	• To evaluate the genetic variation in black gram mutants phenotypically	BARI, Gazipur
1567	Validation trial of tissue-cultured plantlets of BARI strawberry varieties under field condition	• To evaluate the field performance of plantlets raised from tissue culture	BARI, Gazipur
1568	Sustaining Bt eggplant in Bangladesh by implementing effective stewardship	• To sustain the first GE crop Bt brinjal in the long run.	Gazipur, Rangpur, Bogura, Barishal, Jashore, Jamalpur, Pabna, Moulovibazar
1569	DNA profiling of elite eggplant cultivars by molecular markers	• Molecular characterization of popular elite eggplant cultivars.	BARI, Gazipur
1570	Confined field trial of transgenic 3R-gene late blight-resistant potato	• To develop late blight-resistant transgenic 3R-gene potato varieties in Bangladesh.	Gazipur, Rangpur, Chattogram, Munshiganj
PLANT PHYSIOLOGY DIVISION			
1571	Morpho-physiological evaluation of selected linseed genotypes under drought condition at vegetative stage	• To identify the drought tolerant linseed genotypes	BARI, Gazipur
1572	Screening of mustard genotypes against waterlogging	• To identify the waterlogged tolerant mustard genotypes	Do
1573	Screening of mungbean genotypes against waterlogging stress at vegetative stage	• To identify waterlogging-tolerant mungbean genotypes	Do
1574	Morpho-physiological and biochemical response of groundnut genotypes to drought stress	• To identify the drought tolerant groundnut genotypes	Do
1575	Screening of black-gram genotypes to waterlogging stress	• To identify the waterlogged tolerant black-gram genotypes	Do
1576	Growth, yield and physiological features as influenced by drought and salinity stress in barley genotypes at vegetative and reproductive stage	• To evaluate the genotypic potentiality of barley crops in the tolerance to single and combined stress of salt and drought	Do
1577	Evaluation of selected garlic varieties against salinity in coastal region	• To evaluate the tolerances of selected garlic varieties/cultivars against salt stress under coastal region	BARI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
1578	Phenology, growth and yield of potato as influenced by planting time	• To observe the phenology, growth and yield of potato varieties as influenced by sowing times as well as to generate data for crop-based model DSAT/APSIM	Do
1579	Dormancy breakdown and germination acceleration of BARI Alu-62 through chemical treatments	• To observe the dormancy breakdown and germination acceleration of BARI Alu-62 through chemical treatment	Do
1580	Effect of potassium on dry matter, starch and sugar content of potato processing variety	• To compare the effects of different sources and dosages of K fertilizer on potato yield and quality	Do
1581	Effect of elevated temperature on flowering, seed yield and quality of onion	• To ascertain the effects of high temperature stress on onion seed quality and yield	Do
1582	Influence of planting date on phenology, growth and yield of lentil in high barind tract	• To evaluate the effect of planting date on phenology, growth and yield of lentil varieties as well as to generate the data for APSIM/ DSSAT model	OFRD, Rajshahi
VERTEBRATE PEST DIVISION			
1583	Questionnaire survey of squirrel damage in common fruits in selected areas of Bangladesh	• To know the incidence and status of squirrel as fruit pest. To know the nature and extent of damage of squirrel in fruits.	Rajshahi, Sylhet, Chittagong, Chapainawabganj
1584	Efficacy of newly designed trap for capturing rodent	• To develop effective eco-friendly technique to control the rodent pest.	Gazipur, Rangpur, Dinajpur
1585	Evaluation of kerosene mixed cow dung as a repellent of burrowing rodent	• To find out highly effective and easy method for repelling rat from crop field.	Gazipur, Rajshahi, Dinajpur, Rangpur
1586	Evaluation of rodenticidal properties of some plant extract against rat in laboratory	• To know the rodenticidal effect of plant extract, To know the rat repellency effect of plant extract	Gazipur, Rajshahi
1587	Efficacy of different repellant techniques against pest birds in sunflower	• To find out the effectiveness of repellent against bird from crop's field	Gazipur
1588	Field evaluation of rodenticide for controlling rats	• To evaluate the efficacy of rodenticide (Acute and chronic poison) for controlling rats.	Gazipur, Dinajpur, Rajshahi
AGRICULTURAL ECONOMICS DIVISION			
1589	Cost and returns analysis of selected spices crops in Bangladesh	• To determine the level of input use and estimate the cost and return of selected spices crops cultivation at farm level; • To estimate the economic returns and	Bogura, Gaibandha, Lalmonirhat, Rajshahi,

Sl.	Research Title	Objective(s)	Location(s)
		competitiveness of some selected spices crops in Bangladesh. • To identify constraints and opportunities related to crop cultivation at farm level.	Magura, Faridpur and Khagrachari
1590	Financial profitability and ex-post economic impact assessment of investment of BARI mango-4 in Bangladesh	• To estimate the financial costs and return of BARI Mango-4 and to know the costs and return of the crops replaced by BARI Mango-4. • To determine the economic benefit to the society and expenditures associated with BARI Mango-4 research and extension. • To estimate and compare the distribution of economic benefits between producers and consumers;	Chapainawabganj and Rajshahi
1591	Determinants of crop diversification for sustainable livelihood in *Haor* areas of Kishoreganj district, Bangladesh	• To evaluate the extent of crop diversification pattern in the haor areas. • To determine the determinants of crop diversification of haor household. • To identify the constraint of crop diversification in haor areas of Bangladesh	Kishoreganj, Netrokona, Sunamganj, Habiganj, Moulabibazar, and portions of Sylhet and Brahmanbaria.
1592	Adoption status of BARI developed onion varieties at farm level in Bangladesh	• To assess the adoption status of BARI developed onion varieties at farm level. • To identify the factors responsible for the adoption of BARI onion varieties at the farm level. To know the storage system and estimate the post-harvest loss of onions at the farm level. • To estimate the profitability of BARI developed onion variety cultivation. • To explore the problems of BARI developed onion variety adoption.	Faridpur, Magura, Pabna, Rajshahi, Jhenaidah, Bogura and Kurigram
1593	Effect of covid-19 pandemic on agricultural production, income and nutrition of farm households in selected areas of Bangladesh	• To assess the adoption status of BARI developed onion varieties at farm level. • To identify the factors responsible for the adoption of BARI onion varieties at the farm level. • To know the storage system and estimate the post-harvest loss of onions at the farm level. • To estimate the profitability of BARI developed onion variety cultivation. • To explore the problems of BARI developed onion variety adoption.	Comilla, Rajshahi, and Jashore
1594	Assessment of safe vegetable cultivation in some selected areas of	• To know the present status and methods of safe cultivation of country bean, cucumber and pointed gourd.	Jashore

Sl.	Research Title	Objective(s)	Location(s)
	Jashore region	• To determine the problem and prospect of safe vegetable cultivation and • To explore the factors influencing their problem confrontation of safe vegetable cultivation.	
1595	Adoption status and profitability analysis of BARI aam-3 and BARI aam-4 cultivation in Rajshahi region	• To know the adoption status of BARI Aam-3 and BARI Aam-4 at the farmers' level; • To estimate the profitability of BARI Aam-3 and BARI Aam-4. To identify social, economic, and biological constraints to BARI Aam-3 and BARI Aam-4 cultivation. • To recommend short-term and long-term plans of action for policymakers, researchers, and extension personnel to enhance BARI Aam-3 and BARI Aam-4 production.	Naogaon, Natore, & Chapainawabganj
1596	Adoption status of BARI developed selected crop varieties at farm level in Bangladesh	• To assess the adoption status of BARI developed crop varieties at farm level. • To identify the causes of adoption of BARI developed crop varieties.	Dinajpur, Naogaon, Rajshahi, Munshigonj, Thakurgoan, Cumilla, Gainbandha, Jamalpur, Barishal, Noakhali, Tangail, Bhola, Kishoregonj Faridpur, Kushtia, Bandarban, Mymensingh, Rangamati, Manikganj, Goapalganj, Sylhet, Brahmanbaria, Joypurhat, Sunamganj, chandpur, Barishal, Panchagarh, Chattogram, Jashore, Habiganj, Gaibandha, Meherpur, Narsingdi, Natore, Pabna, Chuadanga, Narayanganj, Munshiganj, Chapainawabganj, Satkhira and Bogura.

Sl.	Research Title	Objective(s)	Location(s)
AGRICULTURAL STATISTICS and INFORMATION & COMMUNICATION TECHNOLOGY DIVISION			
1597	Detection of differences in vegetation and chlorophyll content in agricultural field using unmanned aerial vehicles	• To identify crop types for making a digital map for a selected vegetable crop field. • To generate a chlorophyll content map for selected vegetable crop field. • To identify chlorophyll deficient sections in the selected vegetable crop field.	A particular vegetable research field at BARI, Gazipur
1598	Forecasting of onion production in Bangladesh using ARIMA, mixed model approach and machine learning algorithm	• To identify the best fitted model for onion production. • To forecast the production of onion in Bangladesh using best fitted model.	All over Bangladesh
1599	*In silico* genome-wide identification, characterization, and phylogenetic analysis of the Dicer-like (DCL), Argonaute (AGO), and RNA-dependent RNA Polymerase (RDR) gene families in *Brassica napus* L.	• To identify and characterize the DCL, AGO, and RDR genes in *B. napus* genome. • To analyze the genes/proteins using bioinformatics approaches	BARI
1600	Soil sampling and drone mapping combine to deliver better fertilizer recommendation for crop production	• To assess soil nutrient variability within crop fields. • To generate a detailed map of soil nutrient variability across the fields. • To correlate drone-derived vegetation imaging indices with soil nutrient content. • To develop a fertilizer prescription map for nutrient application.	Experiment fields of BARI, Gazipur
1601	Monthly heatwave prediction: a time series analysis in Bangladesh perspective	• To get an exploratory view of the current heatwave scenario/pattern in Bangladesh. • To forecast the monthly heatwave in Bangladesh using time series analysis. Help the policymaker to take necessary steps to reduce the damages of heatwaves in the agriculture sector. • To widen a new scope of further research.	All over Bangladesh
1602	Predictive modeling of climate change impacts on potato production: A statistical investigation	• To analyze climate data to identify long-term trends and changes in climate variables. • To investigate the relationship between climate variables and potato yield. • To develop predictive models to estimate	All over Bangladesh

Sl.	Research Title	Objective(s)	Location(s)
		the impact of climate change on future potato production. • To assess the vulnerability of potato production to climate change and identify potential adaptation strategies for future improvement of this crop.	
1603	GGE bi-plot analysis for yield performance and stability assessment of BARI released eggplant varieties	• To evaluate the stability of eggplant cultivation across different regions of Bangladesh. • To identify stable and high yielding eggplant genotype(s). • To recommend the best eggplant genotype(s) for different eggplant growing areas.	All over Bangladesh
1604	Marginal analysis of different herbicides use for controlling weeds in the onion field	• To find out the suitable combination of herbicides for weed control that is economically viable with higher crop productivity.	Onion fields at BARI
1605	Forecasting onion yield by using satellite-based remote sensing technique in Bangladesh	• To identify suitable yield prediction model for onion crop using remote sensing technique. • To forecast onion yield by satellite-based remote sensing technique.	Pabna, Faridpur, Rajbari and Rajshahi
1606	Prediction of mustard yield in Bangladesh using satellite-based remote sensing techniques	• To create a map of selected mustard fields by using satellite images. • To estimate mustard yield by using satellite-based remote sensing technique.	Tangail, Sirajganj and Bogura districts
RARS, Jamalpur			
1607	Determination of maturity indices of BARI Dragon Fruit-1	• To determine the physiological and commercial maturity indices of Dragon fruit. • To maintain the quality and extend the marketable life of the fruit.	RARS, Jamalpur
1608	Development of quick propagule production techniques for different fruit trees through hydroponic culture	• To produce fast and large amount of propagules for fruit crops with low labor and input cost. • To develop new technology for nursery businessman.	RARS, Jamalpur
1609	In Vitro Regeneration of BARI Sajina-1 (*Moringa Oleifera* Lam.) from different explants	• To establish a reproducible protocol for in vitro regeneration of BARI Sajina-1 (*Moringa oleifera* Lam.) from different explants.	RARS, Jamalpur
1610	Production of vegetables under different LED light in indoor condition through IOT based hydroponic culture	• Production of fresh quality vegetables in indoor conditions. • To produce high antioxidant rich vegetables.	RARS, Jamalpur
1611	Suitability test of automatic	• To study feasibility of growing selected	RARS,

Sl.	Research Title	Objective(s)	Location(s)
	hydroponic system for year-round production of selected vegetables	vegetable crops year-round through automatic mobile apps controlled hydroponic system. • To find out suitable variety and automation system for hydroponic.	Jamalpur
1612	Regional yield trial of summer bottle gourd Lines	• To observe the performance of yield and yield contributing characters of summer bottle gourd lines at different locations.	RARS, Jamalpur, Gazipur, Ishwardi and Narsingdi
1613	Regional yield trial of selected Hyacinth bean lines	• To observe the performance of yield and yield contributing characters of Hyacinth bean lines at different locations.	RARS, Jamalpur, Gazipur, Ishwardi and Narsingdi
1614	Regional yield trial of Stem amaranth lines	• To observe the performance of yield and yield contributing characters of Stem amaranth lines at different locations.	RARS, Jamalpur, Gazipur, Burirhat and Narsingdi
1615	Performance of Marigold at different sowing time and pinching	• To study the effect of sowing time and pinching on the growth and yield of marigold. • To extend the availability and fulfil the demand of marigold at different festivals of Bangladesh.	RARS, Jamalpur
1616	Observation trial of seasonal flowers under live shade	• To study the effect of live shade on the growth and yield of seasonal flowers. • To the increase the yield of vegetable and income of farmers.	RARS, Jamalpur
1617	Collection, evaluation and maintenance of Rose germplasm at Jamalpur region	• To collect and evaluate and conserve Rose germplasm at Jamalpur region.	Do
1618	Collection, evaluation and maintenance of indoor Foliage plants at Jamalpur region	• To collect, evaluate and conserve air purifying indoor Foliage plants at Jamalpur region.	Do
1619	Collection, evaluation and maintenance of Orchid	• To conserve the collected germplasm for future research Variety development.	Do
1620	Collection and maintenance of climbing plant at Jamalpur region	• To conserve climbing germplasm for future research. Variety development.	Do
1621	Breeder seed production of bottle gourd, radish, eggplant, pumpkin, tomato, spinach, garden pea, country	• To maintain and seed increase of different vegetable varieties. Breeder's seed will be produced to supply seed producing agency like BADC or	Do

Sl.	Research Title	Objective(s)	Location(s)
	bean, red amaranth, lettuce, capsicum, Indian spinach, okra, ridge gourd, snake gourd and kangkong	NGOS. Distribution of quality seeds directly to the farmer	
1622	Propagule production of mango, litchi, lemon, sweet orange, dragon fruit, guava, and wax apple	• To maintain and increase propagule of different fruit varieties. Quality propagule will be produced to supply propagule producing agencies like BADC, DAE, NGOs, and nurseries. Distribution of quality propagules directly to the farmers.	Do
1623	Collection and evaluation of Cassava germplasm	• To find out superior germplasm of cassava. • To conserve germplasm.	Do
1624	Propagule production of Aroid	• To maintain and multiplication of aroid varieties. Aroid seedling will be produced to supply seed producing agency like BADC, DAE or NGOS.	Do
1625	Propagule production of Mukhi Kachu	• To maintain and multiplication of Mukhi Kachu varieties. Mukhi Kachu corm will be produced to supply seed producing agency like BADC, DAE or NGOS.	RARS, Jamalpur
1626	Propagule production of sweet potato	• To maintain and multiply sweet potato varieties. Sweet potatoes vines will be produced to supply seed producing agency like BADC, DAE or NGOS.	Do
1627	Hybridization in *Brassica napus*	• To incorporate earliness in *B. napus* existing genotypes.	Do
1628	Confirmation of F_1 generation in *Brassica napus*	• To confirm high yield and short lifespan in *Brassica napus* genotypes.	Do
1629	Growing of F_1 generation in *Brassica napus*	• To advance generation and to select desirable plants.	Do
1630	Adaptive yield trial of *Brassica napus*	• To select high yield potential lines with early maturity those can be grown in between T. Aman and Boro rice.	Do
1631	Adaptive trial of *Brassica campestris*	• To know the performance of advanced lines and their adaptation in farmers' field.	Do
1632	Effect of harvesting time on seed yield and oil quality of BARI Sarisha-18 in char land in 9 AEZ.	• To find out the optimum harvesting time with maximum seed yield. • To fit in rice-based cropping pattern in T. Aman- Mustard-Boro	Do
1633	Hybridization of groundnut	• To incorporate high oleic acid, earliness and large kernel size into	Do

Sl.	Research Title	Objective(s)	Location(s)
		existing groundnut varieties.	
1634	Growing F_1 generation in groundnut	• To advance generation and to select desirable plants.	Do
1635	Adaptive yield trial of groundnut	• To know the performance of advanced lines and their adaptation in farmers' field.	Do
1636	Growing F_1 generation of Sesame	• To advance generation and to select desirable plants.	Do
1637	Breeder seed production of BARI Sarisha-14, 17, 18	• To produce Breeder seed and TLS seeds of BARI Sarisha-14, 17, 18. • To Supply seeds to research divisions and other research organizations, NGOs, and farmers.	Do
1638	Breeder seed production of BARI Chinabadam-8, 9, 10 and 11		
1639	Breeder seed production of BARI TILL-3, 4		
1640	Development of diverse rapeseed germplasm through hybridization	• To develop diverse genotypes of rapeseed.	RARS, Jamalpur
1641	Searching of short-duration genotypes of *Brassica rapa* from F_2 populations	• To select short-duration *Brassica rapa* genotypes through germplasm screening.	Do
1642	Hybridization in *B. rapa*	• To incorporate earliness in Canola existing genotypes and develop short-duration Canola type *B. rapa.*	Do
1643	Hybridization in *B. napus*	• To incorporate earliness in Canola existing genotypes and develop short duration Canola type *B. napus.*	Do
1644	Confirmation of F_1 Generation	• To confirm F_1 and to advance F_2 generation.	Do
1645	Growing of F_2 generation of Canola	• To obtain F_3 generation.	Do
1646	Growing of F_3 generation of Canola	• To obtain F_4 generation.	Do
1647	Regional Yield trial of Canola (*B. rapa)*	• To select high-yield potential lines with early maturity those can be grown in between T. Aman and Boro rice.	Do
1648	Regional Yield trial of Canola (*B. napus)*	• To select high-yield potential lines with early maturity those can be grown in between T. Aman and Boro rice.	Do
1649	Maintenance and conservation of collected PGR	• To retain viability of germplasm of different crops for longer period and future use.	Do
1650	Collection of Chilli, Brinjal and Hyacinth bean germplasm in Sherpur and Jamalpur district of Bangladesh	• To collect the diversity of Chilli, Brinjal and Hyacinth bean.	Do

Sl.	Research Title	Objective(s)	Location(s)
1651	Characterization of tomato germplasm	• To study the nature and magnitude of variability in tomato germplasm. • To identify the potential germplasm.	Do
1652	Breeder seed production of Onion	• To produce breeder seeds of BARI Piaz-4.	Do
1653	Seed bulb production of Onion	• To produce seed bulb of BARI Piaz-4.	Do
1654	Breeder seed production of Black cumin, Fenugreek, Coriander and Fennel	• To produce breeder seeds of BARI Kalozira-1, BARI Mathi-3, BARI Dhonia-1 and BARI Mouri-1.	Do
1655	Evaluation of Proso millet germplasm	• To test the performance of the selected genotypes.	Do
1656	Breeder seed production of Foxtail and Proso millets	• To maintain and seed increase of millets variety.	RARS, Jamalpur
1657	Breeder seed production of Barley	• To maintain and seed increase of barley variety.	Do
1658	Effect of growth regulator on Groundnut at Charland	• To find out the effect of chemical and bio-chemical compounds. • To increase the crop yield and quality.	Do
1659	Effect of weed control methods on Groundnut at Charland	• To find out the suitable weeding methods for controlling weeds in Groundnut.	Do
1660	Off-season Sweet gourd production under diverse management	• To find out the technology for off-season production. • Available markets during the lean period.	Do
1661	Performance of relay Bitter gourd in Tomato + Onion intercropping	• To improve the cropping system through relaying Bitter gourd with intercropping of Tomato + Onion	Do
1662	Sustaining a healthy growth media as influenced by organoponic approach for yield maximization and storability of summer Onion.	• Development of sustainable organic plant growth media. • Improvement of physicochemical properties of plant growth media. • Maximization of crop growth and yield.	Do
1663	Biochar to reduce fertilizer use and soil health improvement for groundnut production in Brahmaputra River Charland	• To reduce the chemical fertilizers' use for Groundnut production in Charland. • To increase soil organic matter status. • To increase crop growth and yield.	Do
1664	Quality Chilli production and sustain soil health through application of Tricho- compost	• To investigate the effect of Tricho-compost application in different growth stages. • To find out suitable dose of Tricho-compost application for maximizing the yield of Chilli. • To find out a better way of bio-agent in	Do

Sl.	Research Title	Objective(s)	Location(s)
		crop and disease management in Chilli production.	
1665	Application of zinc and boron on the growth and yield of BARI Sarisha – 18 (canola type)	• To estimate optimum dose of Zinc and Boron on yield and yield components of BARI Sarisha-18. To study the effect of Zinc and Boron on yield and yield components of BARI Sarisha-18.	Do
1666	Integrated nutrient management using different sources of organic manure in combination with chemical fertilizers for potato production	• To reduce the use of chemical fertilizer for potato production by organic manuring. • To improve carbon stock in the soil.	Do
1667	Fertilizer recommendation for BARI Sarisha-18	• To find out suitable fertilizer dose for growth and yield of BARI Sarisha-18.	RARS, Jamalpur
1668	Development of management approach for controlling white fly in Brinjal through intercropping	• To obtain a suitable management option against whitefly of Brinjal.	Do
1669	Screening of different sweet gourd germplasm against major insect pest complex	• To find out the resistance/tolerance sweet gourd varieties/lines against major insect pest complex.	Do
1670	Survey, monitoring and documentation of Rugose Spring White Fly, *Aleurodicus regioperculatus* (Hemiptera: Aleyrodidae) in different host plants at Jamalpur region	• Determination of damage severity of spiraling whitefly in different vegetables, fruit crops and ornamental plants. • To document the seasonal fluctuation of spiraling whitefly.	Do
1671	Management of leaf curl disease of Chilli by using beneficial microbes and vector control	• To elucidate the resistance mechanism of Chilli against leaf curl virus derived from beneficial microbes.	Do
1672	Identification of resistance sources of BARI released Tomato varieties/lines against leaf curl viruses	• To identify noble sources of resistance in BARI released Tomato varieties/lines against leaf curl viruses.	Do
1673	Design and performance assessment of low-cost manually operated multi-crop Groundnut planter for small-scale farmers	• Design and fabrication of low-cost manually operated multi-crop seed planters for the purpose of utilization of poor farmers. • To evaluate the planter's performance and its application to the crop performance, the assessment of crop yield performance. • To analysis the financial performance of the planter performance.	Do

Sl.	Research Title	Objective(s)	Location(s)
1674	Seed multiplication of Rapeseed, grass-pea, and chickpea	• To produce TLS seeds of BARI Sarisha-11, BARI Sarisha-14, BARI Sarisha-18, BARI Khesari-2, and BARI Chola-9.	Do
RARS, Jashore			
HRC			
1675	Collection and evaluation of monkey jack germplasm	• To characterize different monkey jack genotypes • To select the superior lines of monkey jack	RARS, Jashore
1676	Collection and evaluation of rose apple germplasm	• To characterize different rose applegenotypes • To select the superior lines of rose apple	Do
1677	Collection and evaluation of banana germplasm	• To see the yield potentiality of the germplasm	Do
1678	Collection and evaluation of plantain germplasm	• To characterize different plantain genotypes • To select the superior lines of plantain	Do
1679	Introduction of simplified hydroponic system for growing high value vegetables at Jashore Region	• To develop simplified hydroponic models for urban areas of Jashore region and • To produce high value vegetables through hydroponics with safety	Do
1680	Collection and evaluation of local eggplant germplasm of Jashore region	• To observe the performance local brinjal variety of Jashore region and find out superior germplasm	Do
1681	Collection and Evaluation of '*Lalmi*' Germplasm	• To collect and characterize collected germplasm. • To select suitable lines of *lalmi* for yield and quality. • To conserve genetic resources of cucurbitaceous vegetables of *char* land areas	Do
1682	Collection and evaluation of bullock's heart germplasm	• To characterize different bullock's heart genotypes. • To select the superior lines of bullock's heart	Do
1683	Hybridization in mango	• To produce the mango hybrids of desired characteristics. • To release good quality coloured hybrid mangoes.	Do
1684	Hybridization in kanchamitha mango	• To produce big sized, coloured kanchamitha mango variety will be developed	Do
1685	Collection and evaluation of Indian dillenia germplasm	• To identify some suitable genotype to develop a variety	Do
1686	Evaluation of pummelo	• To find out superior pummelo genotypes	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
	germplasm	to release as variety. • To study on the diversity of pummelo genotypes.	
1687	Seedling/sapling production of different fruits and vegetables	• To increase seeds of modern varieties of fruits and Bt brinjal • To supply seed to DAE, research divisions and other research organizations, NGOs, farmers etc.	RARS, Jashore
TCRC			
1688	Seed multiplication of BARI released potato variety	• Seed production of BARI released potato variety. • To disseminate the latest variety of potato	RARS, Jashore
1689	Vine multiplication of BARI released sweet potato variety	• Vine multiplication of BARI released latest sweet potato variety. • To disseminate the latest variety of sweet potato	RARS, Jashore
1690	Saplings production of BARI released panikachu variety	• Seedling production of BARI released panikachu variety. • To disseminate the latest variety of panikachu	Jashore
1691	Block demonstration of BARI released potato varieties	• Field demonstration of BARI potato variety at farmer field. • To disseminate the latest variety of potato	Jashore region
1692	Block demonstration of BARI Mistialu-17	• Field demonstration of BARI mistialu-17 at farmer field. • To disseminate the latest variety of sweet potato	RARS, Jashore
PRC			
1693	System productivity, profitability and competition indices of fieldpea mixed cropping with mustard in different combinations in Jashore region	• To find out the best fieldpea-mustard mixed-cropping arrangement.	RARS, Jashore
1694	Performance of lentil and field pea intercropping with chickpea	• To find out the best legume- legume intercropping arrangement.	Do
1695	Performance of field pea under different sowing conditions	• To find out suitable sowing condition for better crop establishment and higher yield of field pea.	Do
1696	Development of integrated weed management practices of lentil in Jashore region	• To find out suitable integrated weed management practice for lentil in Jashore region.	Do
1697	Seed production of pulses	• To increase seeds of modern varieties of lentil, chickpea, field pea, grass pea,	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
		mungbean and black gram. • To supply seed to DAE, research divisions and other research organizations, NGOs, farmers etc.	
ORC			
1698	Seed production of oilseed crops	• To increase seeds of modern varieties of mustard, sesame and sunflower. • To supply seed to DAE, research divisions and other research organizations, NGOs, farmers etc.	RARS, Jashore
Agronomy			
1699	Effect of molybdenum to alleviate the salt stress in mungbean [*Vigna radiata* (L.) R. Wilczek] germination	• This study intends to investigate Mo's effect on the germination.	RARS, Jashore
1700	Performance of minor cereal intercropping with sunflower	• To investigate the yield and economic advantage of minor cereal intercropping with sunflower	RARS, Jashore
1701	Evaluation of propagation techniques in *Piper chaba*	• This study will find out the best propagation techniques for *Piper chaba*	RARS, Jashore
1702	Growth and yield performance of yard long bean lines	• To select suitable yard long bean lines	Gazipur, Jashore
1703	Determination of crop weed competition of lentil	• To determine the critical period of competition and effect of timing of weeding on lentil	RARS, Jashore
1704	Integrated weed management of mukhikachu (*Colocasia esculenta*)	• To find out the economic and effective way of weed management in Mukhikachu cultivation	RARS, Jashore
1705	Development of fertilizer package for five crop based cropping pattern	• Development of fertilizer package for five crop based cropping pattern. Sustainable productivity and resource conservation.	Jashore
Soil Science			
1706	Integrated nutrient management and proper plant density for the trellis growing bitter gourd at Jashore region	• To determine the effects of organic manure with inorganic fertilizers on soil properties and crop productivity. • To find out a profitable and efficient nutrient package with proper plant density for bitter gourd on trellis at Jashore region.	RARS, Jashore
1707	Nutrient management for sustaining soil fertility and yield of wheat-mungbean-T. Aman cropping pattern	• To find out sustainable fertilizers recommendations for wheat-mungbean-T. Aman cropping pattern. • To monitor soil health after each cropping pattern. To estimate uptake of different nutrients and to make a balance	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
		sheet for each nutrient.	
1708	Nutrient management for sustaining soil fertility and yield of mustard-mungbean-T. Aman cropping pattern	• To find out sustainable fertilizers recommendations for mustard-mungbean- T. Aman cropping pattern, • To monitor soil health after each cropping pattern. To estimate uptake of different nutrients and to make a balance sheet for each nutrient.	RARS, Jashore
1709	Effect of minimum tillage and crop residue retention on soil physico-chemical properties and crop yields under a rice-based cropping system	• To observe the effects of tillage and residue retention on soil physico-chemical properties and crop yields in the rice–based cropping system, to find out the better combination of tillage system and residue retention for higher crop yield and soil health improvement. • To assess the system productivity in rice-based cropping system.	RARS, Jashore
1710	Requirement of K fertilizer under conservation agriculture practice in the intensive wheat-mungbean-T. Aman cropping system	• To determine the optimum rate of potassium fertilizer for the intensive wheat-mungbean-T. Aman cropping system under CA practice, • To evaluate the effects of crop residue and K fertilizer on soil physico-chemical properties and component crop productivity, • To assess the system productivity in the aforesaid cropping system.	RARS, Jashore
1711	Effect of long-term fertilization on crop productivity, soil properties and nutrient efficiency under conservation agriculture practice with a Mustard-Boro-T. Aman cropping pattern	• Examine the long-term effects of chemical fertilization on crop productivity under conservation agriculture (CA) practice in a Mustard-Boro-T. Aman cropping pattern in Jashore region, • Examine the long-term effects of chemical fertilization on soil properties under CA practice and • Study the long-term effects of chemical fertilization on nutrient use efficiency under CA practice in the intensive cropping system.	RARS, Jashore
1712	Integrated nutrient management and proper plant density for the popular trellis growing pointed gourd at Jashore region	• Find out the optimum combination of plant density and nutrient management for the pointed gourd on trellis, Determine the effects of organic manure with inorganic fertilizers on soil properties and crop productivity, and • Find out a profitable and efficient nutrient package with proper plant	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
		density for pointed gourd on trellis at Jashore region.	
1713	Nutrient management for newly developed sweet orange orchard at RARS, Jashore	• Determine the influence of organic manure and recommended inorganic fertilizers on the growth and yield of BARI Malta-1, Find out a profitable and efficient nutrient package for sweet orange at Jashore region.	RARS, Jashore
1714	Effect of foliar application of micronutrient on quality and yield of tomato	• To find out the response of foliar application of zinc and boron on vegetative and reproductive growth attributes, in BARI released varieties of tomato viz.-BARI Tomato-21	RARS, Jashore
Plant Pathology			
1715	Eco-friendly management of sooty mould disease of mango through Bio control agents	• To find out effective bio-agent(s) against sooty mould of mango	RARS, Jashore
1716	Survey of mango diseases in Jashore region of Bangladesh	• To identify the different mango diseases in this region.	Jashore region
1717	Management of leaf curl disease of tomato by using beneficial microbs and vector control	• To elucidate the resistance mechanism of tomato against leaf curl virus derived by beneficial microbs. • To find out a management practice of leaf curl disease of tomato	BARI, Gazipur
1718	Eco-friendly management of corm rot of gerbera	• To find out effective management practice for controlling corm rot of gerbera	RARS, Jashore
1719	Evaluation of bio-agents, botanicals and chemical fungicides against alternaria leaf spot of gerbera	• To find out effective tools against alternaria leaf spot of gerbera	RARS, Jashore
1720	Integrated management for controlling early blight of tomato	• To find out effective management practice against early blight of tomato	RARS, Jashore
1721	Bio-agent based management practice against foot and root rot of lentil	• To find out effective biological management against foot and root rot of lentil	RARS, Jashore
1722	Survey on major diseases of vegetable crops in saline region	• To identify the diseases of vegetable crops grown in saline belt of Satkhira district.	Satkhira district
Entomology			
1723	Development of management approach against tomato leaf miner, *tuta absoluta*	• To develop IPM approach against tomato leaf miner	RARS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
1724	Efficacy of different pheromone impregnated sticky traps against fruit fly attacking bitter gourd	• To evaluate the efficacy of different pheromone impregnated sticky traps for controlling fruit fly of bitter gourd.	RARS, Jashore
1725	Evaluation of some bio-pesticides against common cutworm, *spodoptera litura* attacking cauliflower	• To develop a biorational based management option against common cutworm attacking cauliflower.	RARS, Jashore
Agricultural Economics			
1726	Value chain analysis along with post harvest losses of summer tomato at some selected areas of Jashore region	• To assess the value chain analysis of summer tomato at different level. • To estimate pre-harvest and post harvest losses of summer tomato at different supply chain	Jashore, Khulna and Satkhira
1727	Assessment of safe vegetable cultivation in some selected areas of Jashore region	• To know the present status and methods of safe cultivation of country bean, cucumber and pointed gourd. • To determine the problem and prospect of safe vegetable cultivation; • To explore the factors influencing their problem confrontation of safe vegetable cultivation.	Jashore, Jhenaidah and Chuadanga
Agricultural Engineering			
1728	Analysis of various agricultural properties to predict major crops production in south west region of Bangladesh applying machine learning algorithm	• To concentrate on the use of a machine learning techniques named Radial Basis Function (RBF) and Multi-layer Perceptron (MLP) to gain information from agricultural data in the primary agriculture areas of Bangladesh to forecast the production of significant crops annually.	RARS, Jashore
1729	Design and fabrication of low-cost tine pocket for PTOS	• To meet up demand through local manufacturing. • To build up Manufacturing Capacity of Local Manufacturer.	RARS, Jashore
1730	Adaptive trial of BARI developed farm machinery in the selected areas of Jashore	• Validation of selected BARI developed farm machinery in the farmer's fields. • To increase awareness and skill of farmer, operator and mechanic. • To collect the feedback from users and take action for necessary modification • Evaluation of local adaptability of the machines in the different locations of Bangladesh	Jashore sadar, Bagharpara
On Farm Research			
1731	Development of Garlic-T. Aus-T. Aman cropping pattern against Boro-	• To improve the existing cropping pattern. • To increase crop yields and economic	MLT site,Jhikargach a

Sl.	Research Title	Objective(s)	Location(s)
	Fallow-T. Aman cropping pattern	return of farmers	
1732	Development of alternate cropping pattern Mustard - Maize - T. Aman against Lentil - Jute - T. Aman	• To improve the existing cropping pattern by inclusion of modern crop varieties. • To increase crop yield and farmers' income	MLT site,Shimakhali , Magura
1733	Intercropping of garlic with pointed gourd	• To find out the performance of garlic as intercrop with pointed gourd. • To increase total productivity and economic return.	MLT site, Jhikargacha
1734	Adaptive trial of bushbean varieties in Jashore region	• To evaluate the performance of BARI developed bushbean varieties	MLT site, Jhikargacha and Kaliganj
1735	Production program of BARI Surjomukhi-3	• To introduce BARI Surjomukhi-3 in farmers' field	MLTsite, JhikargachaKaliganj and Shimakhali
1736	Production program of BARI Begun-12	• To introduce BARI Begun-12 in farmers' field	MLT site, Jhikargacha and Kaliganj
RARS, Akbarpur, Moulvibazar			
1737	Regional yield trial of Tomato hybrids	• To study the yield potentiality and adaptability of different Hybrids at different locations to release as a new variety of tomato.	Akbarpur, Moulvibazar
1738	Regional yield trial of AFACI winter Tomato lines	• To be studied to find out suitable tomato lines for developing new winter tomato varieties.	Akbarpur, Moulvibazar
1739	Regional yield trial of determinate Tomato hybrid	• To evaluate the yield potentiality of mentioned determinate tomato Hybrids at different agro-ecological zones of Bangladesh.	Akbarpur, Moulvibazar
1740	Regional yield trial of insect and disease's tolerant dual purpose Tomato lines	• To evaluate the yield potentiality of mentioned resistant lines at different agro-ecological zones of Bangladesh.	Akbarpur, Moulvibazar
1741	Regional yield trial of semi determinate Tomato	• To evaluate the yield potentiality of mentioned lines at different agro-ecological zones of Bangladesh.	Akbarpur, Moulvibazar
1742	Regional yield trial of green-coloured Eggplant lines	• To develop those resistant lines for acceptable fruit character, high yield and disease-pest resistance.	Akbarpur, Moulvibazar
1743	Regional yield trial of purple-coloured Eggplant lines	• To verify the yield performance at different locations.	Akbarpur, Moulvibazar
1744	Regional yield trial of white coloured Eggplant lines	• To develop those resistant lines for acceptable fruit character, high yield and disease-pest resistance.	Akbarpur, Moulvibazar
1745	Regional yield trial of green	• To develop Hybrids involving those	Akbarpur,

Sl.	Research Title	Objective(s)	Location(s)
	Eggplant hybrids	resistant parents for acceptable fruit character, high yield and disease-pest resistance.	Moulvibazar
1746	Regional yield trial of purple colored Eggplant hybrids	• To develop Hybrids involving those resistant parents for acceptable fruit character, high yield and disease-pest resistance.	Akbarpur, Moulvibazar
1747	Effect of decomposed water hyacinth on growth and yield of Brinjal	• To monitor the effect of decomposed water hyacinth on growth and yield of Brinjal	Akbarpur, Moulvibazar
1748	Morphological characterization and evaluation of Chilli genotypes in north eastern Sylhet region	• To develop new trait in established high yielding varieties.	Akbarpur, Moulvibazar
1749	Effect of different mulches on growth and yield of sweet pepper	• To select the suitable mulching for sweet pepper production.	Akbarpur, Moulvibazar
1750	Regional yield trial of Bottle gourd lines (OP)	• To select superior lines with earliness, higher yield and attractive consumer preferences fruit shape and colour of the selected lines of bottle gourd.	Akbarpur, Moulvibazar
1751	Regional yield trial of Pumpkin hybrids	• To select superior hybrids with earliness, higher yield and attractive consumer preferences fruit shape and color of the selected hybrids of sweet gourd.	Akbarpur, Moulvibazar
1752	Regional yield trial of Yard long bean lines	• To find out the new high-yielding variety of Yard Long Bean.	Akbarpur, Moulvibazar
1753	Regional yield trial of French bean lines	• To find out another suitable Khaishya variety of french bean.	Akbarpur, Moulvibazar
1754	Evaluation of Yard long bean lines with BARI Borboti-1	• To find out the new high yielding variety of Yard Long Bean.	Akbarpur, Moulvibazar
1755	Collection, evaluation and characterization of different genotypes of summer Hyacinth bean under high rainfall areas of north-eastern region of Bangladesh	• To collect, evaluate and characterize 03 genotypes of dolichos bean for summer consumption due to its huge demand and better market price during summer season.	Akbarpur, Moulvibazar
1756	Effect of liming on growth and yield of Bush bean at Moulvibazar	• To find out the dolochun effect on BARI Jharsheem-2 and to optimize the amount of lime for this crop at the acidic soil of Moulvibazar.	Akbarpur, Moulvibazar
1757	Effect of apical pinching time on growth and yield of Okra	• To determine the influence of apical pinching on the growth characteristics and yield of Okra.	Akbarpur, Moulvibazar
1758	Evaluation of collected	• To find out the suitable mango	Akbarpur,

Sl.	Research Title	Objective(s)	Location(s)
	Mango (*Mangifera indica*) germplasm	germplasm for releasing a new variety.	Moulvibazar
1759	Ex-situ evaluation of some selected heavy bearing family size Jackfruit (*Artocarpus heterophyllus*) germplasm at RARS, BARI, Akbarpur, Moulvibazar	• To ex-situ evaluation of some selected heavy bearing family size jackfruit germplasm at RARS, BARI, Akbarpur, Moulvibazar.	Akbarpur, Moulvibazar
1760	Integrated nutrient management for increasing the yield of BARI Dragon fruit-1 in Sylhet region	• To developing a fertilizer management package for Dragon fruit cultivation in Sylhet region of Bangladesh.	Akbarpur, Moulvibazar
1761	Methods of pollination for increasing the yield and quality of Dragon fruit production in Bangladesh	• To developing a fertilizer management package for Dragon fruit cultivation in Bangladesh.	Akbarpur, Moulvibazar
1762	Evaluation of Wood apple (*Feronia limonia*) in Sylhet region	• To establish these elite genotypes for further evaluation and improvement.	Akbarpur, Moulvibazar
1763	Yield and quality of Rock melon influenced by liming material and boron under acidic soil of Sylhet region	• To determine the appropriate amount of liming material in combination with B for quality melon production under acidic soil of Moulvibazar.	Akbarpur, Moulvibazar
TUBER CROP RESEARCH CENTRE (TCRC)			
1764	Adaptive trial with newly BARI released high yielding Potato varieties	• To popularize the newly released improved potato varieties and seedling tuber progenies among the farmers.	Akbarpur, Moulvibazar
1765	Effect of plant spacing on yield of Mukhikachu at Moulvibazar	• To know the proper spacing for production of maximum yield of Mukhikachu.	Akbarpur, Moulvibazar
GENETICS AND PLANT BREEDING			
1766	Advanced yield trial of hull-less Barley	• To select the highly adaptive and high-yielding barley genotypes.	Akbarpur, Moulvibazar
1767	Preliminary yield trial of hull-less Barley	• To select the highly adaptive and high yielding barley genotypes.	Akbarpur, Moulvibazar
1768	Advanced yield trial of Quinoa	• To maintain and increase the seeds of quinoa for using in future breeding program.	Akbarpur, Moulvibazar
1769	Evaluation of Quinoa germplasm at drought-prone acidic soil of Moulvibazar	• To develop a new variety of Quinoa for drought and salinity-prone areas of Bangladesh.	Akbarpur, Moulvibazar
Agronomy			
1770	Performance of BARI released Blackgram varieties in acidic soil of semi hill valley at Moulvibazar under rainfed condition	• To know the yield performance of blackgram variety /cultivar in semi hilly areas of Moulvibazar.	Akbarpur, Moulvibazar

Sl.	Research Title	Objective(s)	Location(s)
1771	Influence of foliar application of boron and humic acid on yield of Blackgram at acidic soil of Moulvibazar	• To find out suitable foliar application dose of boron and humic acid on improvement of yield in black gram.	Akbarpur, Moulvibazar
1772	Performance of BARI released minor cereal crops in acidic soil at Moulvibazar	• Establishing relationships of minor cereal cultivation with the farmer and climatic conditions.	Akbarpur, Moulvibazar
1773	Strip cultivation tomato in Tomato+Lalsak along with bitter gourd in intercropping system at acidic soil at Moulvibazar	• To find out the combination of lalshak and bitter gourd as intercrop with strip cropping of tomato for higher yield and economic return	Akbarpur, Moulvibazar
1774	Effect of soil amendments on Tomato grain yield and soil characteristic in acidic soil at Moulvibazar	• To assess the effect of soil amendments on tomato growth, yield and soil properties.	Akbarpur, Moulvibazar
Other Activities			
1775	Demonstration of BARI developed Mustard variety	• To demonstrate the yield performance of BARI Sarisha-14, BARI Sarisha -17 and BARI Sarisha -18 in the farmer's field.	Moulvibazar district
1776	Demonstration of BARI released potato varieties at Moulvibazar	• To popularize the newly released potato varieties among the farmers.	Akbarpur, Moulvi tea state, Anakeliboro, Mohammadpur bazar, Giasnagar union, Sadar upazila, Moulvibazar
1777	Demonstration of BARI released vegetable varieties at farmer's field	• To popularize the BARI released brinjal and Radish varieties among the farmers.	SreemangalUpazilla
1778	Cropmuseum at RARS, BARI, Akbarpur, Moulvibazar	• To familiarize BARI developed crops varieties to farmers.	Akbarpur, Moulvibazar
1779	BARI technology village (BARI-TV), Jagonathpur, Moulvibazarsadar (2022-23)	• To establish and enhance strength of Farmer-Scientist-Extension linkage and motivate farmers to adopt new and improved technologies etc.	Jagonathpur, Mostafapur, Moulvibazarsadar
RARS, Rahmatpur, Barishal			
HRS (HRC)			
Olericulture			
1780	Regional yield trial of AFACI tomato hybrids	• To select superior lines. • To find out suitable tomato lines for developing new winter tomato varieties	RARS, Rahmatpur, Barishal
1781	Regional yield trial of	• To select superior lines.	Do

Sl.	Research Title	Objective(s)	Location(s)
	AFACI winter tomato	• To find out suitable tomato lines for developing new winter tomato varieties	
1782	Regional yield trial of semi determinate tomato	• To evaluate the performance of semi determinate type tomato lines • To develop high yielding and diseases resistant tomato variety, which may be used as inbred line to develop hybrid tomato varieties too.	Do
1783	Regional yield trial of semi determinate hybrid tomato lines	• To evaluate the performance of semi determinate type tomato lines. • To develop high yielding and diseases resistant tomato variety, which may develop hybrid tomato varieties too.	Do
1784	Regional yield trial of determinate hybrid tomato lines	• To evaluate the performance of determinate type tomato lines. • To develop hybrid tomato varieties.	Do
1785	Regional yield trial of saline tolerant tomato hybrid	• To evaluate the ability of tomato lines for growing under saline conditions and screen them for salinity tolerance	RARS, Rahmatpur, Barishal
1786	Regional yield trial of insect and diseases tolerant dual-purpose tomato lines	• To assess adaptability, horticultural traits and yield potentiality in Bangladesh condition. • To select suitable dual-purpose lines for developing more tomato varieties under Bangladesh condition.	Do
1787	Regional yield trial of hybrid bottle gourd line	• To select superior lines for earliness, higher yields of bottle gourd lines	Do
1788	Regional yield trial of op bottle gourd line	• To select superior lines for earliness, higher yields of bottle gourd lines	Do
1789	Performance of bitter gourd (*Momordica charantia* L.) under different training systems	• To standardize various systems of training. • To study the cost economics on yield of bitter gourd. • To evaluate the effects of different training systems on fruit quality and yield.	Do
1790	Effect of stem pruning and different staking methods on growth and yield of tomato	• To find out the suitable level of pruning on growth and yield of tomato • To find out suitable staking methods on growth and yield of tomato	Do
1791	Effect of topping and mulching on vegetative growth and yield of okra (*Abelmoschus esculentus* L.)	• To determine the effect of topping on growth and yield of okra plant. • To determine the effect of different mulching color on growth and yield of okra plant.	Do
1792	Integrated nutrient management on growth and	• To investigate the effects of integrated nutrient management on soil fertility and	Do

Sl.	Research Title	Objective(s)	Location(s)
	yield of brinjal (*Solanum Melongena*)	crop yield. • To adjust maximum number of plants per unit area and. To find out the economic benefits of the farmers.	
1793	Effect of plant spacing on the growth, fruit quality and yield of okra in southern region of Bangladesh	• To find the most suitable plant spacing regime okra yield in Barishal.	Do
1794	Standardization of growing media of vegetable production technique on rooftop	• To suggest suitable growth media and production packages of year round rooftop fruit gardening.	Do
Pomology			
1795	Evaluation of local Rose Apple (Golapjam) germplasam	• To identify promising local rose apple line with desirable characteristics. • To conserve germplasm.	RARS, Rahmatpur, Barishal
1796	Collection and evaluation of monkey jack (*Artocarpus lacucha*) germplasm	• To enrich the germplasm pool for monkey jack (dewa). • To screen the superior line • To develop new variety	Do
1797	*In-situ* evaluation of monkey jack (*Artocarpus lacucha*) germplasm	• To identify promising line with desirable characteristics. • To conserve germplasm.	Do
1798	Evaluation of kaghzi lime germplasm	• To enrich the germplasm pool for kaghzi lime. • To screen the superior line. • To develop new variety	Do
1799	Evaluation of cowa germplasm	• To select the superior quality cowa line. • To conserve it. • To popularize among the people	Do
1800	Collection and evaluation of velvet apple (*Diospyros discolor*) germplasm	• to enrich the germplasm pool for velvet apple (bilatigub). • To screen the superior line. • To develop new variety	Do
1801	Collection and evaluation of local Wax Apple (Jamrul) germplasam	• To identify promising local Wax apple line with desirable characteristics. • To conserve germplasam.	Do
TUBER CROP RESEARCH CENTRE (TCRC)			
1802	Effect of plant spacing on the growth and yield of shahebikachu (*Xanthosoma undipes* K. Koch) in Barishal region	• To find out suitable plant spacing for better growth and higher yield of shahebikachu. • To standardized suitable spacing of shahebikachu in Barishal region	RARS, Rahmatpur, Barishal
1803	Promotion and dissemination of newly released climate smart (heat and salt tolerant) potato	• To find the suitability of BARI released new potato varieties in the southern region of Bangladesh.	Barishal Region

Sl.	Research Title	Objective(s)	Location(s)
	variety		
1804	Adaptive trials with newly released potato varieties in Barishal region	• To evaluate their yield performance and know farmer's opinions about the newly released potato varieties in different locations of Bangladesh.	Barishal Region
OILSEED RESEARCH CENTRE (ORC)			
Expanded Production of Oilseed Crops (EPOC) Project (BARI Part)			
1805	Collection, evaluation and adaptation of Bambara groundnut germplasm in southern region of Bangladesh	• Collection of germplasm to enrich the gene pool of Bambara groundnut in Bangladesh. Evaluation of the collected germplasm to use in the future breeding program. • To observe the adaptability of collected germplasm. • To develop suitable variety(ies) of Bambara groundnut for the existing cropping systems in southern region of Bangladesh	RARS, Rahmatpur, Barishal
1806	Hybridization in Sesame (*Sesamum indicum* L.)	• To create genetic variation. • To develop waterlogged, salinity and drought tolerant line	RARS, Rahmatpur, Barishal
1807	Performances of mustard based different cropping patterns in Barishal region	• To examine the performances of mustard based different cropping patterns in Barishal region.	Do
1808	Intercropping of soybean with sunflower at different planting ratios for increasing total productivity and land use efficiency in southern region	• To find out the suitable planting ratio of sunflower and soybean intercropping system in southern region of Bangladesh. • To increase the total productivity and land use efficiency	Do
1809	Effects of different tillage conditions on the growth and yield of soybean varieties in southern region of Bangladesh	• To examine the effects of different tillage practices on BARI developed soybean varieties. • To increase the yield and farmers' income from soybean cultivation in southern region of Bangladesh.	Do
Pulse Research Centre (PRC)			
1810	Performance of cowpea as influenced by sowing dates in Barishal	• To understand the growth pattern of cowpea under late seeded heat stress conditions	RARS, Rahmatpur, Barishal
1811	Effect of commercial plant growth regulators on Mungbean	• To identify the effects of plant growth regulators on mungbean flowering and yield	RARS, Rahmatpur, Barishal
1812	Effect of Boron foliar spray on growth and yield of relay lentil	• To find the efficacy and effective dose of Boron foliar spray on relay lentil	RARS, Rahmatpur, Barishal and Farmers field, Babuganj,

Sl.	Research Title	Objective(s)	Location(s)
			Barishal
Agronomy			
1813	Sorjan Based Eco-Friendly Farming Systems Research for Agricultural Intensification in Southern Bangladesh (Project ID No.: TF 103-SBR/21)	• To develop location specific sorjan based farming systems technology(ies) like cropping patterns and improve management practices of different components for agricultural intensification in the southern region of Bangladesh. To integrate crops (vegetables, fruits, spices and fodder), fisheries and so on under sorjan based farming systems for year round vegetables-fruits-fishes production. • To develop environment friendly bio-rational pest management technology for safe food production.	Barishal (RARS, Rahmatpur and Banaripara), Bhola (Charfashion), Jhalakati (Sadar) and Pirojpur (Nesarabad upazila)
1814	Improvement of sorjan based cropping systems for increasing crop productivity in southern Bangladesh	• To develop location specific sorjan based cropping systems in southern region of Bangladesh. To increase crop productivity and profitability under sorjan.	RARS, Rahmatpur (Barishal); Banaripara (Barishal); Nesarabad (Pirojpur) and Charfashion (Bhola)
1815	Intercropping of pineapple with existing fruit orchard on sorjan system	• To increase the productivity and profitability of the existing fruit orchard on sorjan system	Atghar, Nesarabad, Pirojpur and Gava, Banaripara, Barishal
1816	Intercropping of spice crops with existing fruit orchard on sorjan system	• To increase the productivity and profitability of the existing fruit orchard on sorjan system	Sadar, Jhalakati and Nesarabad, Pirojpur
1817	Effects of USG and NPK briquette on the yield and economic returns of ribbed gourd under sorjan system	• To examine the effects of USG and NPK briquette on the yield and economic returns of ribbed gourd on sorjan bed. • To develop eco-friendly and cost-effective technology for vegetables cultivation under sorjan system.	Banaripara (Barishal) and Nesarabad (Pirojpur)
1818	Fertilizer management of bottle gourd on sorjan bed in Barishal region	• To find out the optimum fertilizer dose for getting higher yield from creeper crops on sorjan bed in Barishal region.	Gava, Banaripara, Barishal
1819	Influences of agronomic management practices on yield and quality of guava in sorjan bed	• To find out the optimum fertilizer dose for getting higher yield of guava on sorjan bed in sorjan bed.	Attghar, Sawupkanti, Pirozpur.
1820	Golden apple yield as	• To find out the optimum agronomic	Gava,

Sl.	Research Title	Objective(s)	Location(s)
	influenced by agronomic management practices on sorjan bed	management practices for getting higher yield and quality of golden apple on sorjan bed in Barishal region.	Banaripara, Barishal
1821	Pilot production programme of grafted BARI Peyara-2 replacing local Swarupkati guava variety on sorjan bed	• To examine the performance of grafted BARI Peyara-2 over the existing local Swarupkati guava variety under sorjan system. • To increase the yield and economic return of guava in southern region of Bangladesh. • To make availability of fresh guava all the year round for improving the nutritional security of the sorjan farm family.	Gava, Banaripara, Barishal
1822	Performances of fodder crop species with different planting position on bed slope under sorjan farming systems	• To find out the suitable fodder crop species under sorjan farming systems. • To find out the suitable planting position of fodder crop on sorjan bed slope	RARS, Rahmatpur & Banaripara, Barishal and Nesarabad, Pirojpur
1823	Performances of different fish species in canal water under sorjan farming systems	• To find out the suitable fish species for sorjan canal water. • To increase the income of sorjan farming systems	Do
1824	Piloting of eco-friendly, integrated farming practices in the coastal and/or transitional wetlands of Bangladesh implemented in consensus with government, local government and communities	• To provide inputs for design of the project pilot, organize national workshops, prepare national workshop documents and report, prepare national wetland agriculture best practices report and provide inputs to regional workshops and regional program formulation.	Barishal, Patuakhali, Jhalakati and Pirojpur
1825	Effects of spacing and fertilizer dose on transplanted sunflower under zero tillage condition in southern region of Bangladesh	• To find out the optimum spacing and fertilizer dose for getting higher yield of transplanted sunflower under zero tillage condition in southern region of Bangladesh.	RARS, Rahmatpur, Barishal
1826	Effects of different production systems on the productivity of vegetable crops in the low-lying areas of southern region	• To study the effects of different production systems on the productivity of vegetable crops in low-lying areas of the southern region of Bangladesh.	Do
1827	Effects of management practices on growth and yield of pineapple under coconut orchard in southern region	• To develop suitable management package for increasing the yield and quality of pineapple in southern region of Bangladesh.	Do

Sl.	Research Title	Objective(s)	Location(s)
1828	Pilot production programme of pineapple as intercropping under coconut orchard in southern region	• To utilize the orchard fallow land for pineapple cultivation. • To disseminate the fruit orchard-based pineapple production technology in the southern region of Bangladesh.	Do
1829	Adaptive trial of cucumber line/entries on sorjan bed	• To select the suitable line/entries of cucumber for cultivation under sorjan system in southern region of Bangladesh	RARS, Rahmatpur, Barishal
1830	Performances of different pulse crops under mango orchard in southern region of Bangladesh	• To select the most appropriate pulse crop(s) for growing under mango orchard. • To increase the cropping intensity. • To maximize the productivity as well as farmers income	RARS, Rahmatpur, Barishal
Agricultural Engineering			
1831	Determination of optimum water use in minimum tillage operation for pulse cultivation in rice-based cropping pattern in southern region of Bangladesh	• Determine the effects of tillage and irrigation water on yield. Compare the water use efficiency and yield increase over the conventional tillage method. Increase cropping intensity	RARS, Rahmatpur, Barishal
1832	Design and development of power operated rotary tiller for Sorjan based farming system	• To design the suitable rotary tiller part. • To develop and adopt suitable tillage implement to mitigate labour shortage, minimize cost of production in Sorjan based farming systems.	Barishal and Jhalakati
1833	Design and development of four-wheel tractor operated bed former for cultivation of horticultural crops in low-lying area of southern Bangladesh	• To design four-wheel tractor operated bed former. To fabricate the designed bed former • To evaluate the developed bed former for different horticultural crops establishment	RARS, Rahmatpur, Barishal
1834	Adaptive trial of power operated seeder in southern region of Bangladesh	• Field performance evaluation of Power seeder in southern region of Bangladesh, Disseminate this technology among the farmers through adaptive trials	RARS, Rahmatpur, Barishal and in the farmers field of Barishal, Patuakhali
1835	Suitability study of solar bubble dryer for drying pulse seed	• To evaluate the performance of Soler bubble dryer for pulse seed. • To analysis the economic performance of the dryer	RARS, Rahmatpur, Barishal
Entomology			
1836	Development of bio-rational pest management approach against thrips-mite complex of watermelon	• To develop appropriate strategy for managing the thrips-mites complex infesting watermelon.	RARS, Rahmatpur, Barishal; RHRS,

Sl.	Research Title	Objective(s)	Location(s)
			Lebukhali, Patuakhali
1837	Survey, incidence, intensity and management of bark eating caterpillar (*Indarbela spp*) infesting hog plum in southern region of Bangladesh	• To find out the incidence and pest status of Bark Eating caterpillar on hog-plum in southern region of Bangladesh	RARS, Rahmatpur, Barishal
1838	Evaluation of some bio-pesticides against rugose spiraling whitefly attacking coconut	• To develop bio-rational based management approach against Rugose Spiraling Whitefly of coconut	RARS, Barishal, RARS, RHRS, Lubukhali, Patuakhali
1839	Evaluation of some bio-pesticides against rugose spiraling whitefly attacking coconut	• To develop bio-rational based management approach against Rugose Spiraling Whitefly of coconut	Do
1840	Survey, monitoring and documentation of major insect pests in vegetable and spices crops grown on floating bed	• To document the damage severity of insect pests attacking Cucumber, sweet gourd, okra, and Indinan spinach grown on floating bed	Barishal, Pirojpur, Gopalgonj, Noakhali, Khulna and Sylhet
1841	Survey, monitoring and documentation of major insect pests of betel leaf	• Identification of insect pests attacking betel leaf • Determination of damage severity of insect pests	RARS, Rahmatpur and Farmers field of Barishal, Bhola, Jhalokati;
1842	Development of environment friendly management approach against betel vine black fly, *Aleurocanthusrugosa* (Aleyrodidae: Hemiptera)	• To find out eco-friendly management practices against betel vine black fly	RARS, Rahmatpur, Barishal
1843	Development of bio-rational management approach against leaf eating caterpillar of betel vine	• To find out appropriate management practices against leaf eating caterpillar of betel vine	RARS, Rahmatpur, Barishal
1844	Survey, incidence, intensity and management of inflorescence caterpillar*: Tirathaba rufivena* (Lepidoptera: Pyralidae) on betel nut in southern region of Bangladesh	• To document the incidence, pest status of inflorescence caterpillar affecting betel nut in southern region of Bangladesh. To develop appropriate strategy for managing the pest.	RARS, Rahmatpur, Barishal, Farmers field of Barishal, and Bhola
1845	Development of eco-friendly management package against major insect pests of mungbean in	• To find out promising IPM package against major insect pests of mungbean for Southern region. To produce toxic pesticide free mungbean	RARS, Rahmatpur, Barishal

Sl.	Research Title	Objective(s)	Location(s)
	southern region		
1846	Development of bio-rational pest management package against major insect pests of cucurbits grown on floating bed	• To develop bio-rational based pest management package against major insect pests of cucurbits grown on floating bed.	RARS, Rahmatpur, Barishal, Banaripara, Barishal and Nesarabad, Pirojpur, Tungipara Gopalgonj
1847	Development of bio-rational pest management approach against thrips-mite complex in chili grown on floating bed	• To develop appropriate strategy for managing the thrips-mites complex infesting chili grown on floating bed.	RARS, Rahmatpur, Barishal
1848	Sustainable pest management package against major insect pests of cucurbits grown on sorjan bed	• To develop sustainable pest management package against major insect pests of cucurbit. • To produce toxic synthetic chemical pesticide free cucurbits.	RARS, Rahmatpur, Barishal, Banaripara, Barishal and Nesarabad, Pirojpur
1849	Development of eco-friendly pest management approach against thrips-mite complex in chili grown on sorjan bed	• To develop appropriate strategy for managing the thrips-mites complex infesting chili grown on sorjan bed.	Do
Plant Pathology			
1850	Disease assessment in fruits and vegetables mixed cropping system in different seasons	• To assess different disease status of fruits and vegetable crops in mixed cropping system in different seasons. • To assess the incidence and severity of different diseases.	RARS, Rahmatpur, Barishal
1851	Bio-rational management of early blight of Tomato on floating bed	• To find out the suitable bio-rational control measures of early blight of tomato in floating bed	RARS, Rahmatpur, Barishal
1852	Cultural, chemical, and biological control of Fusarium wilt in watermelon	• To find out an effective and suitable control measure of the disease.	RARS, Rahmatpur, Barishal
1853	Effect of planting date and Cultivar resistance on Fusarium wilt disease in watermelon	• To find out an effective and suitable control measure of the disease.	RARS, Rahmatpur, Barishal
1854	Management of powdery mildew of pumpkin on floating bed cum trellis	• To find out an effective chemical in controlling powdery mildew of pumpkin • To reduce yield losses of that crops.	RARS, Rahmatpur, Barishal
1855	Management of anthracnose (Colletotrichum	• To find out effective control measures	RARS, Rahmatpur,

Sl.	Research Title	Objective(s)	Location(s)
	lindemuthianum) in yard long bean for floating bed cultivation in Barishal	in controlling Anthracnose disease of yard long bean for floating bed cultivation in Barishal.	Barishal
ON FARM RESEARCH DIVISION (OFRD)			
1856	Development of alternate cropping pattern relay Field pea (Green pod)- Mungbean – T. Aman rice against Fallow- Mungbean-T.Aman rice	• To improve existing cropping pattern by inclusion of field pea. • To increase farmers income	BARI Technology Village, Babuganj, Barishal
1857	On farm trial of sesame varieties in Barishal	• To observe the performance of BARI released sesame varieties in Barishal. • To popularize BARI sesame varieties to the farmers in Barishal	MLT site, Gournadi and Jhalokathi Sadar
1858	Production program of BARI Sarisha-18 and BARI Sarisha-19 in Barishal	• To adopt BARI released latest mustard varieties at farmers field	MLT site, Banaripara, Barishal
Soil Science			
1859	Effect of different fertilizer combination on groundnut in Barishal region	• To find out the response of BARI Chinabadam to different fertilizer. • To determine the optimum dose of nutrient to maximizing the yield of BARI Chinabadam-9.	RARS, Rahmatpur, Barishal
1860	Performances of different sesame varieties through nutrient management in Barishal region	• To find out the response of sesame variety to nutrient management. • To increase the yield of sesame through fertilizer management.	RARS, Rahmatpur, Barishal
1861	Effect of N, P, K and S on the growth and yield of Shahebikachu	• To find out effect of NPKS for Shahebikachu • To increase the yield of Shahebikachu through fertilizer management	RARS, Rahmatpur, Barishal
1862	Effect of different nutrients on betel nut (*Areca catechu*) in southern region of Bangladesh	• To examine the effect of different fertilizers on betelnut. • To Find out the optimum dose of fertilizer for betelnut.	RARS, Rahmatpur, Barishal
1863	Integrated nutrient management for pineapple in Barishal region	• To find out the effect of different fertilizer onpineapple. • To find out the optimum dose of fertilizer for maximizing pineapple yield.	RARS, Rahmatpur, Barishal
1864	Effect of boron fertilization on lentil in Barishal region	• To find out the response of BARI Masur-8 to boron fertilizer. • To determine the optimum dose of boron for maximizing the yield of BARI Masur-8	RARS, Rahmatpur, Barishal
1865	Nutrient management of	• To develop nutrient management	RARS,

Sl.	Research Title	Objective(s)	Location(s)
	sesame in Barishal region	package for sesame in Barishal region. • To increase the yield of sesame through fertilizer management	Rahmatpur, Barishal
1866	Integrated nutrient management for local bitter gourd cultivar	• To find out the response of fertilizer on local bitter gourd cultivar. • To develop nutrient management package for bitter gourd.	RARS, Rahmatpur, Barishal
RARS, Hathhazari, Chattogram			
1867	Hybridization of guava with improved/local guava cultivars	• To increase taste and flavour guava variety. • To improve the size and shape and seed lessness of guava	Hathazari, Chattogram
1868	Clonal selection of guava cv. Kanchannagar	• To observe yield potentialities of Kanchannagar guava. • To develop a high yielding variety	Hathazari, Chattogram
1869	Evaluation of jackfruit germplasm	• To observe yield potentialities of Jackfruit. • To develop a high yielding variety	Hathazari, Chattogram
1870	Evaluation of lime germplasm	• To observe yield potentialities of lime genotypes. • To develop a high yielding variety	Hathazari, Chattogram
1871	Evaluation of sweet orange lines	• To study the potentiality of sweet orange (kata malta) lines. • To select suitable citrus varieties for commercial cultivation	Hathazari, Chattogram
1872	Evaluation of ber germplasm	• To observe yield potentialities of existing ber lines. • To develop a high yielding ber varietyes	Hathazari, Chattogram
1873	Collection and evaluation of dwarf coconut germplasm	• To characterize the dwarf coconut germplasm • To observe the yield performance of dwarf coconut germplasm. • To develop a dwarf coconut variety	Hathazari, Chattogram
1874	Collection and evaluation of off-season sofeda germplasm	• To characterize the off-season Sofeda germplas. • To observe the off-season yield performance of Sofeda germplasm. • To develop a off-season Sofeda variety	Hathazari, Chattogram
1875	Evaluation of jamun germplasm	• To observe yield potentialities of existing jamun lines. • To develop a high yielding jamun variety/es	Hathazari, Chattogram
1876	Evaluation of cashew nut germplasm	• To observe yield potentialities of cashew nut. • To develop a high yielding variety of cashew nut	Hathazari, Chattogram
1877	Evaluation of yellow	• To observe yield potentialities of yellow	Hathazari,

Sl.	Research Title	Objective(s)	Location(s)
	dragonfruit germplasm	dragon fruit genotypes. • To develop a yellow dragon fruit variety	Chattogram
1878	Effect of time and iba concentration on air layering in cashew nut	• To developed effective vegetative method of cashew nut	Hathazari, Chattogram
1879	Evaluation of local eggplant (*phota begun*) germplasm	• To characterize the Phota begun germplasm. • To observe the yield potentiality. • To develop a new high yielding variety	Hathazari, Chattogram
1880	Adaptation trial of bari released tomato varieties in chattogram region	• To observe yield potentialities of these varieties. • To observe adaptability in this region	Hathazari, Chattogram
1881	Performance yield trial of snake gourd hybrids	• To select snake gourd hybrids having good horticultural traits including disease tolerance	Hathazari, Chattogram
1882	Collection and evaluation of local chilli germplasm	• To characterize the halda chilli. • To observe the yield potentiality. • To develop a high yielding variety	Hathazari, Chattogram
1883	Collection and evaluation of wild eggplant germplasm	• To characterize the wild Eggplant. • To observe the yield potentiality. • To consurved wild eggplant from extinction	Hathazari, Chattogram
1884	effect of growthregulators on induction of staminate flower in gynoecious plants	• To developed effective method of staminate flower induction in gynoecious plants	Hathazari, Chattogram
1885	Effect of row spacing nitrogenous fertilizer on growth and yield of chia	• To find out optimum row spacing and fertilizer of chia for higher grain yield under hathazari condition.	Hathazari, Chattogram
1886	The influence of different mulching materials on growth and yield of tomato	• To find out optimum chilli leafy vegetables combination for higher productivity and economic return. • To study the effect of intercropping on component crops	Hathazari, Chattogram
1887	Control of bacterial black spot in mango	• To control the very devastating foreign diseasse	Hathazari, Chattogram
1888	Control of sigatoka in banana	• To control the sigatoka disease in banana	Hathazari, Chattogram
1889	*In-vitro* and *in-vivo* control of phomopsis blight of brinjal	• To develop effective and economic control measures against Phomopsis blight and fruit rot of Brinjal	Hathazari, Chattogram
1890	Survey, monitoring and documentation of major diseases of different crops in hathazari, chattogram	• Disease Identification of different crops and determination of damage severity of pathogens.	Hathazari, Chattogram
1891	Testing EMOs for controlling the bacterial wilt in tomato	• To study the effectiveness of *Bacillus* based (YC7007+ BARI/HAT/GL6) EMOs for controlling bacterial wilt in	Hathazari, Chattogram

Sl.	Research Title	Objective(s)	Location(s)
		Tomato production	
1892	*In-vitro* and *in-vivo* test of Bacillus based EMOs with molecular study for controlling greening disease on sweet orange	• To control the greening disease (*Candidatus liberibacter* spp.) of BARI Malta 1	Hathazari, Chattogram
1893	Study on yield performance of mustard at different sowing depth using BARI seeder	• To determine the yield performance at different sowing depth of mustard	Hathazari, Chattogram
1894	Field capacity mapping of RARS, Hathazari, Chattogram	• To investigate field capacity for easier irrigation in RARS, Hathazari, Chattogram	Hathazari, Chattogram
1895	Development of management approach against red banded mango caterpillar, *deanolis sublimbalis*	• To develop a suitable management technique against mango red banded caterpillar	Hathazari, Chattogram
1896	Observation trial of BARI released mungbean varieties at RARS, Hathazari, Chittagong	• To identification of better performing lines/ variety based on yield and yield contributing characters at Chittagong area.	Hathazari, Chattogram
RARS, Burirhat, Rangpur			
Horticulture			
1897	Effect of planting time on yield and quality of bari begun-12	• To identify the optimum planting time of BARI Begun-12. • To obtain higher quality fruit and maximum yield	RARS, Burirhat, Rangpur
1898	Regional yield trial of pumkin hybrids	• To observe yield and quality of the promising hybrids of pumkin at different regional stations. • To select suitable hybrids of pumkin for release as variety	RARS, Burirhat, Rangpur
1899	Regional yield trial of selected broad shaped country bean lines	• To evaluate suitable broad shaped fruit line for developing as variety with high yield	RARS, Burirhat, Rangpur
1900	Regional yield trial of bacterial wilt and tylcv diseases tolerant tomato lines	• To determinate the yield potentiality of tomato lines at different agro-ecological zones of Bangladesh. • To select suitable lines for release (BW, TYLCV) tolerant tomato variety	RARS, Burirhat, Rangpur
1901	Regional yield trial of bottle gourd lines	• To study the adaptability of bottle gourd at different AEZ's of Bangladesh for developing high yielding variety tolerance to stem blight and high temperature	RARS, Burirhat, Rangpur
1902	Regional yield trial of bottle gourd hybrids	• To study the adaptability of bottle gourd hybrids at different AEZ's of Bangladesh	RARS, Burirhat,

Sl.	Research Title	Objective(s)	Location(s)
		for developing high yielding variety tolerance to stem blight and high temperature	Rangpur
1903	Regional yield trial of french bean	• To study the adaptability of french bean lines at different AEZs of Bangladesh. • To select suitable lines with good horticultural traits including tolerance to pest and disease for developing as variety with high yield	RARS, Burirhat, Rangpur
1904	Regional yield trial of eggplant (op) lines (green)	• To study the adaptability of eggplant lines at different AEZ's of Bangladesh for developing high yielding varieties tolerant to bacterial wilt and high temperature	RARS, Burirhat, Rangpur
1905	Regional yield trial of eggplant hybrids (green)	• To develop high yielding and quality eggplant hybrids. • To select hybrids tolerance to bacterial wilt for winter and summer at different AEZ`s	RARS, Burirhat, Rangpur
1906	Regional yield trial of semi-derminate hybrid tomato entries	• To assess the yield potentiality adaptability of hybrid tomato lines at different AEZ's of Bangladesh. • To select suitable hybrid tomato lines for releasing as new semi-determinate hybrid tomato varieties	RARS, Burirhat, Rangpur
1907	Regional yield trial of derminate hybrid tomato entries Regional yield trial of tomato hybrids	• To assess the yield potentiality adaptability of hybrid tomato lines at different AEZ's of Bangladesh. • To select suitable hybrid tomato lines for releasing as new determinate hybrid tomato varieties	RARS, Burirhat, Rangpur
1908	Regional yield trial of tomato hybrids	• To assess the yield performance and adaptability of hybrid tomato lines at different agro ecological zones. • To select suitable hybrid tomato lines for releasing as new hybrid tomato variety	RARS, Burirhat, Rangpur
1909	Regional yield trial of insect and disease resistant tomato lines	• To evaluate the performance of yield, insect-diseases reactions and adaptability different AEZ's to develop insects and diseases tolerant tomato variety	RARS, Burirhat, Rangpur
1910	Regional yield trial of eggplant hybrids (purple)	• To develop high yielding and quality eggplant hybrids. • To select hybrids tolerance to bacterial wilt for winter and summer at different AEZ`s	RARS, Burirhat, Rangpur
1911	Regional yield trial of eggplant (op) lines (purple)	• To study the adaptability of eggplant lines at different AEZ's of Bangladesh for developing high yielding varieties	RARS, Burirhat, Rangpur

Sl.	Research Title	Objective(s)	Location(s)
		tolerant to bacterial wilt and high temperature	
Oilseed			
1912	Preliminary yield trial of *Brassica rapa*l. (SET-I)	• To evaluate and select short duration high yielding lines along with other desirable traits	RARS, Burirhat, Rangpur
1913	Regional yield trial of *Brassica rapa*l. (SET-I)	• To evaluate and select short duration high yielding lines along with other desirable traits	Do
1914	Regional yield trial of *Brassica napus*	• To find out the high yield potential genotypes of this species	Do
1915	Regional yield trial of *Brassica junce*al.	• To develop erect typebold seeded high yielding varieties with other agronomic traits.	Do
1916	Regional yield trial of canola (*Brassica rapa*)	• To develop 'double low' variety of *Brassica napus*	Do
1917	Regional yield trial of canola (*Brassica napus*)	• To develop 'double low' (Canola) variety.	Do
1918	Pyt of entries developed from back cross generation of interspecific hybridization	• To incorporate desirable characters from Brassicacarinata species into the existing popular variety of Brassica napus	Do
1919	Evaluation of hybrid rapeseed-mustard	• To develop hybrid through selected restorer.BHS-01 produced a higher seed yield compared to the check variety (Advanta).	Do
1920	Breeder seed production of bari sarisha-14	• To maintain the purity of the BARI released mustard varieties	Do
1921	Breeder seed production of bari sarisha-18	• To maintain the purity of the BARI released mustard varieties	Do
1922	Breeder seed production of bari sarisha-20	• To maintain the purity of the BARI released mustard varieties	Do
1923	Breeder seed production of bari soybean-5	• *To maintain the purity of the BARI released soybean varieties*	Do
1924	Breeder seed production of bari soybean-6	• To maintain the purity of the BARI released soybean varieties	Do
1925	Breeder seed production of bari surjamukhi-3	• To maintain the purity of the BARI released sunflower varieties	Do
Spices			
1926	Effect of sowing date on onion true seed production at Rangpur region	• To find out suitable sowing date for onion seed production at Rangpur region	RARS, BARI, Burirhat, Rangpur
Plant Breeding			
1927	Collection and evaluation of brinjal germplasm	• To develop high yielding and good quality brinjal variety	RARS, Burirhat, Rangpur
1928	Collection and evaluation of	• To collect and evaluate the performance	Do

Sl.	Research Title	Objective(s)	Location(s)
	buckwheat germplasm	of buckwheat germplasm. • To select superior germplasm for releasing as variety. • To conserve the plant genetic resources.	
1929	Evaluation of locally culected bitter gourd germplasm	• To find out suitable bitter gourd (usttakarolla) gearmplasm out of nine germpasm which was collected from Rangpur region	Do
1930	Effect of sowing date on onion true seed production at rangpur region	• To investigate the effects of bulb planting time on the seed yield and quality of winter onion with the variety BARI Onion- 1	Do
Agronomy			
1931	Integrated nutrient management on garlic-maize -t. aman rice croppingpattern in rangpur region	• To find out the best fertilizer dose and economic return for Garlic – Maize-T. Aman rice cropping pattern	RARS, Burirhat, Rangpur
1932	Integrated nutrient management on garlic- t.aus rice -t. aman rice croppingpattern in rangpur region	• To find out the best fertilizer dose and economic return for Garlic- T.Aus rice - T.Aman rice cropping pattern	Do
1933	Integrated nutrient management on onion seed production- t.aus -t. aman ricecropping pattern in rangpur region	• To find out the best fertilizer dose and economic return for Onion-T. Aus-T. Aman cropping pattern	RARS, Burirhat, Rangpur
1934	Effect of fertilizer dose and variety on the yield and yield attributes of sunflower in rangpur region	• To find out the best fertilizer dose and variety for optimum yield of sunflower and better economic return	Do
1935	Nutrient management in sunflower for rangpur region	• To determine the nutrient management practices on the productivity and economic of sunflower	Do
1936	Performance of sweet potato varieties at char land area in rangpur	• To find out the yield performance of different sweet potato verities in char land	Do
1937	Production program of different vegetables intercropped with maize at char land area of rangpur	• To validate the productivity and economic feasibility of growing vegetables with hybrid maize as intercrop	Do
1938	Performance of different agro-forestry crops as intercrop with arecanut (*areca catechu*)	• To introduce and determine economic performance of different crops as intercrop along with Arecanut. • To motivate farmers to cultivate inter crops in Arecanut orchards.	Do
1939	Crop-weed association in	• To assess the economic losses in oilseed	Do

Sl.	Research Title	Objective(s)	Location(s)
	oilseed and spice crops in gangachara upazila of rangpur district	and spice crops due to weed infestation. • To develop management practices for controlling weeds in oilseed and spice crops	
1940	Effects of companion crops of seed rate on yield of onion at tista char land area of rangpur region	• To determine the optimal seeding rate in terms of production and financial return	Do
1941	Effects of apical steam cutting on yield of sweet gourd at rangpur region	• To develop the suitable vine pruning stages for maximizing vine and fruit production of sweet gourd.	Do
Entomology			
1942	Development of management approach against tomato leaf miner, *Tuta absoluta*	• To develop management options to control the newly recorded pest in Bangladesh climatic condition	Do
1943	Monitoring of scale insect in cucurbit crops in rangpur region	• To determine the host range and pest status of scale insect in cucurbit crops for developing appropriate management strategies	Do
1944	Seasonal fluctuation and natural enemies of major insect pests of citrus at RARS, burirhat, rangpur	• To determine the seasonal fluctuation and natural enemies of major insect pests of citrus for developing appropriate management strategies	Do
1945	First record of citrus leaf roller, *Archips machlopis* (meyrick) (tortricidae: lepidoptera) on sweet orange in bangladesh	• To determine the presence of *A. rosanus* in Bangladesh	Do
1946	Development of management approach against leaf folder attacking citrus	• To find out the most effective management option for leaf folder in citrus	RARS, Burirhat, Rangpur
1947	Development of bio-rational based management approach against asian citrus psyllid	• To develop an eco-friendly sustainable management package against Asian citrus psyllid. • To produce insecticides free lemon	Do
1948	Development of eco-friendly management tactics for controlling onion thrips (*Thrips tabaci* lindeman)	• To develop eco-friendly management technique to control onion thrips	Do
1949	Survey and monitoring of insect pests of sunflower and their natural enemies in northern region of Bangladesh	• To document major insect pests and their natural enemies of sunflower. To estimate the damage caused by insect pests in sunflower	Do
1950	Survey and monitoring of	• To document major insect pests and	Do

Sl.	Research Title	Objective(s)	Location(s)
	insect pests and their natural enemies of sweet orange and dragon fruit	natural enemies of sweet orange and dragon fruit	
Plant Pathology			
1951	Survey of major diseases of selected fruits and vegetables in northern region	• To monitor their major diseases along with disease status	Do
1952	Screening of barley entries/lines against spot blotch disease caused by *Bipolaris sorokiniana* through artificial inoculation	• To develop spot blotch resistant sources for barley	Do
1953	Screening of mustard varieties/lines against Alternaria blight and white mold disease	• To select resistant sources against the Alternaria blight andwhite mold disease	Do
1954	Efficacy of fungicides against white mold of sunflower	• To find out the effective chemical control measure of the disease	Do
1955	Multiplication, purification and maintenance of indigenous potato varieties	• To continue maintenance and purification of indigenous cultivars of potato	Do
1956	Validation of selected chemicals in controlling common scab disease of potato	• To select effective chemical(s) for controlling common scab disease under field conditions	Do
1957	Demonstration of management technology for different foliar diseases (purple blotch, stemphylium leaf blight, downy mildew and botrytis leaf blight) of onion	• To confirm the efficacy of selected fungicides and its' combination to control different foliar disease of onion	Do
RARS, Ishurdi, Pabna			
Horticulture Research Center			
1958	Advanced yield trial of hyacinth bean lines	• To evaluate the performance of four hyacinth bean lines for yield and other desirable characters.	RARS, BARI, Ishurdi
1959	Clonal selection of banana cv. sabri	• To evaluate and identify the suitable lines	Do
1960	Effects of chemical fertilizer on growth and yield of hybrid pointed gourd	• To find out the suitable dose of chemical fertilizer for pointed gourd cultivation	Do
1961	Regional yield trial of bacterial wilt and TYLCV disease tolerant tomato lines	• To observe the performance of the selected lines	Do

Sl.	Research Title	Objective(s)	Location(s)
1962	Regional yield trial of french bean lines	• To see the performance of the advanced line at different agro-ecological zones of Bangladesh.	Do
1963	Regional yield trial of hyacinth bean lines (set-I)	• To evaluate the performance of two hyacinth bean lines for yield and other desirable characters.	Do
1964	Regional yield trial of hyacinth bean lines (set-II)	• To evaluate the performance of four hyacinth bean lines for yield and other desirable characters. •	Do
OIL SEED RESEARCH CENTER			
1965	Preliminary yield trial of *Brassica rapa*	• To select short duration high yielding genotypes with better agronomic traits and wider adaptability to fit in between T. aman and Boro rice cropping pattern	RARS, BARI, Ishurdi
1966	Regional yield trial of *Brassica rapa* (Set-1)	• To select short duration high yielding genotypes with better agronomic traits and wider adaptability to fit in between T. aman and Boro rice cropping pattern.	Do
1967	Regional yield trial of *Brassica rapa* (set-2)	• To find out short duration, high yielding and widely adaptive genotypes which could be fit into existing T. aman - Mustard - Boro cropping pattern.	Do
1968	Regional yield trial of canola (*Brassica rapa)*	• To select high yield potential canola lines with early maturity those can be fit into existing T. aman - Mustard - Boro cropping pattern.	Do
1969	Regional yield trial of *Brassica napus*	• To select high yield potential lines with early maturity those can be grown in between T. aman and Boro rice.	Do
1970	Regional yield trial of canola (*Brassica napus)*	• To select high yield potential lines with early maturity those can be grown in between T. aman and Boro rice.	Do
1971	Regional yield trial of *Brassica juncea*	• To find out the early maturing high yielding genotype	Do
1972	Regional yield trial of sunflower	• To select medium dwarf, high yield potential lines with early maturity those can be suitable to grow afer harvesting T. aman rice	RARS, BARI, Ishurdi
PGRC, RARS			
1973	Regeneration of chickpea germplasm	• To characterize the germplasm and regenerate seeds for conservation and to develop a photographic monograph with descriptor of the collection.	Do
1974	Morphological characterization of custard apple germplasm	• To characterize the germplasm and regenerate seeds for conservation and to	Do

Sl.	Research Title	Objective(s)	Location(s)
		develop a photographic monograph with descriptor of the collection.	
1975	Morphological characterization of wood apple germplasm	• To characterize the germplasm and regenerate seeds for conservation and to develop a photographic monograph with descriptor of the collection.	Do
1976	Morphological characterization of jackfruit germplasm	• To characterize the germplasm and regenerate seeds for conservation and to develop a photographic monograph with descriptor of the collection.	Do
Plant breeding			
1977	Breeder seed production of minor cereals	• To produce foundation seed and certified seed from the foundation seed.	Do
Agronomy			
1978	Improvement of lentil productivity through increasing potassium (K) fertilizer	• To know the effect of K on productivity of lentil under late and optimum sown condition	Do
1979	Nutrient management of BARI Sarisha-18 in char land ecosystem under AEZ -11	• To find out suitable nutrient management for higher yield of BARI Sarisha-18	Do
1980	Effect of integrated weed management on sunflower	• To find out suitable weed management method for sunflower	Do
1981	Intercropping of ginger with pigeon pea	• To find out the suitable combination for higher productivity and economic return	Do
1982	Feasibility study of different component crops intercropping with chickpea	• To find out the suitable component crop, intercropping with chickpea for higher productivity and economic returns.	Do
Soil Science			
1983	Nutrient management for sustaining soil fertility and performance of wheat-mungbean-T. *aman* cropping pattern	• To find out sustainable fertilizer recommendations for Wheat-Mungbean-T. *aman* cropping pattern. • To monitor soil health after each cropping cycle and to estimate uptake of different nutrients and to make a balance sheet for each nutrient.	Do
1984	Nutrient management for sustaining soil fertility and performance of mustard-mungbean-T. aman cropping pattern	• To find out sustainable fertilizer doses for Mustard-Mungbean-T. aman cropping pattern, to monitor soil health and productivity of the cropping pattern.	Do
Plant Pathology			
1985	Effect of sowing time on the development of sclerotinia rot disease of sunflower	• To find out the actual scenario for sclerotinia rot/white mold disease development in different sowing times	RARS, BARI, Ishurdi
1986	Management of white mold	• To develop an effective management	Do

Sl.	Research Title	Objective(s)	Location(s)
	disease of bush bean caused by *Sclerotinia sclerotiorum* through the application of bio-control agents and different organic amendments	package(s) against white mold disease of bush bean.	
1987	Screening of lentil lines against stemphylium blight disease	• To find out the resistant sources against stemphylium blight disease of lentil	Do
1988	Chemical and biological management of anthracnose disease of strawberry	• To find out the effective chemicals and bio-control agents against anthracnose disease of strawberry.	Do
1989	Survey and monitoring of major guava diseases at Ishurdi region	• To identify the incidence and severity of different existing diseases of guava during Rabi season 2022-2023	Do
Entomology, RARS			
1990	Evaluation of new bio-rationals against sucking pests of brinjal	• To find out the alternate management options for controlling the sucking insect pests of brinjal which will be environmentally safe and sustainable	Do
1991	Development of management approach against tomato leaf miner, *Liriomyza trifolii*	• To protect the crop against this pest's infestation the present study has been undertaken to develop an effective IPM package (s).	Do
1992	Survey and documentation of insect pests and diseases of country bean and their management practices used by the farmers of Ishurdi areas	• To document the insect pests and diseases attacked in country bean and also to finding out the pest management practices followed by the farmers.	Do
1993	Bio-rational based management of legume pod borer, *Maruca vitrata* F. Attacking country bean	• To find out the effective bio-rational based Integrated Pest Management (IPM) package(s) for the control of legume pod borer in country bean	Do
1994	Population dynamics and management of rugose spiraling whitefly, *Aleurodicus rugioperculatus* martin infesting coconut	• To find out an effective management option for this pest. Data of both in mature and immature whiteflies were recorded fortnightly from May, 2022 to April, 2023 to know the year-round population dynamics of this pest	Do
Agricultural Engineering			
1995	Monitoring of groundwater level at different BARI stations	• To monitor groundwater level fluctuations at RARS, Ishurdi, Pabna, where the well had a boring depth of 120 ft with a strainer length of 20 ft and the boring depth and strainer length depended on the underlying water-bearing strata	Do

Sl.	Research Title	Objective(s)	Location(s)
1996	Seed sowing for breeder seed production by power tiller operated inclined seeder (PTOS)	• To ensure timely planting, alleviate labour shortage, enhance cropping intensity, and achieve profitable crop production	RARS, BARI, Ishurdi
1997	Effects of irrigation scheduling and water use of dragon fruit production	• To develop an irrigation schedule and irrigation water amount for dragon fruit cultivation in Bangladesh.	Do
1998	Effect of irrigation on bulb yield and water use of summer onion	• To evaluate the performance of different irrigation practices for evaluating irrigation schedule and water use efficiency of summer onion cultivation in the semi-arid region.	Do
Agricultural Economics			
1999	Adoption status of BARI Aam-3 and BARI aam-4 in Rajshahi region	• To know the adoption status BARI Aam-3 and BARI Aam-4 of at farmers level. • To estimate the profitability of BARI Aam-3 and BARI Aam-4. • To identify social, economic and biological constraints faced by the farmers in BARI Aam-3 and BARI Aam-4 cultivation. To recommended short-term and long-term plans of action for policy makers, researchers and extension personnel to enhance BARI Aam-3 and BARI Aam-4 production.	Rajshahi and Chapainawabg onj
Regional ARS, Cumilla			
2000	Morphological characterization of mango germplasm	• To characterize different breeding lines. • To identify suitable parents for hybridization program. • To look for promising line (s) to release as a variety.	RARS, Cumilla
2001	Hybridization in mango	• To develop hybrid mango variety of desired character(s).	Do
2002	Collection and evaluation of lemon germplasm	• To identify promising lemon lines.	Do
2003	Collection and evaluation of lime germplasm	• To identify promising lime lines.	Do
2004	Collection and evaluation of pummelo germplasm	• To identify promising pummelo lines.	Do
2005	Collection and evaluation of year-round jack fruit germplasm	• To find out superior year-round jack fruit germplasm.	Do
2006	Effect of foliar application of boron trioxide and zinc oxide nanoparticles on yield and fruit quality of Sweet Orange	• To determine the appropriate concentration of nano-zinc and nano-boron to reach the best fruits yield of sweet orange and improve its chemical and morphological traits.	Do
2007	Development of inbred in	• To develop inbred population in	Do

Sl.	Research Title	Objective(s)	Location(s)
	pumpkin (Set-1: S_2 to S_3)	pumpkin.	
2008	Development of inbred in pumpkin (Set-2: S1 to S2)	• To develop inbred population in pumpkin.	Do
2009	Development of salt tolerant pumpkin variety	• Phenotypic recurrent selection in cucumber	RARS, Cumilla
2010	Phenotypic recurrent selection in cucumber	• To develop improved population in cucumber for increasing yield and disease resistance.	Do
2011	Development of inbred in cucumber (S0 to S1)	• To develop inbred population in cucumber.	Do
2012	Screening of okra germplasm against YVMV	• To identify promising okra lines with tolerance to YVMV.	Do
2013	Effect of rootstock on tomato grafting against bacterial wilt	• To study the performance of different rootstock on tomato grafting against bacterial wilt	Do
2014	Evaluation of country bean germplasm	• To collect and evaluate the performance of country bean germplasm in respect of yield and other yield contributing characters.	Do
2015	Evaluation of French bean germplasm	• To collect and evaluate the performance of French bean germplasm in respect of yield and other yield contributing characters.	Do
2016	Effect of different doses of triacontanol on growth, yield, and quality of tomato in cumilla region	• To evaluate the effect of different doses of triacontanol on tomato growth, yield, and quality.	Do
2017	Participatory variety selection trial with short stolon producing panikachu germplasm	• To evaluate the selected germplams in farmers field to know the farmer's opinion as well as acceptance. • To select high yielding stolon producing panikachu line(s) as a better one for release as a variety	Do
2018	Participatory variety selection trial of mukhikachu lines	• To select high yielding mukhikachu line(s) as a better one for release as a variety. • To evaluate the selected germplams in farmers field to know the farmer's opinion as well as acceptance	Do
2019	Effect of two different plant growth regulators on production traits of sunflower	• The objectives of this study were to evaluate the effect of foliar application of two different plant growth regulators on seed yield and oil content of sunflower.	Do
2020	Effect of sowing time on yield and yield components of sesame in Cumilla region	• To find out the effect of sowing time on yield and yield attributes of sesame.	Do
2021	Effect of sowing time on the	• To know the appropriate sowing time for	Do

Sl.	Research Title	Objective(s)	Location(s)
	yield and yield components of Fenugreek in Cumilla region	maximum yield of fenugreek in Cumilla region.	
2022	Collection and evaluation of local germplasm of chilli in Cumilla region	• To study the variability of collected chilli germplasm. • To find out promising chilli lines regarding yield and quality.	Do
2023	Effect of sowing time on the yield and yield components of Black cumin in Cumilla region	• To observe the yield performance of high yielding black cumin varieties in charland area of Cumilla	Do
2024	Performance of different fenugreek varieties in charland area of Cumilla	• To observe the yield performance of high yielding fenugreek varieties in charland area of Cumilla	RARS, Cumilla
2025	Performance of different onion varieties in charland area of Cumilla	• To observe the yield performance of high yielding onion varieties in charland area of Cumilla	Do
2026	Intercropping of summer onion with mukhikachu in Cumilla region	• To find out the suitable intercrop combination of summer onion with mukhikachu.	Do
2027	Performance of intercropping coriander with sunflower	• To find out the suitable intercrop combination of coriander with sunflower for increasing cropping intensity and productivity.	Do
2028	Productivity of chilli-onion inter-cropping system as influenced by fertilizer dose	• To develop nutrient management package for onion as intercrop with chilli.	Do
2029	Performance of sunflower varieties in charland area of Cumilla	• To select suitable sunflower variety for charland area of Cumilla	Do
2030	Effect of foliar application of zinc in sweet orange	• To determine the efficiency of Zn sources in providing the plants with sufficient micronutrients. • To compare new doses of sweet orange orchards with traditionally used sources.	Do
2031	Integrated nutrient management of capsicum grown in the rooftop of Cumilla	• To develop fertilizer recommendation for capsicum grown in the rooftop. • To find out optimum organic and inorganic fertilizer combination as nutrient source for potential yield of the tested crop.	Do
2032	Development of existing Boro-T.Aus-Cucumber cropping pattern in Cumilla region.	• To increase cropping intensity and productivity through crop intensification in rice based cropping system	Do
2033	Effect of different mulch and nitrogen application methods on the growth,	• To determine the effects of different mulch on soil temperature and yield of tomato in Cumilla region.	Do

Sl.	Research Title	Objective(s)	Location(s)
	yield of winter tomato	• To find out appropriate N-fertilizer application technique for winter tomato cultivated with mulch.	
2034	Development Fertilizer Recommendation for Winter Stem Amaranth in Cumilla Region	• To find out the optimum and economic fertilizer dose for maximizing the yield of winter stem amaranth.	Do
2035	Response of mustard to fertilizer management under zero tillage in mustard-fallow-B. Aman cropping pattern in Cumilla region	• To observe the effects of zero tillage on mustard yield in Mustard-Fallow-B. Aman Cropping Pattern. • To develop balanced fertilizer recommendations for maximizing the yield of mustard in zero tillage conditions.	Do
2036	Response of sunflower to fertilizer management under zero tillage in sunflower-fallow-B. Aman cropping pattern in Cumilla region	• To observe the effects of zero tillage on sunflower yield in Sunflower-Fallow-B. Aman Cropping Pattern. • To develop balanced fertilizer recommendations for maximizing the yield of sunflower in zero tillage conditions.	RARS, Cumilla
HARS, Khagrachari			
2037	Evaluation of jackfruit germplasm in the hilly region	• To identify superior small sized jackfruit germplasm with high yield potentiality and edible qualities.	HARS, Khagrachari
2038	Performance of green mango (kanchamitha) germplasm at hilly region	• To assess the performance in respect of the yield and quality as a green mango for recommendation as variety under the agro-chimatic conditions of chattogram hill tracts	Do
2039	Evaluation of indigenous ber germplasm at khagrachari	• To select superior land races for commercial cultivation in the hilly areas.	Do
2040	Evaluation of sweet orange germplasm in the hilly region	• To identify the superior germplasm for developing variety.	Do
2041	Evaluation of jackfruit germplasm in the hilly region	• To identify superior small sized jackfruit germplasm with high yield potentiality and edible qualities.	Do
2042	In-situ evaluation of year-round pummelo germplasm	• To select high yielding desirable line for year-round bearing.	Do
2043	Effect of pruning on growth, yield and quality of coffee	• To find out the suitable pruning method and impact of pruning on yield and quality of coffee.	Do
2044	Year-round crops production under agroforestry system in the hill slope	• To evaluate the performance of high value crops and increase productivity.	Do

Sl.	Research Title	Objective(s)	Location(s)
HARS, Ramgarh, Khagrachari			
2045	Evaluation of existing Cashew nut germplasm in Hill Tract	• To select superior lines for the release of variety	HTARS, Ramgarh
2046	Evaluation and adaptability of promising coffee germplasm at Ramgarh	• To identify superior lines. To popularize coffee cultivation in Bangladesh	Do
2047	Effect of supporters for quality production and higher yield of black pepper in hilly region	• To evaluate the impact of support trees for the quality production of black pepper	Do
2048	Evaluation of velvet bean at hilly region	• To prevent fruit dropping • To protect the plant from insect and disease infestation	Do
2049	Evaluation of colour fleshed jackfruit germplasm in hilly region	• To identify superior lines of colour fleshed jackfruit	Do
HARS, Raikhali, Rangamati			
2050	Collection and evaluation of coffee germplasm	• To develop new coffee variety(s)	HARS, Raikhali
2051	Collection and evaluation of cashew nut germplasm	• To develop new cashew variety(s)	HARS, Raikhali
2052	Observation trial of coffee in some selected areas of Bangladesh	• To observe the performance of coffee germplasm in Bangladesh	Rangamati (29 locations)
2053	Evaluation of Bullock's heart in hilly area	• To develop new Bullock's heart variety	HARS, Raikhali
2054	Evaluation of bael in hilly area	• To develop bael variety	Do
2055	Hybridization in cashew nut tree	• To develop hybrid variety of cashew	Do
2056	Evaluation of mango germplasm for green consumption at hill valley in Chattogram Hill Tracts	• To develop new kachamitha mango variety	Do
2057	Evaluation of pummelo in hilly region of Rangamati	• To develop new pummelo variety	Do
2058	Evaluation of dragon fruit germplasm in Rangamati hilly area	• To develop new dragon fruit variety	Do
2059	Evaluation of dwarf coconut in hilly area of Rangamati	• To develop dwarf coconut variety	Do
2060	Collection and evaluation custard apple germplasm	• To develop new custard apple variety	Do
2061	Evaluation of newly collected mango germplasm	• To collect local and exotic mango germplasm and develop new variety and lines for hybridisation	Do
2062	Collection and evaluation of	• To develop avocado variety	Do

Sl.	Research Title	Objective(s)	Location(s)
	avocado germplasm		
2063	Evaluation of eggfruit in hilly area	• To develop eggfruit variety	Do
2064	Evaluation of jabuticaba in hilly area	• To develop jaboticaba variety	Do
2065	Evaluation of star apple germplasm	• To develop star apple variety	Do
2066	Comparative study of some propagation techniques of cashew	• To find out the best propagation techniques and time for cashew	Do
2067	Study on the performance of grafted cashew saplings	• To find out the performance of different grafted cashew saplings	Do
2068	Collection and evaluation of passion fruit in hilly area	• To develop new passion fruit variety	Do
2069	Enrichment and maintenance of fruit tree repository	• To enrich and maintain the fruit tree repository	Do
2070	Evaluation of sweet orange in hilly area	• To develop new sweet orange variety	Do
2071	Evaluation of mandarin in hilly area	• To develop new mandarin variety	Do
2072	Standardizing propagation techniques of important lean season fruit crops	• To standardize propagation techniques of important lean season fruit crops	Do
2073	Evaluation of soursop (*Annona muricata*) in hilly area	• To develop soursop variety	HARS, Raikhali
2074	Collection, conservation and evaluation of kanaidinga (*Oroxylum indicum*)	• To develop variety and conserve kanaidinga	Do
2075	Advanced yield trial of exotic frenches bean lines	• To develop a new flat, french bean variety	Do
2076	Regional yield trial of cherry tomato lines	• To develop cherry tomato variety	Raikhali, Gazipur, Khagrachari, Jashore, Jamalpur, Hathazari
2077	Evaluation of newly collected exotic tomato lines	• To develop tomato variety	HARS, Raikhali
2078	Advanced yield trial of cape gooseberry line	• To develop cape gooseberry variety	Do
2079	Advanced yield trial of year-round musk melon (lalmui) lines	• To develop year-round musk melon variety	Do
Regional HRS, Shibpur, Narshingdi			
2080	Clonal selection of banana cv. Amritsagar	• To evaluate and identify the suitable lines/variety and to know regional	RHRS, Shibpur,

Sl.	Research Title	Objective(s)	Location(s)
		adaptability of banana	Narsingdi
2081	Collection and evaluation of banana cv. Sabri	• To evaluate and identify the suitable lines/variety	Do
2082	Comparative performance of BARI released jackfruit varieties in Narsingdi region	• To observe the performance of BARI released jackfruit varieties (grafted plant)	Do
2083	Collection And Evaluation of Pummelo Germplasm	• To select suitable lines of pummelo and to evaluate collected germplasm of pummelo	Do
2084	Adaptive trial of BARI released lemon varieties	• To observe the performance of BARI released lemon varieties and to verify the adaptation ability of lemon varieties	Do
2085	Survey and Monitoring on Fusarium Wilt (Panama) and Sigatoka Disease of Banana in Narsingdi Region	• To assess the incidence and severity of banana	Narsingdi
2086	Development of bio-rational management package(s) for panama and sigatoka diseases of banana	• To develop integrated management package(s) against Fusarium wilt and sigatoka diseases of banana	RHRS, Shibpur, Narsingdi
2087	Observation Yield trial of Muskmelon lines	• To observe promising germplasm of muskmelon	Do
2088	Regional yield trial of hybrid pointed gourd lines	• To develop another high yielding variety of pointed gourd	Do
2089	Regional yield trial of selected YVMV tolerant okra lines	• To select high yielding lines tolerant to YVMV	Do
2090	Regional Yield trial of Muskmelon lines	• To select a high yield with good quality muskmelon line	RHRS, Shibpur, Narsingdi
2091	Breeder seed production of different vegetables and Oil seeds	• To develop quality seed	Do
2092	Sapling and seedling production of different fruits and vegetables	• To distribute quality planting materials	Do
Regional HRS, Chapainawabgonj			
2093	Evaluation of jackfruit germplasm	• To select the superior jackfruit lines for developing variety. • To increase yield and quality	Chapainawabganj
2094	In-situ evaluation of a late mango germplasm	• To select the superior line for commercial cultivation in the late season. • To develop new late variety extending the availability period	Do
2095	Evaluation of early mango germplasm	• To find out the superior early mango germplasm for releasing as a variety. • To conserve genetic resources of fruits	Do

Sl.	Research Title	Objective(s)	Location(s)
2096	Inter-varietal hybridization of mango (SET-II)	• To incorporate desirable characters. • To develop good quality hybrid variety(ies)	Do
2097	Performance of some mango hybrids	• To know the detailed information on plant growth, fruit characteristics and yield. • To find out the superior one as a variety	Do
2098	Evaluation of custard apple germplasm	• To select superior lines for releasing variety(s) • To increase fruit genetic resources	Do
2099	Eevaluation of existing bael germplasm	• To select superior lines. • To develop variety (ies)	Do
2100	*In situ* evaluation of bael germplasm	• To find out suitable bael germplasm for resleasing as a variety. • To conserve fruit genetic resources	Do
2101	Collection and evaluation of exotic mango germplasm	• To select the superior line for commercial cultivation. • To develop new variety	Do
2102	Effect of cocodust as growing media for mango sapling production	• To develop soilless mango sapling production • To facilitate mango sapling transport/export	Do
2103	Effect of ultra high-density plantation of mango at varying spacing on yield and profit	• To find out the optimum spacing for ultra-high density plantation (UHDP). • To evaluate the possibility of UHDP orchard for quality yield and profit	Do
2104	Effect of length of heading back in ultra high-density plantation on growth, stature and yield of mango	• To find out the suitable length of heading back to cope the structure with the space. • To control the plant height for higher yield and quality	Do
2105	Development of management approach against red banded mango caterpillar, deanolis sublimbalis	• To develop a suitable management technique against mango red banded caterpillar	Do
Regional HRS, Lebukhali, Patuakhali			
2106	Evaluation of banana (Sabri) germplasm	• To select superior one(s) for commercial cultivation • To conserve germplasm	RHRS, Lebukhali, Patuakhali
2107	Evaluation of local pummelo germplasm	• To select superior pummelo lines for releasing as a variety • To conserve genetic resources	Do
2108	Collection and evaluation of local lime germplasm	• To select the superior lines for release a new variety • To conserve genetic resources	Do
2109	Collection and evaluation of dragon fruit germplasm	• To find out the suitable germplasm for higher yield and quality	Do

Sl.	Research Title	Objective(s)	Location(s)
2110	Evaluation of dwarf coconut in Patuakhali region	• To observe the performances of dwarf coconut in Patuakhali region	Do
2111	Collection and evaluation of exotic mango germplasm	• To find out the suitable germplasm for higher yield and quality	Do
2112	Enrichment and maintenance of fruit tree repository	• To conserve and maintain different horticultural crops for longer period and future use	Do
2113	Regional yield trial (RYT) of selected YVMV tolerant okra	• To select high yielding OP okra lines tolerant to YVMV	HRC, Gazipur; RHRS, Patuakhali; RARS, Jashore, Burirhat, Hathazari
2114	Regional yield trial (RYT) of year-round pumpkin hybrids	• To develop pumpkin hybrid variety for winter and summer season	Patuakhali, Gazipur, Jamalpur, Burirhat, Ishwardi
2115	Regional yield trial of selected broad shaped country bean lines	• To select suitable board shaped fruit lines to release as open pollinated variety (s)	Patuakhali, Gazipur, Jamalpur, Burirhat, Ishwardi and Jashore
2116	Regional yield trial of eggplant hybrids	• To select suitable green- and purple-coloured hybrids with good horticultural traits • To study the adaptability of eggplant hybrids at Patuakhali region	Do
2117	Regional yield trial of eggplant	• To select suitable green- and purple-coloured eggplant lines with good horticultural traits • To study the adaptability of eggplant lines at Patuakhali region	Do
2118	Performance of some okra hybrids against YVMV	• To find out high yielding YVMV tolerent okra hybrids	RHRS, Lebukhali, Patuakhali,
2119	Effect of sowing time and spacing on yield and quality of BARI Begun 12	• To find out optimum nitrogen dose for vegetative stage of Watermelon • To find out optimum nitrogen dose for reproductive stage of Watermelon	RHRS, Lebukhali, Patuakhali
2120	Nutrient management for watermelon	• To find out suitable fertilizers dose on the yield and quality of watermelon	Do
Citrus Research Centre, Jaintiapur, Sylhet			
2121	Hybridization in satkara	• To incorporate quick growing habit. To develop new variety(s)	CRS, Jaintapur
2122	Hybridization in mandarin	• To incorporate sweetness. To develop new variety(s)	Do

Sl.	Research Title	Objective(s)	Location(s)
2123	Hybridization in sweet orange	• To incorporate color. To develop new variety(s).	Do
2124	Evaluation of mandarin germplasm under North-eastern hilly area of Bangladesh	• To select suitable lines. To develop variety(s)	Do
2125	Performance of exotic sweet orange germplasm	• Identification of valuable exotic germplasm. To increase quality production for internal consumption as well as for export markets.	Do
2126	Morphophysiological characterization and evaluation of pummelo germplasm	• To select superior pummelo lines for the release of variety(s). To conserve genetic resources	Do
2127	Evaluation of lemon germplasm	• To find out superior lines for releasing variety(s). To enrich the gene pool	Do
2128	*In-situ* morphophysiological characterization and evaluation of lemon germplasm	• To identify suitable germplasm for releasing as variety. • To enrich gene pool for future research	Do
2129	Evaluation of lime germplasm	• To find out superior lines for releasing variety(s). • To enrich the gene pool	Do
2130	Evaluation of organic fertilizers for safe lemon (*citrus limon* (L.) Osbeck cv. BARI Lebu-5) production	• Improve soil health avoiding chemical fertilizer. • To ensuring high yield and safe fruit production	Do
2131	Controlling disease and pest for safe lemon (*citrus limon* (L.) Osbeck cv. BARI Lebu-5) production for enhancing the export potentiality	• To manage pest and diseases for safe fruit production. • To enhance export potentiality	Do
2132	Evaluating beneficial microorganisms for safe and quality lemon (*citrus limon* (L.) Osbeck cv. BARI Lebu-5) production	• To evaluate beneficial microorganisms for safe fruit production and enhancing their export potentiality	Do
2133	Integrated approaches to mitigate die-back disease of citrus	• To formulate an integrated approach to control citrus die-back disease	Do
2134	Intercropping of pineapple with citrus	• Determine the performance of pineapple as an intercrop planted at Citrus orchard.	Do
2135	Evaluation of exotic pineapple germplasm	• To Determine the performance of exotic pineapple (MD-2) germplasm. • To conserve the genetic diversity of pineapple in Bangladesh. • To select suitable germplasm for	CRS, Jaintapur

Sl.	Research Title	Objective(s)	Location(s)
		releasing as a variety(s)	
2136	Collection and evaluation of bael germplasm	• To select superior lines. To develop variety(s)	Do
2137	Evaluation of burmese grape germplasm	• To find out superior burmese grape genotypes for developing as a variety(s). • To find out suitableble early and late Burmese grape genotypes	Do
2138	Hybridization in dragon fruit	• To incorporate yellow color and profuse bearing habit. To develop improved variety(s)	Do
2139	Evaluation of coffee (robusta) germplasm in the north-eastern hilly region of Bangladesh	• To select suitable coffee lines in respect of yield and quality	Do
2140	Evaluation of cashew nut germplasm in north-eastern hilly region of Bangladesh	• To select superior lines for release as a variety	Do
2141	Effect of beneficial microorganisms for safe brinjal (cv. BARI begun-10) production	• To evaluate beneficial microorganisms for safe vegetable production and enhancing their export potentiality	Do
2142	Controlling disease and pests for safe vegetable (cv. BARI begun-10) production	• Managing pest and diseases for safe vegetable production. Enhancing export potentiality	Do
2143	Study on safe brinjal (cv. BARI Begun-10) production using organic fertilizers	• Increasing soil health avoiding chemical fertilizer. Ensuring high yield and safe vegetable production	Do
2144	Regional yield trial of ornamental chili (set III)	• To study the for regional adaptability. • To select promising naga chili line for releasing variety	Do
2145	Collection, conservation, and characterization of small and large cardamon germplasm	• To collect small and large cardamom germplasm. • To study the morphophysiological behavior of small and large cardamom	Do
2146	Evaluation of cinnamon germplasm	• Characterization of cinnamon genotypes collected from different region of Bangladesh. • To select suitable germplasm releases as variety.	Do
2147	Evaluation of bay leaf germplasm	• To select the superior line(s) for releasing a variety.	Do
2148	Physio-morphological study on betel leaf *(piper betle* l. Cv. Khasia pan)	• To identify suitable germplasm for releasing as variety. • To enrich gene pool for future research	Do
2149	Prospects of bari golmorich-1 cultivation as bush pepper	• To validate suitability of BARI Golmorich -1 as a bush pepper. • To identify suitable method of bush	Do

Sl.	Research Title	Objective(s)	Location(s)
		pepper cultivation.	
2150	Adaptive trial of BARI released black cumin varieties in Sylhet region of Bangladesh	• To popularize the black cumin in sylhet region of Bangladesh	CRS, Jaintapur
2151	Conservation of germplasm in field gene bank	• To conserve germplasm in the gene bank	CRS, Jaintapur
2152	Mother orchard establishment of BARI released/popular citrus fruit varieties	• To supply true to type quality planting materials released varieties	CRS, Jaintapur
FRS, Binodpur, Rajshahi			
2153	Characterization and evaluation of chance seedlings obtained from BARI Aam-4	• To select the superior germplasm for commercial cultivation in the late season. • To find out the varibilities from its mother tree • To develop new variety	FRS, Binodpur, Rajshahi.
2154	Evaluation of mango germplasm	• To find out the superior mango germplasm for releasing as a variety. • To conserve genetic resources of fruits	Do
2155	Inter-varietal hybridization of mango	• To incorporate desirable characters. • To develop good quality hybrid variety(ies)	Do
2156	Characterization and evaluation of late mango germplasm	• To develop suitable late mango variety(ies). • To increase the period of availability of mango.	Do
2157	Purification of shahi pepe through half-sib method	• To regain the characteristics of Shahi Pepe. • To maintain the germplasm.	Do
2158	Study on floral biology of different ber germplasms	• To study the detail flowering behavior of ber. • To improve the fruit colour and other qualities of ber in performing hybridization Program.	Do
2159	Collection and evaluation of custard apple germplasm	• To find out superior genotypes of custard apple germplasm for better yield and insect-pest resistant. • To develop a suitable custard apple variety for commercial cultivation.	Do
2160	Evaluation of jamun germplasm	• To find out superior genotypes of jamun germplasm for better yield and insect-pest resistant. • To develop a suitable jamun variety for commercial cultivation.	Do
2161	Collection and evaluation of sour type ber germplasm	• To select suitable sour ber varieties for different regions.	Do

Sl.	Research Title	Objective(s)	Location(s)
		• To conserve fruit genetic resources	
2162	Collection and evaluation of local ber germplasm	• To select suitable ber varieties for different regions. • To conserve fruit genetic resources	Do
2163	Effect of different doses and time of application of paclobutrazol on off-season flowering, fruiting, yield and fruit quality of mango cv. BARI Aam-4	• To observe the response of paclobutrazol on producing off-season mango	Do
2164	Survey and identification of Brick kiln smoke causes black tip on mango in Rajshahi region	• To find out the causes /causal organism of black tip on mango.	Do
Lakha Research Centre, Chapainawabganj			
2165	Influence of chemical and non-chemical fertilizers on lac host plant *Flemingia semialata* roxb. and lac yield	• To investigate the soil nutrient combination effect on *Flemingia semialata* growth and lac production	LRS, Kallyanpur, Chapainawabganj
2166	Determination of suitable pruning method of lac host plant *Flemingia semialata roxb.* for baishakhi crop season	• To know the most suitable pruning method of *semialata* plant for better lac production	Do
2167	Determination of suitable pruning time of lac host *Flemingia semialata*	• To know the most suitable pruning time of *semialata* plant for better lac production	Do
2168	Determination of suitable propagation method of lac host *Flemingia semialata*	• To know the most suitable propagation method of *semialata* plant for better lac production	Do
Breeder Seed Production Centre, Debiganj, Panchagarh			
2169	Evaluation of existing jackfruit germplasm	• To select superior early and late Jackfruit germplasm, and to develop good quality and high yielding variety of Jackfruit.	Breeder Seed Production Centre, Debiganj, Panchagarh
2170	Evaluation of bael genotypes	• To developing good quality and high yielding variety of bael	Do
2171	Evaluation of avocado germplasm	• To identify and select the most desirable avocado germplasm. • To develop a high yielding, good quality avocado variety.	Do
2172	Effect of irrigation on the growth, yield and quality of potato	• To evaluate the influence of irrigation on the yield and quality of potato • To find out optimum time of irrigation for reducing scab disease of potato.	Do
2173	Effects of seed tuber size	• To determine optimum plant spacing for	Do

Sl.	Research Title	Objective(s)	Location(s)
	and spacing on yield and processing quality of potato	maximum Yield production and tuber processing quality. • To determine optimum tuber size for maximum Yield production and tuber processing quality.	
2174	Effects of seed tuber size on yield and quality performance of processing potato varieties under field condition	• To find out the effect of seed tuber size on growth performance, yield and quality response of processing potato varieties. • To find out optimum seed tuber size for maximum yield of processing potato varieties.	Do
2175	Screening of suitable sweet potato variety for northern part of bangladesh	• To select high-yielding sweet potato varieties that are suitable to grow in northern part of Bangladesh	Do
2176	Observationaltrial of white skin and white fleshed cip sweet potato germplasm	• To select high-yielding sweet potato varieties that are suitable to grow around Bangladesh.	Do
2177	Evaluation of exotic varieties and advanced hybridclones for early heat tolerance	• To find suitable genotypes for earlier cultivation in northern regions of Bangladesh prior to mid of November	Do
2178	Evaluation of released potato varities and advanced materials against potato cutworm (*agrotis ipsilon*)	• To evaluate BARI released potato varieties along with advanced lines against potato cutworm	Do
2179	Integrated management of cutworm (*agrotis ipsilon)* in potato	• To find out an effective management approach for potato cutworm	Do
Agricultural Research Sub-Station, Thakurgaon			
2180	Collection and maintanance of fruit variety/cultivar	• To collect and maintain the gene pool for varietal development	Across the country
2181	Collection and maintanance vegetables variety/cultivar	• To collect and maintain the gene pool for varietal development	Across the country
2182	Effect of bagging on yield and quality of mango	• To know the effect of bagging on yield and chemical properties of mango.	ARS, Field of Thakurgaon
2183	Screening different mango variety/cultival against mango hopper in northern region	• The relatively less susceptible or tolerant variety/cultivar can be included to make the management effective and economic.	ARS, Field of Thakurgaon
2184	Validation of bio-rational based management options against insect pest and diseases of guava	• To popularize and pesticide free guava production the present study was under taken.	Farmers field of Thakurgaon
2185	Demonstration of popular bari varieties in crop meusium & bari technology village (btv) at munshirhat, thkurgaon	• To disseminate and popularize BARI mandated different crop varieties and technologies among the farmers.	Farmers field of Thakurgaon

Sl.	Research Title	Objective(s)	Location(s)
2186	Breeder seed production of summer vegetables	• To produce quality breeder seed for summer vegetables	ARS, Field of Thakurgaon
2187	Breeder seed production of winter vegetables	• To produce quality breeder seed for winter vegetables	ARS, Field of Thakurgaon
ARS, Pahartali, Chattogram			
2188	Hybridization of guava in Chattogram region	• To develop seedless/less seeded guava lines with proper shape. • To develop colored flesh guava lines.	ARS, Khulshi, Chattogram
2189	Collection and evaluation of wax jambu germplasm in Chattogram region	• To find out the sweetest wax jambo line • To find out more attractive color and shape wax jambo line	ARS, Khulshi, Chattogram
2190	Evaluation of rambutan germplasm in Chattogram region	• To find out good quality rambutan germplasm • To identify suitable line as varieties for commercial cultivation.	ARS, Khulshi, Chattogram
2191	Rejuvenation of high-density mango orchard through pruning	• To develop appropriate pruning technique for high density mango orchard.	ARS, Khulshi, Chattogram
2192	Studies on the floral biology of guava (*Psidium guajava L.) var.* BARI Peyara-4	• To study the floral biology for hybridization of guava.	Do
2193	Morphological characterization of exotic and minor fruits in Chattogram Region	• To characterize collected germplasm based on their morphological traits. • To identify promising genotypes.	Do
2194	Hybridization of mango in Chattogram region	• To develop good quality colored mango. • To transfer the sweetness and lessen fibre. • To extent the seasonal availability with quality	Do
2195	Evaluation of local and exotic mango germplasm in Chattogram region	• To find out superior mango genotype to release as variety	Do
2196	Effect of fruit thinning on quality and yield of dragon fruit	• To determine optimum number of fruits in a plant. • To improve the quality and optimum yield of fruit	Do
2197	Management of sooty mold of guava	• To study the effect of sooty mold on yield and quality of guava. • To improve the quality of guava through management practices	Do
2198	Evaluation of kanchan nagor guava germplasm in Chattogram region	• To find out best kanchannagor genotypes to release as variety. • To find out year-round genotype of guava	Do
2199	Evaluation of star gooseberry genotypes in	• To identify superior star gooseberry genotypes for releasing as variety.	Do

Sl.	Research Title	Objective(s)	Location(s)
	Chattogram region		
2200	Evaluation of aonla genotypes in Chattogram region	• To identify superior aonla genotypes for releasing as variety	Do
2201	Evaluation of jamun germplasm in Chattogram region	• To identify superior jamun genotypes for releasing as variety	Do
2202	Evaluation of pummelo germplasm in Chattogram region	• To identify superior pummelo genotypes for releasing as variety	Do
2203	Collection and evaluation of coffee germplasm in chattogram region	• To identify superior coffee genotypes for releasing as variety	Do
2204	Advance yield trial of pod potential country bean lines in Chattogram region	• To find out the high yielding country bean line for pod production	Do
2205	Advance yield trial of bold seeded country bean lines in Chattogram region	• To find out the high yielding bold seeded (Khaishya) country bean line	Do
2206	Collection and evaluation of teasle gourd genotypes at Chattogram region	• To find out promising teasle gourd line • To develop a teasle gourd variety after evaluation	Do
2207	Optimization of phosphorus for early season tomato production in Chattogram region	• To determine the optimum dose of phosphorus for yield maximization and quality improvement of tomato • To monitor the nutrient use efficiency	ARS, Khulshi, Chattogram
2208	Regional yield trial of french bean	• To evaluate selected, french bean line for developing *khaishya* variety with higher yield	Khulshi, Hathazari, Akbarpur, jamalpur, Jashore, Ishwardi, Burirhat
2209	Hybridization in sweet gourd utilizing salt tolerant and susceptible lines	• Resistant and saline tolerant line derived F_1 population development	ARS, Khulshi, Chattogram
2210	Year-round production of selected vegetable crops through simplified hydroponic culture at ARS, Khulshi, Chattohram	• To study feasibility of growing selected vegetable crops for year-round production through hydroponic culture	Do
2211	Regional yield trial of sweet potato clones	• To select high yielding sweet potato clones • To select high dry matter, carotene and anthocyanin containing sweet potato clones	Do
ARS, Rajbari, Dinajpur			
2212	Effect of priming with	• To find out appropriate dose and	ARS, Rajbari,

Sl.	Research Title	Objective(s)	Location(s)
	gibberellic acid on growth and yield of black cumin	duration for treating black cumin seeds with Gibberellic acid to increase seed vigor for enhancing growth of seedling in cold weather condition • To increase yield and productivity of black cumin	Dinajpur
2213	Performance of bitter gourd varieties at Dinajpur region	• To find out suitable variety of bitter gourd for Dinajpur region	Do
2214	Development of alternate cropping pattern against Potato - Maize - Fallow -T. *Aman* for Dinajpur region	• To improve the existing cropping pattern for increasing cropping intensity and productivity by introducing new crops	Do
2215	Effect of planting date and integrated nutrient management on yield of broccoli	• To find out optimum planting time and fertilizer dose of broccoli in early planting condition	Do
2216	Effect of vermicompost and rice husk ash on the yield of summer tomato	• To evaluate the effect of organic matter on the growth and yield of summer tomato • To increase safe vegetable production and economic return	Do
2217	Development of alternate cropping pattern against Mustard Fallow-T. *Aman* at Dinajpur region	• To improve the existing cropping pattern for increasing cropping intensity and productivity • To increase crop yield and farmers' income	Do
2218	Effect of planting time on yield of onion varieties at Dinajpur	• To find out the suitable variety and optimum seedling transplanting time on the yield of onion bulb	ARS, Rajbari, Dinajpur
2219	Growth and yield of chia influenced by sowing time and row spacing at different AEZs	• To find out optimum sowing time and row spacing of chia for higher grain yield under different AEZ	Do
2220	Performance of potato sunflower intercropping with relay mung bean	• To find out suitable intercrop combination of sunflower and potato with relay mung bean	Do
2221	Effect of different herbicides for controlling weeds in potato field (Set-1)	• To find out the effective herbicide to control weeds in potato field • To find out the weed control efficiency of different herbicides	Do
2222	Development of Alternate Cropping Patterns against Boro-Fallow-T. Aman rice cropping pattern in Dinajpur Region	• To improve the existing cropping pattern for increasing cropping intensity and productivity • To increase crop yield and farmers' income	MLT site, Kishan bazar, Dinajpur
2223	Development of Alternate Cropping Pattern Maize–T. Aus-T. Aman rice against	• To improve the existing cropping pattern for increasing cropping intensity and productivity	MLT site, 29 mile, Thakurgaon

Sl.	Research Title	Objective(s)	Location(s)
	Maize-Fallow–T. Aman rice in Medium. Highland of AEZ-1	• To increase crop yield and farmers' income	
2224	On-farm Adaptive Trial of BARI Developed Summer Hybrid Tomato Varieties in different locations of Bangladesh	• To evaluate the performance of summer hybrid variety in farmers' field condition. • To increase the productivity and income of farmers	Sadar, Dinajpur
2225	On-Farm Trial of Winter Type Country Bean Varities in different Location of Bangladesh	• To evaluate the performance of BARI country bean variety. • To know the farmers feedback	MLT site, Kishan Bazar, Sadar, Dinajpur
2226	On-Farm Trial of Hybrid Brinjal Varieties in Different Location of Bangladesh	• To evaluate the performance of hybrid brinjal varieties in farmers' field. • To popularize hybrid brinjal varieties among the farmers	MLT site, Kishan Bazar, Sadar, Dinajpur
2227	Adaptive Trial with Newly Released Potato Varieties	• To popularize the newly released improved potato varieties. • To collect the feedback of the newly released varieties	MLT site Ranigang, Sadar, Vabki, Birol, Khamarkantoba g, Sadar, Dinajpur
2228	Promotion and Dissemination of Newly Released Late Blight Resistant Potato Variety	• To popularize the newly released improved potato varieties. • To collect the feedback of the newly released varieties. • To increase the production as well as income of the growers	MLT site Ranigang, Sadar, Dinajpur, MLT site, Kishan Bazar, Sadar, Dinajpur
2229	Adaptive Trial with Proposed Anthocyanin Rich Potato Varieties (proposed BARI Alu-101 and proposed BARI Alu-102)	• To popularize the newly proposed improved potato varieties. • To collect the feedback of the newly proposed varieties.	Sadar, Dinajpur
2230	Development of alternate cropping pattern Potato +Maize/vegetable- T. Aman rice against Potato-Maize - T. Aman rice	• To increase cropping intensity, productivity and profitability	MLT site Ranigang, Sadar, Dinajpur
2231	Improvement of alternate cropping pattern Wheat-Summer onion-T. Aman rice against Wheat–Fallow–T. Aman rice in medium high land of AEZ-1	• To improve the existing cropping pattern for increasing cropping intensity and productivity by introducing of summer onion • To increase crop yield and farmers' income	MLT site Ranigang, Sadar, Dinajpur
2232	Development of alternate cropping pattern Wheat-Mungbean-T. Aman rice	• To improve the existing cropping pattern for increasing cropping intensity and productivity by inclusion of Mungbean	MLT site Ranigang, Sadar,

Sl.	Research Title	Objective(s)	Location(s)
	against Wheat-Fallow-T. Aman rice	• To increase crop yield and farmers' income	Dinajpur
2233	Development of alternate cropping pattern Maize-Mungbean-T. Aman rice against Maize-Fallow-T. Aman rice	• To improve the existing cropping pattern for increasing cropping intensity and productivity by inclusion of Jute • To increase crop yield and farmers' income	MLT site Ranigang, Sadar, Dinajpur
ARS, Binerpota, Satkhira			
2234	Study on soil properties variation through the soil profile in saline areas of seven upazilas of Satkhira district	• To collect the basic data on chemical properties of saline and non-saline soil.	Seven upazilas of Satkhira district.
2235	Effect of soil and water quality on Arsenic uptake by irrigated winter upland crops in Southwest Bangladesh	• To observe the effect of soil and water salinity on as mobility in vegetables.	Binerpota, Satkhira.
2236	Effect of different sowing methods and times on the yield of mustard in south-western saline areas	• To find out the optimum sowing time and method for the best mustard yield in saline areas.	Binerpota, Satkhira.
Tuber Crop Research Sub Station, Bogra			
2237	Effect of different organic manure and chemical fertilizers on the yield of BARI Mistialu-17	• To find out suitable fertilizer doses for the cultivation of newly released sweet potato variety for quality production especially in Level Barind Tract (AEZ-25) region	TCRSC, Bogura
2238	Effect of nutrient and vine nodes on the yield of BARI mistialu-17	• To determine the suitable combination of fertilizer dose and vine for the production of BARI Mistialu-17. • To determine suitable vine (desired number of nodes) for higher yield of BARI Mistialu-17	TCRSC, Bogura
2239	Secondary Yield Trial with Clonal Potato Hybrids (F1C5)	• Selection of superior genotypes for advanced yield trial (open field).	TCRSC, Bogura
2240	Regional Yield Trial of Colored Flesh Potato Varieties	• To develop color flesh nutrient rich potato varieties	TCRSC, Bogura
2241	Participatory Variety Selection Trial of Sweet Potato Clones	• To findout farmer's reaction about sweet potato clones	Shibgonj, bogura
2242	Advanced Yield Trial of Mukhikachu Lines	• To evaluate the Mukhikachu lines • To select high yielding Mukhikachu line(s) for utilization in next year	TCRSC, Bogura
2243	Regional Yield Trial of Mukhikachu Lines	• To select high yielding Mukhikachu line(s) for releasing variety.	TCRSC, Bogura

Sl.	Research Title	Objective(s)	Location(s)
2244	Regional Yield Trial of Rhizome Producing Panikachu Lines	• To evaluate the selected lines. • To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one(s) for release.	TCRSC, Bogura
2245	Participatory Variety Selection Trial of Rhizome Producing Panikachu Lines	• To evaluate the selected lines. • To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one for release with farmers' participation.	Shibgonj, bogura
2246	Impact of Organic and Inorganic Fertilizers on Growth, and Yield of BARI Alu-90	• To assess a suitable dose of organic and inorganic fertilizers for getting uniform size of tuber and higher yield of potato. • To evaluate the effects of organic and inorganic fertilizers for enhancing the productivity and profitability of BARI Alu 90	TCRSC, Bogura
2247	Production and Preservation of Aroids Seeds	• Ensuring the demand of quality seeds throughout the country	TCRSC, Bogura
2248	Production and Preservation of Aroids Seeds	• Ensuring the demand of quality seeds throughout the country	TCRSC, Bogura
2249	Demonstration of BARI Released Varieties of Mukhikachu	• To study the performance of the improved varieties of Mukhikachu at farmers' level	
2250	Advanced yield trial of CIP late blight resistant potato germplasm	• To develop late blight resistant verieties. • To enrich the germplasm which can be used in breeding program	TCRSC, Bogura
2251	Effect of Planting Time and Varieties on Yield of Mukhikachu in Level Barind Tract (AEZ-25)	• To find out the optimum date of sowing for desirable growth and yield of mukhikachu • To determine a suitable variety for enhancing the productivity of mukhikachu. • To evaluate the combined effects of sowing date and variety for growth and yield of mukhikachu	TCRSC, Bogura
2252	Effect of NPK on Growth and Yield of Panikachu Varieties	• To determine a suitable variety for enhancing the productivity of paniikachu. • To determine a suitable dose of N, P and K fertilizers for enhancing the productivity of paniikachu, and • To evaluate the effects of varieties and fertilizers for enhancing the productivity and profitability of paniikachu.	TCRSC, Bogura
2253	Validation trial of newly developed red skin potato	• Dissemination of red skin new variety(s) among the farmers.	Shibgonj, Bogura

Sl.	Research Title	Objective(s)	Location(s)
	varieties in the farmers field	• To increase production and income through technology dissemination	
2254	Performance of newly developed high yielding early potato variety in banana-potato intercropping system	• Dissemination of early variety(s) among the farmers. • To increase production and income	Shibgonj, Bogura
2255	Effect of intercropping Potato with Onion	• To find out Effective cropping pattern of Potato with Onion	Bogura
2256	Performance of BARI released late blight potato varieties in Joypurhat	• To evaluate the performance of LB resistance varieties in late blight prone areas. • To collect the feedback of the newly released varieties.	Joypurhat
2257	Performance of stolon producing panikachu varieties in field condition	• To validate stolon producing panikachu varieties among the farmers. • To collect the feedback of the newly released varieties	Joypurhat
Tuber Crop Research Sub Station, Munshiganj			
2258	Effect of legume intercrop and conventional methods of weed suppression on tuber yield of potato	• To select suitable weed control method for quality potato production as well as improvement of soil health	Munshiganj
2259	Effect of different types of mulching and plant spacing on weed control and yield of sweet potato at munshiganj region	• To determine the effectiveness of different types of mulching and plant spacing on weed control Yield of sweet potato in Munshiganj region.	Munshiganj
2260	Effect of spacing on seed size potato tuber production under different varieties	• To find out suitable spacing for seed size potato tuber production	Munshiganj
2261	Evaluation of potato varieties in raise bed cultivation for adverse climatic condition at munshiganj region	• To select suitable potato variety(s) for the adverse climatic condition and make the potato production more profitable.	Munshiganj
2262	Evaluation of BARI Alu-7 (Diamant) from different sources on common scab disease development at munshiganj region	• To find out the safe sources of seed tuber of BARI Alu-7 (Diamant) to produce common scab free potato. • To grow awareness about the common scab diseases among the farmers.	Munshiganj
2263	Controlling of potato common scab development by sulphur and irrigation regimes in munshiganj region	• To find out the cultural management of potato common scab using irrigation regimes and application of sulphur-containing fertilizers	Munshiganj
2264	Integrating biochar and vermicompost on yield and	• To find out the suitable combination of inorganic fertilizers and organic	Munshiganj

Sl.	Research Title	Objective(s)	Location(s)
	quality of potato	fertilizers with proper planting technique	
2265	Relaying of different crops with potato at munshigonj region	• To find out suitable intercrop combination for higher profitability and economic return	Munshiganj
2266	Effect of different botanical pesticides to control potato tuber moth under storage conditions	• To evaluate the efficacy of plant extracts as organic pesticides against the PTM in storage conditions.	Munshiganj
2267	Effect of botanicals to control late blight disease in organic potato production	• To evaluate the efficacy of botanicals and find out the superior plant extracts to minimize PLB in organic potato field.	Gazipur
2268	Effect of integrated fertilizer management on productivity and profitability of organic potato production	• To select safe and profitable potato production system through application of bio-fertilizers	Gazipur
Regional Spice Research Station, Magura			
2269	Effect of fungicides, bio-agent in controlling alternaria disease of black cumin	• To find out the effective management in controlling alternaria blight disease of black cumin.	Regional Spices Research Centre, BARI, Magura
2270	Effect of different management in controlling pod borer complex of black cumin	• To find out the effectiveness of different management for controlling pod borer complex in black cumin.	Do
2271	Regional yield trial of turmeric	• To evaluate different turmeric lines and to select the promising one for releasing a variety.	Do
2272	Integrated weed management in turmeric	• To find out the optimum management practices for controlling weed of Turmeric.	Do
2273	Study on nitrogen and variety for secondary sprouting of garlic	• To find out the reason of secondary sprouting of garlic.	Do
2274	Study on irrigation and variety for secondary sprouting of garlic	• To find out the reason of secondary sprouting of garlic.	Do
2275	Screening of black cumin germplasm for salinity tolerance	• To assess the effect of salinity on some black cumin germplasm.	Do
2276	Priliminary yield trial of basil	• To select promising basil line having higher yield potential with all desirable characters.	Do
Spice Research Sub Station, Faridpur			
2277	Regional yield trial of Negi onion (Allium fistulosum L.) Genotypes	• To see the regional performance of Negi onion genotype AF Far 002 on growth, yield and quality.	SRSC, BARI, Faridpur SRSC, BARI, Lalmonirhat

Sl.	Research Title	Objective(s)	Location(s)
			SRC, Bogura; RSRC, BARI, Magura and RSRC, BARI, Gazipur
2278	Regional yield trial of garlic (Allium sativum L.)	• To see the regional performance of garlic genotypes on growth, yield and quality.	Do
2279	Regional yield trial of winter onion (Allium cepa L.)	• To see regional performance on the yield and quality of onion	SRSC, BARI, Faridpur and RSRC, BARI, Magura
2280	Preliminary yield trial of turmeric (Curcuma longa L.) Germplasms	• To evaluate the performance of turmeric advance lines.	SRSC, BARI, Faridpur
2281	Evaluation of fennel (Foeniculum vulgare) germplasm	• To evaluate the performance of fennel germplasm.	SRSC, BARI, Faridpur
2282	Effect of intercropping set to bulb and seedling transplanting onion (Allium cepa L.) with brinjal for proper utilization of interspace	• To find the combinations of brinjal and onion which can be used as efficiently compared to sole cropping	SRSC, BARI, Faridpur
2283	Weed management practices in garlic (Allium sativum L.)	• To identify the best weed control practice for garlic cultivation.	SRSC, BARI, Faridpur
2284	Effect of stacking height on the storability and quality of onion bulbs (Allium cepa L.)	• To see the effect of stacking thickness on the storability of onion bulbs (var. BARI Piaz-4).	SRSC, BARI, Faridpur
2285	Effect of curing methods on the storability and quality of onion bulbs (Allium cepa L.)	• To find out the optimum curing method of onion bulbs with the variety BARI Piaz-4.	SRSC, BARI, Faridpur
Regional Pulse Research Station, Madaripur			
2286	Effect of Sowing Time on Growth and Yield of Mungbean at Madaripur	• To find out the suitable sowing time of Mungbean for Madaripur region.	RPRS, Madaripur
2287	Performance of Pulse Crops Relay with T. *aman* Rice at Madaripur Region	• To find out the suitability of relaying pulse crops in Madaripur Region	RPRS, Madaripur
2288	Influence of Sowing Dates on Growth and Yield of Cowpea at Madaripur Region	• To find out assess the suitable sowing time of Cowpea at Madaripur	RPRS, Madaripur
2289	Response of Rhizobium and Trichoderma on Growth and Productivity of Chickpea at	• To assess the effect of Trichoderma and rhizobium on soil and yield of pulse crop	RPRS, Madaripur

Sl.	Research Title	Objective(s)	Location(s)
	Madaripur region		
2290	Response of Rhizobium and Trichoderma on Growth and Productivity of Lentil at Madaripur region	• To assess the effect of Trichoderma and rhizobium on soil and yield of pulse crop	RPRS, Madaripur
2291	Response of Rhizobium and Trichoderma on Growth and Productivity of Mungbean at Madaripur region	• To assess the effect of Trichoderma and rhizobium on soil and yield of pulse crop	RPRS, Madaripur
2292	Growth and Yield of Grass pea as Influenced by Foliar Spray of Potassium Nitrate	• To determine the impact of foliar spray of potassium nitrate on growth and yield of grass pea	RPRS, Madaripur
2293	Effects of Tillage and Residue Retention on The Performance of Lentil-Mungbean-T. Aman Cropping Pattern at Madaripur Region	• To assess the agronomic productivity, soil health and economic profitability of tillage and residue retention in rice-based system	RPRS, Madaripur
2294	Profitability Analysis of Pulse Based Rice Cropping Pattern Against Jute Based Cropping Patterns in Madaripur	• To find out the suitable jute-based cropping pattern for Madaripur district.	RPRS, Madaripur
2295	Breeder's seed Production of Lentil, Chickpea, Grasspea, Fieldpea and Cowpea	• To distribute high yielding varieties of pulse crops to BADC and farmers.	RPRS, Madaripur

BANGLADESH RICE RESEARCH INSTITUTE

BRRI

Bangladesh Rice Research Institute

Sl.	Research Title	Objective(s)	Location(s)
PLANT BREEDING DIVISION			
Project 1: Development of Upland Rice (B. Aus and Jhum rice)			
1.	Hybridization	• To develop varieties in combination of multiple traits such as quick seedling emergence and vigorous growth, short growth duration (95-100 days), tolerance to lodging, drought and pre-harvest sprouting and good eating quality	Gazipur
2.	Confirmation of F_1	• To confirm the cross as true F_1s through hybridity test and use of the selected F_1s to produce F_2 seeds	Gazipur
3.	F_5 population	• Rapid advancement of segregating population for shortening breeding cycle through field RGA	Gazipur
4.	Identification of superior lines from LST	• To select genetically fixed lines based on uniformity in morpho-agronomic characters and heading, grain type	Gazipur
5.	Observational Yield Trial (OYT)	• To select genetically fixed lines based on uniformity in morpho-agronomic characters having early seedling emergence, good seedling vigor, uniformity in heading, short growth duration and yield	Gazipur
6.	Preliminary Yield Trial (PYT)	• Evaluation of initial yield potential in replicated plots.	Gazipur
7.	Secondary Yield Trial (SYT)	• Confirmation of yield potential in replicated trial	Gazipur
Project 1A: Development of Jhum Rice for Chattogram hill districts			
8.	Hybridization	• To develop high yielding rice variety with low (10-19%) to high (25%) grain amylose content and drought tolerance suitable for Jhum cultivation	Gazipur
9.	Confirmation of F_1	• To confirm the cross as true F_1s and use of the selected F_1s to produce F_2 seeds	Gazipur
10.	F_2 population	• To advance progenies with emphasis on high yield with low (10-19%) to high (25%) grain amylose content and drought tolerance suitable for Jhum cultivation	Gazipur
11.	Observational Yield Trial (OYT)	• To select genetically fixed lines based on uniformity in morpho-agronomic characters having high yield with low (10-19%) to high (25%) grain amylose	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		content and drought tolerance suitable for Jhum cultivation	
12.	Preliminary Yield Trial (PYT)	• Evaluation of initial yield potential in replicated plots.	Gazipur
13.	Secondary Yield Trial (SYT)	• Confirmation of yield potential in replicated trial	Gazipur
14.	Advanced Yield Trial (AYT)	• Advanced evaluation of promising entries in replicated trial under targeted hill condition	Chattogram hill districts (Rangamati, Khagrachori, Bandarban)
Project 2: Development of Transplanted Aus (t. aus) rice			
15.	Hybridization	• Introgression of earliness, pre-harvest sprouting tolerance and • Tolerance to high temperature into high yielding varieties	Gazipur
16.	Growing of F_1 populations	• To confirm the crosses as true hybrid	Gazipur
17.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
18.	2Line Stage Testing (LST)	• Screening of genetically fixed breeding lines for homogeneity, plant type, grain yield potential, grain quality and other attributes	Gazipur
19.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with acceptable grain quality having high yield with good plant type	Gazipur, Cumilla, Rajshahi, & Rangpur
20.	Advanced Yield Trial (AYT#1)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Cumilla, Rajshahi, & Rangpur
21.	Advanced Yield Trial (AYT#2) for high temperature tolerant rice	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Rajshahi, Rangpur, Lalpur and Kushtia
22.	Advanced Yield Trial (AYT#3) for non-saline tidal prone ecosystem	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Sonagazi and Greater Barishal
23.	Regional Yield Trial (RYT#1)	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Gazipur, Cumilla, Rajshahi, Rangpur, Sonagazi and

Sl.	Research Title	Objective(s)	Location(s)
			Kushtia
24.	Regional Yield Trial (RYT#2) for BB resistance genotypes	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Gazipur, Cumilla, Rajshahi, Rangpur, Sonagazi and Kushtia
25.	Regional Yield Trial (RYT#3) for BB resistance genotypes developed by Pathology Div.	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Gazipur, Rajshahi, Rangpur, Sonagazi and Kushtia
26.	Maintenance and seed increase of key parents	• To maintain genetic purity of parent materials with seed production	Gazipur
Project 3: Development of Shallow Flooded Rice Varieties			
27.	Hybridization	• Generation of genotypes in combination with slow elongation, high yield and submergence tolerance for shallow flooded water sub-ecosystem (flood water depth 0.5-1.0 m)	Gazipur
28.	F_1 confirmation	• Confirmation of crosses with introgression of genes for slow elongation, high yield and submergence tolerance for shallow flooded deep-water sub-ecosystem (flood water depth 0.5-1.0 m) into improved genetic background	Gazipur
29.	Segregating population (RGA)	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
30.	Observational Yield Trial (OYT)	• Evaluation of tall breeding lines	Gazipur
31.	Advanced Yield Trial (AYT)	• Advanced evaluation of promising entries in replicated trial under targeted hill condition	Gazipur
32.	Maintenance and seed increase of land races	• Maintenance of seed purity and seed increase of land races	Gazipur
Project 4: Development of Rainfed Lowland Rice (RLR), T. Aman			
33.	Hybridization	• Introgression of genes from diverged genetic background for improvement of standard T. Aman varieties	Gazipur
34.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
35.	Field RGA	• Rapid advancement of F_3-F_5 generations through following single seed descent-based RGA method	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
36.	Line Stage Testing (LST)	• Selection of progenies with improved plant type, earliness, acceptable grain quality and high yield potential compared to standard varieties	Gazipur
37.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with desirable agronomic characters with less or no unproductive tiller, intermediate plant height, short growth duration, acceptable grain quality and high yield potential	Gazipur, Cumilla and Rangpur
38.	Advance Yield Trial (AYT)	• Selection of homogeneous breeding lines with fine grain properties having high yield with good plant type	Gazipur, Cumilla and Rangpur
39.	Advance Yield Trial (AYT)	• Secondary yield evaluation of advanced lines compared to standard checks.	Gazipur
40.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Gazipur, Cumilla, Satkhira, Kushtia, Rangpur, Rajshahi and Sonagazi
Project 5: Improvement of deep-water rice			
41.	Hybridization	• To develop semi deep water/stagnant rice varieties with strong stems, higher grain (3.5- 4.5 t/ha) and straw (14 - 15 t/ha) yield, moderate elongation, drought and submergence tolerance. • To develop deep-water rice varieties with facultative type elongation and drought tolerance, higher grain (2.5- 3.5 t/ha) and straw (10 - 12 t/ha) yields. • To develop materials having perennial growth habit, vegetative propagation ability, fast growth and tallness, higher grain and straw yield.	Gazipur
42.	F_1 confirmation	• Confirmation of crosses with introgression of genes for slow and fast elongation, higher grain and straw yield for semi and deep flooded environment	Gazipur
43.	Segregating population	• Advancement of segregating generations under rainfed conditions	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
44.	RYT (tall), shallow flood (slow elongation, more straw and grain yield)	• Selection of semi deep-water rice advanced lines having moderate elongation, , more straw and grain yield	10 locations at BRRI R/S
45.	Re-ALART (Deep flood)	• Evaluation of deep-water advanced breeding and local pure lines having fast elongation, more straw and grain yield for deep flooding conditions	10 locations at Sylhet, Sirajganj, Pabna, Cumilla, Gopalganj, Munshiganj, Manikganj and Faridpur
46.	Re-PVT (Stagnant water condition)	• Adaptive trial of 1 tall advanced breeding lines having fast growth, moderate elongation, drought tolerance, more straw and grain yield for semi-deep-water condition	10 locations including Sylhet, Gopalganj
47.	Collection and seed increase of deep-water rice land races	• Maintenance of seed purity and seed increase of land races having higher elongation ability	BRRI Gazipur
48.	Evaluation of 2 hybrids materials having perennial growth habit	• To select hybrid materials having perennial growth habit, vegetative propagation ability, fast growth and tallness, higher grain and straw yield	BRRI Gazipur
Project 6: Development of Salt Tolerant Rice (T. Aman)			
49.	Hybridization	• Introgression of salinity tolerant traits/ gene(s) in high yielding varieties suitable for RLR ecosystem	Gazipur
50.	Confirmation of F_1	• To confirm the crosses as true hybrid through hybridity test	Gazipur
51.	Quality check (QC) analysis of F1s	• Generation Advancement	Gazipur
52.	FRGA	• Generation Advance	Gazipur
53.	Line Stage Test (LST) Trial	• Identification of uniform lines based on plant height, flowering date and grain type	Satkhira/ Gazipur
54.	Observational Yield Trial (OYT)	• Selection of genetically fixed salt tolerant breeding lines with acceptable grain quality having high yield potential with good plant type	Gazipur, Satkhira and Khulna
55.	Trait paneling of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
56.	Grain quality analysis of OYT, PYT, AYT & RYT	• To evaluate key economic traits based on consumers preference	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	lines		
57.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks in replicated trial	Gazipur, Satkhira and Khulna
58.	Advanced Yield Trial (AYT)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Satkhira and Khulna
59.	Regional Yield Trial (RYT)/PVS/Adaptive trials	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-farm condition	Gazipur, Satkhira and Khulna
60.	ALART	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field as salt tolerant T. Aman rice genotype in the real salt prone environment. • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	Ten locations will be selected by ARD
Project 6: Development of Salt Tolerant Rice (Boro)			
61.	Hybridization	• Introgression of salinity tolerant genes in genetically advanced genotypes	Gazipur
62.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
63.	Quality check (QC) analysis of F_1s	• To confirm the F_1s as true hybrid using 10 SNP panel	Gazipur
64.	FRGA	• Generation Advancement using FRGA technique to truncate the breeding cycle	Gazipur
65.	Line Stage Testing (LST)	• Identification of uniform lines based on plant height, flowering and grain type	Satkhira/ Gazipur
66.	Observational Yield Trial (OYT)	• Selection of breeding lines with strong plant type, uniformity in heading, salinity tolerance in the field condition	Gazipur, Satkhira and Khulna
67.	Trait genotyping of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
68.	Grain quality analysis of OYT, PYT, AYT & RYT, ALART lines	• To evaluate key economic traits based on consumers preference	GQN
69.	Preliminary Yield Trial (PYT#1 & 2)	• Initial yield evaluation of advanced lines compared to standard checks in replicated trial	Gazipur, Satkhira and Khulna

Sl.	Research Title	Objective(s)	Location(s)
70.	Advanced Yield Trial (AYT#1 & 2)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Satkhira and Khulna
71.	Regional Yield Trial (RYT)/PVS/Adaptive trials	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-farm condition	Gazipur, Satkhira and Khulna
72.	LART#1 & 2	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field as salt tolerant Boro rice genotype in the real salt prone environment. • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	Ten locations will be selected by ARD
73.	Maintenance of parent	• Maintenance of parent for future use in the hybridization or in the experiment as check variety	Gazipur
Project-7: Development of Premium Quality Rice (PQR), T. Aman			
74.	Hybridization	• Introgression of genes of small grain (national & international grade) with aroma and Antioxidant into high yielding rice genetic background	Gazipur
75.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
76.	Segregating population (RGA)	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
77.	Line Augmentation	• Introgression of Sub1 to develop advance lines quickly	Gazipur
78.	Observational Yield Trial (OYT)	• Selection of genetically fixed lines with fine grain properties having high yield with good plant type	Gazipur
79.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur
80.	Advanced Yield Trial (AYT)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur
81.	ALART Materials	• Evaluation of some advanced lines along with standard checks	Gazipur
82.	Maintenance of parents	• Maintenance of parent for future use in the hybridization or in the experiment as	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		check variety	
Project-7: Development of Premium Quality Rice (PQR), Boro			
83.	Hybridization	• Introgression of extra-long grain and small grain with or without aroma into high yielding rice genetic background	Gazipur
84.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
85.	FRGA	• Generation Advance	Gazipur
86.	Line Stage Testing (LST)	• Identification of uniform lines based on plant height, flowering date and grain type	Gazipur
87.	Observational Yield Trial (OYT#1, 2 & 3)	• Selection of homogeneous breeding lines with fine grain properties having high yield with good plant type	Gazipur
88.	Advance yield Trial (AYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur
89.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Total 10 locations
90.	Advance Line Adaptive Research Trial (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	Total 10 locations (Location will be selected by ARD)
91.	Proposed Variety Trial (PVT)	• On-farm evaluation of advance breeding lines compared to standard checks for testing their specific and general adaptability	Total 10 locations (Location will be selected by SCA)
92.	Maintenance of parents	• Maintenance of parent for future use in the hybridization or in the experiment as check variety	Gazipur
Project 7: Development of photo-sensitive Rice, T. Aman			
93.	Hybridization	• Development of strong photo-sensitive (Nizersail type) and medium photo-sensitive (Gainza type) premium quality rice for T. Aman season	Gazipur
94.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
95.	Pedigree nursery	• Selection of progenies with improved plant type, earliness, premium quality grain and high yield potential compared to standard varieties	Gazipur
96.	Observational Yield Trial (OYT)	• Selection of genetically fixed lines having high yield with photosensitivity	

Sl.	Research Title	Objective(s)	Location(s)
97.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur
98.	Secondary Yield trial (SYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Gazipur
Project 8: Development of Rice Varieties for Favorable Boro Environment			
99.	Hybridization	• To create variations for the development of new genotypes with high yield and acceptable grain quality	Gazipur
100.	Confirmation of F_1	• To confirm the crosses as true F_1s and use of the selected F_1s to produce F_2 seeds and use in making different types of crosses	Gazipur
101.	Segregating RGA (F_2-F_6)	• Generation Advance	Gazipur
102.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
103.	Observational Yield Trial (OYT)	• Selection of superior lines with desired agronomic characters	Gazipur, Cumilla, Habiganj, Rangpur
104.	Advanced Yield Trial (AYT)	• Evaluation of breeding lines for yield potential in multi-locations in replicated trial	Gazipur, Cumilla, Habiganj
105.	Regional Yield Trial (RYT#1, 2 & 3)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Total 9 locations
106.	Advance Line Adaptive Research Trial (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	Total 10 locations (Location will be selected by ARD)
107.	Estimation of Breeding Values of Elite Irrigated Breeding Pool	• To assess the baseline breeding value of the parents used in the breeding program	Gazipur, Cumilla, Habiganj, Rangpur
Project 9: Development of Cold Tolerant Rice			
108.	Hybridization	• To create variations for the development of new genotypes with cold tolerance at reproductive and seedling stage with acceptable grain quality	Gazipur
109.	Confirmation of F_1	• To confirm the crosses as true F_1s and use of the selected F_1s to produce F_2	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		seeds and use in making different types of crosses	
110.	Segregating RGA (F_2-F_6)	• Generation Advance	Gazipur
111.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
112.	Observational Yield Trial (OYT#1) [Cold stress (15 Oct seeding) & non-stress (15 Nov seeding)]	• Selection of superior and cold tolerant lines under natural cold condition	Gazipur, Habiganj
113.	Observational Yield Trial (OYT#2) [Cold stress (15 Oct seeding) & non-stress (15 Nov seeding)]	• Selection of superior and cold tolerant lines under natural cold condition	Gazipur, Habiganj
114.	Advanced Yield Trial (AYT)	• Evaluation of breeding lines for yield potential in multi-locations in replicated trial	Gazipur, Rajshahi, Rangpur And 3 Haor sites of Habiganj, Kishoreganj and Sunamganj
115.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Gazipur, Rajshahi (3 locs), Rangpur (3 locs), Habiganj (3 locs)
116.	Advance Line Adaptive Research Trial (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	10-12 locations including 6-8 haor sites by Adaptive Research Division
117.	Validation of QTLs for spikelet fertility under cold stress	• To validation of QTLs for spikelet fertility under cold stress	Gazipur
118.	Evaluation IRRI bred breeding lines	• Evaluation of breeding lines for yield potential in multi-locations in replicated trial	Habiganj

Sl.	Research Title	Objective(s)	Location(s)
Project 10: Development for Zinc Enriched Rice, T. Aman			
119.	Hybridization	• Development of new genotypes with high zinc and iron content along with resistance to major insect pests and diseases, abiotic stress tolerance and acceptable grain quality	Gazipur
120.	Confirmation of F_1	• To confirm the crosses as true F_1s and use of the selected F_1s to produce F_2 seeds and in different types of crosses	Gazipur
121.	Pedigree nursery	• To select progenies with emphasis on modern plant type, large panicle, more grains in panicle, lodging resistance and acceptable grain quality	Gazipur
122.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with desirable agronomic characters with less or no unproductive tiller, intermediate plant height, short growth duration, acceptable grain quality and high yield potential	Gazipur, Rangpur and Rajshahi
123.	Advance Yield Trial (AYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur and Rajshahi
124.	Secondary Yield Trial (SYT)	• Confirmation of yield potentiality of the advanced lines compared to standard checks	Gazipur
125.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	All BRRI R/S and Gazipur
126.	Advanced Lines Adaptive Research Trial (ALART)	• Evaluation of specific and general adaptability under on farm condition	10 locations (selected by ARD)
Project 10: Development for Zinc Enriched Rice, Boro			
127.	Hybridization	• Development of new genotypes with high zinc and iron content along with resistance to major insect pests and diseases, abiotic stress tolerance and acceptable grain quality	Gazipur
128.	Confirmation of F_1	• To confirm the crosses as true F_1s and use of the selected F_1s to produce F_2 seeds and in different types of crosses	Gazipur
129.	Pedigree nursery	• To select progenies with emphasis on modern plant type, large panicle, more grains in panicle, lodging resistance and acceptable grain quality	Gazipur
130.	Observational Yield Trial	• Selection of homogeneous breeding lines with desirable agronomic characters with	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	(OYT)	less or no unproductive tiller, intermediate plant height, short growth duration, acceptable grain quality and high yield potential	
131.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	All BRRI R/S and Gazipur
132.	Secondary Yield Trial (SYT)	• Confirmation of yield potentiality of the advanced lines compared to standard checks	Gazipur
133.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	Gazipur
Project 11: Development of Insect Resistant Rice (IRR), T. Aman 2022-23			
134.	Hybridization	• Introgression of genes of BPH and gall midge into high yielding rice genetic background	Gazipur
135.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
136.	Quality check (QC) analysis of F_1s	• To confirm the crosses as true hybrid	Gazipur
137.	Line Augmentation	• Introgression of *bph* genes (*bph17* and *bph32*) to develop advanced breeding lines	Gazipur
138.	FRGA	• Generation Advance	Gazipur
139.	Line Stage Testing (LST)	• Identification of uniform lines based on good plant type, flowering date and grain type	Gazipur
140.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with resistant to BPH/GM, earliness having high yield with good plant type	Gazipur, Rajshahi, Cumilla
141.	Trait paneling of OYT lines	• Assessment of presence/availability of favorable alleles in breeding lines/population	Out sourcing
142.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur, Cumilla
143.	Grain quality analysis of OYT, PYT & AYT lines	• To evaluate key economic traits based on consumers preference	Gazipur
144.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Rajshahi, Cumilla
145.	Screening breeding lines for BPH and GM resistance	• To identify new sources of BPH and GM resistance	Entomology Division, BRRI

Sl.	Research Title	Objective(s)	Location(s)
146.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur
Project 11: Development of Insect Resistant Rice (IRR), Boro 2022-23			
147.	Hybridization	• Introgression of genes of BPH and gall midge into high yielding rice genetic background	Gazipur
148.	Confirmation of F_1	• To confirm the crosses as true hybrid	Gazipur
149.	Quality check (QC) analysis of F_1s	• To confirm the crosses as true hybrid	Gazipur
150.	Line Augmentation	• Introgression of *bph* genes (*bph17* and *bph32*) to develop advanced breeding lines	Gazipur
151.	FRGA	• Generation Advance	Gazipur
152.	Line Stage Testing (LST)	• Identification of uniform lines based on good plant type, flowering date and grain type	Gazipur
153.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with resistant to BPH/GM, earliness having high yield with good plant type	Gazipur, Rangpur, Cumilla
154.	Trait paneling of OYT lines	• Assessment of presence/availability of favorable alleles in breeding lines/population	Gazipur
155.	Grain quality analysis of OYT, PYT & AYT lines	• To evaluate key economic traits based on consumers preference	Out Sourcing
156.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur, Cumilla
157.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Rangpur, Cumilla
158.	Screening breeding lines for BPH and GM resistance	• To identify new sources of BPH and GM resistance	Entomology Division, BRRI
159.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur
Project-12: Development of Disease Resistant Rice (BB, Blast & RTV), T. Aman			
160.	Hybridization	• Introgression of high yield, lodging tolerance and disease resistance trait for BB, Blast & RTV	Gazipur
161.	F_1 confirmation	• To confirm the crosses as true hybrid	Gazipur
162.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
163.	Observational Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PACP in the field condition and tolerance to disease (BB & Blast) in artificial inoculation condition	Gazipur, Cumilla, Rangpur & Rajshahi
164.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Cumilla, Rangpur & Rajshahi
165.	Regional Yield Trial (RYT#1)	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Total 9 locations
166.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur
Project-12: Development of Disease Resistant Rice (BB & Blast), Boro			
167.	Hybridization	• Introgression of high yield, lodging tolerance and disease resistance trait for BB & Blast	Gazipur
168.	F_1 confirmation	• To confirm the crosses as true hybrid	Gazipur
169.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
170.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PACP in the field condition and tolerance to disease (BB & Blast) in artificial inoculation condition	Gazipur, Cumilla, Rangpur & Rajshahi
171.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Cumilla, Rangpur & Rajshahi
172.	Regional Yield Trial (RYT#1)	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Total 9 locations
173.	Regional Yield Trial (RYT#2) for BB resistance genotypes	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Total 9 locations
174.	Regional Yield Trial (RYT#3) for blast resistance genotypes developed by Plant Pathology Div.	• Evaluation of agronomic performance, specific and general adaptability under on-station condition	Total 9 locations
175.	Maintenance and seed increase of key parents	• To maintain genetic purity of parent materials with seed production	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
Project-13: Development of Submergence and Water Stagnation Tolerance Rice Varieties			
176.	Hybridization	• Introgression of submergence and medium stagnant water tolerant genes into modern genetic background with high yield potential, short/long growth duration, weakly/strongly photoperiod sensitivity, grain quality etc.	Gazipur
177.	F_1 confirmation	• Confirmation of crosses with introgression of genes for submergence tolerance (particularly *SUB1*) and water stagnation tolerance into improved genetic background	Gazipur
178.	Segregating population (RGA)	• Advancement of segregating generations following single seed descent-based RGA techniques	Gazipur
179.	Line Stage Testing	• Screening of genetically homozygous lines for homogeneity, grain quality, grain yield potential and *SUB1*-specific SNP markers	Gazipur
180.	Observational Yield Trial	• Initial evaluation of the genotypes with tolerance against controlled submergence, rainfed and flood prone farmers field conditions	Gazipur and Rangpur
181.	Advanced Yield Trial	• Advanced evaluation of yield and survivability of promising breeding lines in replicated trial under controlled submergence and flash flood prone farmers' field.	Gazipur and Rangpur
182.	PVS Trial	• Evaluation of genotypes in the real submergence and/or medium stagnation prone environments of the farmers' field with the participation of farmers under the management practices of researchers	Gazipur and Rangpur
183.	PVT	• On-farm evaluation of advance breeding lines compared to standard checks for testing their specific and general adaptability	Total 10 locations (Location will be selected by SCA)
184.	Maintenance of submergence and Stagnant flood tolerant genotypes	• To ensure seed safety of submergence tolerant genotypes	Gazipur
185.	Screening of Core parental material for submergence tolerance	• Screening of Core parental material for submergence tolerance	Gazipur
Project 14: Development of Drought Tolerant Rice (T. Aman)			
186.	Hybridization	• Introgression of drought tolerance gene into high yielding rice genetic	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		background	
187.	Confirmation of F_1	• To confirm the crosses as true F_1 and use of the selected F_1s to produce F_2 seeds and in different types of crosses	Gazipur
188.	Field RGA	• Rapid advancement of F_4-F_5 generations through field RGA	Gazipur
189.	Line Stage Testing (LST)	• Selection of drought tolerant progenies with improved plant type, earliness, acceptable grain quality and high yield potential compared to standard varieties	Gazipur
190.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with drought tolerant quality having high yield with good plant type	Gazipur (Control), Rajshahi (One location Stress and another Control)
191.	Advanced Yield Trial (AYT)	• Selection of homogeneous breeding lines with drought tolerant quality having high yield with good plant type	Gazipur (Control), Rajshahi (One Stress and one Control)
192.	Regional Yield Trial (RYT)	• Evaluation specific and general adaptability under on-station condition	Gazipur, Cumilla, Satkhira, Kushtia, Rangpur, Rajshahi and Sonagazi
Project-15: Development of Water Saving Rice			
193.	Hybridization	• Introgression genes of high yield and water saving	Gazipur
194.	F_1 confirmation	• To confirm the crosses as true hybrid	Gazipur
195.	Segregating population (RGA)	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
196.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PACP in the field condition	Gazipur
197.	Preliminary Yield Trial	• Initial yield evaluation of advanced breeding lines in replicated trials for BB resistance with medium duration	Gazipur
198.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	

Sl.	Research Title	Objective(s)	Location(s)
Project 16: International Network for Genetic Evaluation of Rice (INGER), T. Aman			
Aus, 2022			
199.	International Upland Rice Observational Nursery (IURON)-1 Set	• Sharing germplasm and breeding lines through international platform for the acceleration of rice improvement	Satkhira
T. Aman, 2022			
200.	International Rice Soil Stress Tolerance Nursery (IRSSTN-Wet)- 1 Set	• Do	Gazipur
201.	International Rainfed Lowland Rice Observational Nursery Module 1 (IRLON)-3 set	• Do	Gazipur
202.	International Rice Brown Plant Hopper Nursery (IRBPHN) – 2 set	• Do	Gazipur
203.	International Rice Tungro Nursery (IRTN) - 2 sets	• Do	
204.	International Rice Bacterial Blight Nursery (IRBBN_-2 sets	• Do	Gazipur, Barishal, Habiganj
205.	International Rice Submergence Tolerance Nursery for Flood prone environment (IRSTN-FP)-1 Set	• Do	Satkhira
Boro, 2022-23			
206.	International Irrigated Rice Observational Nursery (IIRON-3 Set)	• Do	Gazipur, Rangpur
207.	International Rice Soil Stress Tolerance Nursery (IRSSTN) – 1 sets)	• Do	
Project-17: Deployment and Validation of High Beta-carotene Rice and High-Iron & Zinc Rice Varieties (Healthier Rice Project), T. Aman			
208.	Hybridization	• Introgression of high iron and zinc gene into high yielding rice genetic backgrounds of BRRI dha71, BRRI dhan79 and BRRI dhan81, BRRI dhan87, and BRRI dhan92 and BRRI dhan99	Gazipur
209.	Marker Assisted Backcrossing (MABC)	• BC_3F_3 generation in the background of BRRI dha48, BRRI dhan67 and BRRI	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		dhan71, and BRRI dhan84, BRRI dhan87 and BRRI dhan89 will be advanced through marker assisted breeding	
210.	Contained Trial (CT)	• To evaluate agronomic and product performance (Vitamin A level) of the advanced introgressed breeding lines under contained trial at screen house condition.	Gazipur
211.	Multiplication of selected materials of Contained Trial (CT)	• Seed multiplication for Confined Field Trail (CFT)	Gazipur
Project-17: Deployment and Validation of High Beta-carotene Rice and High-Iron & Zinc Rice Varieties (Healthier Rice Project), Boro			
212.	Hybridization	• Introgression of high iron and zinc gene into high yielding rice genetic backgrounds of BRRI dha71, BRRI dhan79 and BRRI dhan81, BRRI dhan87, and BRRI dhan92 and BRRI dhan99	Gazipur
213.	Marker Assisted Backcrossing (MABC)	• BC_3F_2 generation in the background of BRRI dha48, BRRI dhan67 and BRRI dhan71, and BRRI dhan84, BRRI dhan87 and BRRI dhan89 will be advanced through marker assisted breeding	Gazipur
Project-18: AGGRi Network Trials for Favorable Environment			
214.	AGGRi Network Trials for Favorable Environment	• To identify genetically diverged high breeding value line to leverage in the breeding program	Gazipur, Rajshahi, Cumilla
215.	Advanced yield trial (AYT) of AGGRiNet materials	• To select superior breeding lines for further advancement	Gazipur, Rajshahi, Cumilla
216.	Estimation of breeding value for elite breeding pools of T. Aman ecosystem	• To select candidates for deep sequencing	Gazipur, Rajshahi, Rangpur
BIOTECHNOLOGY DIVISION			
217.	Development of low glycemic index (GI) rice variety through anther culture.	• To generate low glycemic index rice through anther culture	BRRI, Gazipur
218.	Development of salt tolerant rice variety through anther culture	• To develop high yielding salt tolerant rice lines through anther culture	Do
219.	Development of premium quality rice variety through anther	• To develop high yielding premium quality rice lines through anther culture	Do

Sl.	Research Title	Objective(s)	Location(s)
	culture		
220.	Development of Aus variety through anther culture	• To develop short duration high yielding Aus rice variety	Do
221.	Development of antioxidant enriched black rice variety through anther culture	• To develop antioxidant enriched high yielding black rice	Do
222.	Effect of hormone on plant regeneration of rice genotypes	• To optimize regeneration protocol for rice genetic engineering studies	Do
223.	Effect of incubation days on callus induction and plant regeneration of rice genotypes	• To observe the effect of day on calli production and regeneration	Do
224.	Development of High yielding variety	• To create somaclonal variation towards development of high yielding rice varieties	Do
225.	Development of somaclone using EMS treaded rice seed	• To develop modern rice varieties for Aus and T. Aman	Do
226.	Development of high yielding premium quality rice variety through somaclonal variation	• To create somaclonal variation and select rice lines with high yield and desirable traits	Do
227.	Development of antioxidant enriched black rice variety through somaclonal variation	• To create somaclonal variation for development of antioxidant enriched high yielding modern rice varieties	Do
228.	Development of rice variety through wide hybridization followed by embryo rescue	• To develop high yielding and short duration rice lines through wide hybridization.	Do
229.	Development of high yielding photosensitive rice variety through anther culture	• To develop photosensitive rice variety	Do
230.	Development of premium quality rice (kalijira type) through somaclonal variation	• To develop high yielding short stature aromatic Kilizira type varieties	Do
231.	Studies Study on Kernel Elongation of Rice	• To develop long slender rice variety with high kernel elongation (>1.7)	Do
232.	Marker assisted selection for fragrance in F_4	• To develop high yielding aromatic rice	Do

Sl.	Research Title	Objective(s)	Location(s)
	Population of BRRI dhan87 and Kalijira.		
233.	Marker assisted selection for aromatic and submergence tolerance rice genotype	• To develop high yielding submergence tolerant aromatic rice variety	Do
234.	Development of salt tolerant transgenic rice	• To develop salt tolerant transgenic rice lines	Do
235.	Introgression of salt tolerant mangrove gene	• To develop salt tolerance transgenic rice lines	Do
236.	Development of salt tolerant transgenic rice with PVA1	• To develop salt tolerant transgenic rice lines	Do
237.	Development of high yielding aromatic rice lines through genome editing	• To develop high yielding aromatic rice lines using CRISPR-Cas9 technology.	Do
238.	Isolation and cloning of stress tolerant gene from Wheat	• Isolate and cloning of drought tolerance gene	Do
239.	Development of variants using NMU of BRH-11-9-11-4-5B having reduced sterility	• To reduce sterility of BRH-11-9-11-4-5B(CN6)	Do
240.	Development of Kalijira type rice variety through mutation by NMU	• To develop high yielding short stature aromatic Kilizira type varieties	Do
241.	Development of premium quality rice through mutation by EMS (Ethyle Methanesulfonate)	• To develop high yielding, short duration, short stature plant type aromatic rice lines	Do
242.	Development of high yielding sheath blight resistant rice variety	• To develop Sheath Blight resistant lines	Do
243.	Identification of major regulators for C4 rice	• Characterizing Setaria italica mutant population for loss of C4 functions	Do
244.	Development of Aus rice variety through anther culture	• To develop high-yielding Aus rice varieties •	Do
245.	Development of Photosensitive Rice through anther culture	• To develop photosensitive rice having the taller seedling capability and normal seedling height capability	Do
246.	Development of Aman Rice for the favorable	• To develop a high-yielding aman rice variety	Do

Sl.	Research Title	Objective(s)	Location(s)
	ecosystem		
247.	Development of Boro Rice for the favorable ecosystem using anther culture technique	• To develop high-yielding Boro rice •	Do
HYBRID RICE DIVISION			
248.	Source Nursery Elite Lines	• Identification of prospective B and R from diverse genetic origin & NPT background	BRRI, Gazipur
249.	Testcross Nursery	• Confirmation of B and R from the crossed entries • Selection of heterotic rice hybrids, • Conversion of prospective materials into new CMS lines	Do
250.	Back cross Nursery	• Developing CMS lines from identified maintainer by back crossing.	Do
251.	CMS Maintenance and Evaluation Nursery	• Conservation and evaluation of CMS lines	Do
252.	Evaluation of MST Lines	• Confirmation of B and R from the crossed entries • Selection of heterotic rice hybrids, • Conversion of prospective materials into new CMS lines	Do
253.	Development of Blast resistant hybrid (New)	• Searching genotypes containing both blast disease resistant genes and Restorer genes • Making cross to transfer blast resistant genes into elite Restorer background	Do
254.	Parental line characterization using diagnostic trait markers (SNP markers) through outsourcing (New)	• To find out suitable hybrids having genes of interest like good biochemical properties and stress resistance	Do
255.	New parental line development using FRGA method using RxR and BxB crosses (F2 to F5 crosses)	• Developing new parents to produce new cross combination derived hybrids	Do
256.	Evaluation of experimental hybrids (OT)	• Selection of promising hybrids	Do
257.	Preliminary Yield trials (PYT) of promising	• To study the wider adaptability and yield potentiality of promising hybrids	SCRI,

Sl.	Research Title	Objective(s)	Location(s)
	hybrids		Gazipur
258.	Multi-location Yield trials of Promising hybrids	• To study the yield potentiality of promising hybrids at farmers field	Gazipur (BSRI+DM), Barisal+Ishardi+Rangpur
259.	National Hybrid Rice Yield Trial (NHRYT)	• To identify promising hybrids from home and abroad	SCA
260.	Combining ability of A, B & R lines	• To select the best combiner (S) in respect of grain yield & yield components	BRRI, Gazipur
261.	Identification of promising combiners developed using iso-cytoplasmic restorers (ICR) (New)	• To determine the selected ICR lines for assessing their potential in hybrid development	Do
262.	Breeding for outcrossing potentials in CMS lines (New)	• To select best CMS lines for enhancing seed production of hybrid rice	Do
263.	Population advancement of Fatema dhan	• Homozygous line development in the BG of NPT	Do
264.	Quality ensures of previous season produced F1 and CMS lines through grow out test	• To determine purity of parental lines of released hybrids and produced F1's	Do
265.	Demonstration trials of BRRI released hybrids along with promising hybrids and checks	• To evaluate the performances of released hybrids with promising ones	Do
266.	Adaptability test of BRRI released & company hybrids in coastal areas of Satkhira (New)	• To know the salt tolerance level of BRRI release hybrids	BRRI R/S Satkhira
267.	Effect of parboiling on physico-chemical properties of Hybrid rice (New)	• To evaluate physico-chemical properties of BRRI hybrids & their parents at different perboiling condition	BRRI, Gazipur
268.	Panel test for the tastiness of BRRI released and commercial hybrids. (New)	• To find out suitable hybrids having good taste	BRRI, Gazipur
269.	Screening of parental lines against salinity tolerance in net house and in the field of saline	• To find out saline tolerant parental lines of hybrid rice	BRRI R/S Satkhira

Sl.	Research Title	Objective(s)	Location(s)
	area (New)		
270.	CMS line multiplication of BRRI release hybrids	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	BRRI, Gazipur
271.	F1 seed production of BRRI released hybrids	• Production of sufficient quality hybrid seed for subsequent use	Do
272.	Maintainer line multiplication of released & Promising hybrids	• Production of sufficient quantity quality maintainer lines for subsequent use	Do
273.	Restorer line multiplication of released and promising hybrids	• Production of sufficient quantity quality restorer lines for subsequent use	Do
274.	Multiplication of promising CMS lines (Small scale)	• To produce pure and good quality seed of CMS lines for subsequent use	Do
275.	Multiplication of promising CMS lines (Medium scale)	• To produce pure and good quality seed of CMS lines for subsequent use	Do
276.	F1 seed production of experimental hybrids	• Production of sufficient quality hybrid seed for subsequent use	Do
277.	Seed production of BRRI released hybrids in BRRI R/S	• Production of sufficient amount of quality hybrid seed	BRRI R/S
278.	Demonstration trials of BRRI released Boro hybrids	• Create awareness and popularity among farmers for BRRI released Boro hybrids	50 trials at different locations of Bangladesh
279.	Dissemination of parental lines & F1 seeds among different stake holders and Farmers	• Dissemination of BRRI released technologies among different stake holders	Different stake holders (Seed companies, farmers, projects scientists, staffs & DAE personnel)
GENETIC RESOURCE AND SEED DIVISION			
Project 1: Rice Germplasm Conservation and Management. Collection, characterization, conservation and rejuvenation of rice germplasm to enrich the Genebank of BRRI and its sharing with rice researchers.			

Sl.	Research Title	Objective(s)	Location(s)
280.	Collection of rice (Oryza sativa L.) germplasm.	• To collect cultivated and wild rice germplasm from unexplored areas of Bangladesh and to store the collected rice germplasm for different users.	All over the country
281.	Rejuvenation and conservation of rice germplasm.	• To rejuvenate the Genebank accessions with fresh stock and to register the new collection by giving BRRI Genebank accession number after cross checking the duplication.	BRRI, Gazipur
282.	Rice germplasm supply and exchange.	• To provide/supply rice germplasm accessions from BRRI Genebank to different divisions of BRRI for screening against biotic and abiotic stresses. • To share germplasm to researchers from home and abroad with prescribed MTA for rice improvement.	GRSD, BRRI, Gazipur
283.	Morphological characterization of rice germplasm.	• To characterize rice germplasm as per BRRI prescribed "Germplasm Descriptors and Evaluation Form" as developed from biodiversity international and UPOV convention.	BRRI, Gazipur
284.	Documentation of rice germplasm.	• To document the characterized rice germplasm through morpho-physiological data, digital photo, leaflet and to develop a computer database documentation system for different users.	GRSD, BRRI, Gazipur
285.	Molecular characterization of rice germplasm.	• To characterize the rice germplasm through molecular tools (DNA Fingerprinting).	Mol. Lab, GRSD, BRRI
Project 2: Exploratory and Genetic Studies			
Exploratory and genetic studies of rice germplasm.			
286.	Regional Yield Trial (RYT) of Balam rice germplasm.	• To confirm the yield potentiality of popular Balam rice germplasm of southern region of Bangladesh by comparing with standard check.	BRRI, Gazipur and BRRI R/S, Barishal.
287.	Regional Yield Trial (RYT) of Sada Mota rice germplasm of southern region.	• To confirm the yield potentiality of popular Sada Mota rice germplasm of southern region of Bangladesh by comparing with standard check.	BRRI, Gazipur and BRRI R/S, Barishal.
288.	Selection of superior genotypes from T. Aman/ Boro rice germplasm based on agro-morphological traits.	• To identify rice germplasm with higher total biomass yield and higher phenotypic acceptance.	BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
289.	Observational Yield Trial (OYT) of aromatic rice germplasm.	• To evaluate the yield performance of ten aromatic rice germplasms compared to standard check.	BRRI, Gazipur
290.	DNA Finger printing of rice germplasm.	• To characterize the rice germplasm through molecular tools (DNA Fingerprinting).	Molecular Lab, GRSD, BRRI.
291.	Evaluation of photosensitive rice germplasm collected from Northern districts of Bangladesh.	• To identify rice germplasm suitable for late transplanting after flood in northern region of Bangladesh (Bogura, Kurigram, Lalmonirhat, Gaibandha, Rangpur and Jamalpur).	BRRI, Gazipur
292.	Characterization of similar named groups of rice germplasm.	• To characterize and evaluate the similar named groups of Nazirsail and Basmoti rice germplasm accessions for developing their core collections.	BRRI, Gazipur
293.	Crossing between Chinisail and BRRI dhan90.	• To improve the grain quality with better yield	BRRI, Gazipur
294.	Purification of selected Jirasail genotype.	• To purify the selected popular Jirasail genotypes for evaluation of its yield performance by comparing with standard check.	BRRI, Gazipur
295.	Molecular characterization of pigmented rice germplasm.	• To characterize pigmented rice germplasm using SSR markers.	BRRI, Gazipur
296.	Identification and selection of Sticky rice from Jhum rice germplasm.	• To identify and to study the selection criteria for developing sticky rice varieties from Jhum rice germplasm.	BRRI, Gazipur
297.	Conformation of selected blast resistant materials using differential blast isolates and molecular markers.	• To be conform the resistance of the selected genotypes.	BRRI, Gazipur
298.	Morphological and Molecular study of Badshabhog germplasm.	• To characterize the rice germplasm through morphological and molecular tools (DNA Fingerprinting).	BRRI, Gazipur and Molecular Lab, GRSD, BRRI.
Project 3: Seed Production and Variety MaintenanceMaintenance of nucleus seed stock and production for supplying breeder seeds as per national demand			
299.	Nucleus seed production.	• To maintain genetic purity and homogeneity of morphological characteristics of BRRI developed rice varieties as a source of breeder seed.	BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
300.	Maintenance of BRRI recommended HYVs and LIVs.	• To maintain the BRRI recommended HYVs (High Yielding Variety) and LIVs (Locally Improved Variety) for encouraging farmers to cultivate and for any other purpose.	BRRI, Gazipur
301.	Breeder seed production and distribution.	• To produce and supply of breeder seed of BRRI developed rice varieties as per indent of GO, NGOs and PS seed producing organizations/companies/ entrepreneurs.	BRRI, Gazipur and all eleven BRRI R/S.
302.	Sending *khudebarta* (SMS) for Breeder Seed Distribution.	• To make it easy for our clients to get the information of BS distribution.	BRRI, Gazipur
303.	Monitoring of breeder seed production farms.	• To visit breeder seed plots of BRRI regional stations at flowering and maturity stages for ensuring the quality of produced seed as BS standard.	Breeder seed producing plot at eleven BRRI R/S.
304.	Monitoring of foundation seed production farms.	• To visit foundation seed (FS) plots of seed producing agencies at flowering and maturity stages for improving the quality of produced seed as FS standard by sharing experiences.	GO, NGOs and Private Seed Producing Farm
305.	DNA Fingerprinting of latest BRRI varieties (continue).	• To characterize the latest BRRI varieties through molecular tools (DNA Fingerprinting).	Molecular Lab, GRSD, BRRI.
306.	Effect of regional variation of weather parameters, cultural management, post-harvest processing and seed storage on seed quality of BRRI dhan89.	• To determine viable period of seed in different storage. • To determine speed of germination and germination percentage.	Gazipur
307.	Dormancy and storage ability of newly released BRRI rice varieties.	• To find out dormancy duration and storage ability of newly released BRRI rice varieties (after BRRI dhan64) during storage	BRRI, Gazipur
Project 04: Seed Technology Packages. Studies on seed technology for recommending as modern rice seed production technology.			
308.	Publication on seed production technology package.	• To make seed technology knowledge available to the growers by preparing leaflet on seed production techniques for BRRI Rice Seed Network partners.	BRRI, Gazipur
309.	Digital rice herbarium.	• To easily identify difference between different BRRI variety in a look.	BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
GRAIN QUALITY AND NUTRITION DIVISION			
310.	Determination of physicochemical and cooking properties of advanced breeding lines	• To help to develop data base on physicochemical, cooking and eating qualities of grain for newly developed breeding lines	GQN Lab
311.	Determination of physicochemical and cooking properties of Transforming Rice Breeding (TRB) lines	• To find out the physicochemical and eating quality of promising lines for identifying better grain quality	GQN Lab
312.	Effect of Zn and phytate activities on Zn enriched rice varieties at different locations in T. Aman season	• To determine the Zn and phytate activities with physicochemical properties of Zn enriched rice varieties at different locations in T. Aman season	GQN Lab
313.	Nutraceutical Characterization of newly released BRRI varieties	• To determine nutraceutical properties including antioxidants, minerals, fatty acid and amino acid profiling's of BRRI released HYVs from BR1 to BRRI dhan100 and BRRI hybrid1 to BRRI hybrid dhan7 along with their physicochemical and cooking properties	GQN Lab
314.	Analysis of ferulic acid (FA) in RBO of Bangladeshi rice varieties in association of biochemical evaluation on burning effects of RBO in vivo rat experiment	• To evaluate on appropriate analysis methodology and study amount of FA and their relation to nutrition properties in rice. • To evaluate the burning effects of RBO	GQN Lab
315.	A study on the different components of rice in relation to the palatability	• To identify the parameters of rice grain through comparison of different components of rice samples that are responsible for palatability	GQN Lab
316.	To Screening, Selection, and Training of Sensory Panelists	• To determine impairment of primary senses (colour, vision, ageusia and anosmia) • To matching test for taste and odor substances • To ability to detect basic taste and odor acuity • To determine ability to characterized texture • To performance in comparison with other candidates	GQN Lab
317.	Fatty acid profiles and nutritional quality of rice	• To identify the varieties containing	GQN Lab

Sl.	Research Title	Objective(s)	Location(s)
	bran oil (RBO) in BRRI high yielding varieties	higher amount of oil content • To analyze the fatty acid profile, heavy metal and nutritional value of rice bran oil	
318.	The effect of fermentation on the nutritional and microbial changes in panta bhat	• To evaluate the nutritional properties of panta bhat • To determine the starch digestibility and bioavailability of mineral content • To evaluate the microbial properties and beneficial effect of panta bhat	GQN Lab
319.	Comparative study on rice bran oil (RBO) produced from BRRI varieties with existing RBO available in the market	• To observe the chemical properties of RBO • To analyze the FA profile, heavy metal and nutritional value of RBO	GQN Lab
320.	Assessment of heavy metals (Cd, Zn, Pb, Cr, As) in soil, water, and rice grain from industrial area (Dhaka, Gazipur, Narayangonj, Mymensingh, Narshindi)	• To quantify heavy metals in soil, water, and rice grain. • To identify area of rice field contaminated by industrial effluent water.	GQN Lab
321.	Standardization of in vitro Glycemic Index (GI) method to evaluate GI value of rice	• To standardize the in vitro GI method • To assess the variability of GI value through in vitro starch digestibility of physicochemically different BRRI varieties	GQN Lab
322.	Determination of physicochemical properties and nutritional quality of puffed, popped and flattened rice from BRRI varieties	• To identify the physical quality of puffed, popped and flattened rice • To determine the nutritional value and heavy metals in puffed, popped and flattened rice	GQN Lab
323.	Survey on rice-based value-added products available in the market	• To find out BRRI varieties are used commercially for producing rice-based products • To analyze the nutritional quality of value-added rice-based products in the market	GQN Lab
324.	Formulation of rice-based foods supplemented with anthocyanin-enriched fermented rice bran (New)	• Physicochemical and biochemical characterization of pigmented anthocyanin rich rice varieties. • Genome sequencing and analysis of gene expression in the anthocyanin	GQN Lab

Sl.	Research Title	Objective(s)	Location(s)
		biosynthesis pathway in selected Bangladeshi rice varieties. • Formulation of anthocyanin-fortified rice-based bakery products with fermented rice bran	
Program Area: Rice Farming System			
RICE FARMING SYSTEM DIVISION			
Development of Cropping System and Component Technology for Favorable Environment			
325.	Performance evaluation of four crop cropping pattern for irrigated medium high land ecosystem	• To evaluate the agronomic and economic performance of four crop cropping pattern • To assess the soil fertility and weed infestation in different cropping patterns	BRRI, Gazipur
326.	Performance evaluation of three crop cropping pattern for irrigated medium high land ecosystem	• To evaluate the agronomic and economic performance of three crop cropping pattern • To assess the soil fertility and weed infestation in different cropping patterns	BRRI, Gazipur
327.	Determination of optimum planting window of newly released rice varieties in Mustard-Boro-T. Aman cropping system	• To find out the suitable rice varieties for Mustard-Boro-T. Aman cropping pattern under different planting time • To find out the optimum sowing/planting window of mustard, Boro and T. Aman rice	BRRI, Gazipur
328.	Exploration of water-logged wetland ecosystem through modification of land type for integrated fish, vegetable and fruit production	• To explore the best adaptation practices to address the water-logged wetland system • To identify the suitable agroforestry system for increasing productivity • To identify the scope for increasing productivity through fish, vegetable and fruit system	BRRI, Gazipur
329.	Land-Water interfacing with rice-fish, vegetable and fruit to intensify the system productivity	• To diversify and maximize the productivity of pond-based farming system • To improve nutritional level of consumers and increase farm income	BRRI, Gazipur
330.	Transformation of waterlogged wetland into three-tier production system for integrated rice-fish, vegetable and fruit cultivation	• To maximize the productivity and production diversity through integrated rice-fish, vegetable and fruit system • To meet up the nutritional requirements of consumers and increase farm income	BRRI, Gazipur
331.	Evaluation of newly released BRRI rice	• To find out the suitable crop sequence with newly released BRRI rice varieties	BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	varieties under Boro - Fallow-T. Aman cropping pattern	in Boro-Fallow-T. Aman cropping pattern	
332.	Formulation of energy dense rice biscuit (EDRB) (PBRG, NATP-II, ID-099)	• To alleviate malnutrition among different groups of people	Sadar, Gazipur
333.	Optimizing transplanting window of premium quality T. Aman rice varieties under different and changing climatic conditions in Bangladesh using ORYZA v3	• To determine the effects of sowing date, seedling age and transplanting date using the simulation modeling by ORYZA v3 for increased T. Aman rice yields and higher water productivity	Dinajpur, Jhenaidah, Gazipur
334.	Optimizing transplanting window of premium quality Boro rice varieties under different and changing climatic conditions in Bangladesh using ORYZA v3	• To determine the effects of sowing date, seedling age and transplanting date using the simulation modeling by ORYZA v3 for increased Boro rice yields and higher water productivity	Dinajpur, Jhenaidah, Gazipur
335.	Determine the effect of nutrient management practices on premium quality rice variety/(s) for improved yield, grain quality, and milling traits	• To develop site-specific tailored management practice to improve the yield potential and quality aspects of PQR rice varieties	Dinajpur, Jhenaidah, Gazipur
336.	On-farm performance evaluation of dry direct seeded rice (DSR) as compared with transplanted rice (TPR) in Aus season	• To determine comparative advantages and disadvantages of different methods of crop establishment in DSR with respect to TPR for some newly released Aus varieties	Dinajpur, Jhenaidah, Gazipur
337.	Effect of sowing date and establishment methods on yield and productivity of newly released Aus's rice varieties	• To determine comparative advantages and disadvantages of DSR with respect to TPR • To identify suitable sowing dates for newly released Aus rice varieties	Jhenaidah, Gazipur
338.	Effect of fertilizer management of Boro rice in late situation under Potato -Boro -T. Aman cropping system	• To compare the yield performance of Boro rice in late situation under different fertilizer management in Potato - Boro - T. Aman cropping pattern	BRRI, Gazipur
Development of Cropping System and Component Technology for Stress Prone Area			
339.	Intensification of Watermelon-Fallow-T.	• To find out the suitable BRRI released rice varieties for Watermelon-T. Aus-T.	Khulna

Sl.	Research Title	Objective(s)	Location(s)
	Aman cropping pattern by inclusion of Aus rice	Aman cropping pattern • To maximize the productivity and farm income	
Development of Cropping System Technologies for Hill Ecosystem			
340.	Exploring the hills for rice research: Feasibility study for exploring spring water for Boro cultivation	• To explore available water resource (Chhara) in hilly areas • To expand Boro rice cultivation using low lift pump (LLP) for irrigation in Fallow-Fallow-T. Aman cropping pattern • To increase the overall rice production in hilly areas	Khagrachori and Bandarban
341.	Exploring the hills for rice research: Feasibility of Boro rice cultivation in fringe land at Rangamati district	• To increase the Boro coverage across the fringe land by cultivation of different Boro rice varieties	Rangamati
342.	Improvement of Jhum production system through the introduction of modern HYV Aus varieties in hilly areas	• To increase the system productivity through the introduction of modern HYV Aus varieties and to compare their performance with the local varieties in jhum culture	Khagrachori, Rangamati and Bandarban
343.	Inclusion of mustard in Boro-Fallow-T. Aman cropping pattern in piedmont plain land	• To increase the system productivity of Boro-Fallow-T. Aman cropping system by the inclusion of mustard	Khagrachori, Rangamati and Bandarban
344.	Intensification of Fallow-Fallow-T. Aman cropping pattern through the inclusion of modern Aus rice in piedmont plain land in hilly areas	• To increase the system productivity of Fallow-Fallow-T. Aman cropping system by inclusion of Aus rice	Khagrachori, Rangamati and Bandarban
345.	Fertilizer management in HYV Aus rice in Jhum cultivation system	• To develop a suitable method of fertilizer application in HYV Aus under jhum cultivation • To increase fertilizer, use efficiency through proper management	Khagrachori, Rangamati and Bandarban
Validation and Delivery of Cropping System Technology			
346.	Validation and delivery of site-specific rice based improved cropping patterns in different agro ecosystem	• To increase the system productivity and income of the farmers through introduction of improved and intensified cropping systems	Trishal, Tangail, Habiganj, Kaliganj
347.	Potato-Jute-T. Aman cropping pattern in enclaves of northern	• To increase the farm productivity in farmer's level	Dhashiarchhara (former enclave),

Sl.	Research Title	Objective(s)	Location(s)
	Bangladesh (PBRG, NATP-II, ID-672)		Fulbari, Kurigram
348.	T. Aman rice-Mustard-Patshak-Aus's rice cropping pattern for Mymensingh (PBRG, NATP-II, ID-672)	• To increase the farm productivity in farmer's level	Trishal, Mymensingh and Kaliganj, Gazipur
349.	Novel plant growth promoting (PGP) bacterial and fungal bio pesticides for sustainable management of bacterial blight of rice (PBRG, NATP-II, ID-672)	• To increase the farm productivity in farmer's level	Habiganj
Integrated Farming Systems			
350.	Monitoring the whole farm activities of intervened farmers	• To determine the livelihood improvement of the farmers resulted from the intervention of farming systems technologies • To determine the resource flow in the selected farm family	Kaliganj, Gazipur
351.	Integration of mustard/potato/pulses in the rice-based cropping system under different rice growing environments	• To assess the system productivity by inclusion of mustard, potato and pulses in the existing cropping systems • To identify the impact of large-scale demonstration of improved cropping pattern on farmers livelihood improvement	Kaliganj, Gazipur
352.	Promotion of improved cropping pattern packages	• To increase the system productivity and income of the farmers through introduction of improved cropping patterns	Kaliganj, Gazipur
353.	Farmers' participatory evaluation of recently released BRRI varieties for Boro and T. Aman season	• To find out the suitable T. Aman and Boro varieties for different rice growing ecosystems • To disseminate these varieties for achieving higher production over the existing varieties	Kaliganj, Gazipur
354.	Farmers' participatory quality seed production of recently released BRRI varieties for Boro and T. Aman season	• To demonstrate the quality rice seed production technique at farm level • To expedite the delivery systems of good quality seeds among the farmers' community	Kaliganj, Gazipur
355.	Field days and farmers' training on different	• To motivate farmers for adoption of farming systems technologies	Across the country

Sl.	Research Title	Objective(s)	Location(s)
	farming systems activities	• To improve farmers' knowledge base on improved agricultural production system	
Crop Soil and Water Management Program Area			
AGRONOMY DIVISION			
356.	Effect of Nanoparticles to reduce Chilling Stress in Rice	• To mitigate chilling stress of rice seedling by nano ZnO	Gazipur
357.	Effect of time of planting on the yield of submergence tolerance PVT genotype	• To determine the appropriate planting schedule of BRRI developed submergence tolerance PVT genotype	Gazipur
358.	Yield Loss Assessment of Rice under Late Planting Condition	• To identify an optimal planting window of BRRI dhan88 and BRRI dhan89 and to determine the average loss when the tested varieties are planted outside the optimal date	Gazipur
359.	Growth stage-based nitrogen management for yield maximization of hybrid rice	• To investigate hybrid rice response to different nitrogen fertilizer level and timing of application at different growth stage. • To determine nitrogen, use efficiency of BRRI hybrid rice varieties.	Gazipur
360.	Effect of BRRI Biofertilizer on growth and yield of BRRI dhan34	• To find out the benefit of BRRI biofertilizer with inorganic fertilizer for BRRI dhan34.	Gazipur
361.	Effect of foliar application of chitosan on growth, yield and physio-biochemical characteristics of rice under salinity stress	• To investigate the effect of chitosan on growth, yield and Na: K ratio of rice under salinity stress. • To evaluate biochemical indicators like proline and MDA content	Gazipur
362.	Performance of herbicide to reduce Azolla infestation from rice field	• To reduce the abundance of Azolla from rice fields	Gazipur
363.	Residue analysis of herbicide, insecticide and fungicide in soil, water and rice under irrigated ecosystem	• To analyze the MRL of pesticides in water, soil and rice	Gazipur
364.	Effect of agronomic factors for maximizing yield of BRRI developed PQR rice type like Katarivog (BRRI dhan70) and Jesmin	• To study contributions of agronomic factors to maximize yield of BRRI dhan70 and BRRI dhan80 in T Aman season • To find out and recommend the best	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	(BRRI dhan80) through developing sustainable production management protocol in T Aman season	production management protocol for sustainable higher yield of BRRI dhan70 and BRRI dhan80 in T Aman season	
365.	Biodegradation of pesticides in soil using selected microbial strains	• To measure the effect of pesticides on bacterial growth • To estimate the rate of pesticides degradation by the soil microbes	Gazipur
366.	Screening of Salt-tolerant bacteria isolated from coastal saline soils in Bangladesh	• To screen out potential salt-tolerant bacterial strains isolated from coastal saline soil.	Gazipur
367.	Characterization and identification of salt-tolerant PGPR isolated from coastal saline soils in Bangladesh	• To characterize the potential salt-tolerant bacterial strains. • To identify the salt-tolerant bacterial strains using 16S rRNA gene sequence.	Gazipur
368.	Effect of PGPR and chemical fertilizers on the growth and yield of salt-tolerant rice under saline soil condition	• To observe the effect of PGPR inoculation on plant salinity tolerance. • To observe the effect of nitrogen and gypsum application on salt-stress reduction in plants.	Gazipur
369.	Physiological, biochemical and molecular mechanisms of salinity tolerance in rice	• To get insight into the physiological, biochemical and molecular mechanisms by which BRRI developed salt-tolerant varieties respond to the salinity stress	Gazipur
370.	Agronomic and bio-molecular traits of BRRI released drought tolerant rice	• To identify enzymatic activities in drought stress of rice. • To identify drought tolerant mechanism of BRRI released variety for enhancing agronomic productivity	Gazipur
SOIL SCIENCE DIVISION			
371.	Improvement of rice yield and NUE through nano fertilizer and zeolite amendment	• To assess fertility status of rice growing areas and determine optimum fertilizer requirement	BRRI Gazipur
372.	Screening of N use efficient rice genotypes	• To find the N use efficient genotypes • To find the agronomic traits related to efficient N management • GWA mapping of selected NUE lines	BRRI Gazipur
373.	Management interventions to improve NUE and reduce N losses in typical rice cropping	• To quantify the fate of N fertilizer (crop, soil and losses) and NUE under various N managements for double rice cropping. • To develop locally based mitigation	BRRI Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	system of Bangladesh	options that can be compared within plot-based experiments	
374.	Nitrogen response to ALART material in Boro and T. Aman season	• To find out the optimum doses of N for Bacterial Blight ALART materials	BRRI Gazipur
375.	Determination of nitrogen doses for modern rice varieties	• To identify optimum nitrogen dose for MV rice	BRRI Gazipur
376.	Phosphorus response study of newly released rice varieties	• To investigate the performance of MV rice under deficient soil P levels	BRRI Gazipur
377.	Effect of nitrogen and potassium rates on modern rice cultivation	• To find out the suitable combination of N and K for MV rice cultivation • To study the N and K dynamics in soil and plant	BRRI, Gazipur
378.	Effect of organic & inorganic nutrient management for growing four crops in a year (T.Aus 2016)	• To assess changes in soil fertility i.e., nutrients depletion or mining	BRRI, Gazipur
379.	Effect of CA on soil properties and crop yield in long term rice cultivation	• To assess changes in soil fertility due to CA practice	Project side
380.	Effect of long-term rice farming on the changes of soil nutrient status in different Soil profile of BRRI Farm	• To determine the changes occurred in soil carbon and plant nutrient status of BRRI farm soil • To develop a soil fertility map • To devise a nutrient dynamics model to estimate the nutrient status on long term basis	BRRI farm Cumilla and Soil Science Laboratory
381.	Long-term effect of organic and inorganic nutrients on yield and yield trend of lowland rice	• To evaluate changes in soil physical, chemical and biological properties • To determine management options for solution of soil problem(s)	BRRI, Gazipur
382.	Long-term missing element trial at BRRI regional station	• To determine nutrient mining problem on soil fertility and its influence on rice yield • To find out nutrient management options for correcting soil problems	BRRI RS Rajshshi, Barishal, Rangpur, Cumilla, Satkhira, Sonagazi, Hobiganj, Kustia, Gopalganj,

Sl.	Research Title	Objective(s)	Location(s)
			Sirajganj
383.	Effect of intensive rice cropping on rice yield under continuous wetland condition	• To evaluate soil fertility and rice yield changes over time • To find out mitigation options of soil health	BRRI, Gazipur
384.	Integrated nutrient management for double and triple rice cropping for maximizing productivity	• To improve land productivity and soil health under intensive cropping system	BRRI, Gazipur
385.	Soil Management to maximize the yield of newly released rice varieties	• To maximize rice yield through organic and inorganic amendments while maintaining soil health in BRRI farm	BRRI, Gazipur, R/s Barishal, Sonagaji, Cumilla, Rangpur, Kustia
386.	Good Agriculture Practices (GAP) to Increase Rice Productivity	• To obtain quality and safe rice • To sustain crop yield • To maintain soil health & minimize environmental pollution	BRRI farm Gazipur and Rangpur
387.	Effects of fertilizer and varietal management on mitigating greenhouse gas emissions from rice cultivation in South-western coastal ecosystems	• To quantify GHG emissions from rice field under different fertilizer and varietal management • To develop a technology for increased crop productivity with reduced negative environmental impacts. • To develop country specific Emission Factor and national GHG inventory	BRRI, Satkhira
388.	Evaluation of bio-organic fertilizer for the improvement of rice yield and soil health	• To evaluate the efficacy bio-organic fertilizer for growth and yield of rice. • To assess the impact of bio-organic fertilizer on soil health	BRRI Gazipur
389.	Microbial characterization of different AEZs soil	• To characterize potential plant growth promoting bacteria (PGPB) • To develop bio-fertilizer using potential microbes for rice cultivation in acid and saline soil	BRRI Gazipur
390.	Bio-Coated Urea: a new approach to improve N fertilizer use efficiency (NUE) and crop yield	• To formulate a bio-coated urea and Bio-coated TSP fertilizer • To determine its efficacy in soil-plant system	BRRI Gazipur
391.	Bio-coated urea fertilizer	• To determine its efficacy in soil-plant	BRRI

Sl.	Research Title	Objective(s)	Location(s)
	for rice yield enhancement in saline soil	system	Gazipur
IRRIGATION AND WATER MANAGEMENT DIVISION			
392.	Determination of Physical and Hydraulic Properties of Different Soil Types	• To determine important physical properties (bulk density, particle density, infiltration rate, hydraulic conductivity, soil-water retention, etc.) of root zone soil • To develop soil-water retention/ characteristics curves • To determine parameters of soil-water retention function	All Regional Station Farm
393.	Development of Automated Alternate Wetting and Drying Irrigation System for Rice Production	• To introduce digital irrigation system in rice cultivation • To reduce irrigation water need • To improve water productivity	BRRI farm, Gazipur
394.	Problems and Potentials for Crop Productivity Improvement Through Water Management in Hilly Areas	• To identify problems and potentials of water resources development for agriculture and livelihood improvement in the Hilly area • To recommend suitable water management options for productivity and livelihood improvement in the area	Chittagong Hill Tracts
395.	Study on Water-Stress Tolerance for Different Advanced Rice Genotypes of BRRI	• To quantify water-stress tolerance capacity for different rice varieties • To determine yield of the rice varieties under different water-stress conditions	BRRI farm, Gazipur
396.	Performance Evaluation of the Proposed Rice Genotypes Under Different Water Regimes	• To study performance of the proposed rice varieties under different water regimes • To evaluate suitable water regimes for proposed lines/varieties of rice	BRRI farm, Gazipur
397.	Improving Soil-Water Availability for Crop Production in Char Land by Amendment Practices	• To improve soil physical properties that will also improve soil water retention capacity of the root zone depth. • To identify a suitable soil amendment practice that will increase water use efficiency of the soil in char land. • To increase the crop productivity of the char land	BRRI R/S, Sirajgonj.
398.	Determining Minimum Irrigation Water Requirement of Rice at	• To measure minimum water requirement for rice irrigation at different regions • To measure yield response of rice to	Gazipur, Kushtia, Rangpur

Sl.	Research Title	Objective(s)	Location(s)
	Different Regions of Bangladesh through Water Balance from On-Farm Demand and Model Simulation	irrigation application base on on-farm demand and simulated irrigation requirement • To figure out variation in irrigation water requirements among different treatments	
399.	Optimization of Water Use Efficiency Through Sub-irrigation and Mini-sprinkler Irrigation System in Different Soils of Bangladesh	• To increase water, use efficiency in crop cultivation • To design and installation of sub-irrigation and sprinkler irrigation system • To evaluate the performance of sub-irrigation and sprinkler irrigation system in transplanted rice field	Gazipur
400.	Irrigation Water Requirement and Rainfall Utilization for Delayed Transplanting of Boro Rice in Different Locations of Bangladesh	• To find out the variation of irrigation water requirement in relation to the delayed transplanting • To maximize the rainfall utilization and to reduce the groundwater withdrawal	Gazipur, Rangpur and Kushtia
401.	Impact of Different Perched Water Level on Yield Performance, Water Use and Grain Nutritional Quality of Rice	• To assess the water, use in different growth stags in relation to various water treatments • To assess the grain nutritional quality pattern in rice at different perched water levels	Gazipur
402.	Validation of Agricultural Drought Forecasting for Mitigating Drought in T. Aman Rice at Kushtia Region	• To validate drought by using forecasted rainfall and evaporation • To mitigate drought by applying supplemental irrigation • To determine suitability of drought model for forecasting, and • To determine yield performance after mitigating drought	Kushtia
403.	Irrigation Scheduling of Rice (*Oryza sativa* L.) Based on Weather Forecasting in Gazipur	• To predict water demand through water balance simulation model for rice cultivation • To compare performance of water balance simulation model with AWD and conventional methods • To validate water balance simulation model with CROPWAT 8.0 model • To recommend the better method for irrigation scheduling of rice	BRRI Gazipur
404.	Assessment of Water Resources Availability Suitable for Irrigation to	• To monitor dynamic temporal variation of surface water salinity in the dry season at different locations of Barisal region	Barisal, and Khulna Region

Sl.	Research Title	Objective(s)	Location(s)
	Increase Crop Production in Tidal Areas of Barisal Region	• To assess constrains and prospects of tidal water utilization for irrigated crop cultivation • To assess availability of water and potentials for irrigated crop cultivation	
405.	Water Resources Assessment During Dry Season Crop Cultivation in Selected Polders of Coastal Region	• To delineate suitable water resources during dry season • To determine the amount of fresh water available for crop production during dry period • To assess cultivable area used for different cropping patterns based on water resources	Khulna, Barishal
406.	Saline Water Irrigation Strategies for Boro Rice Cultivation in The Coastal Saline Area	• To find out the saline water irrigation management options for Boro rice cultivation • To assesses the response of rice growth and yield to saline water irrigation • To quantify the ionic stress on plant shoot and root under saline water treatments	Dacope, Khulna
407.	Monitoring Groundwater Level Fluctuation and Safe Utilization of Groundwater in Different Geo-Hydrological Regions	• To determine fluctuation of groundwater level over time and its relationships with rainfall • To determine water quality for assessing its suitability for irrigation	Headquarter and All Regional Station
408.	Conjunctive Use of Wastewater and Fresh Water for Irrigation in Boro Rice Cultivation	• To determine suitability of different types of wastewaters for Boro rice cultivation. • To analyze rice grain sample for heavy metal uptake.	BRRI farm, Gazipur
409.	Effect on Percolation Losses and Groundwater Recharge Due to Weak Plough-pan Formed under Long Term Conservation Agriculture	• To determine amount of irrigation water contributed through deep percolation to ground water recharge under SP and CT. • To determine depth of vertical movement of irrigation water towards ground water level. • To determine the depth and vicinity of the nearest aquifer.	Gazipur and Rangpur
410.	Evaluation of Available Groundwater Resources for Sustainable Crop Production in Selected Locations of Bangladesh	• To evaluate fluctuation pattern of GWL • To determine the GWL depletion trend • To assess the GW recharge pattern through model study • To recommend the safe use of GW in study locations	Northwest hydrological region and whole country
411.	Assessment of Surface	• To determine the surface and	Gazipur,

Sl.	Research Title	Objective(s)	Location(s)
	and Groundwater Quality for Irrigation in Selected Locations of Bangladesh	groundwater quality parameters • To determine the suitability of groundwater for irrigation	Rangpur, Comilla, Hobigonj, Rajshahi, Kushtia and Sonagazi
412.	Change in Surface Water Bodies and Its Impact on Groundwater Recharge in Barind Region of Bangladesh	• To determine the trend of surface water storage • To find out the relationship between surface water storage and groundwater recharge • To figure out the options increasing surface water storage for enhancing GW recharge and sustainable crop production	Northwest region of Bangladesh
413.	Surface Water Receding Pattern in Relation to Boro Rice Establishment in Haor Region of Bangladesh	• To determine weekly/fortnight water receding pattern and a contour map showing the water receding area • To determine suitable establishment period for escaping flash flood damage of Boro rice • To find out the available area and transplanting time for Boro rice	Haor region
414.	Reuse of Domestic Household Water for Crop Production at BRRI farm, Gazipur	• To find out the quality of domestic wastewater for irrigation • To assess the opportunities of domestic wastewater for irrigation	Gazipur
415.	Assessing On-farm Water-use Efficiency of BRRI Research Farm, Gazipur	• To find out present irrigation management status of BRRI farm • To measure seasonal water requirement and water withdrawal for rice cultivation • To suggest plan for efficient irrigation management plan for BRRI farm.	Gazipur
416.	Present Status and Potentiality for Increasing Rice Cultivation in Surface Water Irrigation Projects of Bangladesh	• To determine the present efficiency of major irrigation projects • To identify the problems of command area increasing • To figure out the improvement options for surface water utilization	G-K, Teesta, Muhuri, Chandpur, Meghna-Dhonagoda and Pabna irrigation project
417.	Groundwater Use Potential for Supplemental Irrigation for Boro Rice Production in the Haor Areas	• To assess the groundwater availability for Boro rice cultivation • To install tubewells for irrigation development • To reduce yield loss due to water stress at the later stage of Boro rice	Tahirpur, Sunamgonj

Sl.	Research Title	Objective(s)	Location(s)
		• To assess potential command area for the installed STW	
418.	Effectiveness of Surface laid PVC pipe irrigation for Boro rice cultivation in the Haor areas	• To develop a portable water conveyance system under undulating condition of haor areas • To minimize irrigation water loss in distribution systems of the LLP schemes • To increase irrigation coverage per unit time	Tahirpur, Sunamgonj
419.	Development of A Low-Cost DC Solar Water Pump for Irrigation in Bangladesh	• To use a permanent magnet brushless DC motor for operating solar water pump • To find out optimum panel size for good matching between pump and PV module • To test efficacy of the pump for surface water irrigation • To determine economic feasibility of the pump for rice cultivation	BRRI, Gazipur
420.	Feasibility Assessment of Solar Pump Utilization for Irrigation Purpose in Chattogram Region	• To evaluate the present status of solar pumps at field conditions in Chattogram region • To find out the suitable source of water for solar pumping system • To assess the suitability of solar pump system at Chattogram region	Chattogram region
421.	Effect of Irrigation Suspension on Mitigating Greenhouse Gas Emission in Irrigated Rice Cultivation	• To determine irrigation requirement and yield of Boro rice under varying practices • To assess irrigation suspension practices on reducing global warming potential	BRRI Farm Gazipur
Donor Funded Research Projects			
422.	Modeling Climate Change Impact on Agriculture and Developing Mitigation and Adaptation Strategies for Sustaining Agricultural Production in Bangladesh	• Assessment and characterization of climatic variability, vulnerability, and extreme events for agri-production under climate change	Gazipur and regional stations of BARI, & BRRI and campus of BAU& BSMRAU
423.	Intervention in Surface Water Utilization Through Integrated Minor Irrigation Schemes for Escalating Water and Land Productivity in Coastal	• Expansion of Boro rice cultivation in selected area utilizing less saline surface water. • Assessment of suitable water resources for crop planning in selected polders. • Increasing water use efficiency by adopting on-farm water saving	Patuakhali and Barguna

Sl.	Research Title	Objective(s)	Location(s)
	Region (ISIMISC)	technologies.	
424.	Increasing Cropping Intensity in the Coastal Barishal and Khulna Region Through Water Resources and Soil Salinity Management	• Increasing cropping intensity and improving farmer's livelihood by integrated management of less surface water and soil salinity in the coastal Barishal and Khulna region.	Barishal and Khulna
425.	Upscaling of Improved Water Management Practices for Sustainable Productivity in the Haor areas	• To document the existing agricultural water management practices for identifying problems and potentials to attain higher productivity in the haor areas. • To assess the effect of water stress on the yield of Boro rice and find suitable measures to overcome the problem. • To demonstrate performance of suitable water management technologies (AWD irrigation, use of lay flat hose pipe etc.) for the improvement of irrigation efficiency and optimum crop yield. • To evaluate the suitability of direct seeding method for labour& water saving and early harvest of Boro for escaping flash flood; and • To explore the possibility of increasing crop production by further irrigation expansion through improved water management innovations in the haor areas.	Tahirpur and adjacent upazilas of Sunamgonj
426.	Mitigating Risk and Scaling-Out Profitable Cropping System Intensification Practices in the Salt-Affected Coastal Zones of the Ganges Delta	• Scaling out profitable cropping system intensification practices • 2. Mitigating risk of changed practices and changing climate	Amtali, Patuakhali and Dacope, Khulna
PLANT PHYSIOLOGY DIVISION			
Project 1: Salinity Tolerance			
427.	CRISPR-Cas9 mutagenesis of the OsRR22 gene for improving salinity tolerance of rice	• To increase salinity tolerance via CRISPR-Cas9-targeted mutagenesis of the transcription factor gene *OsRR22.*	Plant Physiology Division /Biotechnology Division, BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
428.	Exploring new sources and advance breeding lines for salinity tolerance from at seedling stage	• To identify salt tolerant advance breeding lines/genotypes at seedling stage	East Byde, Plant Physiology Division, BRRI, Gazipur
429.	Characterization of advanced breeding lines for whole growth period at different salinity stress	• To identify the level of tolerance of the tested lines. • To identify the safe level of soil and water salinity for growing the genotypes. • To estimate the yield and yield components	Net House, Plant Physiology Division, BRRI, Gazipur
430.	Characterization of Rice Germplasm for Whole Growth Period at Different Salinity Stress	• To identify the level of tolerance of the tested lines. • To identify the safe level of soil and water salinity for growing the genotypes. • To estimate the yield and yield components.	Net House, Plant Physiology Division, BRRI, Gazipur
Project 2: Submergence tolerance			
431.	Identification of rice germplasm/advanced breeding lines for two weeks flash flood submergence tolerance	• To identify tolerant germplasm/advanced breeding line for two weeks of complete submergence at vegetative stage.	East Byde, Plant physiology Division, BRRI, Gazipur
432.	Screening for stagnant flooding tolerance of Germplasm/advanced breeding lines at whole growth period during T. Aman season	• To identify tolerant germplasm for water stagnation condition • To observe tillering ability under water stagnation conditions	West Byde, Plant Physiology Division, BRRI, Gazipur
433.	Study of the relationship between SNORKEL (*Sk1* and *Sk2*) genes and *Sub1* gene through mutagenesis of Sub1 gene in rice	• To know the relationship between *Sub1* and SNORKEL gene after the loss of function of *Sub1* gene • To observe the elongation ability of the mutants under submerged condition after the loss of function of *Sub1* gene	Plant Physiology Division, BRRI, Gazipur
Project 3: Drought Tolerance			
434.	Confirmation of performance for ALART/ RYT /AYT materials under drought stress at reproductive stage (TRB-Project)	• To evaluate of ALART/ RYT /AYT materials under control drought condition in the net house	Rain out shelter, Plant Physiology Division, BRRI Gazipur
435.	Screening germplasm for drought tolerance at	• To identify rice germplasm tolerant to drought stress at reproductive phase	Farmers field, Alimganj,

Sl.	Research Title	Objective(s)	Location(s)
	reproductive phase (TRB-Project)		Paba, Rajshahi
436.	Evaluation of previously selected germplasm under drought stress at reproductive phase in the rain-out shelter	• To find out the correlation of field performance of tested genotypes with the performance under control drought condition in the rain-out shelter.	Rain-out shelter, Plant Physiology Division, BRRI, Gazipur
437.	Physiological and biochemical characterization of advanced breeding lines under drought stress at reproductive phase	• To assess the effect of drought stress on growth and yield of the tested genotypes • To identify the physiological traits associated with drought tolerance.	Net House, Plant Physiology Division, BRRI, Gazipur
438.	Characterization of rice germplasms under drought stress at reproductive phase using SSR marker	• To study the genetic diversity of the germplasms.	Do
Project 4: Heat Tolerance			
439.	Screening for high temperature induced spikelet fertility QTL introgression lines under controlled conditions.	• To identify high temperature tolerant lines under controlled condition	Plant Physiology Division, BRRI, Gazipur
440.	Observational yield trial of high temperature induced spikelet fertility introgression lines in the BRRI dhan28 and BRRI dhan29 backgrounds.	• To identify high yielding and homogenous lines having phenotypic similarity with respective recipient parents.	West Byde, Plant Physiology Division, BRRI, Gazipur
441.	Marker assisted introgression of high temperature induced spikelet fertility QTL (qHTSF4.1) in the background of BRRI dhan48 and BRRI dhan62	• The aim is to develop high temperature induced spikelet fertility QTL (*qHTSF4.1*) introgression lines for the Aus and T. Aman (short duration) seasons.	Plant Physiology Division, BRRI, Gazipur
442.	Screening rice germplasm lines for heat tolerance	• To identify new heat tolerant donor and advanced breeding lines.	Do
Project 5: Cold tolerance			
443.	Exploring new sources of cold tolerance from BRRI Gene Bank	• To identify rice genotypes which can tolerate low temperature at seedling stage?	Do

Sl.	Research Title	Objective(s)	Location(s)
	collections at seedling stage		
444.	Screening of advanced breeding lines for seedling stage cold tolerance (TRB-Project)	• To identify advanced breeding lines which can tolerate low temperature at seedling stage.	Do
445.	Characterization and evaluation of some selected rice genotypes for cold tolerance	• To characterize rice genotypes at natural cold condition.	Do
446.	Screening of advanced breeding lines for cold tolerance (SDCTR-Project)	• To identify cold tolerant advanced breeding lines for whole growth period.	West Byde, Plant physiology Division, BRRI, Gazipur
447.	Effect of polythene covering on seedling raising in Boro season	• To identify the most suitable technique for protecting Boro rice seedling from cold injury through optimizing number of openings on polythene cover seedbed	East Byde, Plant Physiology Division, BRRI, Gazipur
Project 6. Growth Studies			
448.	Lodging tolerance in BRRI developed T. Aman varieties	• To determine the lodging characters of five BRRI varieties at different planting time.	West Byde, Plant Physiology Division, BRRI, Gazipur
449.	Photo-sensitivity test of some advanced breeding lines	• To know the photo-sensitivity of advanced breeding lines and recently released T. Aman varieties	East Byde, Plant Physiology Division, BRRI, Gazipur
450.	Photo-sensitivity test of some local germplasm	• To know the photo-sensitivity of advanced breeding lines and recently released T. Aman varieties	East Byde, Plant Physiology Division, BRRI, Gazipur
451.	Effect of harvesting time on yield and grain quality of rice	• To determine the suitable harvesting time at dry and wet season • To estimate the yield loss and grain quality due to early and late harvesting	West Byde, Plant Physiology Division, BRRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
452.	Partitioning of dry matter and growth rates at different phenol-phases in rice varieties with variable doses of nitrogen	• To investigate the effect of variable levels of nitrogen on dry matter accumulation and partitioning of rice varieties at different growth period. • To observe the response of different N levels on growth rate at different period.	West Byde, Plant physiology division, BRRI, Gazipur
Project 7: Yield potential			
453.	Generation of male sterile rice line for two-line hybrid system by editing TMS5 gene using CRISPR/Cas9 system	• To generate a novel thermo-sensitive genic male sterile line by editing *TMS5* gene via CRISPR/Cas9 for two-line hybrid system, • 2. To evaluate the suitability of the TGMS line in two-line hybrid breeding program	Plant Physiology Division/Biotechnology Division
Project 8: C4 rice research and development			
454.	Investigation of anatomical and photosynthetic differences of C3 and C4 species	• To identify leaf anatomical differences between C3 (rice) and C4 (maize, sorghum, kaoun, shayma, sugarcane) species. • To explore differences of photosynthetic related parameters between C3 (rice) and C4 (maize, sorghum, kaoun, shayma, sugarcane) species.	Plant Physiology Division, BRRI, Gazipur
455.	Optimizing chlorophyll fluorescence imaging system for photosynthetic efficiencies of C3 and C4 species in different stress condition	• To identify photosynthetic efficiencies of C3 and C4 species under low CO_2 stress. • To explore photosynthetic efficiencies of rice under salinity, submergence and drought stresses.	Plant Physiology, Division, BRRI, Gazipur
Project 9: Crop Weather Information			
456.	Automatic weather station data collection and storage	• Weather data collection, delivery, reporting, and storage for automatic weather stations	Plant Physiology Division, BRRI, Gazipur BRRI R/S Rangpur, Rajshahi, Bhanga, Habiganj, Shatkhira, Sirajgang
457.	Manual weather station data collection and maintenance	• To collect, transfer and storage of different weather variables	BRRI Gazipur, BRRI R/S Rangpur,

Sl.	Research Title	Objective(s)	Location(s)
			Rajshahi, Cumilla, Bhanga, Barishal, Habiganj, Sonagazi
Program Area: Pest Management			
ENTOMOLOGY DIVISION			
458.	Pest monitoring in BRRI farm.	• To study the insect pests and their natural enemy incidence at BRRI farm and to create a database to develop a forecasting system.	Gazipur
459.	Insect pests and natural enemy in light trap.	• To study the pest and their natural enemy incidence patterns in rice fields and to create a database to develop a forecasting system.	Gazipur and all R/S
460.	Survey and monitoring of rice arthropods and yield loss estimation.	• To know the present status of insecticide application. • To reduce insecticide application in rice production. • To assess the yield loss due to infestation of rice insect pests.	Barisal, Rangpur and Habiganj
461.	Behavioral adaptation of RLR in different weather condition.	• To identify the effects of temperature on life cycle of rice leaf roller.	Gazipur
462.	Conservation of natural enemies through eco-engineering.	• To conserve natural enemies through ecological engineering approaches. • To reduce insecticide application in rice production. • To save environment from insecticidal pollution.	Gazipur, Barisal and Rangpur
463.	Stem borer species abundance, assessing yield losses & management in rice.	• To study the relative abundance of different species of rice stem borers and to determine the yield loss due to their damage.	Gazipur, Rajshahi and Barishal
464.	Test of different insecticides against major insect pests.	• To evaluate the effectiveness of commercial formulations of different insecticides against major insect pests of rice.	Gazipur
465.	Use of nanoparticle to control rice insect pests.	• To develop nano-particle based pest management in rice • To reduce chemical pesticide load in environment.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
466.	Effect of insecticides on natural enemies of rice insect pests.	• To identify relatively safer insecticides for using (if needed) in IPM program.	Gazipur
467.	Residue analysis of different insecticide in rice by using LCMS.	• To detect insecticide residues in rice hull, bran and polished rice. • To establish monitoring and guidance on safe use of insecticide in rice field.	Gazipur
468.	Development and validation of analytical methods for multiple pesticide residue determination in rice grain using Liquid Chromatography with Tandem Mass Spectrometry (LCMS/MS).	• To develop and validate a multi-residue analytical method for the analysis of chlorantraniliprole, thiamethoxam and imidacloprid in rice grain using QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) extraction coupled to LC-MS/MS.	Gazipur
469.	Development and validation of analytical methods for multiple pesticide residue determination in rice husk and rice bran using Liquid Chromatography with Tandem Mass Spectrometry (LCMS/MS).	• To develop and validate a multi-residue analytical method for the analysis of chlorantraniliprole, thiamethoxam and imidacloprid in rice husk and bran by using QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) extraction coupled to LC-MS/MS.	Gazipur
470.	Screening of rice germplasm, advance line against BPH, WBPH, GLH.	• To identify resistant rice germplasm against major insect pests.	Gazipur
471.	Development of BPH resistance rice introgression lines through marker assisted selection.	• Development of elite donor for BPH resistance breeding program. • Development of new breeding lines for BPH resistance.	Gazipur
472.	Identification of BPH resistant sources from rice germplasm.	• To characterize BPH resistant germplasms using BPH resistant linked markers.	Gazipur
473.	Suppression of serotonin synthesis in rice using CRISPR Cas9 for insect control.	• To develop insect resistant rice variety • To reduce insecticide dependency.	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
474.	Use of sex pheromone in corporation with other IPM tools to control Leafroller and stem borer.	• To test the efficacy of sex pheromone against leafroller in rice field. • To control rice leaf roller without insecticide.	Gazipur
475.	Evaluation of available rodenticides against rice field rats.	• To find out effective dose of rodenticide to control rat.	Gazipur
PATHOLOGY DIVISION			
476.	Survey and monitoring of rice diseases in selected areas	• To investigate the present status of different rice diseases; (2) To develop a web-based rice disease information platform in Bangladesh.	Gaz, Raj, Ran, Sat, Son, Bar, Hab, Sir, Cum & Hil
477.	Improvement of differential system for rice blast disease in Bangladesh	• To select new differential blast isolates; (2) To identify candidate resistant gene(s) or source(s); (3) To monitor regularly of the evolution of new races	Gazipur
478.	Studies on host range of blast pathogen	• To determine the cross-infection ability of blast pathogens collected from rice, weeds, barley, foxtail millet.	Gazipur
479.	Identification of the source of infection of rice false smut disease	• To identify whether seeds or soil are the carrier of the pathogen or not	Gazipur
480.	Isolation of potential microbes for controlling major weeds of rice	• To identify potential microbes (fungi/bacteria) for controlling major weeds of rice	Gazipur
481.	Etiology, Epidemiology and Management of Bacterial Panicle Blight (BPB): An emerging and climate sensitive rice disease in Bangladesh	• To conduct a details study on bacterial panicle blight (BPB) disease in Bangladesh	Gazipur
482.	Identification and characterization of emerging viral diseases and its causal organisms in Bangladesh	• To check the variability of rice tungro virus of Bangladesh and to identify the new viruses by based on phenotypic symptoms and molecular markers.	Gazipur
483.	Development of Long-Term Preservation Technique of *Xanthomonas oryzae* pv. *oryzae*	• To isolate, purify and preserve the *Xanthomonas oryzae* pv. *oryzae* obtained from infected rice leaves.	Gazipur
484.	Linkage and QTL mapping of blast resistance in BR16	• To identify significant QTLs for blast resistance in BR16	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
485.	Studies on the genetic mechanism of rice blast resistance in BRRI dhan33	• To know the genetic mechanism of rice blast resistance in BRRI dhan33; (2) To identify marker data for developing blast resistant varieties through MAS	Gazipur
486.	Detection of novel loci underlying rice blast resistance by integrating a genome-wide association study	• To detect the new sources/loci/genes of blast resistance from native germplasm	Gazipur
487.	Phenotypic and genetic characterization of local aromatic germplasms against blast.	• To know the resistance mechanisms of blast resistance in native aromatic germplasms.	Gazipur
488.	Development of Rice Blast Resistance by CRISPR/Cas9-Targeted Mutagenesis of the *OsERF922*	• To develop durable blast resistant variety or line against the major races by targeted mutagenesis (CRISPR/Cas9).	Gazipur
489.	Development of durable broad-spectrum BB and Blast resistant variety through mutagenesis by CRISPR/Cas9 system	• To develop broad spectrum resistant rice variety against Bacterial Blight and Blast disease using CRISPR/Cas9 system	Gazipur
490.	Development of blast resistant varieties using differential system and molecular markers	• To develop blast resistant varieties for Bangladesh	Gazipur
491.6	Development of Multiple diseases resistant (blast and bacterial blight) pre-breeding materials through MAS	• To develop blast and bacterial blight (BB) resistant pre-breeding materials in the background of popular high yielding rice varieties (short and long duration)	Gazipur
492.	Development of false smut resistant pre-breeding materials through MAS	• To develop false smut resistant pre-breeding materials in the background of BRRI dhan49	Gazipur
493.	Gene pyramiding of bacterial blight resistance genes into popular BRRI varieties	• To introgress bacterial blight (BB) resistant genes in the background of BRRI dhan49, BRRI dhan63 and BRRI dhan81	Gazipur
494.	Exploring new sources of resistance and pyramiding blast resistant gene into susceptible rice varieties (Short and Long	• To find out new source of major resistant gene(s) against blast disease in the native land races; • To introgress known resistant genes to develop durable blast resistant variety	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	duration)		
495.	Transcriptome analysis for the detection of novel bacterial blight and sheath blight resistant gene in Gunshee, landrace	• To identify novel resistant gene of bacterial and sheath blight disease.	BRRI HQ, Gazipur
496.	Development of prebreeding materials for tungro resistance	• To develop tungro resistant advanc lines.	Gazipur
497.	Screening tungro resistant materials including INGER in green house and tungro hotspot area	• To evaluate the performance of tungro resistant advanced lines	Gazipur & Cumilla
498.	Screening of INGER materials against blast disease	• To identify the source of resistance against blast disease of rice	Gazipur
499.	Screening for Bacterial Blight and Blast Resistance (TRB)	• To screening advance genotypes or germplasm against BB and Blast diseases	Gazipur
500.	Screening of germplasm against sheath blight disease	• To identify the resistance source against sheath blight disease of rice	Gazipur
501.	Screening of advance breeding lines and INGER materials against Bacterial Blight disease	• To find out promising BB resistant breeding lines	Gazipur
502.	Development of Early Warning System of rice blast disease	• To aware the rice growers at least 5 days earlier of blast disease infection.	Gazipur, Satkhira, Rangpur & Cumilla
503.	Development of inoculation technique for false smut disease	• To develop artificial inoculation technique of rice false smut disease	Gazipur
504.	Validation of the presence of the pathogen of rice false smut disease in seeds through molecular identification	• To identify false smut pathogen in seeds through molecular markers	Gazipur
505.	Crop Loss Assessment of rice due to major diseases in Bangladesh	• To calculate the actual crop loss due to major diseases in Bangladesh.	Randomly selected area
506.	Development of a yield loss app due to disease	• To develop an instant estimation of yield loss due to major rice disease	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
507.	Determination of afla toxins by storage fungi at different moisture level in storage condition	• (1) To determine the population of different storage fungi at different moisture level; (2) To determine the production of afla toxin by *A. flavus*	Gazipur
508.	Detection of major bacterial pathogens of rice by multiplex PCR	• To develop a multiplex PCR (mPCR) assay for rapid and simultaneous detection of major rice bacterial pathogen.	Gazipur
509.	Grain quality study of rice blast and false smut infected seed	• Quality evaluation of rice grain as affected by blast and false smut disease	Gazipur
510.	Genotype and environment interaction on neck blast incidence in blast prone area	• To understand the pattern of neck blast incidence in relation to variety and environment (G x E)	Gazipur, Satkhira & Cumilla
511.	Seed health status of rice in Bangladesh	• To know the health conditions of rice seeds available from public and private sectors, and farmers' as well	Gazipur
512.	Nano-diagnostic technique for detection of rice pathogenic fungi	• To evaluate using nanoparticles in the extraction method of DNA from rice seeds compared with traditional detection.	Gazipur
513.	Sustainable Management of Blast, Sheath Blight and Bacterial Blight Diseases of Rice through Nano-particles (NPs)	• To prepare effective nano-particles; • To find out the effectiveness of NPs to control rice disease; • To reduce the quantity of fungicide uses.	Gazipur
514.	Development of modified microwave assisted nano particles for rice blast disease management in Bangladesh	• To develop a quick responsive chemical for blast disease management.	Gazipur
515.	Chemical control of sheath rot and false smut disease of rice under different planting time	• To find out effective fungicide/s against Sheath rot and false smut disease; • To identify most conducive time for sheath rot disease development.	Gazipur
516.	Determination of residual effect of trifloxystrobin, tebuconazole and tricyclazole in rice grain under field conditions	• To find out the pesticide residue in pesticides sprayed rice.	Gazipur
517.	Residual effect of Azoxystrobin and	• To determine the impact of chemicals on microbial colony;	Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Difenocanazole on microbial community in phylloplane and phyllosphere of rice plant	• To determine the residue of chemical in soil and plant	
518.	Evaluation of new chemicals against blast, bacterial blight, sheath blight, false smut, Sheath rot and bakanae diseases of rice	• To find out the effective chemicals against rice diseases	Gaz, Raj, Bar,Cum
519.	Training on integrated management of rice diseases	• To build up farmer's awareness on IDM/ICM; • To build a relationship among Farmers-Pesticides Dealers-Extension Personnel-Scientists	Regional Stations
520.	Dissemination of Integrated Blast Management Package at Farmer's Field	• To build up farmers' awareness on rice blast disease management and minimize the yield loss	Gazipur and Comilla
Program Area: Farm Mechanization and Post-harvest Technology			
Program Performing Unit 01: Farm Machinery and Postharvest Technology Division Program Performing Unit 02: Workshop Machinery and Maintenance Division			
521.	Development of Agricultural Machines	• Development of farm machinery adaptable to rice eco-system • Reduction of human drudgery	Gazipur
522.	Evaluating and modifying of BRRI developed machines	• To verify the quality of BRRI machines • To identify the functional problems of farm machines • To improve the performance of farm machines	FMPHT div. res. Workshop and BRRI farm
523.	Design and development of a head feed power thresher	• To design and develop a head feed thresher • To conduct test of the thresher for its performance and capacity • To compare the performance with the existing threshers	FMPHT divisional lab
524.	Design and development of whole feed mini combine harvester	• To assess combine harvester field performance, general condition, durability, repair and maintenance requirements • To check the fuel consumption and hourly production of the combine harvester under different working conditions	FMPHT divisional lab and Janata Engineering

Sl.	Research Title	Objective(s)	Location(s)
		• To obtain operator views regarding suitability of combine harvester.	
525.	Development of a forward motion manual rice transplanter	• Design and fabrication of a manual operated forward motion rice transplanter • Performance evaluation of the developed rice transplanter	FMPHT divisional lab and field
526.	Development, validation and adoption of power weeder for wet land rice cultivation	• To develop and multiplication of the power weeder • To demonstration, validation and adaptation the weeder in different location under different rice seasons • To reduce the rice production cost	Gazipur, Mymensigh, Netrokona, Habigonj, Rangpur and Comilla
527.	Design and development of walking type power operated rice transplanter	• To design and develop a power operated rice transplanter • To test performance of the developed rice transplanter	Gazipur, Mymensigh, Netrokona, Habigonj, Rangpur and Comilla
528.	Design and development of a diesel engine operated high-speed hydro-tiller for marshy land	• To design a variable power transmission mechanism of the diesel engine operated hydro-tiller • To design a rotary casing of hydro tiller suitable for marshy land • To develop a prototype based on engineering design • To evaluate the prototype in different soil condition	BRRI, Gazipur and Fermers' field
529.	Postharvest loss assessment of whole and head feed combine harvester under different soil condition	• To assess the loss of grain. • To identify the suitable operation system to minimize the loss.	BRRI, Gazipur and Fermers' field
530.	Determination of optimum seed rate for *Hybrid* rice variety for mechanical transplanting in Bangladesh	• To identify the optimum seed rate for different h*ybrid* rice variety to produce quality seedlings and minimize the missing hills of mechanical transplanting. • To identify suitable seedling adjustment options to dispense optimum number seedling per stroke (seedlings hill^{-1}) of the rotary picker of rice transplanter.	BRRI, Gazipur and Fermers' field
531.	Development of mat type seedling using hydroponic technique	• To develop a mat type seedling using hydroponic technique • Performance test of developed seedling for rice transplanter	BRRI, Gazipur and Fermers' field
532.	Identification and	• To listed down the fast-moving spare	BRRI,

Sl.	Research Title	Objective(s)	Location(s)
	fabrication of fast-moving spare parts of combine harvester and rice transplanter enhancing sustainable mechanization in Bangladesh	parts of the different make and model • To identify strength and quality of the major parts • To take initiative for fabrication of the parts	Gazipur and Fermers' field
533.	Ground pressure and bearing capacity of combine harvester in different soil conditions	• To estimate ground pressure and bearing capacity of combine harvester in different soil condition • To estimate required force in cutting, threshing, cleaning, bagging of rice through combine harvester	BRRI, Gazipur and Fermers' field
534.	Design and development of self-propelled fertilizer deep placement applicator	• To design, fabricate and develop a power-operated fertilizer deep placement applicator using existing developed manual applicator. • To compare with other fertilizer applicators.	BRRI, Gazipur and Fermers' field
535.	Modification of power transmission system of BRRI hydro-tiller	• To detect the causes of frequent tearing of hydro tiller chain • To modify the power transmission system for increasing longevity of hydro tiller	BRRI, Gazipur and Fermers' field
536.	Design and development of a single row wet land power weeder	• To design, fabricate and develop a power-operated single row weeder suitable for weeding both in a row to row and line to line of the lowland and upland fields (line and without line sowing). • To evaluate its performance in the different multi-crop fields. • To compare with other dry and wetland paddy weeders	BRRI, Gazipur and Fermers' field
537.	Design and development of a self-propelled multi-rows power weeder for both wet and dry land condition	• To design and fabricate the self-propelled weeder • To evaluate the weeding performance in different locations • To improve the developed weeder based on evaluation • To reduce the weeding cost in rice production	BRRI, Gazipur and Fermers' field
538.	Design and development of 4-row walking type power operated rice transplanteer	• Design of power transmission system of rice transplanter • To fabricate power operated rice transplanter according to design • To investigate the performance of the	BRRI, Gazipur and Farmers' field

Sl.	Research Title	Objective(s)	Location(s)
		developed rice transplanter	
539.	Design and development of power operated seed sower machine for raising mat type seedling	• Design and fabrication of a BRRI power operated seed sower machine for mat type seedling preparation	Alam Engineering and BRRI, Gazipur
540.	Design and development of a power operated straw rope maker	• To design a straw rope making technology for different length of paddy straw • To fabricate the technology as per design • To evaluate the performance of the developed machine • To analyze the strength and properties of the straw rope • To analyze the economic performance	Alam Engineering and BRRI, Gazipur
541.	Design and development of a semi-automatic rice transplanter	• Design and fabricate a Semi-Automatic Rice Transplanter	BRRI, Gazipur and R K Metal, Faridpur
542.	Design and development of a manual seed sower machine for raising mat type seedling	• Design and fabrication of a manual seed sower machine for mat type seedling preparation	Alam Engineering and BRRI, Gazipur
543.	Design and development of double row skid type power weeder for wet land paddy field.	• To design and develop of the power weeder • To design and attach adjustable type skid mechanism in the power weeder • To demonstrateand validate the weeder in different soils under different rice seasons • To reduce the input cost of rice production	BRRI, Gazipur and Alam Engineering
544.	Design and development of a full feed combine harvester	• To design and develop of a full feed mini combine harvester • To evaluate the field performance of the developed combine harvester	BRRI, Gazipur and Janata Engineering and BRRI Workshop
545.	Improvement of solar light trap	• Introducing of remote sensing system in existing solar light trap • To evaluate the developed solar light trap in farmers field	BRRI research workshop
546.	Performance evaluation of a rice husk-straw pellet machine	• To evaluate the performance of a pellet machine	Alam Engineering and BRRI, Gazipur
547.	Design and development of a compact rice mill	• To design and fabricate of a compact rice mill	FMPHT division

Sl.	Research Title	Objective(s)	Location(s)
		• To evaluate the performance of fabricated rice mill	milling laboratory
548.	Performance evaluation of laser land leveler with conventional method	• To evaluate the performance of laser land leveler and conventional systems • to find the feasibility of the laser land leveler in Bangladesh	All over Bangladesh
549.	Land suitability mapping of farm machinery operation in Bangladesh using GIS based Multi criteria decision technique	• To generate a suitable map for the operation of farm machinery in the crop (rice) field of Bangladesh	All over Bangladesh
550.	Adaptive trial of newly developed farm machinery and technology	• To demonstrate the field performance of farm machinery and technology • To collect feed back from the farmers on the overall performance of farm machinery • To record the technical performance and social acceptance	All over Bangladesh
551.	Training on operation, repair and maintenance of farm machinery	• To impart knowledge to the farmers/operators/mechanics/extension workers/entrepreneurs about the effective use of farm machinery • To develop skilled operators and mechanics	BRRI HQ and RS
552.	Training on manufacturing, safety and work environment to the workhop personnel of local farm machinery manufacturing industries	• To impart knowledge on handtools operation and maintenance • To create awareness on safety and precaution • To improve the knowledge on quality control • To aware the workshop personnel on work environment	BRRI HQ and RS
553.	Design and development of a reaper binder	• To evaluate the performance of the imported reaper binder machine • To design and develop of the reaper binder • To demonstrate and validate the reaper binder machine in different soils under different seasons • To reduce the input cost of production	BRRI HQ and RS
554.	Design and development of a head feed combine harvester	• To design a head feed, combine harvester • To manufacture the designed combine harvester prototype • To evaluate the field performance of the	BRRI HQ and RS

Sl.	Research Title	Objective(s)	Location(s)
		developed combine harvester	
555.	Design and Development of a Rice Transplanter cum Fertilizer Applicator	• To design a power transmission mechanism from gearbox to applicator • To fabricate the rice transplanter cum fertilizer applicator • To evaluate the field performance of the developed machine	BRRI HQ and RS
556.	Milling and Processing Technology	• To reduce loss, improve quality and addition of value to the farm products	All over the country
557.	Design and development of solar dryer	• To design, fabricate and develop solar dryer • To compare with traditional sun drying of paddy	FMPHT divisional lab
558.	Test, evaluation and modification rubber roll de-husker for commercial use	• To modify and development of a rubber roll de-husker • To evaluate the performance of paddy de-husker	FMPHT division milling laboratory
559.	Drying and tempering effect on Kernel Strength and milling recovery of the parboiled and un-parboiled Paddy	• To determine the kernel strength of paddy in terms of drying and tempering effect. • To make a relation between kernel strength and milling recovery.	FMPHT division milling laboratory
560.	Development of stores and storage technology	• To increase shelf life of rice in store	FMPHT Lab and Gazipur
561.	Effect of ageing on milling performance of premium quality rice	• To observe the milling performance of BRRI dhan50 at different aging	FMPHT division milling laboratory
562.	Validation and adaptation of hermetic storage structure in household level of Bangladesh	• To compare the performance of traditional and hermetic storage technologies in rice storage	FMPHT division milling laboratory
563.	Effect of different storage structure of milled rice in long-term storage	• To find out the suitable storage structure • To investigation the influence of moisture content of storage time • To observe the prevalence of insect/ diseases infestation of storage time • To determine the effect of length of storage time on the quality of milled rice	FMPHT division milling laboratory
564.	Renewable Energy Technology	• Development of renewable energy extraction technologies from solar, agri-residues and waste products	BRRI, Gazipur
565.	Study the briquette production from rice by	• To prepare briquettes from rice straw and husk	FMPHT Lab and Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	product	• Characterization of different briquettes originated from agricultural residue • To measure the calorific value of the briquettes	
566.	Study on solar energy utilization for small agricultural machinery	• To design mechanism of solar energy utilization • To evaluate the performance of the developed machine	FMPHT Lab and Gazipur
567.	Design, development and performance evaluation of briquetting machine using rice husk with different ration of maize steam	• To design and develop a briquetting machine using rice husk with different ratio of maize steam. • To determine the physical and combustion properties of the final product. • To evaluate the performance of the briquetting machine.	FMPHT Lab and Gazipur
568.	Improvement and validation of solar energy utilization system for small type of different agricultural machineries	• To design a mechanism of solar energy utilization • To evaluate the performance of the developed machine using solar energy	BRRI HQ and RS
569.	Popularization of BRRI developed farm machinery and Postharvest technology	• Awareness buildup about the benefit of using BRRI machines among the farmers • Motivation of the local manufacturer to manufacture the BRRI agricultural machinery	All over the country
570.	Industrial and farm level extension of BRRI machinery and Postharvest technology	• To create awareness and demonstrate the benefit of using BRRI machines among the farmers • To motivate the local entrepreneurs to manufacture BRRI developed machinery	All over the country
Precision Agriculture			
571.	6.1: Detection of rice leaf diseases and early diagnosis using faster regional convolutional neural networks (R-CNN)	• To develop and enhance an image processing system and deep learning techniques to advance the agricultural sector.	All over the country
572.	Application of machine learning techniques in predicting agricultural drought: A regional examination of Bangladesh	• Development of machine learning techniques in predicting standardized precipitation evapotranspiration index (SPEI)	Rajshahi
Program Area: Socio Economics and Policy			

Sl.	Research Title	Objective(s)	Location(s)
AGRICULTURAL ECONOMICS DIVISION			
573.	Farm Level Adoption of Modern Rice Cultivation in Bangladesh	• To determine the region-wise adoption rate of different rice varieties in different seasons; and • To estimate the yield of different modern and local rice varieties	All over Bangladesh
574.	Estimation of Costs and Return of MV Rice Cultivation at the Farm Level	• To delineate input use pattern in modern Aus, T. Aman and Boro rice cultivation; and • To estimate the profitability of modern Aus, T. Aman and Boro rice cultivation at farm level.	All over Bangladesh
575.	Impact of Poverty Reduction on Nutrition Security in Bangladesh	• To investigate whether the reduction of poverty can increase the nutrition security status of rural farmers in Bangladesh	All over Bangladesh
576.	Livelihood status and food security analysis of Garo tribe in Bangladesh	• To analyze the livelihood status of the Garo people; and • To study the calorie intake level of the sample households.	Mymensingh, Netrakona, Sherpur
577.	Assessing the Effect of Subsidy on Mechanized Rice Cultivation in Bangladesh: Evidence from Farm Level Study	• To explore the adoption status of combine harvester and rice transplanter at farm level, • To evaluate the economic performances of combine harvester and rice transplanter, • To find out the constraints of adoption of combine harvester and rice transplanter in the study areas.	Sunamganj, Netrakona.
578.	Producers' Welfare Loss in Bangladesh: An Assessment of Rice Market Distortion	• To estimate the supply function of rice; • To measure the producers' surplus change in terms of (i) procurement and actual prices, (ii) farmers expected and actual prices; and, • To formulate policy guidelines towards minimizing rice producers' welfare loss in Bangladesh.	Rangpur, Mymensingh, Rajshahi, Dinajpur.
579.	Adoption Determinants and Profitability of Stress-Tolerant (Drought) Rice in Selected Areas of Bangladesh	• To evaluate the adoption status of drought-tolerant rice varieties in the Aman season. • To compare profitability between drought-tolerant rice varieties and other rice cultivars. • To identify the factors affecting the adoption decision of climate-resilient rice varieties	Rajshahi, Chappainawabganj

Sl.	Research Title	Objective(s)	Location(s)
AGRICULTURAL STATISTICS DIVISION			
580.	Stability Analysis of BRRI Varieties	• To determine the stability index of BRRI varieties • To estimate location-wise stability index of BRRI varieties • To determine the stability index of BRRI varieties according to the growth duration • To find out the location-wise yield performance of BRRI varieties at different years. • To find out the overall yield performance of BRRI varieties at different locations and years. • Season, year and location wise database on BRRI varieties	BRRI HQ and all regional stations
581.	Improvement of BRRI Stability model by incorporate multiple factors	• To improve BRRI stability model • To incorporate multiple factors into stability model • To estimate location-wise stability index of BRRI varieties • To assess the trend of stability index for BRRI varieties. • To estimate the Effect of weather parameter on stability index of BRRI varieties • To compare BRRI stability model with other stability models (Eberhart and Russel Model, AMMI Model and Fuzzy log model etc.).	BRRI HQ and all regional stations
582.	CV for estimating yield and yield contributing characters of BRRI Varieties	• To determine the acceptable limit of CV for biometric characters of rice varieties • To determine the relative contribution of phenotypic characters/yield contributing characters to rice yield • To review the existing experimental data	BRRI HQ and all regional stations
583.	Comparative study for rice yield estimation by adjusting moisture content	• To determine the adjustment factors for rice yield estimation. • To develop a criterion for performing a reliable estimation.	BRRI HQ
584.	Validation of statistical method for adoption percent of BRRI varieties	• Selection of proper statistical method for estimating adoption percent of BRRI varieties.	
585.	Genotype x Environment Interaction of BRRI varieties	• To Identify BRRI released rice genotypes that have both high mean yield and stable yield performance across different	BRRI HQ and all regional stations

Sl.	Research Title	Objective(s)	Location(s)
		environments for different ecosystem of Bangladesh.	
586.	Dynamics of Multi-trait stability index (MTSI) for identifying the most stable genotypes of three rice growing season in Bangladesh	• To evaluate the stability of rice genotypes by multi-trait stability index (MSTI) analysis under different environmental conditions. • To investigate the Dynamics of Multi-trait stability index (MTSI) for identifying stable genotypes	BRRI HQ and all regional stations
587.	Rice database and analysis system (RDAS)	• To develop a web based integrated framework on 'Rice Database and Analysis System (RDAS) • To create map and graph based on rice data.	BRRI HQ, all regional stations, overall Bangladesh
588.	Maintenance of Rice and related Database	• To maintain up-to-date computerized information on rice and related crops • To determine year wise GR of Rice Production in Bangladesh • To maintain up-to-date computerized information on climatic factors both BRRI regional stations and BMD stations data. • To make comparison between BRRI stations and BMD stations data. • To produce various maps from these data.	BRRI HQ, all regional stations, overall Bangladesh
589.	Utilizing Medium-Range Weather Forecasts in Advisory Generation for Sustaining Rice Productivity in Bangladesh	• To understand the weather/climate induced risk in the local context. • To validate the information type (climate and advisory generated) and timescale needed at the local level. • To get an overview of how the advisory mechanism is currently working in the ground. Finding gaps/challenges and possible solutions. • To identify capacity building needs at local level	BRRI HQ, all regional stations, overall Bangladesh
590.	Minimizing Agro Micro Climatological Risk Factors for Maximizing Sustainable Rice Production in Bangladesh	• To forecast and validate agro micro climatological factors in rice crop seasons through experimentation for sustainable rice production. • To avert management risk and capacity development through weather forecasting information and • To provide advisory services applying the tools of ICT in Agriculture.	BRRI HQ, all regional stations, overall Bangladesh

Sl.	Research Title	Objective(s)	Location(s)
		• To create database on weather forecasting and agro meteorological advisory services	
591.	Suitability Mapping of BRRI varieties	• To construct suitability map of BRRI rice varieties (BRRI dhan96 to BRRI dhan100)	Overall Bangladesh
592.	Climate Mapping of Temperature and Rainfall in Bangladesh	• To determine expected maximum and minimum temperature and rainfall in different region for rice in Bangladesh • To determine areas of critical maximum and minimum temperature and rainfall map of Bangladesh for rice during the period and • To determine the changing trend of extreme climatic zone.	Overall Bangladesh
593.	Season wise rice area mapping of Bangladesh	• To construct season wise rice area map of Bangladesh. • To estimate season wise rice area of Bangladesh • To validate and compare the rice database from various sources • To find out the best source of rice area data.	Overall Bangladesh
594.	Projected Climatic Factors (2050) Maps of Bangladesh	• To construct projected climatic factors maps of Bangladesh for 2050 • To determined projected climatic factors value district/division wise of Bangladesh for 2050. • To deliver an idea about future climate to researchers and planners	Overall Bangladesh
595.	Suitability Mapping of Various Cropping Pattern	• To construct suitability map of various cropping pattern.	Overall Bangladesh
596.	Groundwater zoning Map of Bangladesh	• To construct groundwater zoning map of Bangladesh. • To find out favorable and critical zone of groundwater use area of Bangladesh	Overall Bangladesh
597.	Training Program on Experimental Data Analysis	• To train up BRRI personnel on experimental data analysis using different statistical software. • To make BRRI personnel self-dependent on experimental data analysis. • To developed skills on research planning, program and report writing.	BRRI HQ and all regional stations
598.	Training Program on	• To train up BRRI scientists on	BRRI HQ and

Sl.	Research Title	Objective(s)	Location(s)
	Multivariate Data Analysis	multivariate data analysis using different statistical software. • To give clear and straightforward guideline of how to conduct experimental design for MVA. • To make BRRI scientists self-dependent on multivariate data analysis. • To developed skills on research planning, program and report writing.	all regional stations
599.	Training program on Experimental Field layout, Data Collection and Data Preparation	• To train up BRRI Scientific Assistant/Assistant Farm Manager on field experiment. • To self-dependent of BRRI Scientific Assistant/Assistant Farm Manager on experimental data collection techniques and processing. • Hands on training on data preparation systems using MS-Excel.	BRRI HQ and all regional stations
600.	Training program on basic computer operation	• To train up BRRI staff on basic computer operation. • To self-dependent of BRRI staff on computer operation. • Hands on training on basic computer and office application.	
601.	Develop a web application to calculate the Stability Index for BRRI Stability Model	• To develop a web application to calculate the stability index for BRRI stability model.	BRRI HQ
602.	Develop a Platform for BBRI Developed Management Information System (MIS)	• To develop a unique platform for BRRI developed MIS	BRRI HQ
603.	Digitalized Budget Management System of BRRI	• To update the digital budget management system for BRRI	BRRI HQ
604.	Digitalized Quota Management System of BRRI	• To update the digital quota management system for BRRI	BRRI HQ
605.	Digitalized Salary Management System of BRRI	• Include two new features (Pay Slip and Yearly Salary Statement) for all the employee • To update the digital salary management system of BRRI as user need. • Include all the BRRI HQ Employee in the Software	BRRI HQ

Sl.	Research Title	Objective(s)	Location(s)
606.	Digitalized Labour Management System of BRRI	• Include a new feature to generate report of using status of the user • To update Labour Management System (LMSV1) of BRRI	BRRI HQ
607.	Digitalized Casual Leave Application System	• To update the digital CL Application Management System for Agricultural Statistics Division	BRRI HQ
608.	Smart profiling of rice varieties in Bangladesh	• To explore mechanism for profiling rice varieties with respect to environmental suitability, physical and physiological characteristics, yield potential and tolerance to abiotic and biotic stresses; • To electronically present and disseminate the newly developed smart profiled varieties information through a dynamic web application and mobile app to stakeholders; • To manage, maintain and host mobile and web app at server.	BRRI HQ
609.	New version of rice knowledge bank (RKB) mobile Apps	• To develop the new version of RKB mobile apps. • To develop a push notification system. • To manage and maintain RKB Mobile apps.	BRRI HQ
610.	Sensor-based rice pest management through Artificial Intelligence (AI) technology of BRRI	• To develop AI based mobile and web App for BRRI. • To identify AI scopes in rice research engaging scientists, extension worker and farmers. • To manage, maintain and host AI based mobile and web app at server.	BRRI HQ
611.	Develop a new website for BRRI	• To develop a new website for national and international seminars and symposiums. • To manage domain or sub-domain for the new website. • To host the new website at server. • To manage and maintain the new website.	BRRI HQ
612.	Strengthening Cyber Security System for BRRI	• To develop Virtual Private Network (VPN) for BRRI. • To develop VPN tunnel for BRRI. • To develop secure remote connectivity for BRRI. • To manage and maintain cyber security	BRRI HQ

Sl.	Research Title	Objective(s)	Location(s)
		system.	
613.	"BRRI Alapon" Telephone Directory Mobile App of BRRI.	• To develop telephone directory mobile app for BRRI. • To communicate through mobile app via voice call, video call, email or SMS. • To provide location sharing through mobile app. • To provide all types of meeting, seminar etc notice via SMS through mobile app.	BRRI HQ
614.	Vehicle Requisition Management System of BRRI.	• To develop vehicle requisition management system (VRMS) for BRRI. • To inform through SMS, on the basis of demand vehicle at BRRI. • To provide SMS for drivers for confirming their upcoming duty. • To host VRMS at server.	BRRI HQ
615.	Training on Innovation, Service Process Simplification (SPS) and e-Nothi management for enhancing capacity of BRRI employee.	• To provide various training on public service innovation (PSI), SPS and e-Nothi management to BRRI scientists and officers for developing capacity. • To bring qualitative changes in the internal research work process and service delivery in BRRI HQ and respective regional stations. • To compile various innovative idea through PSI and SPS training for piloting and replication activities.	BRRI HQ
616.	"BRRI Rice Doctor" Apps for BRRI.	• To diagnosis insect and pest through rice doctor Apps for BRRI. • To manage and maintain rice doctor apps. • To host rice doctor Apps at server.	BRRI HQ
617.	BRKB Website Management	• To develop and modify the design of BRKB Website. • To manage and maintain BRKB Website through regular updating of the information and documents.	BRRI HQ
618.	Dynamic view connectivity system, Bangla searching system and inner banner system for BRKB Website.	• To construct dynamic view connectivity system. • To create Bangla searching system. • To develop inner banner system.	BRRI HQ
619.	BRRI Web Mail and Group Mail.	• To create Web mail and Group mail id with password for all scientists and officers of BRRI. • To manage, maintain and update	BRRI HQ

Sl.	Research Title	Objective(s)	Location(s)
		regularly as routine work web mail and group mail of BRRI.	
620.	Developing secure system for BRRI Web Mail and Group Mail.	• To develop spamming filtering system (SFS) at BRRI web mail server. • To create automatic active & close system (AACS) at BRRI web mail server. • To develop Secure Sockets Layer (SSL) system.	BRRI HQ
621.	Online Application System of BRRI.	• To develop "Online application system" for BRRI. • To host "Online application system" at data center. • To manage and maintain "Online application system" through regular updating of the information and documents.	BRRI HQ
622.	e-Nothi Management System of BRRI.	• To setup "e-Nothi System" for BRRI Head Quarter and all Regional station (R/S) for establishing e-Governance. • To setup "e-Nothi System" for ensuring faster movement of files and paperless office system. • To setup "e-Nothi System" for increasing transparency and accountability at BRRI.	BRRI HQ
623.	LAN and internet connectivity of BRRI regional station(R/S).	• To setup Local Area Network (LAN) for all regional station of BRRI. • To setup Internet connectivity for all regional station of BRRI. • To manage and maintain LAN & Internet connectivity of BRRI regional station.	BRRI HQ
624.	BRRI Web Portal Management	• To develop and modify the design of BRRI Web Portal. • To manage and maintain BRRI Web Portal through regular updating of the information and documents.	BRRI HQ
625.	Management of BRRI HQ Local Area Network and Internet Connectivity.	• To increase the infrastructure of BRRI local Area Network. • To increase the bandwidth connectivity from 60 Mbps to 70 Mbps or more. • To manage and maintain ICT Network of BRRI.	BRRI HQ
626.	BRRI Networks Update, Maintenance and Extension.	• To increase and stimulate awareness to all visitors of facebook group through 'BRRI Networks'. • To extend, boosting, manage, update and	BRRI HQ

Sl.	Research Title	Objective(s)	Location(s)
		maintain 'BRRI Networks' facebook group and facebook page regularly. • To promote all activities, where only official interactions, various problems and their solutions can be posted.	
627.	Personal Data Sheet of BRRI.	• To develop "Personal Data Sheet (PDS)" database for all scientists, officers, clerks of BRRI. • To develop "Personal Data Sheet (PDS)" database using user name & password. • To get BACKUP of "Personal Data Sheet (PDS)" database regularly.	BRRI HQ
628.	Video Conference System of BRRI	• To develop "Video conference system of BRRI (skype system)" for administration, all divisional head and regional station head of BRRI. • To develop "Video conference system of BRRI (skype system)" for research, administration works and innovative interactions.	BRRI HQ
629.	New version of management Information System (MIS) of BRRI	• To develop new version of management Information System (MIS) Software for BRRI. • To manage and maintain MIS of BRRI • To host MIS software at Bangladesh computer council (BCC).	BRRI HQ
630.	Rice Pest Corner	• To develop Rice Pest Corner for BRRI Website. • To develop a Web Application for Rice Pest Corner. • To manage and maintain Rice Pest Corner.	BRRI HQ
631.	Heritage of BRRI.	• To develop "Heritage" for all scientists, all officers, all clerks, and all workers of BRRI. • To develop "Heritage "for research and administration works. • To create and stimulate awareness amongst the present employees of BRRI about ex. Scientists and officer's great activity.	BRRI HQ
FARM MANAGEMENT DIVISION			
632.	Artificial Plough Pan Development for Facilitating Modern	• To increase soil resistance capacity • To develop artificial plough pan in BRRI farm	BRRI HQ, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Farm Machineries		
633.	Determination of Fertilizer Management to Control Algae Infestation in Rice Field	• To determine fertilizers'effect on algal growth in rice field • To identify fertilizer management to control algae in rice field	BRRI HQ, Gazipur
634.	Suitable Chemical Control of Algae in Rice Field.	• To identify suitable algae control chemical for rice field.	BRRI HQ, Gazipur
635.	Influence of different dates of transplanting on growth, yield performance and quality of fine rice varieties	• To confirm best planting time of fine rice varieties for higher yield and quality.	BRRI farm, Gazipur
636.	Effect of storage time in different storage technologies on quality of rice	• To observe the grain quality of fine rice variety at different storage time and storage technologies. • To identify the suitable storage technologies for preservation of rice seed.	BRRI farm, Gazipur
637.	Effect of Nitrogen Levels on Protein Quality of Rice at Different Regions	• To find out the best nitrogen level for protein quality of rice at different regions.	BRRI HQ, R/S Rangpur, Rajshahi and Sonagazi.
638.	Efficacy of Mechanical Seedling Transplanter and Deep Placement of Mixed Fertilizer on Rice Yield	• To evaluate the efficacy of newly developed mechanical rice transplanter cum fertilizer applicator. • To observe the yield and yield contributing parameters. • To analyze the cost of production.	BRRI farm, Gazipur
639.	Effect of Foliar Application of Silicon on Yield of Aromatic Rice	• To investigate the effect of foliar application of silicon's aqueous solution (sodium silicate) on yield of aromatic rice. • To observe the disease and insect infestation.	BRRI farm, Gazipur
640.	Assessment of Health Issues of Laborers at BRRI Farm	• To examine the biological, psychological, and social health of labors in BRRI farm, • To determine the factors that might affect the health of labors at BRRI. • To suggest the policy recommendations for ensuring safety measures in terms of health hazards and improving the work environment.	BRRI farm, Gazipur
641.	Evaluation of Laborer's Efficiency according to their Age at BRRI HQ,	• To identify age basis laborer's efficiency for better management of rice cultivation.	BRRI farm, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
	Gazipur		
642.	Documentation of Laborers' Wage for Efficient Management and Planning for Rice Cultivation	• To find out the laborers' wage for rice cultivation throughout Bangladesh with food and without food.	BRRI farm, Gazipur
643.	Performance of BRRI Varieties in Seed Production Plots at BRRI Farm.	• To observe potential yield of BRRI varieties.	BRRI farm, Gazipur
644.	Management and Utilization of Land and Labor Resources	• To efficient utilization of farm land and labor resources for smoothly running of research activities and seed production at BRRI farm.	BRRI farm, Gazipur
645.	Management and Support Services of BRRI.	• Efficient utilization of farm resources for smoothly running of research activities and other activities of BRRI.	BRRI farm, Gazipur
Program Area: Technology Transfer			
ADAPTIVE RESEARCH DIVISION			
646.	Advanced line adaptive research trial (ALART)		
647.	ALART Drought Tolerant Rice (DTR)T. Aman 2022	• To evaluate the yield potential of advanced materials at farmer's field • To get feedback information on short slender grain type from farmers and extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	Chuadanga, Meherpur, Cumilla, Rajshahi, Nagaon, Chapainawabganj, Rangpur, Rangpur, Bogura, Gazipur
648.	ALART Premium Quality Rice (PQR) T. Aman 2022.	• Do	Kustia, Cumilla, Nagaon Dinajpur, Jessore, Habiganj, Feni, Faridpur, Bogura, Gazipur
649.	ALART SHR-1 (zirashail type) T. Aman 2022	• Do	10: Kustia, Jessore, Rajshahi Nagaon, Natore, Dinajpur, Dinajpur,

Sl.	Research Title	Objective(s)	Location(s)
			Rangpur, Bogura, Gazipur
650.	ALART SHR-2 (Extra-long and long slender) T. Aman 2022	• Do	Kustia, Jessore, Rajshahi Nagaon, Natore, Dinajpur, Dinajpur, Rangpur, Bogura, Gazipur
651.	ALART for salt tolerant rice (STR), T. Aman 2022	• Do	10: Satkhira, Khulna, Feni Noakhali, Bagerhat, Barguna, Patuakhali, Gazipur
652.	ALART Deep Water Rice (DWR), B Aman 2022	• Do	7: Faridpur, Barishal, Rajshahi, Sirajganj, Manikganj, Habiganj, Gazipur
653.	ALART for Blast Resistant Rice (BRR) (Re-ALART), Boro 2022-23	• Do	Faridpur, Barishal, Rajshahi, Rangpur, Bagura, Cumilla, Habiganj, Satkhira, , Kishoreganj, Gazipur
654.	ALART for Blast Resistant Rice (BRR), Boro 2022-23	• Do	11: Faridpur, Barishal, Rajshahi, Rangpur, Lalmonirhat, Bagura, Cumilla, Habiganj, Satkhira, Kishoreganj, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
655.	ALART for Short Duration Favorable Boro Rice (FBR-SD), Boro 2022-2023	• Do	12: Rangpur, Gopalganj, Faridpur, Barishal, Natore, Sirajganj, Cumilla, Feni, Kushtia, Habiganj, Manikganj, Gazipur
656.	ALART for Medium Duration Favorable Boro Rice (FBR-MD), Boro 2022-2023	• Do	12: Rangpur, Gopalganj, Faridpur, Barishal, Natore, Sirajganj, Cumilla, Feni, Kushtia, Habiganj, Manikganj, Gazipur
657.	ALART for Favorable Boro Rice (FBR-Barishal), (Re-ALART), Boro 2022-23	• Do	12: Rangpur, Gopalganj, Faridpur, Barishal, Natore, Sirajganj, Cumilla, Feni, Kushtia, Habiganj, Manikganj, Gazipur
658.	ALART for Superior High Yielding Rice (SHR-1), Boro 2022-23	• Do	10: Bogura, Kushtia, , Jessore, Rajshahi, Habiganj, Cumilla, Rangpur, BRRI Gazipur
659.	ALART for Superior High Yielding Rice (SHR-2), Boro 2022-23	• Do	10: Bogura, Kushtia, Jessore, Rajshahi, Habiganj, Cumilla, Rangpur,

Sl.	Research Title	Objective(s)	Location(s)
			BRRI Gazipur
660.	Validation trial on Polythene covered Dry Seedbed in Late Boro Growing area	• To validate the performance of Dry seedbed in different late Boro growing area in Bangladesh • To protect the seedlings from low temperature	16: Gazipur (Kapasia), Norsingdi (palash), Habiganj (Sadar, Nabiganj)
661.	Head-to-head adaptive Research Trial, Boro 2022	• To identified suitable varieties in different agro-ecological zones of Bangladesh	200: Throughout Bangladesh
662.	Head-to-head adaptive Research Trial, Aman 2022-2023	• To identified suitable varieties in different agro-ecological zones of Bangladesh	200: Throughout Bangladesh
663.	• Seed Production and Dissemination Program (SPDP)		
664.	SPDP Jhum in Aus 2022	• To intruduce modern High yielding variet in Jhum cultivationImprove the livelyhood ethnic people of the Hills	Khagrachari (Sadar, Dighinala), Bandarban (Ramu, Alikadam), Rangamati (Kaptai, Rajostholi)
665.	SPDP Valley in T. Aus 2022	• To disseminate T. Aus varieties among the farmers of Valley of Hills	18: Khagrachari (Sadar, Dighinala), Bandarban (Ramu, Alikadam), Rangamati (Kaptai, Rajostholi
666.	SPDP, B. Aus	• To disseminate B. Aus varieties among farmers	12: Bhola (Sadar , Tamuzuddin, Daulatkhan, BorhanuddinLalmohon,Charfashion)
667.	SPDP, T Aus 2022	• To disseminate modern T. Aus varieties among the farmers	87: Narsingdi, Kishoreganj, Mymensingh, Sherpur, Gazipur, Manikganj,

Sl.	Research Title	Objective(s)	Location(s)
			Bhola, Sylhet, B. Baria, Gaibandha
668.	Dissemination of BRRI Hybrid dhan7 during Aus 2022	• To disseminate modern BRRI Hybrid dhan7 among the farmers	26: Chuadanga, Bhola, Borguna, Manikganj, Gaibandha
669.	SPDP, Early Aman 2022	• To disseminate BRRI dhan91 among the farmers	10: Manikganj (Harirampur, Saturia)
670.	SPDP T. Aman 2022	• To disseminate modern T. Aman varieties among the farmers	714: Tangail, Gazipur, Narshingdhi, Manikganj, Karimganj, Sadar, Kolmakanda, Sadar, Fulbaria, Nandail, Palashbari, Bagerhat, Pirozpur, Chattragram, Cox's Bazar, Khagrachari, Rangamati, Bandarban
671.	Special-SPDP during Aman 2022	• To disseminate modern T. Aman varieties rapidly among the farmers	108: Tangail, Gazipur, Cumilla, Netrokona, Sherpur, Gaibandha, Bagerhat, Chattogram, Khagrachari, Rangamati, Bandarban
672.	Dissemination Program of BRRI hybrid Rice during Aman 2022	• To disseminate modern BRRI Hybrid dhan4 and 6 among the farmers	46: Khagrachari, Rangamati, Bandarban, Cox'sbazar, Chattogram, Mymensingh,

Sl.	Research Title	Objective(s)	Location(s)
			Norsingdi, Gazipur, Gaibandha, Manikganj, Kishoreganj, Netrokona
673.	SPDP, T. Aman under TRB project in 2022	• To disseminate modern T. Aman varieties rapidly among the farmers	60: Netrakona, Sherpur, Kishoreganj, Gazipur, Chuadanga, Khulna, Bogura, Gaibandha, Sylhet, Bandarban, Dinajpur and Barishal
674.	SPDP, Boro 2022-23	• To disseminate modern Boro varieties rapidly among the farmers	703: Tangail, Gazipur, Narshingdhi, Manikganj, Kishoreganj, Sherpur, Netrokona, Mymensingh, Gaibandha, Bagerhat, Khagrachari, Rangamati, Bandarban
675.	Dissemination Program of BRRI hybrid Rice during Boro 2022-23	• To disseminate modern BRRI Hybrid dhan3 and 5 among the farmers	Tangail, Gazipur, Narshingdhi, Manikganj, Kishoreganj, Sherpur, Netrokona, Mymensingh, Gaibandha, Bagerhat, Khagrachari, Rangamati, Bandarban
676.	SPDP, Boro under TRB project in 2022	• To disseminate modern Boro varieties rapidly among the farmers	60: Gazipur, Netrakona, Mymensingh, Khulna,

Sl.	Research Title	Objective(s)	Location(s)
			Chuadanga, Norsingdhi, Kishoreganj, Bagura and Bandaarban
BRRI REGIONAL STATIONS			
BRRI REGIONAL STATION: BARISHAL			
I. VARIETAL DEVELOPMENT PROGRAM AREA			
677.	Development of tidal submergence tolerant rice Hybridization F1 confirmation F2 population F3 population F4 population Preliminary yield trial (PYT) Advance yield trial (AYT) National Hybrid Rice Yield Trial (NHRYT) Regional yield trial (RYT)	• To develop high yielding rice varieties adaptive to tidal ecosystem	Sagardi and Char Badna Farms, BRRI RS, Barishal
678.	Characterization and genotyping of local landraces adapted to tidal submergence ecosystem	• To find out suitable genotypes for developing parental materials adaptive to tidal submergence	Sagardi and Char Badna Farms, BRRI RS, Barishal
679.	Development of photosensitive varieties having submergence tolerant gene for non-saline tidal ecosystem of Barishal region	• To develop tall photosensitive rice variety for tidal ecosystem	Sagardi and Char Badna Farms, BRRI RS, Barishal
680.	Breeding for new generation rice (NGR) 4.1 Introgression of dense and erect panicle in Indica rice (Oryza sativa L.) to improve plant architecture	• To develop better progenies having dense and erect panicle for increased grain yield	Sagardi and Char Badna Farms, BRRI RS, Barishal
II. PEST MANAGEMENT PROGRAM AREA			
681.	Pest monitoring in BRRI Barishal farm	• To study the incidence of existing and new pest species of rice.	Sagardi and Char Badna Farms, BRRI RS, Barishal

Sl.	Research Title	Objective(s)	Location(s)
682.	Insect pests and natural enemy incidence in light trap	• To quantify the population of insects and natural enemies of rice.	Do
683.	Survey of rice insect pests in Barishal region	• To find the incidence patterns of major insects and natural enemies.	Do
684.	Sweeping performance of rectangular hand net in seedbed	• To find out the time of insect pest infestation for proper sweeping in seedbed	Do
685.	Evaluation of biopesticides for management of rice leaf folder and stem borer in field condition	• To find out efficacy of formulated biopesticides to control leaf folder and stem borer	Do
686.	Bioaccumulation and detoxification of As (III) and disease management by *Achromobacter xylosoxidans* and increase rice yield in As-contaminated soil	• To decrease as uptake and increase rice yield by spraying *A. xylosoxidans.*	BRRI RS, Barishal and BRRI RS, Bhanga, Faridpur.
687.	Effect of plant extract mediated silver nano particle on bakanae diaese management	• To determine the effect of nano particle on bakanae disease management	BRRI RS, Barishal and BRRI HQ, Gazipur
III. CROP-SOIL-WATER MANAGEMENT PROGRAM AREA			
688.	Standardization of nitrogen application method for modern rice variety in tidal ecosystem	• To find out the suitable method of N-application in tidal condition	Char Badna Farm, BRRI RS, Barishal
689.	Determination of nitrogen requirement for modern rice variety in tidal ecosystem	• To find out the optimum nitrogen dose for modern variety of rice in tidal ecosystem	Char Badna Farm, BRRI RS, Barishal
690.	Long-term missing element trial for diagnosing limiting nutrient in tidal flooded soil	• To identify the limiting nutrient(s) for rice production in tidal soil	Sagardi Farm, BRRI RS, Barishal
691.	Soil management to maximize yield of newly released rice varieties in tidal ecosystem	• To maximize rice yield with organic and inorganic amendments while maintaining soil health	Char Badna Farm, BRRI RS, Barishal
692.	Contribution of tidal water irrigation on the nutrition and yield of modern rice	• To determine the variation in the effect of tidal and ground water irrigation on the response of modern rice to nutrient application	Sagardi Farm, BRRI RS, Barishal

Sl.	Research Title	Objective(s)	Location(s)
693.	Exploring sediment deposition from tidal water in Barishal regional station	• To find out the silt deposition rate and • To quantify organic and inorganic nutrients in deposited silt.	Sagardi Farm, BRRI RS, Barishal
IV. TECHNOLOGY TRANSFER PROGRAM AREA			
694.	Advance line adaptive research trial (ALART) of submergence tolerant long duration rice (SubTR-LD)	• To select suitable advanced rice line adaptive to tidal submergence ecosystem	Char Badna Farm, BRRI RS, Barishal
695.	Establishment of Techno-Village in Barishal Region	• To test the feasibility of adopting modern rice production technologies in Barishal region	Farmer's field, Sadar, Barishal.
696.	Field demonstration, Farmers' training, Field Day	• Dissemination of BRRI developed technologies.	Farmer's field, Sadar, Barishal and adjacent districts.
BRRI Regional Station Bhanga			
697.	Breeding for developing high yielding rice varieties for Single Boro cropping pattern (Hybridization)	• To develop breeding population with higher yield potential, HYV plant type along with acceptable grain quality for single boro cropping pattern of Faridpur Region	BRRI R/S Bhanga
698.	Breeding for developing high yielding shallow flooded deepwater rice varieties (Hybridization)	• To develop breeding population with suitable traits for deepwater Aman	BRRI R/S Bhanga
699.	Breeding for developing high yielding Transplanted Aman rice varieties (Hybridization)	• To develop breeding population with desirable characters with emphasis on water stagnation tolerance, anaerobic tillering, earliness and good grain quality	BRRI R/S Bhanga
700.	Screening and identification of anaerobic germination (AG) tolerance of rice germplasm of Bangladesh	• To identify donor for anaerobic germination tolerance in rice germplasm	BRRI R/S Bhanga
701.	Breeding for developing Anoxia tolerant rice varieties	• To develop high yielding anoxia and water stagnation tolerant rice genotypes for direct seeding condition to fit Onion/wheat- Jute- Relay T. Aman pattern	BRRI R/S Bhanga
702.	Field Rapid Generation Advancement (FRGA)	• To rapidly advance segregating population for shortening the breeding	BRRI R/S Bhanga

Sl.	Research Title	Objective(s)	Location(s)
		cycle	
703.	Confirmation of F_1s	• To confirm the crosses as true hybrids	BRRI R/S Bhanga
704.	Regional Yield Trials	• To evaluate specific and general adaptability of different advance breeding lines at BRRI R/S Bhanga, Faridpur	BRRI R/S Bhanga
705.	Head-to-Head Trial: VRS (Variety Replacement Strategy)	• To evaluate the adaptation of BRRI released rice varieties in different region of the country. • To compare the modern rice variety with local variety. • To select appropriate variety for specific region. • To disseminate the modern varieties throughout the country.	Farmer's field (Bhanga and Nagarkanda upazila)
706.	Demonstration trial of BRRI developed HYVs and Hybrids varieties	• To disseminate and popularize the newly released BRRI modern HYVs and Hybrid varieties in Faridpur region	Farmer's field (Faridpur, Madaripur, Shariatpur and Rajbari)
707.	Farmar's Training and Field Day	• To increase farmers knowledge	Different upazilas of Faridpur
708.	Stability analysis of BRRI released rice varieties	• To demonstrate the suitability of BRRI varieties in Faridpur region	BRRI R/S Bhanga
709.	Effects of planting time on yield of rice in char land area of Faridpur region	• To achieve sustainable rice production at char land environment. • To adjust planting time for saving/protect *Aus* crop from early flood.	Farmer's field (Shibchar, Madaripur)
710.	Development of weed control techniques in Boro-Fallow-Fallow cropping pattern	• To develop cost effective and eco-friendly weed control practices for sustainable weed management in Boro-Fallow-Fallow cropping systems.	BRRI R/S Bhanga
711.	Introduction of intercropping system in different cropping pattern for medium high land area in Faridpur region (On-going)	• To increase cropping intensity and productivity in Faridpur region	Farmer's field (Nagarkanda, Faridpur)
712.	Rice farming components could be an option for biological weed control at transplanted *Boro* rice field in Faridpur region	• To reduce the weed infestation along with cost of labour • To find out the effective way for controlling the aquatic weed in irrigated wetland rice field • To increase the productivity and reduce	BRRI R/S Bhanga

Sl.	Research Title	Objective(s)	Location(s)
		the cost of production of rice in Faridpur region.	
713.	Mulching technique of zero tillage garlic production in Garlic-Jute-Fallow cropping pattern at Faridpur region	• To reduce the weed infestation along with requirement of irrigation • To increase the yield of garlic at Faridpur region	BRRI R/S Bhanga
BRRI REGIONAL STATION, CUMILLA			
Program Area (01): Varietal Development Program (VDP); Program for T. Aman 2022-23			
Project-1: Development of Transplanted Aman Rice with high yield along with desirable growth duration, acceptable grain quality and resistance to diseases and insect pests and water stagnation tolerant rice (BRRI R/S, Cumilla own program)			
714.	Hybridization	• Introgression of genes from diverged genetic background into rice varieties/lines for the improvement of standard T. Aman varieties	BRRI, Cumilla
715.	Confirmation of F_1	• To confirm the crosses as true hybrid	Do
716.	Growing of F_2 population	• Selection of progenies with emphasis on earliness, plant type, grain type and high yield potential compared to standard check varieties	Do
717.	Pedigree nursery	• Selection of progenies with improved plant type, earliness, acceptable grain quality and high yield potential compared to standard varieties	Do
718.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	Do
719.	Preliminary Yield Trial (PYT)	• Preliminary yield evaluation of advanced lines compared to standard checks	Do
720.	Maintenance breeding	• Conservation of advanced lines and pre-breeding materials	Do
Program Area: Pest Management			
721.	Survey and monitoring of major rice diseases in Cumilla district	• To know the prevalence of Major rice disease blast • To assume the rice yield losses due to rice diseases	BRRI Cumilla
722.	Demonstration of rice neck blast disease management technology under farmer's field condition	• To minimize yield loss due to blast disease • To build up farmers awareness on blast disease management	Cumilla
723.	Varietal reaction and recovering ability of BRRI released rice varieties	• To know the varietal reaction against tungro disease of rice	BRRI Cumilla

Sl.	Research Title	Objective(s)	Location(s)
724.	Validation of Rice Tungro disease management technology from seedbed in Cumilla region	• To validate the management technology of rice tungro disease in Cumilla region	NangalKot, Laksam, Chandina, Debidwar in Cumilla; Kasba in B Baria
725.	Tracking the infection source(s) of rice false smut disease	• To identify whether the seed/soil and/ or the air is/are the carrier of the pathogen or not	Cumilla
726.	Evaluation of new chemicals against Blast disease of rice	• To find out the effective chemicals suitable for Blast disease of rice.	Cumilla
727.	Evaluation of new chemicals against Sheath blight disease of rice	• To find out the effective chemicals suitable for ShB disease of rice.	Cumilla
728.	Multi-Location Trial (MLT) of blast resistant advanced lines	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks	Debidwar, Cumilla
729.	Evaluation of tungro resistant advanced lines in hot spot areas in Cumilla region	• To evaluate the tungro resistant advanced lines in natural farmers field condition.	
730.	Advisory services to the farmers	• To assist farmers for rice production;	Cumilla, B. Baria, Chandpur
Program Area: Crop-Soil-Water management			
731.	Effect of nursery management on the performance of rice variety grown under water stagnant condition.	• To find out optimum seed density • To find out optimum age of rice seedling in waterlogged condition • To identify proper seeding rate in water stagnant condition	BRRI, Cumilla
732.	Effect of seedling age and fertilizer management on growth and yield of rice variety.	• To find out optimum age of rice seedling to maximize yield. • To optimize urea split application with varying seedling age	BRRI R/S, Cumilla
733.	Effect of time of planting on growth and yield of BRRI developed newly T. Aman and Boro varieties	• To find out the appropriate time of planting for yield optimization	BRRI Cumilla
734.	Effects of Potassium fertilization at different growth stages on growth and yield of rice	• To find out the effect of potassium fertilization at different growth stages of Rice	BRRI Cumilla

Sl.	Research Title	Objective(s)	Location(s)
735.	Long-term missing element trials for diagnosing the limiting nutrient in soil in BRRI R/S Cumilla	• To determine nutrient deficiency problems in soil and to observe long-term yield trend of rice.	BRRI Cumilla
736.	Effects of N rates on the yield of BRRI released news varieties in BRRI Cumilla	• To update the N rates of BRRI released new varieties	BRRI Cumilla
737.	Effects of P rates on the yield of BRRI released new varieties in BRRI Farm Cumilla	• To update the P rates of BRRI released new varieties	BRRI Cumilla
Program Area: Socio Economic and Policy			
738.	Stability analysis of BRRI released rice varieties	• To demonstrate the suitability of BRRI varieties in Cumilla Region	BRRI Cumilla farm
Program Area: Technology Transfer			
739.	Field demonstration of different BRRI released new rice varieties in Cumilla region (GoB, PPNB, TRB)	• To demonstrate and disseminate BRRI varieties in greater Cumilla region	Cumilla, B. Baria, Chandpur
740.	Farmer's and SAAOs training on modern rice cultivation and disease management technology (PPNB/GoB)	• To increase farmers/SAAOs/Officers knowledge	Cumilla, B. Baria, Chandpur
741.	Field day on modern rice cultivation (GoB & PPNB)	• To increase farmers knowledge	Cumilla, B. Baria, Chandpur
742.	Collection of local rice landraces	• To collect local rice landraces for breeding purpose and conserve in the Genebank of BRRI	Gopalganj, Bagerhat and Narail
743.	Characterization of local rice landraces from Gopalganj region	• To maintain seed and characterize rice landraces as per 'Germplasm Descriptors and Evaluation Form' of GRSD, BRRI.	BRRI RS Gopalganj
744.	Secondary yield trial of deep-water rice germplasm	• To evaluate the yield performance of five deep water rice germplasm for comparing with standard check	BRRI RS Gopalganj
745.	Secondary yield trial of Jhum rice genotypes	• To evaluate the yield performance of two *Jhum* rice genotypes for comparing with standard check	BRRI RS Gopalganj
746.	Regional Yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on	BRRI RS Gopalganj

Sl.	Research Title	Objective(s)	Location(s)
		station condition	
747.	Advanced Line Adaptive Research Trial (ALART)	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field in different agro-ecological zones	BRRI RS Gopalganj
748.	Breeder seed production	• To produce breeder seed of BRRI developed rice varieties	
749.	Hybrid seed production (BRRI hybrid dhan5)	• To produce F_1 seed of BRRI hybrid dhan5	BRRI RS Gopalganj
750.	Truthfully Label Seed (TLS) Production	• To produce TLS seed of BRRI developed rice varieties as per indent of local demand	BRRI RS Gopalganj
751.	Head-to-Head Trial: VRS (Variety Replacement Strategy)	• To evaluate the adaptation of BRRI released Rice varieties in different region of the country. • To compare the modern rice variety with local variety. • To select appropriate variety for specific region. • To disseminate the modern varieties throughout the country.	Gopalganj, Bagerhat and Narail
752.	Demonstration of newly released T. Aus , T. Aman and Boro varieties	• To disseminate and popularize the newly released rice varieties in the Gopalgang, Narail and Bagerhat district	Gopalganj, Bagerhat and Narail
753.	Intensification of Boro-Fallow-Fallow cropping pattern through of floating vegetable in deep water ecosystem of Gopalganj	• To identify the suitable BRRI varieties of low land area of Gopalganj • To increase the cropping intensity	Gopalganj
754.	Collection and chemical analysis of peat soil	• To analysis the soil nutrients • To evaluate rapid peat sampling methods	BRRI HQ and BRRI RS Gopalganj
755.	Regional Yield Trial (Short Slender) under recommended management practices, T. Aman 2022	• To evaluate the yield potential of short slender grain type materials in comparison with BRRI dhan49.	On-farm, BRRI Habiganj
756.	Regional Yield Trial (Swarna and long slender type) under recommended management practices, T. Aman 2022	• To evaluate the yield potential of Swarna and long slender grain type materials in comparison with BRRI dhan94 and BRRI dhan87.	On-farm, BRRI Habiganj

Sl.	Research Title	Objective(s)	Location(s)
757.	Improvement of local popular cultivars, Boro 2022-23	• To develop high yielding varieties with cold tolerance, acceptable grain & nutritional quality.	On-Station, BRRI Habiganj
758.	Observational Yield Trial (OYT#1_BPH), Boro 2022-23	• To identify the BPH resistance line with higher grain yield, acceptable grain & nutritional quality.	On-Station, BRRI Habiganj
759.	Observational Yield Trial (OYT#2_Barishal), Boro 2022-23	• To select the best performing advanced breeding lines with higher grain yield, acceptable grain & nutritional quality, resistance to insect pests and diseases in field conditions.	On-Station, BRRI Habiganj
760.	Regional yield trial (RYT) for favorable Boro rice (Long duration), Boro 2022-23	• To understand general and regional adaptability and select the best performing breeding lines with highest genetic merits.	On-Station, BRRI Habiganj
761.	Regional yield trial (RYT) for favorable Boro rice (Medium duration), Boro 2022-23	• To understand general and regional adaptability and select the best performing breeding lines with highest genetic merits.	On-Station, BRRI Habiganj
762.	Regional yield trial (RYT) for favorable Boro rice (Short duration), Boro 2022-23	• To understand general and regional adaptability and select the best performing breeding lines with highest genetic merits.	On-Station, BRRI Habiganj
763.	Regional yield trial (RYT) for favorable Boro rice (Extra-long slender), Boro 2022-23	• To understand general and regional adaptability and select the best performing breeding lines with highest genetic merits.	On-Station, BRRI Habiganj
764.	Regional yield trial (RYT) for favorable Boro rice (Barishal), Boro 2022-23	• On-station evaluations of the advanced breeding lines for adaptability along with the check varieties in different regional stations and head quater of BRRI.	On-Station, BRRI Habiganj
765.	Regional yield trial (RYT-tall) for haor areas, Boro 2022-23	• Evaluation of high yielding tall and lodging tolerant lines in representative low lying haor areas as better substitute of BR18.	On-Station, BRRI Habiganj
766.	Regional yield trial (RYT) for zira type, Boro 2022-23	• On-station evaluations of the advanced breeding lines for adaptability along with the check varieties in different regional stations and head quater of BRRI.	On-Station, BRRI Habiganj
767.	Regional yield trial (RYT) for zinc enriched rice (ZER), Boro 2022-23	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition.	On-Station, BRRI Habiganj
768.	Regional yield trial (RYT) for antioxidant	• Evaluation of anthocyanin enriched breeding lines for high yield potential and	On-Station, BRRI

Sl.	Research Title	Objective(s)	Location(s)
	enriched rice (medium duration black rice), Boro 2022-23	adaptability in different agro-climatic conditions.	Habiganj
769.	Regional yield trial (RYT) for antioxidant enriched rice (short duration black rice), Boro 2022-23	• Evaluation of anthocyanin enriched breeding lines for high yield potential and adaptability in different agro-climatic conditions.	On-Station, BRRI Habiganj
770.	Regional yield trial (RYT) for Salt tolerant rice (STR), Boro 2022-23	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks under on-station condition.	On-Station, BRRI Habiganj
771.	Regional yield trial (RYT) for water saving rice (WS), Boro 2022-23	• Evaluation of the water saving breeding lines for yield potential and adaptability test in different agro-climatic conditions under AWD irrigation system.	On-Station, BRRI Habiganj
772.	Regional yield trial (RYT) for disease resistant rice (BB), Boro 2022-23	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks under on-station condition.	On-Station, BRRI Habiganj
773.	Regional yield trial (RYT) for disease resistant rice (BB and Blast), Boro 2022-23	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks under on-station condition.	On-Station, BRRI Habiganj
774.	G x E interaction of Basmati rice on physio-chemical and cooking properties, Boro 2022-23	• To find out the general and specific adaptability of Basmati rice in Bangladesh in relation to physio-chemical and cooking properties	On-Station, BRRI Habiganj
775.	International Irrigated Rice Observational Nursery (IIRON_Set#38), Boro 2022-23	• Evaluation of elite breeding lines and varieties under irrigated rice environments	On-Station, BRRI Habiganj
776.	Long-term Missing Element Trial for Diagnosing the limiting Nutrient in Soil of Habigonj	• To find out the yield limiting nutrients in soil of habiganj.	On-Station, BRRI Habiganj
777.	Influence of N & K on Performance of Modern Rice in Habigonj.	• To find out suitable ratio of N & K for modern rice • To study N & K dynamics in soil & plant	On-Station, BRRI Habiganj
778.	Evaluation of rice genotypes for preharvest sprouting	• To identify the pre-harvest sprouting tolerant genotypes.	On-Station, BRRI Habiganj
779.	Monitoring of insect pest	• To evaluate insect-pest and natural	On-Station,

Sl.	Research Title	Objective(s)	Location(s)
	and natural enemy incidence by using light trap.	enemy in hour area.	BRRI Habiganj
780.	Effect of time of planting on growth, yield and yield contributing factors of BRRI released varieties in Boro season at Haor region of Bangladesh	• To identify the suitable planting time and variety for Haor areas.	On-Station, BRRI Habiganj
781.	Demonstration of wet-direct seeding crop establishment technique	• To save irrigation water during transplanting. • Overcome the labor shortage problems in haor areas during transplanting time.	On-Station, BRRI Habiganj
782.	Stability Analysis of BRRI released Boro Varieties.	• To observe the general and specific adaptability and stability of the BRRI released rice varieties.	On-Station, BRRI Habiganj
783.	ALART Premium Quality Rice (PQR) T. Aman 2022	• To evaluate the yield potential of materials at farmer's field as T. Aman crop under on farm condition. • To get feedback information on short slender grain type from farmers and extension personnel. • To selects suitable material(s) for Proposed Variety Trail.	Bahubal, Habiganj
784.	ALART for Blast Resistant Rice (BRR) (Re-ALART), Boro 2022-23	• To evaluate specific and general adaptability of blast resistance advanced breeding line as compared with standard checks in on farm condition. • To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	Baniachong, Habiganj
785.	ALART for Blast Resistant Rice (BRR), Boro 2022-23	• To evaluate specific and general adaptability of blast resistance advanced breeding line as compared with standard checks in on farm condition. • To evaluate the yield potential and adaptability of advanced rice genotypes	Baniachong, Habiganj

Sl.	Research Title	Objective(s)	Location(s)
		at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	
786.	ALART for Short Duration Favorable Boro Rice (FBR-SD), Boro 2023	• To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	Baniachong, Habiganj
787.	ALART for Medium Duration Favorable Boro Rice (FBR-MD), Boro 2023	• To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	Baniachong, Habiganj
788.	ALART for Superior High Yielding Rice (SHR-1), Boro 2022-23	• To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	Baniachong, Habiganj
789.	ALART for Superior High Yielding Rice (SHR-2), Boro 2022-23	• To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and	Baniachong, Habiganj

Sl.	Research Title	Objective(s)	Location(s)
		extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	
790.	ALART for Favorable Boro Rice (FBR-Barishal), (Re-ALART), Boro 2022-23	• To evaluate the yield potential and adaptability of advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and extension personnel. • To select suitable genotype(s) for Proposed Variety Trail.	Baniachong, Habiganj
791.	Seed Production and Demonstration Program	• To disseminate recently released BRRI varieties among the farmers • To get feedback information about the varieties from farmers and extension personnel's	Sylhet region
792.	Farmers Training	• To train farmers about modern rice production technologies	Sylhet region
793.	Field Days	• To show better performance of BRRI developed technologies/ varieties over farmers existing practices	Sylhet region
794.	Breeder Seed production at BRRI farm Habiganj	• To provide breeder seed to GRS division, BRRI	On-Station, BRRI Habiganj
795.	TLS Seed production at BRRI farm Habiganj	• To ensure quality seed in seed production and demonstration program (SPDP) and seed support for farmers	On-Station, BRRI Habiganj
BRRI REGIONAL STATION: KUSHTIA			
Season: T. Aus 2022			
Project I: Variety Development			
796.	Evaluation of agronomic performance, specific and general adaptability under on station condition		R/S Farm
797.	Regional Yield Trial Favorable Condition (Including 8 entries against 2 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
Season: T. Aman 2022			
798.	ALART for Premium	• To evaluate the yield potential and	Gangni,

Sl.	Research Title	Objective(s)	Location(s)
	Quality Rice (PQR) (Including 2 entries against 2 standard checks)	adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Meherpur
799.	ALART for Super High yielding Rice (SHR-1 Zirashail type) (Including 5 entries against 2 standards checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Gangni, Meherpur
800.	ALART for Super High yielding Rice (SHR-1 Extra-long & long slender) (Including 5 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Gangni, Meherpur
801.	ALART for Drought Tolerant Rice (DTR) (Including 2 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Gangni, Meherpur
802.	Regional Yield Trial Short Duration & Medium Duration (SD/MD) (Including 3 entries against 2 standard checks)		R/S Farm
803.	Regional Yield Trial Zirashail Type (Including 3 entries against 1 local checks)		R/S Farm
804.	Regional Yield Trial Disease Resistant Rice (DRR-BB) (Including 3 entries against 3 standard checks)		R/S Farm
805.	Regional Yield Trial Rainfed Lowland Rice (RLR) (Including 4 entries against 4 standard checks)		R/S Farm
806.	Regional Yield Trial Zinc Enriched Rice (ZER) (Including 4 entries against 2 standard		R/S Farm

Sl.	Research Title	Objective(s)	Location(s)
	checks)		
807.	Regional Yield Trial Swarna & Long Slender Type (SLS) (Including 5 entries against 2 standard checks)		R/S Farm
808.	Regional Yield Trial Short Slender Type (SS) (Including 3 entries against 1 standard checks)		R/S Farm
Season: Boro 2022-23			
809.	Title: Identification and screening of prospective aerobic rice from local and BRRI developed rice varieties, Boro, 2020-21 (Including 10 entries against 3 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
810.	Regional Yield Trial Favorable Boro (FBR-Bio.) (Including 5 entries against 2 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
811.	Regional Yield Trial Water Saving Rice (WSR) (Including 2 entries against 1 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
812.	Regional Yield Trial Long Duration (FBR-LD) (Including 5 entries against 3 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
813.	Regional Yield Trial Short Duration (FBR-SD) (Including 9 entries against 2 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
814.	Regional Yield Trial Medium Duration (FBR-MD) (Including 9 entries against 2 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm

Sl.	Research Title	Objective(s)	Location(s)
815.	Regional Yield Trial Extra Long Slender (FBR-ELS) (Including 6 entries against 3 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
816.	Regional Yield Trial Salt Tolerant Rice (STR) (Including 7 entries against 3 standard checks)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	R/S Farm
817.	ALART for Favorable Boro Rice (FBR-Barishal) (Including 4 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
818.	ALART for Medium Duration Boro Rice (FBR-MD) (Including 2 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
819.	ALART for Medium Duration Boro Rice (FBR-SD) (Including 4 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
820.	ALART for Super High yielding Rice (SHR-1) (Including 3 entries against 1 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
821.	ALART for Super High yielding Rice (SHR-2) (Including 3 entries against 1 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
822.	ALART for Blast Resistant Rice (BBR) (Including 4 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
823.	ALART for Blast Resistant Rice (BBR) (Re-ALART) (Including 4 entries against 2 standard checks)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones.	Alampur, Sadar, Kushtia
Project II: Rice Farming Systems			

Sl.	Research Title	Objective(s)	Location(s)
824.	Yield response of rice to different rates of Nitrogen and Potash fertilizer in Boro-Fallow-T. Aman cropping pattern in Kushtia (continue).	• To find out the best dose combination of Urea and MoP	R/S Farm
825.	Increasing the system productivity of the dominant cropping pattern in Kushtia region (Boro-Fallow-T. Aman)	• To increase the whole systems productivity through inclusion of modern varieties and advanced agronomic management practices • To increase farmer's income through adding high value oil seed crops (mustard) in the existing pattern	Kushtia, Chuadanga, Meherpur (Mujibnagar Complex)
826.	Increasing System Productivity Through inclusion of Rabi crops in Boro-Fallow-T. Aman Cropping Pattern in Kushtia Region (New)	• To increase system productivity and farmer's income through inclusion of vegetable in the existing cropping pattern.	Kushtia, Chuadanga, Meherpur (Mujibnagar Complex)
827.	Performance of different cropping patterns for year-round vegetable production under agro-forestry systems with exotic date palm (*Phoenix dactylifera*).	• To ensure year-round vegetable supply for farm family • To increase whole farm productivity	Kushtia, Chuadanga, Meherpur (Mujibnagar Complex)
828.	Evaluation of different rice-based cropping patterns under agro-forestry systems with exotic date palm (*Phoenix dactylifera*).	• To ensure food sufficiency for farm family • To increase whole farm productivity	Kushtia, Chuadanga, Meherpur (Mujibnagar Complex)
Project III: Socio Economic			
829.	Stability analysis of BRRI varieties, T. Aus, 2022 (Including 13 varieties)	• To maintain season, year and location-wise data base on the yield performance of BRRI varieties.	R/S Farm
830.	Stability analysis of BRRI varieties, T. Aman, 2022 (Including 47 varieties)	• To maintain season, year and location-wise data base on the yield performance of BRRI varieties.	R/S Farm
831.	Stability analysis of BRRI varieties, Boro, 2022-23 (Including 49 varieties)	• To maintain season, year and location-wise data base on the yield performance of BRRI varieties.	R/S Farm

Sl.	Research Title	Objective(s)	Location(s)
Project IV: Crop-Soil-Water Management			
832.	Determining minimum irrigation water requirement of rice in different regions through water balance from on-farm demand and model simulation	• To measure minimum rice irrigation water requirement for different regions • To measure rice yield response to on-farm demand based and simulated irrigation application • To figure out the variation in irrigation water requirement quantification among the treatments	R/S Farm
833.	Determination of optimum time of planting and seedling age for yield maximization of BRRI dhan87 at Kushtia region	• To find out optimum time of planting and seedling age for BRRI dhan87	R/S Farm
Demonstrations			
834.	Demonstrations of newly released BRRI varieties	• To disseminate and popularize the varieties among the farmers in Kushtia	23 Upazilas of Kushtia, Chuadanga, Meherpur, Magura and Jhenaidah Districts
BRRI REGIONAL STATION: RAJSHAHI			
835.	Performance evaluation of different planting times of BRRI varieties.	• To identify appropriate planting time of BRRI varieties	BRRI Rajshahi Farm
836.	Evaluation of crop productivity and soil health under conservation tillage system in maize-mungbean-rice cropping pattern	• To identify the profitable cropping patterns in Rajshahi region.	BRRI Rajshahi Farm
837.	Long term effects of four crops cropping patterns on crop productivity and soil health	• To identify health condition due to exhaustive cropping patterns	BRRI Rajshahi Farm
838.	Validation of Pair row potato/Pair row Maize-T. Aus-T. Aman cropping pattern in farmers' field	• To increase productivity and cropping intensity	BRRI Rajshahi Farm
839.	Evaluation of mustard-Boro-Transplanted Jute-T. Aman instead of Mustard-Boro-T. Aman	• To increase productivity and cropping intensity	BRRI Rajshahi Farm

Sl.	Research Title	Objective(s)	Location(s)
	cropping pattern in Barind region		
840.	Productivity Evaluation of inclusion of Mustard in Boro-Fallow-T. Aman cropping patterns in Barind region	• To identify the extent of resource conservation and to increase the crop productivity.	BRRI Rajshahi Farm
841.	Productivity and Soil Health Evaluation of Exhaustive Cropping Patterns in Barind Region	• To identify the extent of resource conservation and to increase the crop productivity.	BRRI Rajshahi Farm
842.	Hybridization (9) (Boro 2022-23)	• To introgression target trait/traits (drought & cold tolerance, aroma, premium grain type) • To develop high yielding genotypes with acceptable grain type.	BRRI Rajshahi Farm
843.	F1 confirmation (12) (Boro 2022-23)	• To confirm true crossing with target traits (Aroma with premium grain quality).	BRRI Rajshahi Farm
844.	RGA population (17) (F2-F4) (Boro 2022-23)	• To select high yield & acceptable grain type	BRRI Rajshahi Farm
845.	Maintenance Parents & Germplasm collection (18) (Boro 2022-23)	• To characterize the local genotypes for Rajshahi region. • To maintain the local germplasm for using in crossing program.	BRRI Rajshahi Farm
846.	Hybridization (5) (Aman 2022-23)	• To introgression target trait/traits (aroma, premium grain type) • To develop high yielding genotypes with acceptable grain type.	BRRI Rajshahi Farm
847.	F1 confirmation (9) (Aman 2022-23)	• To confirm true crossing with target traits (Aroma with premium grain quality).	BRRI Rajshahi Farm
848.	RGA population (36) (F2-F5) (Aman 2022-23)	• To select high yield & acceptable grain type	BRRI Rajshahi Farm
849.	Maintenance Parents & Germplasm collection (20) (Aman 2022-23)	• To characterize the local genotypes for Rajshahi region. • To maintain the local germplasm for using in crossing program.	BRRI Rajshahi Farm
850.	Evaluation of three and four cropped cropping patterns for Rajshahi region	• To develop suitable and profitable cropping patterns for Rajshahi region • To determine the implication of the patterns on weed infestation and soil	BRRI Rajshahi Farm

Sl.	Research Title	Objective(s)	Location(s)
		health	
851.	Evaluation of zero tillage Mustard based cropping pattern in Rajshahi region.	• To identify the extent of resource conservation and to increase the crop productivity.	BRRI Rajshahi Farm
BRRI REGIONAL STATION: RANGPUR			
Variety Development Program Area			
852.	Development of rice varieties suitable for Rangpur-Dinajpur region	• High yielding (≥8 t/ha for T. Aman and ≥10 t/ha for Boro) rice varieties will be developed with tolerance to drought/cold, resistance to major biotic stresses (insects and diseases) and acceptable grain quality (Aromatic and Non-aromatic)	BRRI RS Rangpur
853.	Breeding for Second Generation Rice (SGR)	• Super high yielding (≥8 t/ha for T. Aman and ≥10 t/ha for Boro) rice varieties will be developed with improved modified plant type giving the thrust is to develop short duration varieties accompanied with tolerance to biotic and abiotic stresses and acceptable grain quality	BRRI RS Rangpur
854.	Breeding for Basmati Rice (God of Grain)	• Development of high yielding (≥6.0 t/ha for T. Aman and ≥8.0 t/ha for Boro) basmati rice varieties with improved modified plant type giving the thrust is to develop short duration varieties from diverse genetic background for tolerant to lodging, drought/cold, sturdy stem, resistance to major biotic stresses (insect and diseases) and international standard basmati quality.	BRRI RS Rangpur
855.	Breeding for Antioxidant Rice (Black/ Red/Purple)	• Development of high yielding (≥6.0 t/ha for T. Aman and ≥8.0 t/ha for Boro) rice varieties with improved modified plant type giving the thrust is to develop short duration varieties from diverse genetic background for rich in antioxidants (C3G), edible fiber and other nutrients (Zn and Fe) with earliness, tolerant to cold, sturdy stem, resistance to major biotic stresses (insect and diseases) and acceptable eating quality	BRRI RS Rangpur
856.	Breeding for Photoperiod-sensitive rice varieties (PSR) for lowland and Charland ecosystem	• To develop moderate photoperiod-sensitive as Gainja type high yielding climate smart rice varieties with yield potential (≥7 t/ha)	BRRI RS Rangpur

Sl.	Research Title	Objective(s)	Location(s)
857.	Development of disease resistant (BLB & Blast) hybrid rice parental lines by conventional and molecular approach	• To identification of maintainers and restorers against multi-resistant. • To make a test cross for identification of heterotic hybrid rice combinations with multi-resistant.	BRRI RS Rangpur
858.	Development of submergence tolerant hybrid rice parental lines	• To make a test cross for identification of prospective disease resistant maintainers and restorers from diverse genetic origin	BRRI RS Rangpur
B. Crop-soil-water management area			
859.	Influence of Dates of Transplanting on the yields of Rice	• The optimum seedling age and best planting time of BRRI developed latest rice varieties for higher yield levels will be identified	BRRI RS Rangpur
BRRI REGIONAL STATION: SATKHIRA			
Program Area: Varietal Development			
860.	Hybridization	• To develop breeding lines with high yield potential along with desirable growth duration, acceptable grain quality and resistance to insect pests and salt tolerance	On-farm
861.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines with respective check in on-station condition	On-station
862.	Advanced Line Adaptive Research Trial (ALART)	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel • To select suitable material(s) for Proposed Variety Trial (PVT)	On-farm
863.	Assessment of specific and general adaptability for selection of suitable hybrid rice genotypes under saline prone areas for boro season	• To find out hybrid rice genotypes suitable for saline prone areas for Boro Season	On-farm
864.	Line Stage Trial (LST)	• To assess FRGA/RGA derived advanced breeding lines for uniformity at heading and desirable agronomic and grain type traits	On-farm, On-station
865.	Observational Yield Trial (OYT)	• Identification of genetically fixed advanced lines suitable for saline areas	On-farm, On-station

Sl.	Research Title	Objective(s)	Location(s)
866.	Preliminary Yield Trial (PYT)	• Initial evaluation of breeding lines for yield and other agronomic characteristics in replicated trial	On-farm, On-station
867.	Advanced Yield Trial (AYT)	• Confirmatory evaluation of selected genotypes for yield and other agronomic characteristics	On-farm, On-station
868.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines with respective check-in on-station condition	On-farm, On-station
869.	International Rice Soil Stress Tolerant Nursery (IRSSTN)	• Evaluation of breeding lines for yield and other agronomic characteristics for saline areas	On-farm, On-station
870.	Asian Food and Agriculture Cooperation Initiative (AFACI) program	• Initial evaluation of yield, salt tolerance and other agronomic characteristics of selected materials in replicated trial.	On-farm, On-station
871.	AGGRi Network trial	• To select the superior breeding lines in salinity stress environment of Bangladesh	On-farm
Program Area: Crop-Soil-Water			
872.	Effects of long-term missing nutrients on rice yield	• To identify yield limiting nutrients of rice	On-station
873.	Nitrogen rates and varietal effects on rice yield and greenhouse gas emissions in coastal ecosystems of Bangladesh	• To assess the effects of rice cultivars and nitrogen doses on rice yield and greenhouse gas (GHG) emissions in the coastal environment • To find out suitable rice cultivars for lowering GHG emissions with reduced negative environmental impacts.	On-station
874.	Effects of Bio-coated urea on rice yield in Boro season in the south-western costal ecosystem.	• To evaluate the impact of bio-coated fertilizer on rice yield. • To determine the effect of bio-coated fertilizer on saline soil properties	On-station
Program Area: Socio-economic policy			
875.	Stability Analysis of BRRI Varieties at Satkhira	• To find out the suitability and adaptability of the particular variety	On-station
876.	Rice Area Production Mapping (RAPM)	• Mapping of rice cultivation area according to season	On-farm
877.	Estimation of rice yield in different seasons of Bangladesh: Crop cuts	• To find out the on-farm yield of BRRI released rice varieties in Satkhira and Jashore regions	On-farm

Sl.	Research Title	Objective(s)	Location(s)
	method	• To analyze the performance of BRRI released rice varieties with other varieties	
878.	Monitoring Soil-Water Salinity of BRRI Farm, Satkhira	• To know the salinity status of BRRI-RS, Satkhira	On-station
879.	Monitoring Weather Status of BRRI Farm, Satkhira	• To know the weather status of BRRI-RS, Satkhira	On-station
Program Area: Technology transfer			
880.	Validation trial of selected rice varieties at BRRI farm, Satkhira	• To find out the suitability and adaptability of BRRI released rice varieties in in the southern coastal ecosystem of Bangladesh	On-station
881.	Head-to-head adaptive trial (HHAT) of Modern Rice Varieties	• To find out the adaptability of BRRI released rice varieties in various regions of Bangladesh • To compare modern rice varieties with popular local varieties • Selection of rice variety/varieties suitable for a particular region • To analyze farmers' response to modern rice varieties and take necessary actions accordingly	On-farm
882.	Seed production and dissemination program (SPDP)	• To disseminate BRRI varieties rapidly among the farmers of Khulna and Satkhira region	On-farm
Program Area: Rice farming systems			
883.	Development of four-cropped cropping pattern under irrigated ecosystem	• To increase the total productivity of unit area per year by increasing cropping intensity • To compare the sustainability of four cropped cropping patterns in terms of soil health and economic profit	On-farm
884.	Integration of mustard in the rice growing environments	• To improve system productivity by introducing mustard in the existing rice-based cropping pattern	On-farm
885.	Introducing B. Aus rice in the Watermelon-Fallow-T. Aman pattern	• To find out the scope of utilizing fallow land after watermelon cultivation by cultivating B. Aus rice under rainfed condition	On-farm
886.	Production program of BRRI released rice varieties in the southern coastal gher-ecosystem	• To find out the yield performance of BRRI released saline tolerant rice varieties in gher system	On-farm

Sl.	Research Title	Objective(s)	Location(s)
	of Bangladesh		
BRRI REGIONAL STATION: SIRAJGANJ			
887.	Improving soil water availability for crop production in char land by amendment practices	• To improve soil physical properties for increasing water holding capacity of char land areas	On station
888.	Performance of different organic manure for the amendment of char land soil.	• To identify proper organic and inorganic amendments for improving soil health	On station
889.	Effect of biochar on rice yield and soil health on problem soils	• To study the effect of biochar on rice yield, nutrient use efficiency and soil health of char land soils	On station
890.	Effect of transplanting date and spacing on the yield of BRRI dhan71	• To find out the suitable transplanting date and spacing for higher yield of BRRI dhan71	On station
891.	Response of latest BRRI varieties and management practices in char land areas of Sirajganj	• To determine the adaptation of newly released BRRI varieties in char land areas. • To disseminate BRRI recommended management practices in char land areas	On farm
892.	Collection of rice insect pests and natural enemies by light trap	• To study the pest and their natural enemy incidence patterns in rice fields • To create a database for developing a forecasting system	On station
893.	Use of Sex pheromone to control stem borer	• To study the efficacy of sex pheromone • To control rice stem borer in rice field	On station
894.	Determination of optimum dose of nitrogen for BRRI dhan87 for higher yield	• To determine the optimum doses of nitrogen for BRRI dhan87	On station
895.	Effect of seedling number and nitrogen rate on the yield performance of Bangabandhu dhan100	• To evaluate the effect of seedling number and nitrogen rate on production of effective tiller and yield of Bangabandhu dhan100	On station
BRRI REGIONAL STATION: SONAGAZI			
Season: Aus 2022			
896.	Stability Analysis of BRRI developed rice varieties in Aus 2022	• To investigate the stability of BRRI developed Aus's rice varieties • To find out location specific suitable variety(s)	On station
897.	Regional Yield Trial (RYT)-1 Favorable condition	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station.	On station

Sl.	Research Title	Objective(s)	Location(s)
898.	RYT-2 Non saline tidal condition	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station.	On station
899.	Proposed Variety Trial (PVT) Tidal Submergence	• To evaluate specific and general adaptability of the proposed variety as compared with standard checks farmer's field.	Laxmipur
900.	Seed Production and Dissemination Program (SPDP) during Aus 2022 under Karmosuchi: 120 bigha	• Rapid dissemination of newly released rice varieties to the farmers • Motivate farmers to produce and preserve good quality seeds • Increase availability of quality seed of modern rice varieties at farm level • Exchange seeds from farmers to farmers • Collect feedback about the varieties from farmers and Extension personnel.	Feni, Noakhali, Laxmipur, Chattogram, Khagrachari, Rangamati, Bandarban, Cox's bazar
901.	Mechanization of BRRI dhan48 & 98	• To show the effectiveness of farm mechanization to the farmers	On station
902.	Breeder Seed Production of BD48, 98: 2 ha land	• To guarantee that the subsequent generation seed class (foundation seed) shall conform to the prescribed standards of genetic purity	On station
903.	TLS Production	• Utilize quality seed for conducting Research (HHAT) and Demonstration (SPDP) • Provide seeds to different stakeholders to enhance dissemination of modern rice varieties.	On station
904.	Demonstration of BRRI hybrid dhan7: 20 demos	• Rapid dissemination of to the farmers • To increase food security producing more rice.	Feni, Noakhali, Laxmipur, Chattogram, Khagrachari, Rangamati, Bandarban, Cox's bazar
Season: Aman 2022			
905.	Crossing of BR49, 52, 87, 94 & 103 with Rajashail and Kajalshail	• To develop new lines or variety	On station
906.	Time of Planting (SD)	• To find out best possible transplanting time for short duration varieties in southern region of Bangladesh	On station
907.	Time of Planting (LD)	• To find out best possible transplanting time for long duration varieties in	On station

Sl.	Research Title	Objective(s)	Location(s)
		southern region of Bangladesh	
908.	Yield maximization	• To maximize the yield of rice through integrated use of manures and fertilizers	On station
909.	Stability Analysis of BRRI Varieties	• To investigate the stability of BRRI developed Aman rice varieties • To find out location specific suitable variety(s)	On station
910.	Chemical Control of False Smut	• To find out best chemical to control false smut	On station
911.	Evaluation of Tungro resistant lines	• To evaluate tungro resistant advance lines in southern region of Bangladesh	On station
912.	Multilocation trial of Promising Hybrid entries	• To evaluate newly developed hybrid entries in southern region of Bangladesh	On station
913.	Multilocation trial of Promising Hybrid entries	• To evaluate newly developed hybrid entries in southern region of Bangladesh	On station
914.	AGGRi Net Trial (ANT)	• To evaluate salinity resistant advance lines in the coastal region of Bangladesh	Chakaria, Cox's Bazar
915.	QTL analysis of Saline tolerant lines AGGRi-NET	• To collect phenotypic data of the advance lines in farmers field	Chakaria, Cox's Bazar
916.	PVT (Sallow Deep Water)	• To evaluate specific and general adaptability of the proposed variety as compared with standard checks farmer's field.	Rangunia, chattogram
917.	RYT RLR	• To evaluate specific and general adaptability of the advance salinity tolerant breeding lines as compared with standard checks in on-station.	On station
918.	RYT ZER		On station
919.	RYT (Short slender)		On station
920.	RYT (Swarna and long slender type)		On station
921.	RYT (Dev. of disease resistant rice)		On station
922.	RYT (Tidal non-saline/Stagnant water)		On station
923.	RYT STR-1		On station
924.	RYT STR-2		On station
925.	RYT STR-1		On station
926.	RYT STR-2		On station
927.	ALART (STR)	• To evaluate the yield potential and adaptability of the rice genotypes at farmers' field as submergence tolerance short duration during T. Aman season.	Companiganj

Sl.	Research Title	Objective(s)	Location(s)
		• To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	
928.	ALART (STR)		Sonagazi
929.	ALART (PQR)		Sonagazi
930.	Re-ALART (Submergence tolerant rice SubTR-LD)		Sonagazi
931.	Re-ALART (Submergence tolerant rice SubTR-LD)		Rangunia
932.	Cost effective weed management	• To find out cost effective weed management strategy in farmers field	Rangunia
933.	Survey and monitoring of rice diseases in Aman 2022	• To monitor the disease prevalence at Chattogram and Rangamati region.	Feni, Noakhali, Laxmipur, Chattogram, Khagrachari, Rangamati, Bandarban, Cox's bazar
934.	Breeder Seed Production: 8 ha	• To guarantee that the subsequent generation seed class (foundation seed) shall conform to the prescribed standards of genetic purity	On station
935.	TLS Production	• Utilize quality seed for conducting Research (HHAT) and Demonstration (SPDP) • Provide seeds to different stakeholders to enhance dissemination of modern rice varieties.	On station
936.	Seed Production and Dissemination Program (SPDP) during Aman 2022 under GOB: 330 bigha	• Rapid dissemination of newly released rice varieties to the farmers • Motivate farmers to produce and preserve good quality seeds • Increase availability of quality seed of modern rice varieties at farm level • Exchange seeds from farmers to farmers • Collect feedback about the varieties from farmers and Extension personnel.	Feni, Noakhali, Laxmipur, Chattogram, Khagrachari, Rangamati, Bandarban, Cox's bazar
937.	Seed Production and Dissemination Program		Feni, Noakhali,

Sl.	Research Title	Objective(s)	Location(s)
	(SPDP) in Aman 2022 under TRB: 60 bigha		Laxmipur, Chattogram, Khagrachari, Rangamati, Bandorban, Cox's bazar
938.	Seed Production and Dissemination Program (SPDP) during Aman 2022 under HHAT: 10		Feni, Noakhali, Chattogram, Khagrachari, Cox's bazar
939.	Farmers Training on Rice Technologies 2022-23: 40 batch	• To update knowledge and skills of farmers and extension personnel on modern rice production technologies. • To enhance dissemination of new technologies among the farmers.	Feni, Noakhali, Laxmipur, Chattogram, Khagrachari, Rangamati, Bandorban, Cox's bazar
940.	Field Day 2022-23: 10	• Awareness building and create interest among the farmers and concerned extension agents about the modern rice production technologies.	
Season: Boro 2023			
941.	Hybridization		On station
942.	Pure line selection of two LV (Ranguin & PD)		On station
943.	RYT-LD FBR	• To evaluate specific and general adaptability of the advance salinity tolerant breeding lines as compared with standard checks in on-station.	On station
944.	RYT-MD FBR		On station
945.	RYT-SD FBR		On station
946.	RYT-ELS FBR		On station
947.	RYT-STR		On station
948.	RYT ZER		On station
949.	RYT PQR Basmati Type		On station
950.	RYT FBR Biotechnology		On station
951.	RYT BB		On station
952.	RYT Blast		On station
953.	RYT MD Antioxidant		On station
954.	RYT SD Antioxidant		On station
955.	RYT Barishal		On station

Sl.	Research Title	Objective(s)	Location(s)
956.	AGGRi Expt.	• To evaluate salinity resistant advance lines in the coastal region of Bangladesh	Companiganj
957.	AGGRi QTL	• To collect phenotypic data of the advance lines in farmers field	Companiganj
958.	Effect of Time of planting on the performance of modern rice varieties	• To find out best possible transplanting time for short duration varieties in southern region of Bangladesh	On station
959.	Yield maximization of modern rice varieties	• To maximize the yield of rice through integrated use of manures and fertilizers	On station
960.	Nitrogen use efficiency of BD100	• To find out proper nitrogen dose for BD100	On station
961.	Optimizing Planting Geometry of BD100	• To find out proper line to line and plant to plant spacing for BD100	On station
962.	Screening of modern rice against SB & LF	• To find out SB and LF resistant rice variety	On station
963.	Stability Analysis of BRRI Varieties	• To investigate the stability of BRRI developed Aman rice varieties • To find out location specific suitable variety(s)	On station
964.	ALART FBR (SD)	• To select suitable material(s) for proposed variety trial (PVT).	Sonagazi
965.	ALART FBR (MD)	• To select suitable material(s) for proposed variety trial (PVT).	Sonagazi
966.	ALART (FBR Barishal)	• To select suitable material(s) for proposed variety trial (PVT).	Sonagazi
967.	HHAT TRB	• Exchange seeds from farmers to farmers • Collect feedback about the varieties from farmers and Extension personnel.	Feni, Noakhali, Chattogram, Khagrachari, Cox's bazar
968.	SPDP Feni	• Rapid dissemination of newly released rice varieties to the farmers • Motivate farmers to produce and preserve good quality seeds • Increase availability of quality seed of modern rice varieties at farm level	Feni
969.	SPDP Noakhali		Noakhali
970.	SPDP Laxmipur		Laxmipur
971.	SPDP Chattogram		Chattogram
972.	SPDP Cox'sbazar		Cox'sbazar
973.	SPDP Khagrachari		Khagrachari
974.	SPDP Rangamati		Rangamati
975.	SPDP Bandarban		Bandarban

Sl.	Research Title	Objective(s)	Location(s)
976.	SPDP TRB		Feni, Noakhali, Chattogram, Khagrachari, Cox's bazar
977.	Mechanization BD84, 97, 99 & 100	• To increase farmer interest in mechanize rice cultivation	On Station
978.	F_1 Seed Production of BRRI hybrid dhan5	• To produce F_1 Seed of BRRI hybrid dhan5	On Station
979.	Breeder Seed Production	• To fulfil the demand of Breeder seed	On Station
980.	TLS Production	• To fulfil the demand of TLS seed	On Station

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Sl.	Research Title	Objective(s)	Location(s)
GENETIC RESOURCES AND SEED DIVISION			
Gene Bank Department			
1	Collection of jute and allied fibre (JAF) germplasm for conservation in BJRI Gene Bank	• To increase the JAF germplasm collection of BJRI Gene Bank	Gazipur, Mymensingh, Sherpur, Netrokona and Kishoreganj
2	Characterization of deshi jute (*Corchorus capsularis* L.) germplasm	• To select superior deshi jute genotypes	Jute Agriculture Experimental Station, Manikganj
3	Characterization of tossa jute (*Corchorus olitorius* L.) germplasm	• To select promising tossa jute genotypes	Manikganj and Jashore
4	Characterization of kenaf (*Hibiscus cannabinus* L.) germplasm	• To select superior kenaf genotypes	Jute Agriculture Experimental Station, Manikganj
5	Characterization of mesta (*Hibiscus sabdariffa L.)* germplasm	• To select promising mesta genotypes	Manikganj and Dinajpur
6	Evaluation for morpho-agronomic attributes, disease and pest status of selected kenaf germplasm	• To evaluate superior kenaf genotypes	Chandina, Comilla and Pakhimara, Patuakhali
7	Evaluation for morpho-agronomic attributes, disease and pest status of selected mesta (*Hibiscus sabdariffa*) germplasm	• To evaluate superior mesta genotypes	Ranpur and Jashore
8	Regeneration and distribution of jute and allied fibre germplasm	• To regenerate JAF germplasm for conservation	Central Station, Dhaka
9	Monitoring the viability of jute and allied fibre germplasm and for their maintenance	• To study the viability of stored germplasm	Gene Bank Laboratory, Dhaka
Cytogenetics Department			
10	Molecular characterization of jute germplasm through DNA fingerprinting	• To identify genetic diversity of Deshi Jute germplasm. • To know the genetic relatedness among the germplasm of Deshi Jute.	Laboratory of Cytogenetics Department, Genetic Resources and Seed Division, BJRI, Dhaka.

Sl.	Research Title	Objective(s)	Location(s)
11	Optimization of plant regeneration system for tossa jute to establish tissue culture plants into the field	• To develop a reproducible and efficient protocol for in vitro regeneration of tossa jute.	Do
12	Optimization of plant regeneration protocol from the explants of deshi jute (Corchorus capsularis L.)	• To develop a reproducible and efficient protocol for in vitro regeneration of Deshi Jute.	Do
Breeder Seed Department			
13	Production of nucleus seed stock of jute, kenaf and Mesta	• To produce nucleus seed for breeder seed production in the next year. • To maintained the genetic composition of BJRI released varieties	Dhaka, Manikganj, Monirampur and Nasipur farms
14	Production of breeder seed of deshi jute, tossa jute and kenaf and Mesta	• To supply breeder seed of jute, kenaf & Mesta in different seed producing organizations for the production of foundation as well as certified seed.	Manikganj, Rangpur, Nasipur Kishoreganj, Monirampur and Chandina
15	Supervision of breeder and foundation seed produced at different farms	• To ensure the seed quality of the seed producing farms • To provide advises the seed producing agencies for improving the quality of the seed.	Manikganj, Rangpur, Nasipur Kishoreganj, Monirampur and Chandina
16	Seed yield and quality of tossa jute seed produced by different regions of Bangladesh	• For maintaining the varietal purity and quality properly • To show the comparative seed yield performance among four varieties	Kishoreganj and Patuakhali
Molecular Biology Department			
17	Genome-wide Identification and characterization of flowering genes through bioinformatic analysis in both jute species	• Identification of the flowering genes in two Corchorus species • Bioinformatics characterization of identified genes. • Transcriptome data analysis and evaluating the expression pattern of identified genes • Identification of the potential flowering genes in relation to photo-sensitivity	Molecular Biology and Bioinformatic analysis Laboratory, Molecular Biology Deoartment, BJRI

Sl.	Research Title	Objective(s)	Location(s)
BREEDING DIVISION			
Capsularis Department			
Project 1: Development of breeding materials with wider genetic background			
18	Hybridization among the selected genotypes of white jute (*Corchorus capsularis*)	• To create genetic variability for short duration, stress tolerant and high yielding jute variety. • To select jute as vegetables that contain high minerals and vitamins.	BJRI Head Quarter, Dhaka.
19	Confirmation of F_1s of white jute	• Identification of true F_1s and selection of good hybrid(s).	BJRI Head Quarter, Dhaka.
20	Evaluation of segregating materials and selection of superior plants/lines of white jute	• To evaluate segregating lines of white jute	BJRI Head Quarter, Dhaka.
Project 2: Breeding for stress tolerant lines of white jute			
21	Evaluation of selected white jute germplasm for higher yield	• To identify genetic variability, screening and evaluation of white jute germplasm for higher yield.	JAES, Manikganj
22	Screening of white jute germplasm for less photosensitivity, short duration and higher yield	• To increase the productivity of white jute along with short duration to fit with 3 crop based cropping patterns.	JAES, Manikganj
23	Preliminary yield trial of advanced lines of white jute for short day and low temperature tolerance	• To identify short day and low temperature lines coupled with disease resistance.	JAES, Manikganj; JRRS, Rangpur and Kishoreganj and JRSS, Monirampur.
Project 3: Field evaluation of advanced strains in different agro-ecological zones			
24	Preliminary yield trial of high yielding white jute strains	• To develop new varieties of white jute suitable for higher yield potential.	JAES, Manikganj; JRRS, Rangpur and Kishoreganj; and JRSS, Monirampur
25	Advanced yield trial of early seeding breeding lines of white jute	• To develop new varieties of white jute suitable for early sowing and higher yield	Do
26	Zonal yield trial of high yielding breeding lines of white jute.	• To test higher yield and adaptability of three potential	Do

Sl.	Research Title	Objective(s)	Location(s)
		breeding lines at different agro-ecological zones.	
Project 4: Varietal maintenance of white jute			
27	Maintenance of nucleus seed stocks of white jute.	• To maintain new nucleus seed stock of released varieties of white jute.	JAES-Manikganj, Monirampur and Dhaka.
28	Maintenance of advanced lines of white jute.	• To maintain different strains already in use and to be used as parents for improvement of white jute varieties.	JAES, Manikganj and JRSS, Monirampur.
Olitorius Department			
Project 1: Development of breeding materials with wider genetic background			
29	Hybridization among the selected genotypes of tossa jute.	• To create variability.	BJRI Head Quarter, Dhaka.
30	Confirmation of F_1s in tossa jute.	• To confirm the true hybrids.	BJRI Head Quarter, Dhaka.
31	Evaluation of segregating materials and selection of superior lines of tossa jute.	• To select superior plant(s) based on their desirable traits.	BJRI Head Quarter, Dhaka.
32	Screening of tossa jute germplasm for higher yield	• To identify biotic and abiotic stress-tolerant genotypes with higher yield.	Jute Agricultural Experiment Station (JAES), Manikganj
33	Anatomical studies in tossa jute for quality fiber.	• To identify germplasm with higher fiber yield contributing anatomical characters.	BJRI Head Quarter, Dhaka and JAES, Manikganj.
34	Evaluation of tossa jute mutants at different generation.	• To select stress tolerant and high yielding mutant lines.	JRSS, Monirampur.
35	Rapid generation advance (RGA) protocol development in tossa jute.	• To speed up the breeding cycle.	BJRI Head Quarter, Dhaka.
36	Chemical mutation of tossa jute using EMS and Colchicine	• To create genetic variability.	BJRI Head Quarter, Dhaka.
37	CMS line searching in tossa jute to develop hybrid variety	• To identify the male sterile line for hybrid jute development.	BJRI Head Quarter, Dhaka.
38	Identification of Chemical Hybridizing Agents (CHAs) and Proper Dose to	• To select the effective CHA and accurate dose responsible for	BJRI Head Quarter, Dhaka.

Sl.	Research Title	Objective(s)	Location(s)
	induce Male Sterility in Tossa Jute	male sterility with a view to develop hybrid variety.	
39	Regulation of vascular cell division in tossa jute	• To determine the phytohormones affecting the bast fiber development	JAES, Manikganj
Project 2: Screening of stress tolerant tossa jute lines with higher fibre yield			
40	Screening of tossa jute genotypes against salt stress using petri plate method.	• To screen out genotypes for salt tolerance.	JRSS, Monirampur.
41	Screening of tossa jute germplasm against waterlog condition.	• To screen out waterlog tolerant tossa jute genotypes.	BJRI Head Quarter, Dhaka.
42	Advancement of tossa jute lines for short day and low temperature tolerance.	• To identify short day and low temperature tolerant genotypes.	BJRI Head Quarter, Dhaka.
Project 3: Evaluation of breeding lines of tossa jute at progeny levels			
43	Preliminary yield trial of promising lines of tossa jute.	• To develop tossa jute varieties with higher yield and other desirable attributes.	JAES, Manikganj; JRRS, Rangpur, Faridpur, Kishoreganj, Chandina and JRSS, Monirampur.
44	Advanced yield trial of three breeding lines of tossa jute.	• To develop new varieties of tossa jute for higher fibre yield.	Do
45	On farm yield trial of an advanced breeding line of tossa jute.	• To evaluate the performance of selected line.	Do
Project 4: Varietal maintenance of tossa jute			
46	Maintenance of nucleus seed stock of tossa jute.	• To maintain purity of variety.	JAES, Manikganj and JRRS, Rangpur.
47	Maintenance of parents of tossa jute.	• To maintain purity of parental lines.	Do
Kenaf and Mesta Department			
Project 1: Development and broadening of genetic materials of kenaf and mesta			
48	Hybridization in Kenaf and Mesta.	• To create variability and to isolate desirable progenies.	BJRI Head Quarter, Dhaka.
49	Confirmation of F_1s.	• To ensure true hybrids.	Do
50	Evaluation of segregating lines of kenaf and mesta.	• To select desirable lines/ plants from the segregating generation.	Do

Sl.	Research Title	Objective(s)	Location(s)
51	Screening of kenaf and mesta germplasm for higher fibre yield.	• To isolate superior genotypes with desired characters for future breeding purposes.	Do
52	Rapid generation advance (RGA) protocol development in kenaf	• To speed up the breeding cycle (2-3generations in one year) and reduction of breeding costs (resources, labor, and space) and quick variety development.	Do
53	Biochemical analysis of Kenaf (*Hibiscus cannabinus*) and Mesta (*Hibiscus sabdariffa*) seed oil.	• To estimate fatty acid, glyceride, lipid and polyphenol content of kenaf and mesta seed oil.	Do
Project 2: Evaluation of breeding lines of kenaf and mesta at progeny level			
54	Preliminary yield trial (PYT) of kenaf breeding lines.	• To develop new variety of Kenaf with higher fibre yield than the existing cultivars.	BJRI Head Quarter, Dhaka and JRSS, Monirampur.
Project 3: Field evaluation of advanced strains of kenaf and mesta in different agro-ecological zones			
55	On farm yield trial of kenaf breeding lines.	• To develop quick growing, early maturing and high yielding kenaf variety.	Farmer's field and six sations of BJRI
56	On farm yield trial of a promising lines of mesta	• To develop Mesta variety with higher yield and other desirable attributes.	Farmer's field and six sations of BJRI
Project 4: Varietal maintenance of kenaf and mesta			
57	Maintenance of nucleus seed stock of kenaf and mesta.	• To maintain the genetic purity of the varieties.	JAES, Manikganj and JRRS, Rangpur
AGRONOMY DIVISION			
Crop Management Department			
58	Maintenance of parents of kenaf and mesta.	• To maintain different strains already in use and to be used as parents in future breeding programs.	Do
59	Determination of appropriate sowing date on fibre yield and yield attributes of evolved variety BJRI Tossa Pat 8 (Robi-1)	• To ascertain the optimum time of sowing for higher fibre yield.	Manikganj, Rangpur & Jashore

Sl.	Research Title	Objective(s)	Location(s)
60	Effect of harvesting time on fibre yield and yield attributes of advanced breeding line O-0412-9-4 and O-043-7-9 of tossa jute	• To determine the appropriate harvesting time for the advanced Tossa breeding line O-0412-9-4 and O-043-7-9 for the production of maximum and high-quality fibre	Manikganj, Faridpur & Jashore
61	Study the effect of weedicide samples for cultivation of jute in field condition	• To reduce management costs, the use of weedicide for jute crops is essential for the present situation	Manikganj & Tarabo
62	Effect of weeding and herbicide management on fibre yield and yield attributes of Deshi jute	• To produce jute in a cost-effective manner through manipulation of weeding and herbicide regime	Manikganj & Tarabo
63	Effect of date of sowing on seed yield and yield attributes of evolved variety BJRI Tossa Pat 8 (Robi-1) as influenced by spacing	• To determine the appropriate sowing date and spacing of evolved variety BJRI Tossa Pat-8	Manikganj, Rangpur & Jashore
64	Effect of different weed management techniques on jute seed Production	• To determine appropriate weed management practices for jute seed production	Rangpur
65	Seed yield and quality of BJRI developed kenaf varieties as affected by sowing date	• To find out the effect of sowing time and varieties on kenaf seed yield and quality at different locations in Bangladesh.	Kishoreganj & Tarabo
66	Effect of tillage on seed yield and yield attributes of Kenaf crop	• To the improvement of fibre yield and yield attributes of kenaf under tillage conditions as well as profitability.	Kishoreganj
67	Effect of vermicompost on yield and yield attributes of BJRI Tossa Pat 8	• To study the effect of Vermicompost on the growth and yield of jute.	Rangpur
68	Study on relay intercropping of jute and kenaf into vegetables and spices crops for seed production	• To evaluate the intercropping kenaf with the brinjal crop	Kishoreganj

Sl.	Research Title	Objective(s)	Location(s)
Physiology Department			
69	Dry matter accretion with ages of advance *olitorius* breeding line O-043-7-9 (Red) (Physio. 1/2023)	• To find out dry matter distribution • To find out appropriate harvest time • To know crucial growth period	Jute Agriculture Experimental Station, Manikganj
70	Screening of jutegermplasm for drought tolerance (Physio. 2/2023)	• To Screened out drought tolerant Jute genotype	Net House, BJRI and JAES, Manikganj
71	Screening of jutegermplasm for water logging tolerance (Physio. 3/2023)	• To Screened out water logged tolerant Jute genotype	BJRI head office Dhaka
72	Screening of Kenaf (*Hibiscus cannabinus*) germplasm for yield under different water logging conditions (Physio. 4/2023)	• Different germplasm may perform differently which will help in further varietal development.	JRRS, Rangpur
73	Screening of jutegermplasm for less photosensitivity (Physio. 5/2023)	• To Screened out Jute genotype with less photosensitivity	JAES, Manikganj and JRRS, Rangpur
74	Screening of different jute germplasm for salinity tolerance (Physio. 6/2023)	• To find out the suitable saline tolerant *C. olitorius* germplasm/accessions.	Saline zone (Kalapara, Patuakhali)
75	Screening of jutegermplasm with erect leaf for higher fibre yield (Physio. 7/2023)	• Erect leaf jute genotype will be screened out.	JAES, Manikganj
76	Effect of different containers available to farmers on shelf life of kenaf seed (Physio. 8/2023)	• Effect of different containers on shelf life of kenaf seed will be identified	Physiology laboratory, Dhaka head office
77	Effect of de-topping on reproductive phenology and seed quality in different Kenaf varieties (Physio. 9/2023)	• Effect of de-topping on reproductive phenology and quality of kenaf seed. • Optimum time of de-topping during Kenaf seed production.	JAES, Manikganj
78	Study on morpho-phenology of BJRI released 'pat shak' varieties at different location of BJRI (Physio. 10/2023)	• To study morphological and phenological attributes of 'pat shak' varieties round the year	JAES, Manikganj; JRRS, Rangpur; JRSS, Jashore

Sl.	Research Title	Objective(s)	Location(s)
79	Determination of suitable flowering response of BJRI released latest tossa jute varieties for changing environment at different location of BJRI (Physio. 11/2023)	• To find out suitable sowing time for maximum yield	JAES, Manikganj; JRRS, Rangpur; JRSS, Patuakhali
80	Effect of Plant Growth Regulators on Yield and Quality of Late Season Tossa Jute Seed (Physio. 12/2023)	• Different plant growth regulators may affect differently which will help to find out the effect of different plant growth regulators on seed yield and quality of olitorius jute under 'late jute seed production technique'	Jute Research Regional Station, Rangpur
Soil Science Department			
81	Nutrient requirement for *capsularis* breeding line BJC-2281	• To determine the effects of N, P, K, and S fertilizers on the growth, yield, and quality of the breeding line BJC-2281, as well as the optimum requirement of all of these nutrients to achieve the full yield potential of this new advance breeding line.	Manikganj and Faridpur
82	Influence on nutrients of N, P, K and S on the advanced olitorius breeding line O-043-7-9 (green)	• To know the N, P, K and S fertilizer requirement of the advanced *olitorius* breeding line O-043-7-9 (green) for fiber production.	Jashore and Narayanganj
83	Influence of plant nutrient management on BJRI developed newly released tossa jute variety.	• To evaluate the growth and yield ability of BJRI developed newly released tossa jute variety. • To find out the appropriate nutrient management option for proper growth and higher yield of tossa jute; and • To find out the suitable interaction (if any) between variety and nutrient management in respect of growth and yield of tossa jute.	Kishoreganj.

Sl.	Research Title	Objective(s)	Location(s)
84	Optimizing potassium for managing plant lodging and yield of *olitorius* jute.	• The goal of the present study was to identify potassium doses for increasing yield while simultaneously reducing lodging risk in Jute.	Manikganj and Jashore
85	Influence on nutrients of N, P, K and S on the advanced kenaf breeding line KBL-73	• To know the N, P, K and S fertilizer requirement of the advanced kenaf breeding line KBL-73 for fiber production.	Manikganj and Narayanganj
86	Study of the nutrient requirement of NPK S of advanced breeding line KBL-155 (1).	• To determine the nutritional requirement of the BJRI advanced kenaf breeding line KBL-155(1) for fiber production.	Manikganj and Kishoreganj.
87	Optimization of nutrients N, P, K, S, Zn & B requirement of the advanced *Olitorius* breeding line O-043-7-9 (green) in relation to quality seed production.	• To compare the different combination of nutrient and to find out the suitable dose of each nutrient for the optimum growth and seed yield of advanced *olitorius* breeding line.	Narayanganj and Jashore
88	Optimization of nutrients N, P, K, S, Zn & B requirement of the advanced *Olitorius* breeding line O-043-7-9 (red) in relation to quality seed production.	• To compare the different combination of nutrient and to find out the suitable dose of each nutrient for the optimum growth and seed yield of advanced olitorius breeding line.	Narayanganj and Jashore
89	Impact of boron as basal and foliar application on quality and yield of jute seed.	• To find the effect on different yield contributing characters and their effectiveness towards seed yield through boron fertilization.	Patuakhali
90	Influence of N P K S Zn & B on advanced breeding line KBL-155 (1) for seed production**.**	• To determine the nutritional requirement of the BJRI advanced breeding line KBL-155 (1) for seed production	Manikganj
91	Salinity management in late jute seed production of BJRI Tossa Pat 5	• To identify effective ameliorant, and effect of mulching in improving growth and yield of late jute seed BJRI Tossa Pat 5 (O-795) on saline soil.	Patuakhali

Sl.	Research Title	Objective(s)	Location(s)
92	Effect of raised bed planting and K and Mulch application on the mitigation of soil salinity and yield of late jute seed.	• To generate information together salinity management and jute seed production.	Patuakhali
93	Assessment of different organic salinity management technologies for jute cultivation at coastal saline soils.	• To available salinity amendment technologies will be compared in this study to find the best one fit for jute cultivation in saline soils.	Patuakhali
PEST MANAGEMENT DIVISION			
Plant Pathology Department			
94	Seed health study of Jute, Kenaf and Mesta collected from different sources	• To determine the status of different seed borne pathogens in seed samples of jute, kenaf and mesta collected from different stations of BJRI	Laboratory of Plant Pathology, BJRI
95	Screening of germplasms of jute against stem rot and anthracnose	• To identify some selected germplasm against stem rot in artificially inoculated sick bed under field condition	Manikgonj Kishoreganj
96	Monitoring of advance line of jute, kenaf and mesta against stem rot and anthracnose	• To identify some selected advance lines against stem rot and anthracnose in artificially inoculated sick bed under field condition	Kishoreganj Rangpur
97	Phenotypic screening of kenaf germplasm for resistance to *Mesta yellow vein mosaic virus*	• To find out the resistance sources for controlling leaf yellowing disease of kenaf	Kishoreganj
98	Evaluation of new spraying fungicides against seed borne fungal pathogens of jute, kenaf and mesta	• Some new fungicides to be evaluated against the fungal diseases of jute and allied fibre crops.	Manikgonj Kishoregonj
99	Integrated Management Approach for Field Disease Complex of *Olitorius* Jute *Corchorus olitorius* L. (Var. BJRI Tossa Pat- 8	• To find out effective management strategies of jute fibre and seed crop of BJRI Tossapat-8. • To produce disease free quality jute seed of BJRI tossa pat-8 (Robi-1).	Faridpur
100	Effect of different levels of potassium (K) on incidence	• To reduce different field diseases of jute and to increase the yield & yield contributing	Faridpur

Sl.	Research Title	Objective(s)	Location(s)
	of field diseases and yield of newly released olitorius jute variety BJRI tossa pat 8 and an exotic variety JRO 524	characters in natural field condition.	
101	Impact of climatic changes (temperature, rainfall and humidity) on the incidence of diseases of jute	• To find out environmental (temperature, rainfall and humidity) effect for disease infection on jute plants and find out the relationship between temperature, rainfall, humidity and disease incidence	Kishoregonj, Rangpur, Cumilla, Jessore, Patuakhali
102	Efficacy of different seed treating fungicides for controlling seed borne pathogens of jute	• To evaluate the efficacy of different seed treating fungicides for controlling seed borne fungal diseases of jute	Laboratory of Plant Pathology, BJRI
103	Survey on diseases of jute and allied fibre crops	• To know the different disease incidences of jute and allied fibre crops in different agro-ecological zones of jute and allied fibre crops	Dinajpur, Jessore, Manikganj, CRS, Dhaka, Potuakhali, Kishoregonj
Entomology Department			
104	Study on the pest status of promising lines of jute and allied fibre crops in different locations	• To know the pest susceptibility of the promising lines comparing with a standard variety in different locations	Kishoreganj, Faridpur, Rangpur, Cumilla and Jashore
105	Effectiveness of new acaricides on jute yellow mite under field condition	• To determine the efficacy of new acaricides recommended by Sub-PTAC for standardization. • To evaluate the effective and economic acaricides for controlling jute yellow mite.	Tarabo, Narayanganj and JAES, Manikganj
106	Evaluation of insecticides against jute hairy caterpillar under field condition	• To determine the efficacy of new insecticides recommended by Sub-PTAC for standardization • To evaluate the effective and eco-friendly insecticides for controlling jute hairy caterpillar	Tarabo, Narayanganj and JAES, Manikganj

Sl.	Research Title	Objective(s)	Location(s)
107	Effect of sowing dates on yellow mite, *Polyphagotarsonemus latus* infestation in jute	• To find out suitable sowing time for avoiding yellow mite infestation • To monitor the abundance of yellow mite at different environmental condition and time	JAES, Manikganj
108	Effect of nitrogenous fertilizer on jute yellow mite infestation in *Corchorus spp.*	• To study the impact of nitrogenous fertilizers on the infestation of jute yellow mites	JAES, Manikganj
109	Effectiveness of some selected botanicals to control jute yellow mite	• To know the efficacy of botanicals for controlling jute yellow mite • To find out an alternatives of chemical pesticides • To reduce cost of production and keep environment friendly	JAES, Manikganj
110	Survey on insect and mite pest of fibre and seed crops of jute and allied fibre	• To collect information about the nature of incidence, intensity and peak period of insects and mite pest in the JAF crop for early forecasting	All BJRI Stations along with adjacent farmer's field
FIBRE QUALITY IMPROVEMENT DIVISION			
Post Harvest Processing Department			
111	Isolation and identification of jute retting bacterial strains from different natural sources and study of their retting properties	• To isolate and identification of pectinolytic jute retting bacterial strains • To prepare effective jute retting bacterial consortia	Central Station, Dhaka
112	Influence of chemical retting method on properties of kenaf fibre	• To investigate effect of chemicals on fibre quality	Central Station, Dhaka
113	Retting period and fibre properties of different advanced breeding lines of jute and kenaf	• To evaluate the retting period and fibre quality of advanced breeding lines with respective released variety for using in variety release program	Jute Agriculture Experimental Station, Manikganj and Kishoreganj
114	Effect of conventional and ribbon retting technique on	• To investigate the fibre quality at different harvesting times of	Jute Agriculture Experimental Station, Manikganj

Sl.	Research Title	Objective(s)	Location(s)
	fibre quality of different varieties of jute	different jute varieties through different retting techniques	
115	Comparative studies on retting time and physical properties of kenaf and mesta	• To screen out proper harvesting and retting time • To determine fibre quality based on physical properties	Jute Agriculture Experimental Station, Manikganj and Jute Research Regional Station, Rangpur
116	Improvement of existing auto power jute ribboner	• To improve the existing auto power ribboner cost effectively for better efficiency • To modify the ribboner to produce intact sticks instead of broken one for jute, kenaf, and mesta	BJRI, Head Office, Dhaka and Janata Engineering Workshop, Chuadanga.
JUTE FARMING SYSTEMS DIVISION			
Title of the Project: Cropping Systems Study in Different AEZs			
117	Development of jute based four crops pattern against existing farmers' pattern Mustard–Fallow–Jute–T. Aman	• To increase the cropping intensity by producing three or more crops • To increase the production efficiency of the individual crop by using optimum management practices.	Manikganj
118	Development of jute seed containing cropping pattern at Manikganj area	• To develop jute seed containing cropping pattern and increase cropping intensity	Manikganj
119	Development of alternate cropping pattern Sunflower–Jute–T. Aman against existing farmers' pattern Fallow–Fallow–T. Aman in medium high land at Patuakhali	• To increase the cropping intensity by producing three cropsand increase cropping intensity at Patuakhali	Patuakhali
120	Development of alternate cropping pattern (ACP) introducing new crop against the existing farmers' pattern (FCP) Fallow–Boro–Fallow in haor areas of Kishoreganj	• To explore the possibility to fit a new crop in haor area • To improve cropping systems over the existing farmers' practices in haor areas	Kishoreganj

Sl.	Research Title	Objective(s)	Location(s)
121	Development of jute based four crops pattern against existing farmers' pattern Sesame–Vegetables–T. Aman–Fallow	• To increase the cropping intensity by producing three or more crops • To increase the production efficiency of the individual crop by using optimum management practices.	Jashore
122	Development of kenaf seed containing alternate cropping pattern against the existing farmers' pattern Rabi crops–Fallow–T. Aman in medium high land in Dinajpur	• To increase the crop intensity by producing more crops • To improve soil organic matter using modern techniques	Dinajpur
123	Performance of alternate cropping pattern Soybean–Jute–T. Aman against farmer's cropping pattern Soybean–Fallow–T. Aman in medium high land of Noakhali region	• To develop oil crop involving three crops pattern • To increase cropping intensity and farmer's income	Cumilla
124	Development of Farmer's Alternative cropping pattern Water Melon-Jute-T. Aman against existing Farmers' pattern Water Melon-Fallow-T. aman at coastal area in Patuakhali	• To increase the cropping intensity by producing three crops at coastal area in Patuakhali • To increase the production efficiency of the individual crop by using optimum management practices.	Patuakhali
Title of the Project: JAF Crop Based Agroforestry Systems			
125	Evaluation of pat shak with summer vegetables as intercrop under agroforestry system	• To observe the performance pat shak as intercrop under agroforestry system • To increase cropping intensity and farmer's income	Rangamati
126	Performance evaluation of pat shak with turmeric as intercrop under mango-based agroforestry	• To develop pat shak containing cropping pattern under agroforestry system • To increase cropping intensity and farmer's income	Manikganj and Rangamati

Sl.	Research Title	Objective(s)	Location(s)
127	Evaluation of BJRI developed pat shak and vegetable mesta varieties under agroforestry system in hill areas of Bangladesh	• To develop pat shak and vegetable mesta containing cropping pattern under agroforestry system • To meet up the demand of leafy vegetables farm level	Manikganj, Rowangchhari, and Bandarban Sadar
128	Performance evaluation of mesta vegetables and seed production under agroforestry system in Rangamati	• To introduce seed and vegetable mesta containing cropping pattern under agroforestry system • To meet up the demand of seed and leafy vegetables farm level	Rangamati
Title of the Project: Socio-Economic Studies			
129	Study on cost and return of tossa jute cultivation at farm level in different areas of Bangladesh	• To find out the area, cost and return of jute cultivation and • To identify the socio-economic constraints for jute production	Faridpur, Cumilla, Narayanganj, Patuakhali, Manikganj, Rangpur, Dinajpur, Kishoreganj, Jashore, Tangail, Pabna, Khulna, Meherpur and Jamalpur
130	Study on cost and return of kenaf cultivation at farm level in different areas of Bangladesh	• To find out the area, cost and return of kenaf, and • To identify the socio-economic constraints for kenaf producer.	Faridpur, Cumilla, Narayanganj, Patuakhali, Manikganj, Rangpur, Dinajpur, Kishoreganj, Jashore, Shariatpur, Barisal, Sirajganj, B. Baria and Tangail
131	Cost and return study of JAF seed crops at contract growers of BADC, JD and demo farmers of BJRI and DAE	• To find out the cost and return and socio-economic constraints for the production of late jute seed crop	Faridpur, Cumilla, Narayanganj, Patuakhali, Manikganj, Rangpur, Dinajpur, Kishoreganj, Jashore, Chapainawabganj, B. Baria and Kushtia
132	Assessment of farmers' perceptions towards jute production and the necessity of effective linkages amongst the	• To determine the farmers' attitudes regarding jute cultivation in southern region of Bangladesh,	Barishal

Sl.	Research Title	Objective(s)	Location(s)
	stakeholders in aiming to increase jute yield in southern area of Bangladesh		
Title of the Project: Technology Transfer			
133	Field days, farmers' training and technology transfer workshop for JAF crops	• To motivate farmers and technologies will be popularized at farmers' level	BJRI Dhaka, Manikganj, Faridpur, Rangpur, Kishoreganj, Chandina, Dinajpur, Monirampur, Jamalpur and Tarabo, Narayanganj
134	Technology transfer through field trial, jute villages and jute blocks for fibre production	• To adopt BJRI technologies and farmers will be motivated	Manikganj, Faridpur, Rangpur, Kishoreganj, Chandina, Dinajpur, Monirampur, Jamalpur and Tarabo, Narayanganj
135	Technology transfer through field trial and jute block for seed production	• To become self-sufficiency in jute seed through intercropping method with rabi crop	Manikganj, Rangpur, Monirampur, Faridpur, Cumilla, Patuakhali, Kishoreganj and Madarganj
136	Popularization of BJRI JAF crop variety at farmers' level	• To disseminate BJRI varieties to the farmers level,	Manikganj, Rangpur, Monirampur, Faridpur, Cumilla, Patuakhali, Kishoreganj and Madarganj
TEXTILE PHYSICS DIVISION			
Technology Wing			
137	Studies on the electrical properties of low temperature plasma treated jute	• To see the changes of electrical properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute • To see the changes of thermal properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute	Department of Physics, BUET Department of Materials & Metallurgical Engineering, BUET Atomic Energy Centre (AEC), Dhaka BCSIR, Dhaka

Sl.	Research Title	Objective(s)	Location(s)
		• To see the changes of optical properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute	
138	Effect of Nano-clay on Crystallinity index, Thermal and Mechanical properties of Jute composites	• To increase diversified usages of jute fibres • To produce jute reinforced Polyester composite • To increase thermal and mechanical properties jute reinforced Polyester composite	Textile Physics Division, BJRI DUET BCSIR Bangladesh Atomic Energy Commission, Dhaka Center
139	Effect of aloe vera gel incorporation in unsaturated polyester resin of jute-cotton union fabric reinforced composite	• To increase diversified usages of jute fibres • To produce jute-cotton union fabric reinforced composites • To reduce the thermal conductivity of jute-cotton union fabric reinforced composites • To reduce the brittleness of jute-cotton union fabric reinforced composites	Textile Physics Division, BJRI BUTex, Dhaka BCSIR, Dhaka DUET
140	Study on the physico-mechanical properties of BJRI Tossa Pat-6and O-9897 varieties	• To determine the physico-mechanical properties of BJRI developed varieties • To analysis the test results and select the proper raw jute for diversified uses • To optimize the quality and cost of end products • To create an accumulation of these data for BJRI to formulate a database	Textile Physics Division, BJRI BUTex BCSIR
141	Effect of fibre loading and surface modification of jute fibre on the mechanical properties of jute fibre reinforced polypropylene/HDPE/PLA composites	• Fabrication of jute fibre reinforced composites with different weight proportion of fibres and using different matrices such as polypropylene, HDPE and PLA • Finally, determination of the different mechanical properties of jute fibre reinforced	Testing and Standardization Department Textile Physics Division, BJRI Atomic Energy Commission, Savar, Dhaka

Sl.	Research Title	Objective(s)	Location(s)
		composites for diversification of jute products	Fibre & Polymer Research Division, BCSIR
142	Investigation on the working conditions of the workers involved in the yarn product	• Investigation of the working conditions of the workers involved in the yarn product • Elucidating between the existing working condition and ISO standard	Different jute Mills
143	Study on the improvement of UV radiation on the jute and jute-based products	• To analyze the UV blocking properties of jute and jute-based product • To improve the UV blocking properties of jute and jute-based product	BJRI BCSIR
144	Effect of Hybridization (jute-sugarcane bagasse) on physico-mechanical and electrical properties of composites	• To evaluate the physico-mechanical properties of jute-sugarcane bagasse hybrid composites • To evaluate the cost effectiveness of jute-sugarcane bagasse hybrid composites •	Textile Physics Division, BJRI JU BCSIR Physics Department, BUET
145	Formulation and demonstration of different types of jute-based filaments for 3D printer	• To produce complex shapes using less materials • To produce plastic layers or sheets on the surface of the finished products •	BCSIR E-SQUIRE Knit composite ltd BJRI BUTEX
146	Up-gradation and digitalization of a Modified Lee's Disk thermal conductivity measuring instrument	• Digitalize the existing thermal conductivity meter to minimize errors and complex manual mathematical calculation with saves time also •	Textile Physics Division, BJRI
147	Development of recycled PP-jute composite and their environmental performance estimation	• Development of recycle Jute-PP composite • Effect of fatigue, thermal aging, water aging on the recycle PP-jute composite	BJRI Department of Materials & Metallurgical Engineering, BUET BCSIR, Dhaka Manchester University, UK

Sl.	Research Title	Objective(s)	Location(s)
DYEING AND PRINTING DIVISION			
148	Economic dyeing process of Jute/Cotton blended fabrics for Apparel use.	• To determine the dyeing properties of jute /cotton blended fabric. • To investigate the effect of different dyestuff and softening agents on the dyed fabrics	Dyeing and Printing Division, Technology Wing, BJRI
149	Studies on the effect of pigment and indigo dye on jute and jute blended fabrics and products	• To apply the pigment and indigo dyes on jute and jute blended fabrics • To investigate the effect of both dyes on jute and jute blended fabrics as well as their characterization.	Dyeing and Printing Division, Technology Wing, BJRI
150	Studies on the effect of reactive dye on jute and jute blended fabrics	• To apply the reactive dye on jute and jute blended fabrics • To investigate the effect of reactive dyes on jute and jute blended fabrics with its parametric study	Dyeing and Printing Division, Technology Wing, BJRI
MECHANICAL PROCESSING DIVISION			
151	A study on the physical and mechanical properties of jute-banana fibre blended yarn.	• The main objective of this experiment is to produce the jute banana blended yarns from low grade jute.	Spinning Department, Mechanical Processing Division, BJRI.
152	Study on the spinning performance of jute-wool blended yarn	• To compare the different blend ratio of jute and wool fibre to produce jute-wool blended yarn.	Spinning Mill, Mechanical Processing Division, Bangladesh Jute Research Institute (BJRI), Manik Mia Avenue, Dhaka-1207.
153	Study on the spinning performance of Robi-1, JRO-524 & O-9897 jute varieties at BJRI	• To identify a suitable variety for a suitable jute product and to increase use of jute also • To measure color, luster, softness, strength and spinning performance and yarn properties of above said jute varieties.	Spinning department, Mechanical Processing Division, Bangladesh Jute Research Institute
154	Production of different types of bags with Jute-cotton irregular satin fabric.	• To study about physico-mechanical properties of jute cotton irregular satin fabric for	Weaving and Spinning Department, Mechanical

Sl.	Research Title	Objective(s)	Location(s)
		making different end products from this fabric.	Processing Division, BJRI
155	Development of prayer mat from jute yarn/Jute-wool blended yarn	• To produce a new type of prayer mat with the use of all jute yarns by tappet loom. • Replacing synthetic prayer mat by producing useable jute-based prayer mat.	Spinning and Weaving Department, Mechanical Processing Division, Bangladesh Jute Research Institute
156	Studies on resin viscosity on the properties of jute fiber reinforced polyester composites	• To improve jute fiber wetting by reducing resin viscosity • To optimize resin viscosity on the basis of mechanical properties of the fabricated composites • To Develop high strength and low-cost jute composite as substitute of wood	Machinery Development and Maintenance Department, Mechanical Processing Division, BJRI
157	Visit the different Jute mills and organizations for sharing scientific processing techniques and methods for jute and jute goods	• In the mechanical processing division, there are an experimental spinning mill, a weaving mill and a mechanical workshop. Different organizations come to BJRI for processing their fibres in scientific way or experimental basis. • Private jute mills imported new machines from china and Indian origin. So, we have to go their mills and visit the new machinery for development of BJRI.	All jute mills, research organizations and different universities in our country and abroad
158	Technical services to different entrepreneur and training to academic organizations to promote jute and jute goods	• To train the technical personnel/entrepreneurs of jute industries on developed processing technology of this division. • Practical training on jute processing system and machinery for the students of different government/private universities of the country. • To transfer the knowledge of maintenance and development	Spinning, weaving and work shop of Mechanical processing division, Bangladesh Jute Research Institute.

Sl.	Research Title	Objective(s)	Location(s)
		of jute processing machinery to the entrepreneurs/industries.	
PILOT PLANT AND PROCESSING DIVISION			
159	Study on sustainability of woven jute geo textiles in geo technical engineering by treated bitumen emulsion of different concentration.	• To identify the duration of biodegradability of jute geo textiles on various GSM by bitumen emulsion. • To determine the optimal area for Jute geotextiles and ensure their suitability for various locations.	Pilot plant and processing division.
160	Eco- friendly cationic modification of jute and jute/cotton knitted fabrics for improving utilization of reactive dyes.	• Eco- friendly cationic modification of jute and jute/cotton knitted fabrics • To produce different types knitted fabric improving utilization of reactive dyes. • To assess the desired aesthetic and performance characteristics of those fabrics.	Pilot plant and processing division.
161	Studies on physic-chemical properties of different type of jute lignin for textile uses.	• To measure total lignin content from BJRI Tossa jute 5 (variety O-795) in jute fiber and stick. • To identify the physic-chemical properties of jute lignin. • To increase usages of jute lignin in diversified field	1. Pilot Plant and Processing Division, 2. BJRI 3. BCSIR 4. BUET 5. Bangladesh Atomic Energy Commission, Dhaka Center
162	Development of a special washing, laundering and softening reagent for jute-based fabrics and products to increase their diversified usage.	• To develop indigenous and specific chemicals, auxiliaries for jute and jute goods. • To identify a special washing, laundering and softening reagent for jute/fabrics.	1.Pilot plant and processing division 2. Textile physics Division 3. Bangladesh Centre for Scientific and Industrial Research 4.Chemistry division
163	Development of purl fabric by using flatbed knitting machine	• To produce different types of purl fabrics. • Testing of different parameters of purl fabrics. • To produce eco- friendly jute fabrics.	Pilot Plant and Processing Division, BJRI Bangladesh University of Textile, Dhaka

Sl.	Research Title	Objective(s)	Location(s)
164	Development of economically viable diverse products from jute waste and efficient waste management system for jute industry.	• Characterization of jute waste produced in jute processing industry • Identification of appropriate uses of jute waste by evaluation of its physiochemical, mechanical and thermal properties • Development of diversified products such as activated carbon fiber, fuel cake, absorbent material, insulation materials from jute waste • Assessment of air quality of jute mills • Characterization of liquid effluent generation from jute industry • Development of a comprehensive waste management system for jute industries • Determination of the economic feasibility and environmental sustainability of diversified jute waste products	Pilot Plant and Processing Division, BJRI Physics Division, BJRI
CHEMISTRY DIVISION			
165	Study for minimizing the cost of pulp, paper and viscose from jute	• To develop an eco-friendly and economically viable pulp, paper, cellulose and viscose production methods from jute • To find out suitable eco-friendly storage system for management of jute • To reduce the use of chemical for the production of pulp, paper, cellulose and Viscose • To reduce the use of hard wood, soft wood and bamboo etc. • To find out diverse use of pulp as well as jute in the world market	Chemistry Division, Technology Wing, BJRI

Sl.	Research Title	Objective(s)	Location(s)
166	Extraction and synthesization of various useful chemicals and natural polymer derivatives from jute and allied fibrous materials to produce value added products.	• To extract and produce of useful chemicals and polymer derivatives from jute fibre, jute sticks, jute wastages and to verify those produced chemicals and derivatives with commercial ones.	Do
167	Chemical and physical studies on different samples of jute and allied fibers/sticks in order to increase diversified end uses of jute.	• To prepare and characterize easily produced cost effective cellulose from jute in order to produce new area of jute materials for diversified uses in local and international market for biodegradable, natural, environment friendly jute-based goods • To produce jute-cotton union fabric reinforced composites	Do
168	To investigate the physical and chemical properties of charcoal and activated carbon for various applications in several fields	• The project was under taken to develop a new technology by using jute stick to produce activated carbon and various types ink from charcoal • To find out the alternative raw materials of hardwoods and it will save the environment pollution • To solve the deforestation problem • To utilizes a large amount of jute, stick as an agricultural waste of Bangladesh	Do
169	Improvement of flameproof process with waterproof and fire-retardant chemicals on different types of jute fabrics for diversified uses	• To develop textile finishing /proofing processes for jute products by chemical means • To find out suitable finishing methods for imparting durable flameproof finishes on jute yarns and jute fabric	Do
170	Studies on the physico-chemical properties of various chemically modified jute fibre and	• To create trendy products and lower the price of trendy things • To foster entrepreneurship and knowledge transfer in order to	Do

Sl.	Research Title	Objective(s)	Location(s)
	blends with other natural and synthetic fibre for making fashionable clothes for widely textile uses	produce the newly developed yarns and fabrics on a pilot size and commercially. • To replace other natural and synthetic textile fibres with jute; • To provide new technology and jobs for rural resident	
171	Synthesis and characterization of functional Jute Fibre treated with Chitosan-metal oxide composite	• Development of functional jute fibres and fabric for anti-microbial application	Do
Microbiology & Biochemistry Department			
172	Isolation, screening, characterization and preservation of ligno-cellulolytic enzymes producing fungi and bacteria collected from different sources.	• To isolate lignocellulolytic enzyme producing organisms and the assessment of their ability to breakdown lignocellulose. • To evaluate their enzymatic activities to improve jute and jute-based materials. • To reduce the production cost through improvement of jute processing systems in mills.	Department of Microbiology and Biochemistry, BJRI, Dhaka Different jute mills and sample collection sites.
173	Application of cellulase on jute fabric for bio-finishing and bio-polishing	• To develop suitable enzyme technology for bio-finishing of jute fabrics. • To improve esthetic value of jute fabric. • To improve market potentiality of jute fabric through improvement of quality.	Microbiology and Biochemistry Department, BJRI
174	Application of xylanase and pectinase on preserved jute ribbon for fibre extraction.	• To develop enzyme technology for jute retting. • To reduce water requirement for jute retting. • To reduce time for jute retting.	Jute Agricultural Experimental Station, Manikganj and Department of Microbiology and Biochemistry
175	Formulation of microbial inoculums on the basis of their enzyme production potentiality.	• To formulate microbial and / or their enzyme inoculums for fibre extraction	Department of Microbiology and Biochemistry, BJRI, Dhaka.

Sl.	Research Title	Objective(s)	Location(s)
		• To develop method of retting in suitable time not to be following obligatory seasonal retting.	
176	Development of diversified product by machine produced jute fibre.	• Alternative technology may develop for fibre extraction instead of traditional retting. • This technology can be helpful for Industry/small entrepreneur.	Microbiology and Biochemistry department, Pilot Plant and processing Division and Textile Physics Division, BJRI, Dhaka
177	Determination of lycopene content in jute leaves of different *deshi* and *tossa* varieties of BJRI.	• To estimate the lycopene content of jute leaves of different varieties. • To provide information regarding to lycopene content of jute leaves for the common people to know the antioxidant status of jute leaves.	Biochemistry and Microbiology Department in Head Office, BJRI
178	Determination of vitamins in jute leaf products	• To investigate the vitamin, A, B1, B2, B3, C and lycopene status of processed jute leaves • To improve the quality of product. • To give the information about health potentiality of jute leaf product.	Biochemistry and Microbiology Department in Head Office, BJRI and AEJS, Jagir, Manikganj
179	Isolation of the endophyte from different parts of jute plant	• To isolate endophyte fromvarious parts of jute. • To investigate the antimicrobial activities of entophytes isolated from leaves and other parts like stem, roots etc. • To investigate medicinal effect of jute.	Biochemistry and Microbiology Department, BJRI. AEJS, Jagir, Manikganj.
180	Production of bio-plastic, paper and pulp from jute fibre	• Production of eco-friendly bio-plastic from jute • Production of paper and pulp from jute • Quality improvement and cost reduction of paper, pulp and bio-plastic	Department of Microbiology and Biochemistry, BJRI Textile Physics Division, BJRI

Sl.	Research Title	Objective(s)	Location(s)
181	Application of enzymes and chemicals for modification of jute fibre, yarn and fabrics.	• Quality improvement of jute fibre • Production of yarn and fabrics with improved fibre • Usages of modified fibre in jute cotton blending	Department of Microbiology and Biochemistry, BJRI Textile Physics Division, BJRI Mechanical Processing Division, BJRI BCSIR, Dhaka
182	Application of bacteria for decolorization and degradation of reactive dyes	• To decolorize and degrade reactive dyes used in jute and textile industries • To detoxify the effluents before discharge into environment • To restore the environment	Department of Microbiology and Biochemistry, BJRI, Dhaka. GEB Department, SUST, Sylhet
JUTE TEXTILE WING			
183	Studies on the different properties of woolenized jute yarns.	• To modify the characteristics of jute yarns. • To replace wool yarn by jute yarn. • To increase the diversified use of jute yarn.	Technological research wing, BJRI. Testing Department of Jute-Textile Wing of BJRI. Atomic Energy Commission. Bangladesh Council of Scientific and Industrial Research (BCSIR).
184	Studies on the effect of enzyme and silicon finished blended jute goods.	• To improve sewability. • To improve soft hand feels and hair free jute fabric. • To enhance the suitability of the jute fabric.	Product Development Division, Jute-Textile Wing, BJRI. Bangladesh University of Textiles (BUTex). Textile Mills of BTMA.
185	Standardization of the dyeing of jute-cotton blended fabric produced from various ratio of jute-cotton blended yarn with reactive dyes.	• To analyses the effect of parameter variable on dyeing of jute-cotton blended fabric dyed reactive dyes. • To optimize the dyeing process of jute-cotton blended fabric of different ratio dyed with reactive dyes.	Jute Textile of BJRI. Technology of BJRI.

Sl.	Research Title	Objective(s)	Location(s)
		• To ease the dyeing process of jute-cotton blended fabric of different ratio dyed with reactive dyes.	
186	A study on jute, cotton and viscose blended yarn.	• To produce jute, cotton and viscose blended yarn. • To develop the properties of jute, cotton and viscose blended yarn.	Jute-Textile Laboratory. Textile physics division of Technology.
187	Studies on the development of finer count and increasing the strength of yarn produced in the cotton processing system by changing the parameters of the ring frame machine.	• To develop yarn count and strength. • To develop yarn properties. • To optimize the pinion parameter.	Jute-Textile and Technology of BJRI. Bangladesh University of Textiles (BUTEX). IPE Department, BUET.
188	Standardization of dyeing for jute blended fabric with non-conventional technique.	• To explore a novel dyeing procedure of jute blended products. • To trim down the processing expenditure of colouration. • To shrink the pollution rate due to dyeing.	Jute-Textile of BJRI.

BANGLADESH INSTITUTE OF NUCLEAR AGRICULTURE

BINA

BANGLADESH INSTITUTE OF NUCLEAR AGRICULTURE

Sl.	Research Title	Objective(s)	Location(s)
PLANT BREEDING DIVISION			
Project-1: Varietal improvement of rapeseed-mustard through induced mutation and other advanced breeding techniques			
1	Preliminary yield trial with M_6 rapeseed (*B. napus*) mutant in drought and saline prone areas	• To select desirable mutants for higher seed yield with early maturity at stress prone areas	BINA HQ farm, Mymensingh and BINA sub-station farms at Ishurdi, Chapainawabgonj, Noakhali and Satkhira
2	Screening mustard mutants for salinity tolerance at reproductive stage in hydroponic culture	• To identify mustard genotypes for salinity tolerance	BINA HQ farm, Mymensingh
3	Molecular marker-based selection of rapeseed mutants for low erucic acid content against *FAE1* gene	• Selection of low erucic acid containing mutants	BINA HQ farm, Mymensingh (for lab work and filed experiment) and BINA sub-station Nalitabari (for field experiment)
4	Screening of segregating population of RM-005	• To bring homogeneity of this mutant with desirable yield attributes	BINA HQ farm, Mymensingh and BINA Sub-station Jamalpur, Magura &Cumilla
5	Screening M_6 generation of rapeseed	• To select early maturing mutants with desirable yield attributes	BINA HQ farm, Mymensingh
6	Screening F_5 population of rapeseed	• To select early maturing lines with desirable yield attributes	Do
7	Screening F_3 and F_4 population of rapeseed	• To select early maturing lines with desirable yield attributes	Do
8	Screening M_4 generation of rapeseed	• To select early maturing mutants with desirable yield attributes	Do

Sl.	Research Title	Objective(s)	Location(s)
9	Screening M_3 generation of mustard	• To select early maturing non shattering mustard mutants with desirable yield attributes	Do
10	Screening F_2 population of rapeseed	• To select early maturing lines with desirable yield attributes	Do
11	Screening M_2 generation of rapeseed	• To select Alternariablight resistant mutants with desirable yield attributes	Do
12	Growing BC_1F_2 population of rapeseed	• To introgression of low erucic acid content lines with desirable yield attributes	Do
13	Growing M_1 generation of rapeseed	• To create genetic variability regarding earliness	Do
14	Screening Hybridization of rapeseed-mustardM_1 generation of rapeseed	• To create genetic variability regarding earliness and Alternaria blight disease	Do
15	Hybridization of rapeseed-mustard	• To create variability regarding seed color, early maturity and yield	Do
16	Prediction of oil content of rapeseed by using hyper spectrum remote sensing technology	• To predict the oil content of rapeseed using advance imaging technology	Do
Project-2: Varietal improvement of sesame through induced mutation and other advanced breeding techniques			
17	On-station and On-farm yield trial with M_8 sesame mutants	• To evaluate yield stability of the mutants over locations	On-station 4: BINA HQ, Mymensingh, BINA sub-station farms at Ishurdi, Magura&Chapainowabgonj On-farm 3: Ishurdi, Cumilla & Magura
18	Regional yield trial with M_7 sesame mutants	• To select mutants for earliness, higher seed yield and yield related traits	BINA sub-station farms at Ishurdi, Magura, Chapainawabganj &Jamalpur
19	Preliminary yield trial with promising M_6 sesame mutants	• To select mutants for higher seed yield, yield related traits and earliness	BINA sub-station farms at Ishurdi&Magura

Sl.	Research Title	Objective(s)	Location(s)
20	Selection of sesame genotypes for water logging tolerance in collaboration with AED	• To identify water-logging tolerance sesame lines/mutants	BINA HQ, Mymensingh
21	Screening M_3 and M_4 population of sesame	• To select early maturing lines with desirable yield attributes	Do
22	Screening M_2 population of sesame	• To select early maturing lines with desirable yield attributes	Do
23	Growing M_1 generation of sesame	• To create genetic variability regarding earliness, single husk and higher seed yield	Do
24	Hybridization of sesame	• To develop early maturing, signal husk and high yielding sesame lines	Do
Project-3: Varietal improvement of soybean through induced mutation and other advanced breeding techniques			
25	On-station and on-farm yield trial with selected M_7 soybean mutants	• To select early maturing and high yielding mutants with shorter plant height	BINA HQ farm, Mymensingh, BINA sub-station farms at Barishal and farmers' field at Subornochor, Kamalnagar, Haimchar, Barishal
26	Preliminary yield trial with selected M_5 soybean mutants for saline prone area	• To select early maturing and high yielding mutants with salinity tolerant	BINA HQ farm, Mymensingh, BINA sub-station farms at Noakhali & Satkhira
27	Screening soybean mutants for salinity tolerance at reproductive stage in hydroponic culture	• To identify soybean genotypes for salinity tolerance	BINA HQ farm, Mymensingh
28	Screening salt tolerant soybean genotypes in pot culture	• To select soybean genotypes in respect of salinity tolerance	Do
29	Screening drought tolerant soybean genotypes under hydroponic culture	• To select soybean genotypes in respect drought tolerance	Do
30	Screening of early maturing soybean mutant using field RGA	• To speed up the breeding cycle of soybean mutant	Do

Sl.	Research Title	Objective(s)	Location(s)
31	Screening M_4 & M_5 population of soybean	• To select desirable mutants in respect of early maturity	Do
32	Screening M_3 population of soybean	• To select desirable mutants in respect of early maturity, bold seeded with higher yield	Do
33	Screening M_2 population of soybean	• To select desirable mutants in respect of nodules	Do
34	Growing M_1 population of soybean	• To create genetic variability in respect of high yielding, early maturing and dwarf type plant	Do
35	Prediction of protein content of soybean by using remote sensing technology	• To predict the protein content of soybean by non-destructive (hyper spectrum) method	Do
Project-4: Varietal improvement of sunflower through induced mutations			
36	Evaluation of sunflower line for synthetic and composite variety development	• To assess earliness, higher seed yield and other morpho-physiological attributes	BINA HQ farm, Mymensingh and BINA sub-station farm at Jamalpur
37	Preliminary yield trial with promising M_5 sunflower mutants	• To select mutants for higher seed yield and earliness	BINA HQ farm, Mymensingh and BINA sub-station farm at Jamalpur&Nalitabari
38	Development of dwarf inbred line of sunflower having *GA2oX1* gene	• To select mutants for earliness and dwarf with higher seed yield	BINA HQ farm, Mymensingh (for lab work) and BINA sub-station farm at Ishurdi&Khagrasori (for field performance)
39	Screening M_4 generation of sunflower	• To select early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm, Mymensingh
40	Screening M_3 generation of sunflower	• To select early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm, Mymensingh
41	Screening M_2 generation of sunflower	• To select early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
42	Growing M_1 generation of sunflower	• To create genetic variability regarding early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm, Mymensingh
43	Maintenance of sunflower germplasm	• To maintain breeding materials for future uses	BINA HQ farm, Mymensingh
44	Growing M_1 generation of perilla	• To create genetic variability regarding earliness and yield contributing trait	BINA HQ farm, Mymensingh
Project-6: Varietal improvement of rice using mutation and other advanced breeding techniques			
45	On-farm and on-stationtrial of high yielding Boro Rice mutants	• To assess short duration and yield performance over locations	on-station; BINA HQ farm, Mymensingh and BINA sub-station farms at Chapainawabganj, Rangpur & Ishurdi on-farm; farmers, field at Rangpur, Kushtia, Goadagari and Ishurdi.
46	On-farm and on-stationtrial of high yielding Aman Rice mutants	• To assess short duration and yield performance over locations	Do
47	Advanced yield trial of short duration and high yielding rice lines grown in Boro Season	• To assess yield performance over locations	3: BINA HQ farm, Mymensingh, BINA sub-station farms at Rangpur and Ishwardi
48	Advanced yield trial of rice mutants for salinity and high temperature	• To select the lines both for salinity and high temperature tolerance with higher yield	3 on-farm: BINA HQ farm, Mymensingh, BINA sub-stationfarms at Chapainawabganj and Ishurdi 2 on-station; farmers' field

Sl.	Research Title	Objective(s)	Location(s)
			at Kushtia and Shaymnagar
49	Advanced yield trial for high yielding and cold tolerant rice lines suitable for Haor areas	• To observe the performance of the lines	On-Farm: 2 BINA HQ farm, Mymensingh, BINA sub-station farms at Sunamganj. On-station: 2 Farmer's field at Tahirpur, Jamalganj of Sunamganj
50	Advanced yield trial for high yielding and cold tolerant rice lines suitable for Northern areas	• To observe performance of the lines	5: On-Farm: 2 BINA HQ farm, Mymensingh, BINA sub-station farms at Rangpur. On-station: 3 Farmers' field Panchgar, Thakurgoan, Nilphamari
51	Advanced yield trial of some mutants for short duration, high yielding grown in rainfed condition	• To select desirable lines for high yielding and short duration	4: On-Farm: BINA HQ, Mymensingh, BINA sub-station farms at Magura, Isurdi & Rangpur.
52	Observation yield trial for high yielding, short duration and premium quality rice lines.	• To observe performance of the lines	BINA HQ farm, Mymensingh.
53	Observation yield trial of rice mutants for short duration and higher yield	• To select the lines that is short duration and high yielding	BINA sub-station farm at Rangpur & Ishurdi
54	Observation Yield Trialof some promising lines for salinity tolerant and higher yield	• To select salinity tolerant and high yielding rice lines	BINA HQ farm, Mymensingh, BINA substations at Satkhira and Shamnagar

Sl.	Research Title	Objective(s)	Location(s)
55	Screening of BC_3F_3 population for high yielding, short duration and cold tolerance	• To observe yield performance and cold tolerance of the lines	BINA HQ farm, Mymensingh
56	Accelerating the Genetic Gains in Rice (AGGRi): IRRI NARES breeding networks using rapid-cycle genomic selection to deliver annual genetic gains of 2% in rice	• To select desirable line for annual genetic gains	BINA sub-station farm, Satkhira
57	Advanced yield trial of some promising AGGRi lines for genetic gains	• To select desirable line for annual genetic gains	Farmer's field Rangpur
58	Advanced yield trial for short duration and high yielding Aman rice lines	• To assess earliness and yield performance over locations	BINA HQ farm, Mymensingh, BINA sub-station farm at Rangpur and Ishurdi
59	Screening of M_5 lines derived from Tulsimala	• To select short duration, high yielding lodging tolerant Tulsimala grain type mutants	BINA HQ, Mymensingh
60	Screening of M_3 rice mutants derived from deepwater rice	• To select higher yielding mutants with deep-water character.	Do
61	Screening of rice mutants for drought tolerance at reproductive stage	• To identify the rice lines having high yield potential and drought tolerance	Do
62	Growing of BC_2F_1 population for short duration, lodging resistant Biroi type rice lines	• To select short duration and lodging tolerant Biroi grain type rice lines	Do
63	Introgression of short duration, lodging resistant Biroi grain type characters into popular rice varieties	• To select short duration and lodging tolerant Biroi grain type rice lines	Do
64	Screening M_3 population derived from local landrace Baishmuri	• To select line that is early, higher yielding and having Baishmuri type grain	Do
65	High throughput phenotyping for abiotic stresses (cold and drought) detection using remote sensing	• To develop cold tolerant lines/mutants in rice	Do
66	Next generation sequencing for mutation detection in drought & salt tolerant rice mutants	• To detect the change in advanced breeding lines	Do

Sl.	Research Title	Objective(s)	Location(s)
67	Growing of M_2 generation of Chandranath and Monjushree-2 for cold tolerance	• To select cold tolerant rice lines	Do
68	Growing of BC_2F_1 for short duration and drought tolerance	• To develop drought tolerance rice lines	Do
69	Confirmation of F_1 Population for long slender grain using molecular markers	• To develop early, high yielding rice lines with long slender grain	Do
70	Gene pyramiding through Marker Assisted Backcrossing (MAB) for premium quality and aromatic rice line	• To create variability for premium quality and aromatic rice lines	Do
71	Irradiation of BRRI dhan105 for low glycemic index rice	• To select early and high yielding rice lines with low glycemic index	Do
72	Generation advancement of F_5 population through Field RGA for higher yield	• To develop early, high yielding boro rice lines	Do
73	Field RGA of some crossing lines for earliness and higher yield	• To shorten the breeding cycle	Do
74	Induced mutation of Aus rice through physical & chemical mutagen	• To create variability for high yielding and early mutant lines	Do
75	4×4 diallel cross of NERICA-4, Binadhan-19, BRRI dhan48 and BRRI dhan98 for drought tolerance	• To select early, high yielding drought tolerant rice lines.	Do
76	DNA fingerprinting for major gene (cold, salinity, drought & ROS) identification of popular BINA release rice varieties and advance mutants	• Molecular characterization of varieties and advance mutants	Do
Project-7: Varietal improvement of wheat through induced mutation and other advanced breeding techniques			
77	Regional yield trials of high yielding wheat mutants	• To assess yield performance at drought prone areas	3 on-farms: BINA HQ farm, Mymensingh, BINA sub-station farm at Chapainawabganj & Ishurdi; 3 on-stations, Farmers field Nachol, Godagari, and

Sl.	Research Title	Objective(s)	Location(s)
			Chapainawabganj Sadar.
78	Preliminary yield trials of blast resistant wheat mutants (Collaboration with Plant Pathology Div.)	• To assess yield performance and identify the appropriate elite genotypes that resistance to blast reactions	5: 4 on-farm: BINA HQ farm, Mymensingh, BINA sub-station farms at Chapainawabganj & Ishurdi; 2 on-station, Farmers field Meherpur, Chuadanga
79	Observation yield trial of drought tolerant advanced lines in Barind area	• To identify the appropriate elite genotypes that tolerant to drought stress environment.	BINA HQ farm, Mymensigh & BINA sub-station farm at Chapainawabganj
80	Observation trial with wheat germplasm	• To observe seedling survival and morphological traits	BINA substation farm, Gopalganj
81	Assessing phenotypic responses of bread wheat cultivars to toxic dose of Iron ($FeSO_4$)	• To identify key loci/candidate genes related to iron toxicity tolerance in wheat	BINA substation farm, Gopalganj
82	Assessing phenotypic responses of bread wheat cultivars to toxic dose of Arsenic (As)	• To identify key loci/candidate genes related to as toxicity tolerance in wheat	BINA sub-station farm, Gopalganj
83	Screening of F_2, F_3 & F_4 generation for earliness and high yielding	• To select desirable traits having early and high yielding potential	BINA HQ farm, Mymensingh
84	Growing M_2 generation of heat tolerant wheat lines	• To select desirable promising mutants for heat tolerance and high yield potential in late seeding.	BINA HQ farm, Mymensingh
85	Screening of wheat germplasms (heat, drought, salinity tolerant) through morphological and molecular markers	• Identifying of superior genotypes towards heat, drought and salinity stress for increasing wheat areas horizontally.	BINA HQ farm, Mymensingh
86	Validation of F_1 generation wheat by molecular marker for earliness and heat tolerant	• To confirm the crosses through hybridity test	BINA HQ farm, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
Project-8: Varietal improvement of groundnut through mutation and other advanced breeding techniques			
87	On-station & on-farm yield trial with bold seeded groundnut mutants	• To assess yield performance over location	On-station: 4 (BINA HQ, Mymensingh, BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: 6 (Kaunia, Panchogar, Lalmonirhat, Hossenpur, Bhairab and Ishurdi)
88	Regional yield trial with bold seeded mutants of groundnut	• To assess yield performance over location	On-station: 3 (BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: 7 (Kaunia, Panchogar, Lalmonirhat, Hossenpur, Bhairab, Ishurdi and Mymensingh)
89	Advanced yield trial with bold seeded mutants of groundnut	• To assess yield performance over location	On-station: 4 (BINA HQ, Mymensingh, BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: 4 (Gangachara, Lalmonirhat, Ishurdi and Mymensingh)
90	Preliminary yield trial with bold seeded mutants of groundnut	• To assess yield performance over location	On-station: 3 (BINA Sub-station farms at

Sl.	Research Title	Objective(s)	Location(s)
			Rangpur, Khagrachari & Ishurdi; On-farm: 3 (Kaunia, Ishurdi and Mymensingh)
91	Screening of F2 & F3 populations for long and bigger pods with 3-4 kernels	• To select populations having long and bigger pods with 3-4 kernels	BINA HQ, Mymensingh
92	Screening of M_2 and M_3 populations for long and bigger pods with 3-4 kernels.	• To select populations with long and bigger pods with 3-4 kernels	Do
93	Screening of promising genotypes of groundnuts under drought conditions and selection of tolerance associated traits	• To investigate new improved groundnut varieties response to drought stress under controlled conditions & identify tolerant materials and drought tolerance related traits.	Do
94	Screening of promising genotypes of groundnuts against disease and quality	• To screen some genotypes of groundnut to locate sources of resistant for diseases and investigate the effects of environments on oil content and fatty acid composition of groundnuts trait.	Do
95	Hybridization of 3-4 seeded groundnut for improvement of nutritional quality	• To develop 3-4 chambered seed with higher (O/L) ratio.	Do
96	Validation of F_1 generation 3-4 seeded groundnut by molecular marker for improvement of nutritional quality	• To confirm the crosses	Do
97	Maintenance and evaluation of groundnut germplasm	• To maintain the collected germplasm	Do
98	Nondestructive phenotyping fatty acid trait of single groundnut seeds using reflective hyper spectral imagery.	• To predict the protein and fatty acid content of groundnut by non-destructive (hyper spectrum) method	Do
Project-9: Varietal improvement of mungbean using mutation breeding techniques			
99	Zonal yield trial of summer mungbean lines	• To assess synchronous pod maturity and yield performance over location	On station: Magura, Barishal, Ishurdi, Chapainawabganj and

Sl.	Research Title	Objective(s)	Location(s)
			Ishurdi farmer's field
Project-10: Varietal improvement of Tossa jute through induced mutation & hybridization technique			
100	Induced mutation of jute through chemical mutagen	• To create variability for early (90-100 days), low lignin traits with high fiber yield potential	BINA HQ, Mymensingh.
101	Growing M_2 generation of Jute	• To select desirable mutants for early (90-100 days), low lignin traits with high fiber yield potential	Do
102	Improvement of jute through Hybridization	• F1 growing for short duration (90-100 days), high fiber yield potential with vigor seed quality.	Do
103	Characterization of jute germplasms through morphological and molecular markers	• To identify early (90-100 days), low lignin traits with high fiber yield potential with vigor seed quality.	Do
BIOTECHNOLOGY DIVISION			
104	Expression and detection of salinity and drought induced genes through Real Time qPCR.	• To identify new stress tolerant genes in *Oryza* species and related germplasm	Biotechnology Lab, BINA HQ
105	Cloning of one salinity and drought tolerant genes *OsMGD* from FR13A through Gateway cloning technology	• To prepare gene constructs of *OsMGD*	Do
106	Cloning of abiotic and biotic stress tolerant genes from fiber crops	• To detect expression levels of abiotic/biotic stress tolerant genes • To isolate and prepare salinity and drought induced novel genes construct	Do
107	Defense responses in rice plants against brown plant hopper infestation	• Analyze different expression of genes involved against brown plant hopper in rice.	Do
108	Expression and cloning of *CaChiVI2* gene in *Capsicum annum L.* for resistance against heat stress	• To identify and prepare gene construct of heat stress tolerant CaChiVI2 gene from Capsicum annum L.	Do
109	Transfer of *OsDREB* and *OsMST6* genes in high yielding rice variety through genetic transformation	• To develop salinity and drought tolerant transgenic rice lines	Do
110	Transfer of salinity and drought tolerant genes into rice through *Agrobacterium* mediated gene transformation	• To develop salinity and drought tolerant transgenic rice lines	Do

Sl.	Research Title	Objective(s)	Location(s)
111	Transfer of *OsNHX2/OsHKT8* genes into elite rapeseed cultivars through *Agrobacterium* mediated transformation	• To develop saline tolerant transgenic rapeseed line	Do
112	Development of high amylose containing rice line through mutagenesis of *Wx* gene using CRISPR/Cas9	• To develop high amylose content rice line.	Do
113	Application of chemical mutagen on rice calli for the development of stress tolerant and high yielding rice line	• To develop high yielding rice line. • To develop biotic/abiotic stress tolerant rice lines • To develop lodging tolerant rice lines	Do
114	Application of chemical mutagen on rice calli for the development of high yielding and short duration rice line	• To create variability • To create short duration rice line from BRRIDhan-89 and BINADhan-5 • To create lodging tolerance rice line from BRRIDhan-34	Do
115	Growing of T_2 – T_4 generation of rice lines developed through tissue culture	• Multiplication of seed from tissue culture regenerated plant. • To observe variation from the regenerated tissue culture plant.	Do
116	Growing of T_2 generation of rice lines developed through tissue culture	• To develop high yielding rice line	Do
117	Rapid advancement of Canola lines through another culture (Collaborative program)	• To bring homogeneity at early generation	Do
118	Development of lodging resistance and high yielding premium quality rice variety through embryogenic calli irradiation	• To investigate the extent of variability in embryogenic Kataribogh rice calli	Do
119	Improvement of high value sweet pepper (*Capsicum annum L.*) through *in vitro* techniques	• To develop year round, attractive sweet pepper variety	Do
120	High yielding and short duration rapeseed line development through irradiation on rapeseed calli	• To create the extent of variability of rapeseed calli.	Do
121	Application of ethyl methane sulphonate (EMS) on rapeseed calli for the development of stress tolerant and high yielding rapeseed line	• To create the extent of variability of mustard calli	Do

Sl.	Research Title	Objective(s)	Location(s)
122	Improvement of rice breeding population through genomic selection	• To increase the both polygenic and oligogenic traits in rice breeding materials	Do
123	Regional yield trial with high yield and short duration rice lines	• To select high yield and short duration rice lines	Mymensingh, Jamalpur, Rangpur, Cumilla and Barishal
124	Development of lodging resistance and high yield premium quality rice variety through marker assisted selection	• To develop premium quality fine grain rice variety	Biotechnology Lab, BINA HQ
125	Zonal yield trial of blast resistant wheat mutants	• To observe the yield potential of wheat mutants	Mymensingh, Jamalpur, Maherpur, Jessore, Rajshahi and Dinajpur.
126	Evaluation of PGPR bacterial strains for enhancing growth and yield of rice	• To find effective bacterial strains to use them as bio-fertilizer for enhancing growth and yield of rice	Biotechnology Lab, BINA HQ
127	Evaluation of as (Arsenic) tolerant bacteria for reduction of as uptake in rice in as contaminated soil	• To select most effective As tolerant strains for reducing As uptake in rice in As contaminated soil	Biotechnology Lab, BINA HQ
128	Genetic diversity analysis of Chickpea nodulating rhizobia from different parts of Bangladesh	• To know the phylogeny and to select most effective rhizobial strains for enhancing growth and yield of chickpea.	Biotechnology Lab, BINA HQ
HORTICULTURE DIVISION			
129	Collection and evaluation of fruits germplasm	• Collection of seeds/ propagating materials of different fruits germplasm from different regions of the country and abroad • Screening the fruits germplasm based on high yield potential, adaptability, shape, size, color, taste and quality	BINA HQ farm, Mymensingh
130	Evaluation of mango germplasm at BINA HQ, Mymensingh	• Screening the mango germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	Do
131	Evaluation of Custard apple germplasm at BINA HQ, Mymensingh	• Screening the custard apple germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	Do

Sl.	Research Title	Objective(s)	Location(s)
132	Evaluation of exotic jackfruit germplasm	• Screening the exotic jackfruit germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	Do
133	Evaluation of exotic longan germplasm	• Screening the exotic longan germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	Do
134	Screening of M_1 V_1 population of sweet orange, Sapota, Jamun and Pomegranate	• To evaluate the desirable mutants for developing varieties with high yield potential, shape, size. color, taste , sweetness, color and quality	Do
135	Growing of M_1 V_1 population of lime	• To evaluate the desirable mutants for developing varieties with high yield potential, shape, size, color ,taste and quality	Do
136	Screening of Pome-granate germplasm on growth, yield and quality attributes	• Screening the pomegranate genotype based on high yield potential, adaptability, shape, size, color, taste and quality	Do
137	Growing of M_1V_1 population of Jamun	• Screening the jamun mutant based on high yield potential, adaptability, shape, size, color, taste and quality etc	Do
138	Farmer's yield trail of different sapota mutants under field condition at Bokterpur, Ishurdi,	• Screening the sapota mutant based on high yield potential, adaptability, shape, size, color, taste and quality etc	BINA HQ farm, Mymensingh; Bokterpur, Ishurdi
139	Farmer's yield trail of different sapota mutans under field condition at Mymensingh during 2022-23	• Screening the sapota mutant based on high yield potential, adaptability, shape, size, color, taste and quality etc	Mymensingh
140	Regional yield trial of Bottle gourd mutant line at regional station and substation farm	• To select desirable mutants of bottle gourd for desirable size, shape, color with improved nutritional quality and high yield potential	Gazipur & Ishuardi
141	Regional yield trial of eggplant mutant lines at farmer's field	• To select shoot & fruit borer and phomopsis blight tolerant genotypes with high yield potentiality and nutritional quality	Gazipur & Narsingdi
142	Observational yield trial of promissing Cherry Tomato lines s	• To identify the suitable lines based on yield potential, size, shape and nutritional quality	BINA HQ farm, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
143	Evaluation of elite M_6 mutants of Carrot	• To select desirable mutants of carrot for yield potential, desirable size, shape and color	Mymensingh, Ishurdi, Khagrachari and Rangpur
144	Growing of M_3 generation of Okra	• To select soft and YMV tolerant lines of okra with improved nutritional quality and high yield potential	BINA HQ Farm, Mymensingh
145	Growing of M_3 generation of Cucumber	• To select desirable mutants on desirable size, shape and color with improved nutritional quality and high yield potential	Do
146	Growing of M_2 generation of Tomato	• To identify the line(s) based on yield potential, size, shape and nutritional quality suitable for the summer & winter season	Do
147	Growing of M_3 generation of Egg plant	• To select the population for desirable characters (duration, yield, tolerance to insects & disease)	BINA HQ farm, Mymensingh or Sreepur farm, Gazipur
148	Growing of M_1V_2 generation of Aroids (Mukhikachu)	• To select mutants for desirable characters (yield, nutritional qualities)	BINA HQ farm, and Kashiar char, Mymensingh
149	Growing of M_4 generation of Country bean	• To select desirable mutants for earliness, yield potentiality, tolerant to insects and diseases	BINA HQ farm, Mymensingh and Sreepur farm, Gazipur
150	Growing of M_2 generation of green brinjal	• To select the population for desirable characters (duration, yield, tolerance to insects & disease)	BINA HQ farm, Mymensingh
151	Growing of M_3 generation of Egg plant	• To select mutant with desirable traits like larger size, shape, attractive colour, soft texture, better cooking quality and high yield potential	Do
152	Growing of M_2 generation of Bitter gourd	• To select mutant with desirable traits like (yield, shape, size and lower number of seeds)	Do
153	Growing of M_2 generation of cucumber and sweet gourd through pollen irradiation techniques	• To select mutant with desirable traits like (yield, shape, size and colors)	Do
154	Collection and screening of local sweet potato (*Ipomoea batatas*) germplasm	• To select desirable germplasm for crop improvement	Do

Sl.	Research Title	Objective(s)	Location(s)
155	Collection and screening of local country bean germplasm	• To select desirable germplasm for crop improvement	Do
156	Advanced yield trial of M_6 mutants of onion (seed to bulb)	• To select promising mutant(s) for desirable characters (Yield, pungency and storage capacity)	BINA HQ farm, Mymensingh; BINA sub-station farm, Magura and Rangpur
157	Growing M_3 generation of onion (seed to bulb)	• To screen the population for desirable characters (yield and storage performance)	BINA HQ farm, Mymensingh & BINA sub-station farm, Rangpur
158	Growing M_1 generation (bulb to seed) of winter and summer onion	• To screen the population based on high yield potentiality with better storage performance and pungency	BINA HQ farm, Mymensingh
159	Advanced yield trial of M_1V_6 mutants of garlic	• To assess the performance of garlic mutants for high yield potential and better storage capacity	INA HQ farm, Mymensingh; BINA sub-station farms, Sherpur and Rangpur
160	Growing M_1V_1 generation of garlic	• To create genetic variability for desirable characters (duration, yield, tolerance to insects-diseases and storability)	BINA HQ farm, Mymensingh
161	Preliminary yield trial with promising chili lines/mutants	• To select chili line(s) on the basis of yield components and pungency	BINA HQ farm, Mymensingh; BINA substation farms at Magura and Rangpur
162	Growing M_2 generation of chili	• To create variability for desirable characters in summer season	BINA HQ farm, Mymensingh
163	Growing M_1 generation of chili for waterlogging tolerance	• To create genetic variability for high yield potentiality and moderately waterlogging tolerance for kharif season	BINA HQ farm, Mymensingh
164	Growing M_1V_3 mutants of turmeric	• To select the mutants based on high yield potentiality, flesh color, curcumine content and cooking qualities	BINA HQ farm, Mymensingh and BRRC, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
165	Growing of M_1V_1 generation of Turmeric	• To create genetic variability for desirable characters (yield and tolerant to leaf blotch disease)	BINA HQ farm, Mymensingh
166	Morpho-molecular characterization of turmeric germplasm	• To find out the suitable genotype for higher yield with better quality and tolerant to common disease	BINA HQ farm, Mymensingh
167	Preliminary yield trial of zinger mutants (M_1V_5)	• To select rhizome rot tolerant mutants with high yield potentiality	BINA HQ farm, Mymensingh and Khagrachari sub-stations farm
168	Growing M_1V_2 mutants of zinger	• To select ginger mutants on the basis of yield potentiality, pungency and tolerance to rhizome rot disease	BINA HQ farm, Mymensingh
169	Morpho-molecular screening of zinger genotypes collected from home and abroad	• To study the variability among the genotype; and • To select superior germplasm for future breeding materials	BINA HQ farm, Mymensingh
170	Preliminary yield trial of M_5 mutants of black cumin	• To select desirable mutants based on high yield potential and earliness	BINA HQ farm, Mymensingh; BINA sub-station farm at Rangpur
171	Growing M_1 generation of Cumin	• To create genetic variability for tolerance to high temperature and blight disease	BINA HQ farm, Mymensingh
172	Growing of M_1 generation of coriander	• To create genetic variability for desirable characters (duration, yield and tolerance to gall disease)	Do
173	Growing M_1 generation of fenugreek	• To create genetic variability for desirable characters (duration, yield and tolerance to disease)	Do
174	Screening M_4 mutants of sweet pepper	• To select high yield potential, heat tolerant, nutritionally improved sweet pepper	Do
175	Growing M_1V_4 generation of the selected gladiolus germplasm	• To develop gladiolus variety with various attractive floret colours, long spikes with higher number of florets and longer vase life.	Do
176	Growing of M_1V_1 generation of the selected gladiolus germplasm	• To develop gladiolus variety with various attractive floret colours, long spikes with higher number of florets and longer vase life.	BINA HQ, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
177	Growing M_1V_2 generation of the collected rose germplasm	• To develop rose variety with attractive flower colours, flower yield and longer vase life	Do
178	Radio sensitivity test and growing of M_1V_1 and M_1V_1 seedlings of chrysanthemum, gerbera and salvia	• To develop flowers variety with attractive flower colours, flower yield and longer vase life	Do
179	Collection, screening and varietal improvement of exotic fruits for roof top gardening through IoT based drip irrigation system	• To select suitable fruits for rooftop gardening for year round supply of fresh produce and effective utilization of water and space	Rooftop, Horticulture Division, BINA HQ, Mymensingh
180	Collection, screening and selection of exotic flowers suitable for growing in Bangladesh	• To identify suitable flower varieties of exotic sources with attractive flower colours, flower yield and longer vase life.	Rooftop, Horticulture Division, BINA HQ, Mymensingh
181	*In Vitro* regeneration of gladiolus from the callus through the culture of corm slice	• To determine the best hormone concentrations for rapid multiplication of gladiolus	Tissue culture laboratory, Horticulture division, BINA HQ
182	Evaluation of somaclonal variant from *in vitro* regenerated tomato plants in the field condition through molecular markers and agro morphological traits	• To select somaclonal tomato variant with higher yield and nutritional qualities	BINA HQ farm, Mymensingh
CROP PHYSIOLOGY DIVISION			
183	Effect of high temperature at reproductive stages of Aman rice varieties	• To assess the effect of high temperature at booting, flowering and grain filling stage of rice genotypes • To identify temperature stress tolerant rice variety	BINA HQ's, Mymensingh
184	Effect of different levels of temperature on germination, root length and shoot length of some Boro rice genotypes	• To assess the effect of cold stress on germination, root length and shoot length of rice genotypes • To identify cold stress tolerant rice genotypes	Do
185	Evaluation of soybean genotypes for salinity tolerance	• To assess the effect of salinity stress on growth and yield of soybean mutants/varieties • To identify salinity stress tolerant soybean mutants	Do
186	Effect of water logging in some sesame genotypes	• To assess the effect of water logging on sesame growth and development	BINA HQ's, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
		• To identify water log tolerant genotypes of sesame	
187	Evaluation of seven rice genotypes under drought stress based on morpho-physiological criteria	• To assess the effects of water stress on morphological, biochemical and yield attributes rice genotypes	Do
188	Physico-chemical properties of some lentil and moogbean genotypes	• To assess the qualities of BINA varieties/mutants from architectural, and biochemical point of view and • To suggest criteria for further improvements	Do
SOIL SCIENCE DIVISION			
189	Integrated nutrient management for increased crop production and nutrient use efficiency (NUE) in Mustard-Boro-T.Aman rice cropping pattern	• To identify the suitable combination of IPNS using organic amendments and inorganic fertilizer for maximizing crop yield • To investigate the effects of organic amendments with chemical fertilizers on N nutrient uptake, NUE (%) and soil fertility.	Char Nilokkhia, Mymensingh
190	Effect of organic and inorganic fertilizers on carbon content in soil and increase of yield under rice–rice cropping pattern	• To increase fertility with carbon stock pool in soil and sustainable crop production in rice- rice cropping system	BINA HQs, Mymensingh
191	Potential effect of different sources of soil amendments for increased soil pH and crop production	• To increase soil pH and crop yield in the low pH soil	BINA substation, Rangpur
192	Determination of optimum and economic doses of nutrients for advance lentil mutant line at BINA substation Ishurdi	• To develop an optimum and economically suitable combination of fertilizers for sustaining soil fertility with higher crop productivity	BINA substation Ishurdi
193	Development of Upazila Land Suitability Assessment and Crop Zoning System of Bangladesh (Phase-II- KGF Project)	• To validate fertilizer recommendation of Khamari App at farm level	Farmer's Field in Mymensingh, Magura and Chapainawabg onj districts
194	Effect on soil quality due to brick kilns emission around the agricultural land	• To estimate the soil degradation at different brick kiln areas •	Mymensingh Sadar and Fulbariaupzilla of Mymensingh district

Sl.	Research Title	Objective(s)	Location(s)
195	Effect of organic amendments for rice production in saline soil of Bangladesh	• To mitigate the adverse effects of soil salinity through organic amendments	Tala upazilla, Satkhira
196	Assessment and monitoring for the water quality of Turag, Buriganga and Sitalakhyaa River	• To find out the possible sources of contamination and also hazardous metals, compounds in the water and sediment	Turag and Sitalakhyaa at Narayanganj & Buriganga at Dhaka
197	Integrated effects of potassium rich vermicompost with chemical fertilizer on T. aman rice	• To investigate the integrated effects of K rich vermicompost with inorganic fertilizer on T. Aman rice • To reduce the usage of chemical fertilizers	BINA farm, Mymensingh
198	Integrated effects of phosphorus and potassium (PK) rich vermicompost with inorganic fertilizer on Boro rice	• To investigate the integrated effects of P and K rich vermicompost with inorganic fertilizer on Boro rice • To reduce the usage of chemical fertilizer.	BINA farm, Mymensingh
199	Comparative study on the effects of zero tillage and conventional tillage systems with different doses of fertilizer on the growth and yield of mustard	• To investigate the effect of different doses of fertilizer on Mustard under zero tillage and conventional tillage systems	BINA Sub-Station, Ishwardi
200	Effects of different fertilizer doses on mustard under zero tillage at farmer's field	• To see the effects of various fertilizer doses on mustard under zero tillage system.	Farmer's field of Narsingdi
201	Comparative study on the effects of zero tillage and conventional tillage systems with different doses of fertilizer on the growth and yield of wheat	• To investigate the effect of different doses of fertilizer on wheat under zero tillage and conventional tillage systems.	BINA Sub-Station, Ishwardi, Gopalgonj and Shatkhira
202	Integrated effect of prepared K rich vermicompost with inorganic fertilizer on cabbage	• To investigate the integrated effect of prepared K rich vermicompost with inorganic fertilizer on cabbage yield.	BINA Sub-Station, Ishwardi, and Rangpur
203	Fertilizer recommendation for elite mutants/variety developed at BINA	• To recommend fertilizer dose for elite mutants/variety developed at BINA	BINA HQs, Mymensingh
204	Effect of organic and inorganic fertilizers on yield and yield contributing characters of rice under rice-rice cropping system	• To know the effect of crop residue and different organic and inorganic fertilizer on yield and yield contributing characters on rice.	Do

Sl.	Research Title	Objective(s)	Location(s)
205	Soil characterization of BINA Headquarters farm, Mymensingh	• To evaluate the physico-chemical characteristics of the soil in different blocks of the farm area.	Do
206	Requirement of Zinc and Boron application for rice-rice cropping pattern	• To observe the effect of Zn and B application on the yield of T. Aman and Boro rice in AEZ 9	Do
207	Integrated effects of plant growth promoting rhizobacteriabiofertilizer on mustard-Boro-T.Aman cropping pattern (field study)	• To investigate the effect of plant growth promoting rhizobacteriabiofertilizer with inorganic and organic fertilizer on growth and yield of different crops	Farmer's Field, Char Nelaxmia, Sadar, Mymensingh.
PLANT PATHOLOGY DIVISION			
Project 1: Evaluation of crop mutants against major diseases at different climatic condition			
208	Evaluation of advanced mutants of rice against BLB, sheath blight, blast, false smut and tungro	• To evaluate rice mutants against BLB, sheath blight, blast, false smut and tungro diseases.	Mymensingh
209	Screening for Alternaria blight disease of mustard-rape seed through conventional and gene based molecular marker	• To know the genetic diversity of Alternaria brassicae /A. brassicicola isolates collected from different mustard-rapeseed growing areas in Bangladesh. • To screen genotypes of mustard-rapeseed resistance against Alternaria brassicae /A. brassicicola through conventional and resistant gene(s) based molecular marker techniques.	Mymensingh
210	Evaluation of groundnut mutants against tikka, collar rot and rust	• To evaluate mungbean mutants against root rot, cercospora leaf spot and yellow mosaic	Mymensingh
211	Evaluation of mungbean mutants against root rot, cercospora leaf spot and yellow mosaic	• To identify the sources of resistance in induced mutants/varieties of groundnut against the diseases.	Ishwardi, Magura and Mymensingh
212	Evaluation of jute mutants against stem rot, anthracnose and black band diseases	• To screen jute mutants against stem rot, anthracnose and black band diseases	Mymensingh
213	Evaluation of soybean mutants against collar rot, cercopora leaf spot and yellow mosaic	• To screen Soybean mutants against collar rot, cercospora leaf spot and yellow mosaic disease.	Mymensingh
214	Evaluation of lentil mutants against root rot, collar rot and stemphylium blight	• To screen lentil mutants against root rot, collar rot and stemphylium blight disease.	Magura, Chapainawabg onj and Ishurdi
215	Evaluation of blackgram mutants against cercospora	• To evaluate blackgram mutants against cercospora leaf spot, yellow mosaic and powdery mildew	Mymensingh, Chapainawabg

Sl.	Research Title	Objective(s)	Location(s)
	leaf spot, yellow mosaic and powdery mildew		onj and Gazipur
Project 2: Plant disease management for agricultural crops			
216	Management of purple blotch of onion	• To develop suitable disease management strategy for purple blotch of onion.	Mymensingh
217	Management of storage disease of onion with gamma radiation	• To control storage disease of onion (Black mold caused by Aspergillus sp.)	Mymensingh
218	Evaluation of different agro waste products for mass production of *Trichoderma*	• To select a suitable and cheap media for mass production of Trichoderma	Mymensingh
219	Characterization of *Trichoderma* isolates and their evaluation against major soil borne pathogens	• To find out effective Trichoderma isolate (s) against soil borne pathogens	Mymensingh
220	Ecofriendly management of collar rot of soybean	• To develop ecofriendly disease management technology for collar root rot of soybean	Mymensingh, Ishwardi and Magura
221	Management of Stemphylium blight disease of lentil	• To develop suitable disease management for stemphylium blight of lentil.	Magura, Chapainawabg onj and Ishwardi
222	Evaluation of new fungicides against sheath blight of rice (PTAC)	• To find out the appropriate fungicide/ fungicides to control the disease	Mymensingh, Magura, Jamalpur and Sherpur
223	Evaluation of new fungicides for the control of Bakanae of Rice (PTAC)	• To find out the appropriate fungicide/ fungicides to control the disease.	Mymensingh, Jamalpur and Nalitabari
224	Evaluation of new fungicides against blast disease of rice (PTAC)	• To find out the efficacy of various fungicides on the management of blast disease in rice	Mymensingh & Nalitabari
Project 3: Marker assisted molecular study of plant pathogens			
225	Status and analysis of genetic variation of brown rot (*Ralstonia solanacearum*) disease of potato in Bangladesh	• To assess the status of brown rot of potato in different potato growing areas in Bangladesh; • To ascertain the status of soil in terms of virginity (free from R. solanacearum) in some selected potato growing areas in Bangladesh; • To determine the race and biovar of R. solancearum exist in Bangladesh and • To analyze the genetic variation of R. solancearum using molecular markers	Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
226	Analysis of phenotypic and genotypic variation of some export potatoes *(Solanum tuberosum*) varieties irradiated with gamma rays	• To determine the effect of gamma rays on the vegetative and yield traits of potato cultivars. • To screen some irradiated potato genotypes against R. solanacearum. • Analysis of genetic diversity of the selected potato genotypes using molecular markers	Mymensingh, Rangpur and Cumilla
227	Effect of gamma radiation on biochemical changes of potatoes and genetic variation of brown rot pathogen	• To determine the bio-chemical changes and nutritive status of irradiated potatoes. • To analyze and compare the genetic variation of R. solancearum by molecular marker	Mymensingh
228	Management of brown rot, (*Ralstonia solanacearum*) disease of potato with gamma radiation	• To manage brown rot disease of potato caused by Ralstonia solanacearumwith gamma radiation	Mymensingh
229	Integrated management of brown rot disease of potato	• To find out the best cultural and physical methods for controlling brown rot of potato • To assess the efficacy of some chemicals for controlling brown rot pathogen, R. solanacearum • To trace out the important bioagents for controlling brown rot pathogen, R. solanacearum • To find out the integrated approach in controlling brown rot of potato.	Mymensingh, Cumilla and Rangpur
230	Detection of blast resistant gene(s) in BINA germplasm and advance lines using gene based molecular markers.	• To identify the target blast resistant gene(s) in BINA germplasm, advance lines	Mymensingh
231	Detection of Bacterial blight resistant gene(s) in BINA germplasm and advance lines by using gene based molecular markers	• To identify the bacterial blight resistant gene(s) in BINA germplasm and advance lines.	Mymensingh
232	Identification of plant growth promoting antagonistic bacteria against blast and BB diseases of rice.	• To identify and characterize naturally occurring plant bacteria associated with different crops; • To assess the plant growth promoting effects of these isolates; and • To characterization of prominent antagonistic bacteria for research and commercial use.	Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
233	Isolation and molecular characterization of *Ustilaginoidea virens* isolates causing false smut of rice	• To characterize Ustilaginoidea virens causing false smut of rice	Mymensingh
234	Evaluation of wheat mutant against blast disease	• To develop blast resistant mutant for wheat • To evaluate the effect of Rmg8, RmgGR119 and NS2 at the heading stage	Mymensingh, Ishwardi, Chapainawabganj and Rangpur
235	Molecular identification of *Fusarium* spp. associated with bakanae disease of rice in Bangladesh and assessment of theirpathogenicity	• To assess the variability of Fusarium from Bakanae disease infectedrice in Bangladesh • To identify species by amplification and sequencing of the EF-1a gene, and • To evaluate the pathogenicity of the isolates on the susceptible rice cultivar.	Mymensingh
ENTOMOLOGY DIVISION			
236	Effect of gamma radiation for controlling fruit fly (*Bactrocera cucurbitae*) of cucurbit vegetables	• To control cucurbit fruit fly by applying Sterile Insect Technique (SIT)	Mymensingh
237	Evaluation of different IPM treatments against major insect pests of soybean	• To find out the appropriate management approach for controlling major insect pests of soybean	Mymensingh
238	Eco-friendly management approaches against fall armyworm (*Spodoptera frugiperda*) of maize	• To develop an environment-friendly management approach against fall armyworm of maize	Mymensingh
239	Evaluation of different management approaches against mite and thrips complex of chili (*Capsicum frutescens* L.)	• To develop suitable management technology against mite and thrips complex of chili	Mymensingh
240	Determination of radiation dose to control rice weevil in storage	• To determine lethal dose of radiation for controlling adult rice weevil	Mymensingh
241	Determination of radiation dose to control pulse beetle (*Callosobruchus chinensis*) in storage	• To determine lethal radiation dose for controlling pulse beetle at egg and larval stage	Mymensingh
242	Screening of advanced rice mutant lines against major insect pests in the field	• To observe the reactions of advanced rice lines against stem borer, leaf roller, BPH,GLH and rice bug etc.	Mymensingh
243	Screening of advanced groundnut mutant lines against some major insect pests	• To observe the reactions of groundnut mutant lines against leaf roller, termite, semilooper, cutworm and jassid	Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
244	Screening of advanced mungbean mutant line against pod borer and other major insect pests	• To observe the reactions of mungbean mutant lines against pod borer, leaf roller and thrips	Ishurdi
245	Screening of advanced lentil mutant lines against aphid	• To observe the reactions of lentil mutant lines against aphid	Mymensingh
246	Screening of advanced rice lines against brown plant hopper under artificial infested condition	• To identify the BPH resistant rice lines	Mymensingh
AGRONOMY DIVISION			
247	Determination of optimum transplanting date for maximizing yield of Aman rice mutants/varieties	• To find out optimum transplanting time for maximizing yield of Aman rice mutants/ varieties	Mymensingh
248	Determination of optimum transplanting time for maximizing yield of Boro rice mutants/varieties	• To find out optimum transplanting time for maximizing yield of Boro rice mutants/ varieties	Mymensingh
249	Agronomic management at different seedling ages for transplanting of Boro rice variety Binadhan-24 and BINA dhan25	• To find out optimum seedling age for maximizing yield of Boro rice varieties	Mymensingh
250	Effect of sea weed (*Caulerpa racemose*) on yield and yield contributing characters of Boro rice	• To find out suitable doses of sea weed (*Caulerpa racemose*) on yield of Boro rice	Mymensingh
251	Determination the effect of Salicylic acid on yield and yield contributing characters of rice in saline prone region	• To find out the effect of salicylic acid on growth, yield and yield contributing characters of rapeseed	Bagerhat
252	Determination the effect of plant growth regulators on growth, yield and yield contributing characters of rapeseed	• To find out the effect of plant growth regulators on growth, yield and yield contributing characters of rapeseed	Mymensingh
253	Assessment of field gap relation of BINA released Aman rice varieties at farmer's field	• To find out the limiting factors of Aman rice	Farmer's field of Cumilla and Brahmanbaria
254	Assessment of yield gap relations and yield prediction of BINA newly released Boro rice varieties in different cropping system	• To find out the limiting factors of Boro rice	Sunamganj, Sherpur, Magura, Jhalokati, Chapainawabg

Sl.	Research Title	Objective(s)	Location(s)
			anj and Noakhali
255	Assessing the yield gap of Boro/Aman/Aus rice different cropping systems under scenario of climate change & resource scarcity	• To find out the yield gap of BINA released rice varieties	Satkhira
256	Development of cropping pattern with BINA released varieties uses for synchronized farming	• To find out the limiting factors of Boro rice	Sunamganj
257	Determination of optimum calendar for T. Aman seed sowing and transplanting dates for tidal floods regions basis of web and tide	• To find out optimum calendar for T. Aman seed sowing and transplanting dates for tidal floods regions basis of web and tide	Barishal
258	Development of cropping pattern with BINA released varieties uses for Synchronized farming	• To validate the Aman (Binadhan-23)-Mustard (Binasarisha-9)-Mungbean (Binamoog-8) pattern	Barishal
259	Development of cropping pattern with BINA released varieties uses for synchronized farming	• To validate the Aman (Binadhan-17) - Mustard (Binasarisha-9)- Boro (Binadhan-10) pattern	Satkhira
260	Development of cropping pattern with BINA released varieties uses for synchronized farming	• To find out the limiting factors of Boro rice	Sherpur
261	Validation of drought tolerant potentials of BINA released soybean varieties in saline prone regions	• To find out drought tolerant potentials of soybean varieties	Barishal
262	Determination of efficiency of different herbicide on Boro rice	• To select the efficient herbicide for boro rice and analysis of their residues in soil and plants	Mymensingh
263	Field trial of Repivox 60 OD (a.i. Cyhalofop-butyl 5.1% + Penoxulam 1.02%) herbicide	• To evaluate the effect of Repivox 60 OD on growth parameters of rice in Aman season	Mymensingh
264	Field trial of Repivox 60 OD (a.i. Cyhalofop-butyl 5.1% + Penoxulam 1.02%) herbicide	• To evaluate the effect of Repivox 60 OD on growth parameters of rice in Boro season	Mymensingh
265	Field trial of super cleaner 18 WP (Bensulfuron methyl 4% w/w + Acetachlor 14% w/w) herbicide	• To evaluate the effect of super cleaner 18 WP on growth parameters of rice in Aman season	Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
266	Field trial of super cleaner 18 WP (Bensulfuron methyl 4% w/w + Acetachlor 14% w/w) herbicide	• To evaluate the effect of super cleaner 18 WP on growth parameters of rice in Boro season	Mymensingh
267	Improvement of weed management in Aus rice cultivation on the hill slope	• To select suitable weed management techniques in Aus season	Khagrachari
268	Evaluation of yield performance of intercropping combinations between sesame, mungbean in hill tracts	• To find out optimum intercropping combinations between sesame and mungbean yield in hill tracts	Khagrachari
269	Estimation of yield gap limiting factors of oil seed crops under different cropping system	• To find out the yield limiting factors of mustard, soybean and lentil	Barishal
270	Evaluation of late sowing potentials of mustard varieties on yield and yield contributing characters	• To evaluate the yield potentials of released mustard varieties in late sowing	Barishal
271	Evaluation of late sowing potentials of Binasarisha-9 and Binasarisha-11 in saline prone regions	• To find out the effect of late sowing potentials of Binasarisha-9 and Binasarisha-11	Satkhira
272	Determination of germination response of mungbean under changing weather parameters	• To find out optimum sowing time for maximum germination and yield	Barishal
273	Estimation of yield gap limiting factors for pulse and oil seed crops	• To find out the yield gap limiting factors of BINA released pulse and oil seed crops	Satkhira
AGRICULTURAL ENGINEERING DIVISION			
274	Evaluation of some Aus and Boro lines under different 'soil moisture stress/drought tolerance level'	• To study the response of the cultivars to different levels of soil moisture stress	BINA HQs, Mymensingh
275	Irrigation management for sunflower mutants	• To determine optimum irrigation requirement and time of application for increasing yield and water productivity of sunflower mutants	BINA HQs, Mymensingh
276	Optimization of soil moisture for direct seeded (No tillage) mustard sowing	• To determine optimum soil moisture condition for higher yield of mustard under zero tillage condition	BINA HQs and Charland of Mymensingh
277	Response of Binasharisha-9 to water-logging at different growth stages	• To study the effect of water-logging at different growth stages of Binasharisha-9	BINA HQs, BINA substation Satkhira and Barishal

Sl.	Research Title	Objective(s)	Location(s)
278	Future climate change and its impact on hydrological components	• To predict the groundwater recharge due to change in climate at different regions of Bangladesh	Different AEZ (data based)
279	Impact of climate change on future water demand in crop production	• To quantify the crop water demand due to change in climate at different regions of Bangladesh	Different AEZ (data based)
280	Growing of BINA developed varieties for input data generation of Decision Support System (for climate change Studies)	• To study the growth & yield response of BINA developed cultivars to different levels of irrigation regimes and weather factor. • To generate input data for decision support system. • To generate data for climate change impact on the cultivars	BINA HQ farm, and BINA sub-station Ishwardi
281	Development of an efficient solar smart irrigation system for vegetable production in Gher embankment	• To develop an efficient solar smart irrigation system for vegetable production in Gher embankment • To increase proficient use of surface water with minimum involvement of manpower for vegetable production in Gher embankment	Satkhira-Khulna region
282	Automatic irrigation management system for Rice Production	• To evaluate performance of automatic irrigation management system for rice production.	BINA HQs, Mymensingh
283	Automatic irrigation management system for non-rice crops (Maize/ Wheat/ Sunflower/Mungbean/ Soybean)	• To evaluate the performance of automatic irrigation management system for non-rice crop (Maize/ Wheat/Sunflower/Mungbean/ Soybean) • To assess water savings under automated irrigation system compared to normal practice	BINA HQs, Mymensingh
284	Irrigation management for hybrid Maize for higher yield and water productivity	• To determine optimum irrigation management strategy for increasing yield and water productivity of hybrid Maize.	Jamalpur (Char Nawbhangha), Nalitabari, Natore, BINA HQs
285	Irrigation management of Garlic cultivars for higher yield and water productivity under zero tillage condition	• To develop appropriate irrigation management practice for higher yield of garlic under zero tillage condition	Natore & Chalan Bill
286	Development of efficient irrigation practice for BINA developed citrus crops for hilly area of Bangladesh	• To enhance efficient use of rainwater and maximize water productivity of citrus crop	Khagrachori

Sl.	Research Title	Objective(s)	Location(s)
287	Development of Power Sprayer based sprinkler irrigation system/practice for vegetable crops	• To develop an efficient irrigation system for vegetable production in hill area • To enhance efficient use of Jhiri water and maximize water productivity	Khagrachori
288	Sensor and Decision Support system (DSSAT/AquaCrop model) for Maize irrigation	• To determine optimum irrigation for increasing yield and water productivity in maize cultivation	BINA HQ, Mymensingh
289	Performance evaluation of smart insect controller	• To evaluate performance of developed smart insect controller.	BINA HQs, Mymensingh
290	Performance evaluation of Bio-char machine	• To evaluate performance of developed Bio-char preparation machine.	BINA HQs, Mymensingh
291	Development of low-cost garlic planter	• To develop a low-cost power tiller operated garlic planter	BINA HQs, Mymensingh
292	Development of low-cost grain dryer	• To develop a low-cost power grain dryer	BINA HQs, Mymensingh
293	Development of pineapple leaf fiber extraction machine	• To develop pineapple leaf fiber extraction machine	BINA HQs, Mymensingh
294	Partitioning evapotranspiration using stable isotope in Maize/Wheat/ Sunflower field	• To partition ET (into evaporation and transpiration) in Maize/ Wheat field	BINA HQs, Mymensingh
295	Monitoring groundwater table fluctuation at BINA HQ and its substations (for long-term sustainability study)	• To gather long-term water-table data • To study the seasonal and long-term groundwater dynamics at the study locations	BINA HQs and its sub-stations (data based)
296	Effect of Bio-char in soil moisture conservation and irrigation need	• To determine irrigation water savings due to application of Biochar • To quantify water, use efficiency due to application of Biochar	BINA HQs, Mymensingh
297	Effects of biochar on soil properties in irrigated organic vegetable production	• To study the effects of Biochar on soil properties • To quantify the effects of Biochar on vegetable yield	BINA HQs, Mymensingh
298	System development/ establishment of drip and sprinkler irrigation for high value crops.	• To reduce use of water in agriculture • To increase fertilizer, use efficiency	BINA HQs, Mymensingh
299	Irrigation management practices on high value crops (Capsicum/ strawberry/ okra/tomato).	• To reduce the cost of irrigation on unit land	BINA HQs, Mymensingh
300	Use of satellite images in determining leaf area index for determining efficient/ effective water use estimation.	• To map and manage water resources, drought and flooding risk precisely by using RS and GIS.	BINA HQs, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
ADAPTIVE RESEARCH & EXTENSION DIVISION			
301	Block farming performance of Aman rice variety, Binadhan-7 at different locations	• To demonstrate the performance of Binadhan-7 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-7	Pabna, Rangpur
302	Block farming performance of submergence tolerant Aman rice variety, Binadhan-11 at different locations	• To demonstrate the performance of Binadhan-11 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan11	Pabna, Rangpur, Mymensingh, Kishoreganj, Gazipur, Jamalpur, Sherpur, Satkhira, Gopalganj, Barishal, Cumilla
303	Block faring performance of submergence tolerant Aman rice variety, Binadhan-12 at different locations	• To demonstrate the performance of Binadhan-12 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-12	Satkhira, Cumilla, Khagrachari
304	Block faring performance of fine grain aromatic Aman rice variety, Binadhan-13 at different locations	• To demonstrate the performance of Binadhan-13 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-13	Gopalganj, Cumilla
305	Block faring performance of Aman rice variety, Binadhan-16 at different locations	• To demonstrate the performance of Binadhan-16 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-16	Magura, Jassore, Rajshahi, Jamalpur, Gopalganj, Sherpur, Netrokona, Gazipur, Pabna, Cumilla, Noakhali, Sunamganj, Khagrachari, Rangamati, Satkhira
306	Block faring performance of Aman rice variety, Binadhan-17 at different locations	• To demonstrate the performance of Binadhan-17 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-17	Nilphamary, Rangpur, Lalmunirhat, Rajshahi Chapai, Natore, Pabna, Magura, Jassore, Satkhira,

Sl.	Research Title	Objective(s)	Location(s)
			Khulna, Bagerhat, Gopalganj, Jamalpur, Mymensingh, Kishoreganj, Gazipur, Cumilla, B'baria, Noakhali, Feni, Coxs Bazar, Sherpur, Barishal, Sunamganj
307	Block farming performance of Zn enrich Aman rice variety, Binadhan-20 in different locations	• To demonstrate the performance of Binadhan-20 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-20	Rangpur, Gopalganj, Satkhira, Pabna, Barishal, Jamalpur, Gazipur, Sherpur, Cumilla, Khagrachari
308	Block farming performance of early maturing Aman rice variety, Binadhan-22 in different locations	• To demonstrate the performance of Binadhan-22 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-22	Nilphamary, Rangpur, Rajshahi, Chapai, Natore, Pabna, Magura, Jassore, Satkhira, Bagerhat, Sunamganj, Gopalganj, Cumilla, Noakhali, Feni, Khagrachari
309	Block farming performance of dual tolerant Aman rice variety, Binadhan-23 in different locations	• To demonstrate the performance of Binadhan-23 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-23	Satkhira, Barishal, Noakhali, Feni, Pabna
310	Adaptive trial with two mutants RM-16(N)-8-1 and RM-16(N)-10-1 of Boro rice at different locations	• To assess the overall performance of Boro mutants in farmers field of different areas • To provide feedback information to concerned scientist about the mutants	Pabna, Kustia

Sl.	Research Title	Objective(s)	Location(s)
311	Adaptive trial with five mutants BNDR-9, BNDR-18, BNDR-48, BNDR-26, and BNDR-55 of Boro rice at different locations	• To assess the overall performance of Boro mutants in farmers field of different areas • To provide feedback information to concerned scientist about the mutants	Pabna, Kustia
312	Farmers' observation trial with Binadhan-17 in Boro season	• To demonstrate the performance of Binadhan-17 to farmers field in different areas of Bangladesh • To identify suitable areas for extensive promotional work • To encourage the farmers for cultivation of Binadhan-17	Sunamganj
313	Block farming performance of salt tolerant Boro rice variety, Binadhan-10 at different locations	• To demonstrate the performance of Binadhan-10 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-10	Satkhira, Khulna, Bagerhat, Barishal, Rangpur, Cumilla, Noakhali, Chattagram, Feni, Gopalganj, Khagrachari
314	Block farming performance of Boro rice variety, Binadhan-14 at different locations	• To demonstrate the performance of Binadhan-14 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-14	Jamalpur, Cumilla, Rangpur, Rajshahi, Chapai, Gopalganj
315	Block farming performance of Boro rice variety, Binadhan-24 at different locations	• To demonstrate the performance of Binadhan-24 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-24	Mymensingh, Kishoreganj, Gazipur, Jamalpur, Pabna, Bagerhat, Cumilla, Noakhali, Feni, Gopalganj, Sunamganj, Barishal, Potuakhali
316	Block farming performance of Boro rice variety, BINA dhan25 at different locations	• To demonstrate the performance of BINA dhan25 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of BINA dhan25	Mymensingh, Kishoreganj, Gazipur, Jamalpur, Pabna, Rangpur, Naogaon,

Sl.	Research Title	Objective(s)	Location(s)
			Rajshahi, Khulna, Satkhira, Noakhali, Feni, Gopalganj, Sunamganj, Sylhet, Magura, Barishal, Potuakhali, Cumilla, B'baria
317	Block farming performance of Aus rice variety, Binadhan-19 at different locations	• To demonstrate the performance of Binadhan-19 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-19	Nilphamari, Rangpur, Rajshahi, Chapai, Satkhira, Khulna, Bagerhat, Noakhali, Chittgong, Jamalpur, Mymensingh, Kishoreganj, Gazipur, Sherpur, Netrokona, Barishal, Khagrachari
318	Block farming performance of Aus rice variety, Binadhan-21 in different locations	• To demonstrate the performance of Binadhan-21 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binadhan-21	Nilphamari, Rangpur, Rajshahi, Chapai, Satkhira, Khulna, Bagerhat, Noakhali, Chittgong, Jamalpur, Mymensingh, Kishoreganj, Gazipur, Sherpur, Netrokona, Barishal, Khagrachari
319	Adaptive trial with four rapeseed mutants RL-11, RL-13, RL-14, RL-17 at different locations	• To assess the overall performance of rape seed mutants in farmers field of different areas	Jamalpur, Gopalganj, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
		• To provide feedback information to concerned scientist about the mutants	
320	Block farming performance of rapeseed variety, Binasarisha-4 in different locations	• To demonstrate the performance of Binasarisha-4 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binasarisha-4	Rangpur, Naogaon, Chaipai, Rajshahi, Satkhira, Barishal, Faridpur, Gopalganj, Tangail, Jamalpur, Gazipur, Cumilla, B'baria, Khagrachari
321	Block farming performance of rapeseed variety, Binasarisha-9 in different locations	• To demonstrate the performance of Binasarisha-9 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binasarisha-9	Rangpur, Chaipai, Rajshahi, Pabna, Magura, Jassore, Satkhira, Barishal, Jhalokati, Faridpur, Gopalganj, Tangail, Jamalpur, Mymensingh, Kishoreganj, Gazipur, Sherpur, Netrokona, Cumilla, B'baria, Noakhali,, Chattagram, Feni, Khagrachari, Sunamganj
322	Block farming performance of rapeseed variety, Binasarisha-11 in different locations	• To demonstrate the performance of Binasarisha-11 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binasarisha-11	Mymensingh, Kishoreganj, Gazipur, Sherpur, Netrokona, Cumilla, B'baria, Noakhali,, Chattagram,

Sl.	Research Title	Objective(s)	Location(s)
			Khagrachari, Sunamganj, Rangpur, Chaipai, Rajshahi, Pabna, Magura, Jassore, Satkhira, Barishal, Faridpur, Gopalganj, Tangail, Jamalpur
323	Performance of rapeseed variety, Binasarisha-9 under zero tillage condition at different locations	• To demonstrate the performance of Binasarisha-9 under zero tillage condition at farmers field in different areas of Bangladesh • To identify suitable areas for extensive promotional work • To encourage the farmers for zero tillage cultivation of Binasarisha-9	Mymensingh, Gazipur
324	Block farming performance of sesame variety, Binatil-2, Binatil-3 and Binatil-4 at different locations	• To demonstrate the performance of Binatil-2, Binatil-3 and Binatil-4 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of, Binatil-2, Binatil-3 and, Binatil-4	Rangpur, Panchagarh, Pabna, Natore, Naogaon Kustia, Jhenaidah, Rajbari, Gopalganj, Satkhira, Khulna, Jamalpur, Tangail, Mymensingh, Kishoreganj, Gazipur, Barisal, Cumilla, B'baria, Chadpur, Laxmipur, Sunamganj, Khagrachari
325	Block farming performance of groundnut varieties, Binachinabadam-4, Binachinabadam-6 and	• To demonstrate the performance of, Binachinabadam-4, Binachinabadam-6 and Binachinabadam-8 to farmers in different areas of Bangladesh	Rangpur, Thakugaon, Pabna, Noakhali, Laxmipur, Sunamganj,

Sl.	Research Title	Objective(s)	Location(s)
	Binachinabadam-8 at different locations	• To encourage the farmers for extensive cultivation of, Binachinabadam-4, Binachinabadam-6 and Binachinabadam-8	Mymensingh, Cumilla, Gopalganj, Gazipur, Satkhira, Khagrachari, Jamalpur, Kishoreganj
326	Block farming performance of soybean varieties, Binasoyabean-2, Binasoybean-3, Binasoybean-5 and Binasoybean-6 at different locations	• To demonstrate the performance of, Binasoyabean-2, Binasoybean-3, Binasoybean-5 and Binasoybean-6 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of, Binasoyabean-2, Binasoybean-3, Binasoybean-5 and Binasoybean-6	Noakhali, Laxmipur, Feni, Chandpur, Cumilla, Barisal
327	Block farming performance of mungbean variety, Binamoog-8 at different locations	• To demonstrate the performance of Binamoog-8 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binamoog-8	Chapai, Rajshahi, Gopalganj, Barishal, Borgona, Jhalokathi, Patuakhali, Satkhira
328	Block farming performance of lentil variety, Binamasur-5, Binamasur-8 and Binamasur-10 in different locations	• To demonstrate the performance of Binamasur-5, Binamasur-8 and Binamasur-10 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binamasur-5, Binamasur-8 and Binamasur-10	Pabna, Jassore, Magura, Gopalganj, Faridpur, Shariatpur, Khagrachari, Chapainawabganj
329	Block farming performance of grasspea variety, Binakhasari-1 at different locations	• To demonstrate the performance of Binakhasari-1 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binakhasari-1	Gopalganj, Magura, Jashore, Pabna, Satkhira
330	Block farming performance of chickpea variety, Binasola-4, Binasola-7, Binasola-8 and BINA sola11 at different locations	• To demonstrate the performance of Binasola-4, Binasola-7, Binasola-8 and BINA sola11 to farmers in different areas of Bangladesh • To encourage the farmers for extensive cultivation of Binasola-4, Binasola-7, Binasola-8 and BINA sola11	Chapainawabganj, Rajshahi, Pabna
331	Block farming performance of turmeric variety, Binahalud-1 at Mymensingh district	• To demonstrate the performance of Binahalud-1 to farmers at Mymensingh district of Bangladesh	Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
		• To encourage the farmers for extensive cultivation of Binahalud-1	
332	Performance of summer onion variety, Binapiaz-1 at Rangpur district	• To demonstrate the performance of Binapiaz-1 to farmers at Rangpur district of Bangladesh • To encourage the farmers for extensive cultivation of Binapiaz-1	Rangpur
333	Development of profitable cropping pattern with BINA released varieties/technologies	• To include HYV mustard varieties between early Aman and Boro/Aus rice • To include HYV lentil, grasspea, soybean, chickpea varieties between early Aman and late Boro/Aus rice • To increase cropping intensity and crop yield through designing suitable cropping patterns	Mymensingh, Kishoreganj, Pabna, Rangpur, Cumilla, Barishal, Gazipur, Magura, Sunamganj, khagrachari, Magura, Satkhira, Netrokona, Sherpur, Jamalpur
334	Establishment of BINA-Technology Pilot Area (BINA-Village)	• To establish BINA-Technology pilot area in surrounding villages of BINA HQ for extension of BINA developed technologies • To improve farmers socio-economic status by motivating adoption of BINA technologies • To include BINA technologies in the existing cropping pattern • To demonstrate field performance of BINA technologies to the visitors • To extend promising mutant varieties among the farmers through seed exchange program	BINA HQ, Mymensingh
335	Organize farmers, SAAO and seed dealer trainings on BINA developed varieties/ technologies	• To improve farmers, SAAO and seed dealers' knowledge about BINA developed varieties/ technologies; and • To publicize BINA generated technologies to its end users	Mymensingh, Kishoreganj, Pabna, Rangpur, Cumilla, Barishal, Gazipur, Magura, Sunamganj, khagrachari, Magura, Satkhira,

Sl.	Research Title	Objective(s)	Location(s)
			Netrokona, Sherpur, Jamalpur, Chapainawabganj, Manikganj, Gopalganj, Noakhali
336	Organize field days on BINA developed varieties/technologies	• To improved farmers' knowledge about BINA developed varieties/ technologies; and • To encourage farmers to adopt BINA generated technologies through field days	Rangpur, Cumilla, Barishal, Gazipur, Magura, Sunamganj, khagrachari, Magura, Satkhira, Netrokona, Sherpur, Jamalpur, Mymensingh, Kishoreganj, Pabna, Chapainawabganj, Manikganj, Gopalganj, Noakhali
337	Organize farmers yard discussion on BINA developed varieties/technologies	• To improved farmers' knowledge about BINA developed varieties/ technologies; and • To encourage farmers to adopt BINA generated technologies through farmers yard discussion	Mymensingh, Satkhira, Sherpur, Rangpur, Cumilla, Gazipur, Gopalganj
338	Organize workshop on BINA developed varieties/technologies to DAE, BADC, Seed dealer, progressive farmer and NGO personnel	• To improve knowledge about BINA developed varieties/ technologies to DAE personnel, NGOs, seed producers and progressive farmers; and • To publicize BINA generated technologies to its end users	Mymensingh, Pabna, Khagrachari
AGRICULTURAL ECONOMICS DIVISION			
339	Yield gap analysis of Binadhan-19 in some selected areas of Bangladesh	• To determine the yield gap of Binadhan-19 at the farm level; • To identify the factors affecting the production of Binadhan-19; To estimate the costs and return of Binadhan-19 cultivation in the study areas and • To suggest some policy guidelines to minimize the yield gap.	Pabna, Rangpur and Chapainawabganj

Sl.	Research Title	Objective(s)	Location(s)
340	Profitability of Binadhan-22 production in some selected areas of Bangladesh	• To determine the profitability of Binadhan-22 growers; (ii) to assess the factors affecting production of Binadhan-22 and • To identify the major constraints faced by the Binadhan-22 producers.	Mymensingh, Bogura, Naogaon and Rangpur
341	Profitability and supply chain analysis of Binasarisha-9 in some selected areas of Bangladesh	• To measure the costs and return of Binasarisha-9 production in the study areas; • To find out the key players involved in the supply chain of Binasarisha-9; • To determine the marketing efficiency of Binasarisha-9; and • To suggest some policy guidelines for the cultivation of Binasarisha-9.	Pabna and Rangpur
342	Production and marketing system of Binachinabadam-8 in some selected char areas of Bangladesh	• To estimate the costs and return of Binachinabadam-8 in the study areas • To find out the key players involved in the marketing system of Binachinabadam-8 • To determine the marketing cost, margin and marketing efficiency at different levels and • To identify the major production and marketing problems of Binachinabadam-8.	Rangpur, Gaibandha and Kurigram
BINA Regional Station, Gazipur			
343	Regional yield trial of Bottle gourd mutant line at regional station and substation farm	• To select desirable mutants of bottle gourd for desirable size, shape, color with improved nutritional quality and high yield potential	BINA Regional Research Center, Gazipur; BINA substation Cumilla and Ishurdi
344	Regional yield trial of eggplant mutant lines at farmer's field	• To select shoot and fruit borer tolerant genotypes and phomopsis blight tolerant genotypes with high yield potential & also increase the nutritional quality	Gazipur and Narsindi
345	Up-scaling of BINA developed crop varieties in Gazipur region	• To evaluate the performance of BINA developed different varieties to the farmer’s field. • To increase crop production as well as farmer’s income.	Gazipur, Dhaka, Tangail, Narsingdi and Manikgonj

Sl.	Research Title	Objective(s)	Location(s)
346	Performance of BINA developed popular mustard, groundnut and sesame varieties.	• To evaluate the performance of BINA developed popular mustard, groundnut and sesame varieties	Gazipur, Tangail, Narsingdi and Manikgonj
347	Performance of BINA developed popular boro rice varieties	• To evaluate the performance of BINA developed popular boro rice varieties	Gazipur and Tangail
348	Validation trial of mustard varities with zero tillage and optimum tillage	• To estimate BCR • To provide more times (days) for boro cultivation	Tangail and Manikgonj
349	Evaluation of improve cropping pattern in	• To increase cropping intensity of this region • To increase crop production as well as income • To find out the performance of improved cropping pattern.	Gazipur and Tangail
350	Yield, duration and profitability of Binadhan-17 and Binasarisha-9 in improved cropping pattern	• To evaluate the performance of Binadhan-17 and Binasarisha-9 in farmer's field	Dhaka, Gazipur, Tangail, Narsingdi, Munshiganj and Manikgonj
351	Breeder and TLS seed production	• To supply seed for demonstration trials, GOs and NGOs, farmers and other research purposes and to fulfill special requirement for environmental hazards.	
BINA SUB-STATION, ISHURDI			
352	Germplasm Collection and Preservation of field pea(*Pisumsativum*),pigeon pea(*Cajanuscajan*).	• To assess yield potentiality and morpho-physiological attributes.	BINA Sub-station Farm, Ishurdi
353	Growing of M_3 generation of lentil.	• To select desirable mutants.	BINA Sub-station Farm, Ishurdi
354	Hybridization of field pea (*Pisumsativum*).	• To high yielding, short duration and disease resistant variety.	BINA Sub-station Farm, Ishurdi
355	Integration of organic and inoirganic fertilizer on garlic-Sesame-T.aman rice cropping pattern.	• To find out suitable and profitable fertilizer dose for maximized crop production.	BINA Sub-station Farm, Ishurdi
356	Influence of transplanting date for minimizing shattering loss of Binadhan-14	• To find out suitable time for cultivation of Binadhan -14	BINA Sub-station Farm, Ishurdi

Sl.	Research Title	Objective(s)	Location(s)
357	Improvement of suitable and profitable cropping patterns with BINA released varieties/technologies.	• To increase cropping intensity with maximized crop production and proper utilization of land.	Farmers field of different districts.
358	Establishment of BINA-technology village through block demonstration and quality seed dissemination.	• To include BINA technologies/varieties in the existing cropping pattern performance of BINA varieties/technologies.	Santhia, pabna.
359	Seed production (Breeder seed and TLS)	• To produce quality seed and supply seeds to different organizations (DAE, BADC, BMDA etc)	BINA Sub-station Farm, Ishurdi and Farmers field.
BINA Sub-station, Magura			
360	Evaluation of different management approaches for the control of leaf roller of rice	• To find out the appropriate management approach(es) of leaf roller of rice	BINA Sub-Station Farm, Magura
361	Insect pest and natural enemy incidence at different growth stages of Binadhan-24 and BINA dhan25	• To study the pest and their natural enemy incidence patterns and to create database	Do
362	Preliminary yield trial with high yielding and early maturing rice lines	• To evaluate desirable mutants for earliness and higher yield	Do
363	Growing M_1 generation of rice for earliness and higher yield	• To create variability for earliness and higher yield	Do
364	Performance of Binadhan-16 & 17 in Boro Season	• To find out the performance of Binadhan-16 & 17 in Boro Season	Do
365	Effect of seedling age on flowering of Binadhan-17	• To find out appropriate seedling age • To minimize grain sterility • To maximize final yield	Do
366	Collection and evaluation of Germplasm of different crops	• To characterize the selected germplasm	Do
367	Effect of different durations of water-logging at different growth stages on seed yield of mustard	• To study the effect of different durations of water-logging on seed yield of mustard	Do
368	Evaluation of Binadhan-16, 17, 24 & 25 under different 'soil moisture stress/drought tolerance level' in Boro season	• To study the response of the cultivars to different level of soil moisture stress	Do
369	Block farming with BINA varieties/technologies	• To demonstrate performance of BINA developed popular varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed popular varieties.	06 districts of Jashore and 01 district of Faridpur region

Sl.	Research Title	Objective(s)	Location(s)
370	Dissemination of BINA varieties/ technologies	• To demonstrate performance of BINA developed popular varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed popular varieties.	Do
371	Cropping pattern at different AEZ	• To include HYV mustard varieties between early Aman and Boro/Aus rice; • To include HYV mustard, lentil, mungbean, sesame & groundnut varieties between early Aman and late Boro/Aus rice; and • To increase cropping intensity and crop yield through designing suitable cropping patterns.	Do
372	Development of BINA technology village in surrounding areas of BINA Sub-Station, Magura	• To establish BINA Technology pilot area in surrounding village(s) of BINA Sub-Station, Magura for extension of BINA developed varieties/ technologies • To improve farmers socio-economic status by motivating adoption of BINA technologies • To include BINA technologies in the existing cropping pattern(s) • To demonstrate field performance of BINA developed varieties/ technologies to the visitors • To extend promising mutant varieties/ technologies among the farmers through seed exchange programme	Moghi Union, Sadar Magura
373	Truthfully labeled seed production of BINA released crop varieties	• To supply seeds for demonstration of BINA-village programme, GOs, NGOs, farmers and other research purposes	BINA Sub-Station Farm, Magura
374	Organize farmers/seed dealers/SCA personnels training on BINA developed varieties/technologies	• To improve farmers' knowledge about BINA developed varieties/ technologies; and • To publicize BINA generated technologies to its end users.	06 districts of Jashore and 01 district of Faridpur region
375	Organize field days on BINA developed varieties/technologies	• To improve farmers' knowledge about BINA developed varieties/ technologies; and • To encourage farmers to adopt BINA generated technologies through field days	Do

Sl.	Research Title	Objective(s)	Location(s)
BINA Sub-station, Rangpur			
376	Collection and characterization of minor cereal germplasm from different char land ecosystem	• To collect the germplasm for future breeding programme.	BINA Sub-Station, Rangpur
377	Maintenance of gremplasm for minor cereals	• To maintain the collected gremplasm. • To enrich the genetic source of minor cereal.	Do
378	Growing of M3 groundnut population	• To identify suitable high yielding and shorter durable mutants from the irradiated M2 populations	Do
379	Effect of mulch material on weed control that affects the growth & yield of groundnut	• To find appropriate method of weed control by using mulch • To get maximum yield by mulching	Do
380	Increasing cropping intensity through profitable cropping pattern at Rangpur region	• To enhance cropping intensity through intensive cultivation •	Do
381	Head to head adaptive trial for T.Aman and mustard varieties.	• To evaluate the performance of BINA	Do
BINA Sub-station, Cumilla			
382	Regional Yield Trial of two short duration rice lines for Haor areas (PBD)	• To assess earliness and yield performance of short duration rice lines for two cropping pattern in haor areas	Cumilla Substation Farm & Bijoynagar, Brahmanbaria Farmer's field
383	Advance yield trial of blast resistant rice lines (PBD)	• To select desired lines for blast resistance	Cumilla Substation Farm
384	Advance yield trial of brown plant hopper resistant rice lines (PBD)	• To select desired lines with BPH resistance and higher yield	Do
385	Advance yield trial of Bacterial Blight resistant rice lines ((PBD)	• To select desired lines for bacterial blight resistance	Do
386	Seasonal effect on yield and quality of Basmati type rice germplasm (PBD)	• To select desired lines for blast resistance	Do
387	PYT of Basmati rice for earliness and higher yield(PBD)	• To select desired lines	Do
388	On -farm and on-station Yield Trial with three Bacterial Blight resistant rice lines (PBD)	• To assess the yield potential and disease reaction of BLB resistant rice lines	Cumilla Substation Farm
389	On -farm and on-station Yield Trial with three Blast resistant rice lines (PBD)	• To assess the yield potential and disease reaction of blast resistant rice lines	Cumilla Substation Farm

Sl.	Research Title	Objective(s)	Location(s)
390	On -farm and on-station Yield Trial of two short duration, early maturity boro rice lines suitable for Haor areas (PBD)	• To assess the yield potential and duration over location.	Cumilla Substation Farm & Bijoynagar, Brahmanbaria Farmer's field
391	Regional Yield Trial of two rice lines for earliness, better grain quality and higher grain yield (PBD)	• To evaluate the yield potential have better grain quality over location.	Cumilla Substation Farm
392	Observation Yield trial of ten tungro resistant rice lines (PBD)	• To assess the yield performance and pest reaction.	Do
393	Comparative study of BINA developed Aman varieties for different transplanting time in Cumilla region	• To investigate the comparison of yield and yield contributing characters of BINA developed *Aman* varieties and due to different transplanting time in Cumilla region	Do
394	Growing of M_3 generation for development of high yielding turmeric lines	• To select desirable high yielding lines with color and flavor of turmeric.	Do
395	Growing of M_3 generation for development of high yielding ginger lines	• To select desirable high yielding lines with size, shape, flavor and to establish rhizome rot tolerant variety.	Do
396	Comparative study of BINA developed Aman varieties for different transplanting time in Cumilla region	• To investigate the comparison of yield and yield contributing characters of BINA developed Amon varieties and due to different transplanting time in Cumilla region	Do
397	Effect of temperature during flowering time on the yield and yield contributing characters some Boro rice cultivars in Cumilla region	• To investigate the flowering time temperature effect on yield and yield contributing characters of some rice cultivars in Cumilla region.	Do
398	Effect of seedling age and transplanting time on the yield and shattering of Binadhan-14 in Cumilla region.	• To investigate the effects of seedling age and transplanting time on the yield and shattering	Do
399	Comparative study of some Boro rice varieties at upland of Cumilla region	• To assess the performance and duration of Bina devoloped some rice cultivars at Boro season at upland in Cumilla region.	Cumilla Substation Farm & Bijoynagar, Brahmanbaria Farmer's field

Sl.	Research Title	Objective(s)	Location(s)
400	Develop appropriate tillage techniques for mustard cultivar under different moisture regime in Cumilla	• To develop the appropriate management techniques of Zero tillage for mustard cultivation under different moisture regime in low land of Cumilla region	Cumilla Substation Farm
401	Development a profitable cropping pattern including oil crop at at upland of Cumilla district	• To enhance the farmer's income	Adorsho sadar CumillaFarmer's field
402	Development a cropping pattern including oil crop at haor area of B.baria district	• To increase cropping intensity & adopt mustard cultivation in haor areas	Bijoynagar, Brahmanbaria Farmer's field
403	Observation trails ofBinadhan-25,Binadhan-24, Binadhan-16 and Binadhan-17 in Cumilla region	• To observe the performance of the varieties at farmer's field in Cumilla region.	Cumilla Substation Farm
404	Assessment of yield gap relation and yield prediction of BINA newly released rice varieties in different AEZs through crop modeling (Agronomy Div.)	• To find out yield gap relation and yield prediction of BINA newly released varieties.	Do
405	Assessing the yield gap of Aman rice different cropping systems under scenario of climate change & resource scarcity (Agronomy Division)	• To assess the yield limiting factor	Do
406	Screening of segregating population of RM-005 (PBD)	• For obtained short duration high yielding & low Erucic acid (EA) Mustard variety BINA Sarisha12 purity.	Do
BINA Sub-station, Satkhira			
407	Late potentiality evaluation of BINA released Aman rice varieties	• Investigate the degrees of delayed planting for grain yield production of BINA developed Aman rice varieties in Khulna region	BINA sub-station, Satkhira
408	Effect of seedling age of BINA released Aman rice varieties in Khulna region	• Observe the effect of different seedling age on grain yield of BINA developed Aman rice varieties in Khulna region	Do
409	Development of salt tolerant fine grain rice lines through induced mutation and advanced breeding technique	• Developfine grain rice lines with improved salt tolerance and higher grain yield	Do
410	Morpho-molecular characterization of rice landraces growing in Khulna region	• Assess the yield potential and morpho-molecular attributes for salt tolerance	BINA sub-station, Satkhira

Sl.	Research Title	Objective(s)	Location(s)
411	Screening of different Mungbean cultivars in saline prone areas	• Find out the suitable mungbean cultivars for developing new varieties for saline prone areas in Bangladesh	Do
412	Improvementofsummermungbeanthroughmutationbreeding	• Find out the genetic variation for synchronous pod maturity with high yielding	Do
413	Varietal improvement of canola through advanced breeding techniques	• Develop early maturing, high yielding with less erucic acid canola/rapeseed lines	Do
414	Up-scaling of BINA developed crop varieties in Khulna region	• Observe the yield performance and its adoption by the farmers	Khulna, Satkhira, Bagerhat
415	DisseminationofBINAdevelopedcropvarietiesthroughblockdemonstration	• To encourage farmers in adopting BINA released crop varieties	Khulna, Satkhira, Bagerhat
416	Establishment of BINA technology village in Satkhira region through block demonstration and quality seed dissemination	• To encourage farmers in adopting BINA released crop varieties • To develop new cropping pattern using BINA developed varieties instead of existing cropping pattern. • To improve farmer's socio-economic status in Khulna region	Shymnagor, Satkhira
BINA Sub-station, Jamalpur			
417	Effectiveness of different management approaches against the stem borer and leaf roller (*canphalocrosismedinalis*) of rice	• To develop suitable insect management technology against stem borer and leaf roller of rice	BINA Sub-station, Jamalpur
418	Effect of different organic amendment or soil Carbon pool and soil fertility for increase crop production	• To observed the soil organic carbon status in soil and soil fertility	BINA Substation and farmers field, Jamalpur
419	Block farming of Aman rice during 2022-2023	• To demonstrate performance of BINA developed popular Aman rice varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed Aman rice varieties. • To extend promising varieties/technologies among the farmers and SAAOs through seed distribution programme.	Jamalpur and Tangail Region
420	Block farming of Boro rice during 2022-2023	• To demonstrate performance of BINA developed popular Boro rice varieties in selected areas; and	Jamalpur and Tangail Region

Sl.	Research Title	Objective(s)	Location(s)
		• To encourage farmers for extensive cultivation of BINA developed Boro rice varieties. • To extend promising varieties/technologies among the farmers and SAAOs through seed distribution programme.	
421	Block farming of Aus rice during 2022-2023	• To demonstrate performance of BINA developed popular Aus rice varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed Aus rice varieties. • To extend promising varieties/technologies among the farmers and SAAOs through seed distribution programme. • To achieve greater impact for technology transfer.	Jamalpur and Tangail Region
422	Cropping pattern at different locations of Jamalpur Region.	• To increase cropping intensity and crop yield through designing suitable cropping patterns.	Jamalpur and Tangail Region
423	Organize farmers' training on BINA developed varieties/technologies	• To improved farmers' knowledge about BINA developed varieties/ technologies; and • To publicize BINA generated technologies to its end users.	Jamalpur Sub-station
424	Organize field days on BINA developed varieties/technologies	• To improved farmers' knowledge about BINA developed varieties/ technologies; and • To encourage farmers to adopt BINA generated technologies through field days.	Jamalpur and Tangail Region
BINA Sub-station, Nalitabari			
425	Physico-chemical characterization of Nalitabari sub-station to increase soil fertility and productivity	• To characterize physico-chemical properties to know the fertility status of soils. • To develop land/crop management system to sustain soil fertility and productivity.	BINA sub-station, Nalitabari, Sherpur
426	Integrated nutrient management for increased rice production in Mustard-Boro-T.Aman rice cropping pattern using isotopic techniques	• Identification of suitable combination of organic and inorganic fertilizer for maximized crop yield.	BINA sub-station, Nalitabari, Sherpur

Sl.	Research Title	Objective(s)	Location(s)
427	Combined effect of organic and inorganic fertilizer on the growth and yield in T.aman-Mustard-Boro rice cropping pattern.	• To develop a suitable integrated dose of inorganic fertilizers combined with organic compounds. • To investigate the improvement of soil fertility using organic compounds in combination with chemical fertilizers. • To reduce the chemical fertilizer and cost of production.	BINA sub-station, Nalitabari, Sherpur
428	Growing M_1 generations of Paijam and Chinishail	• To develop fine grain rice variety with short duration and higher Yield.	BINA sub-station, Nalitabari, Sherpur
BINA Sub-station, Noakhali			
429	Improvement of local groundnut germplasm for problem areas through hybridization	• To develop high salinity tolerant high yielding groundnut line	BINA Substation, Noakhali
430	Growing of collected rice germplasm for seed multiplication and evaluation	• To select potential landrace for future breeding program	BINA Substation, Noakhali
431	Development of a suitable cropping pattern in the farmer's field of Noakhali	• To find out a profitable cropping pattern in the selected suitable area(s)	Noakhali region
432	Aman rice block farming in 2022-23 at Subarnachar uapzila under Noakhali district	• To evaluate the performance of BINA developed varieties compare with another cultivar	Subarnachar, Noakhali
BINA Sub-station, Sunamganj			
433	Growing of F_3 population of summer tomato	• To select best line for summer season with tolerant to biotic and abiotic stress	BINA Sub-Station Sunamganj
434	Growing of M_2 generation of Barshatimistikumra	• To develop variety with high yield potential, tolerant to fruit fly and suitable for summer and winter season	BINA Sub-Station Sunamganj
435	Growing of M_2 generation of dhanimorich	• To develop variety with high yield potential, Tolerant to anthracnose, foot rot and bacterial wilt and suitable for year-round cultivation	BINA Sub-Station Sunamganj
436	Adoption of new cropping pattern with BINA released mustard and short duration aman rice varietie for aman season	• To study the adaptability of BINA released mustard varieties in developing cropping pattern • To developed BINA commodities-based cropping pattern in Sunamganj region	BINA Sub-Station Sunamganj

Sl.	Research Title	Objective(s)	Location(s)
437	Generation of three crop-based cropping pattern with BINA released Mustard, short duration aman and Boro rice varieties	• To study the adaptability of BINA released mustard varieties in developing cropping pattern	BINA Sub-Station Sunamganj
438	Generation of three crop-based cropping pattern with bina released sesame, short duration aus and aman rice varieties	• To study the adaptability of BINA released sesame varieties in developing cropping pattern	BINA Sub-Station Sunamganj
439	Generation of three crop-based cropping pattern with BINA released Groundnut, short duration aus and aman rice varieties	• To study the adaptability of BINA released groundnut varieties in developing cropping pattern	BINA Sub-Station Sunamganj
440	Generation of three crop-based cropping patterns with BINA released Groundnut, short duration aus and aman rice varieties	• To study the adaptability of BINA released groundnut varieties in developing cropping pattern	BINA Sub-Station Sunamganj
BINA Sub-station, Khagrachari			
441	Growing of M_4 generation for drought tolerance and high yielding sticky rice	• To identify high yielding drought tolerant sticky rice lines	BINA Sub-station Farm, Khagrachari
442	Observation yield trial of upland rice lines (International Upland Rice Observational Nursery)	• To select desired lines for upland ecosystems	BINA Sub-station Farm, Khagrachari
443	Evaluating the yield performance of mustard varieties with and without (zero) tillage	• To observe the yield potentiality of mustard under both with and without tillage conditions	BINA Sub-station Farm, Khagrachari
444	Effects of mechanical stress on plant at tillering capacity and yield of transplant boro rice.	• To find out effect of stress on the tillering capacity. • To find the yield performance of selective Boro variety.	BINA Sub-station Farm, Khagrachari
445	Study on the effect of natural and chemical herbicides in weed management for Aus in CHT of Bangladesh	• To determine the effect of different herbicides on weed management.	Farmer's Field of Khagrachari
446	Evaluation of the yield performance of intercropping combinations between Sesame and Mungbean in Hill Tracts	• To evaluate the performance of intercropping combinations in regard to cultural practices. • To determine suitable intercropping on growth and development Sesame and Mungbean cultivation.	BINA Sub-station Farm, Khagrachari

Sl.	Research Title	Objective(s)	Location(s)
447	Evaluation of mulching techniques in the context of weed management in crop cultivation on hills	• To determine the effect of selected mulching techniques on weed management of the crop • To evaluate the yield performance of crop as affected by mulching techniques	Farmer's Field of Khagrachari
448	Farmers observation trials with T. Aman rice	• To demonstrate the performance of Binadhan-12 to farmers field in different areas of Bangladesh • To identify suitable areas for expensive promotional work • To encourage the farmers for cultivation of Binadhan-12	Farmer's Field of Khagrachari
449	Block farming of BINA developed varieties	• To demonstrate the performance of BINA released different varieties to the farmer's field. • To increase production and income of the farmers	Farmer's Field of Khagrachari
450	Up-scaling of BINA developed varieties	• To demonstrate the performance of BINA released different varieties to the farmer's field. • To increase production and income of the farmers	Farmers' field of Khagrachari
451	Quality seed production of promising BINA released varieties for hill tracts	• To supply quality seeds to the farmers and DAE for extension work • To meet the local demand of seed and supply during season for demonstration and research purposes • To sustain the cultivation of BINA released crop varieties	Farmers' field of Khagrachari and BINA Sub-station, Khagrachari
BINA Sub-station, Barishal			
452	Determination of submergence tolerance ability and durability of aman rice seedling and their effect on grain development	• To investigate the durability of submergence condition of BINA developed Aman rice variety and their performance under submergence condition	BINA Sub-station farm, Barishal.
453	Increase crop intensity by changing cropping pattern in Barisal sadarupozila	• To change one crop area to three crop area with increasing cropping intensity	Do
454	Effect of limited moisture level at different growth stage on seed yield and grain quality of Boro rice.	• To investigate the effect of limited soil moisture level at different growth stage on seed yield and their grain quality.	Do
455	Impact of mung bean picking at different growth stage on grain yield and grain quality.	• To investigate the contribution of mung bean picking at different growth stage on pod yield and their nutritional quality.	BINA Sub-station farm, Barishal.

Sl.	Research Title	Objective(s)	Location(s)
456	Growing M1 generation of rice for tidal submergence tolerant through induced mutation	• To select the submergence tolerant mutant lines with higher grain yield.	Do
457	Collectionand morphomolecular characterization of T. Aman rice landraces cultivated in Barishal region	• To evaluate the genetic divergence of local rice. • To select the source of gene for tidal submergence tolerant.	Do
458	Growing of M_1 generation of local aromatic rice, *Sakkhorkhora* for higher yield and earliness	• To identify high yielding and early maturing aromatic rice mutants for Barishal region	Do
459	Screening and Evaluation of micronutrient enriched rice lines for Boro season	• To select the lines with higher yield potential, zinc and iron content.	Do
460	Response of *Capsicum chinense* (Naga Morich) to water logging stress	• To select water logging resistant genotypes • Collection of germplasm for further research	Do
461	Assesment of salinity tolerance in *Capsicum chinense* (Naga Morich) genotypes.	• To select salinity resistant genotypes and Collection of germplasm for further research	Do
462	Response of Biofertilizer on growth and yield of BINA released soybean varieties	• To evaluate the efficiency of Biofertilizer on different soybean variety considering yield and yield attributing characters	Do
463	Effect of different fertilizer doses of mustard cultivation under zero tillage condition at farmers field in coastal region of Bangladesh	• To find out suitable fertilizer doses for mustard under zero tillage in coastal area.	Barishal, Patuakhali and Jhalkathi districts
464	Organize farmers' and SAAO training on BINA developed varieties/ Technologies	• To improve DAE personnel and farmers' knowledge about BINA developed varieties/ technologies	BINA Sub-station Barishal and Barishal zone.
465	Organize field day on BINA developed varieties/ Technologies	• To improve DAE personnel and farmers' knowledge about BINA developed varieties/ technologies • To disseminate BINA developed technologies	BINA Sub-station Barishal and Barishal zone.
466	Organize seminar/workshop on BINA developed varieties/ technologies to DAE, BADC, seed dealer, progressive farmers and NGO personnel	• To improve knowledge about BINA developed varieties/technologies • To disseminate BINA developed technologies	BINA Sub-station Barishal and Barishal zone.

Sl.	Research Title	Objective(s)	Location(s)
BINA Sub-station, Gopalganj			
467	Development of a suitable cropping pattern in the farmers' field of Gopalganj & Faridpur	• To increase crop intensity • To change two crop area to three crop area.	On-station/Farmers' field of Gopalganj /Faridpur
468	Screening M_2 generation of Mung bean	• To select early maturing lines with desirable yield attributes.	BINA Sub-station, Gopalganj
469	Screening M_1 generation of Laldigha and Laxhmidigha mutants	• To create variability for selection of desirable mutants	BINA Sub-station, Gopalganj
470	Germplasm collection of local rice variety and study on morphological and molecular characterization.	• To know the morphological and molecular characters of those local variety using for breeding purpose.	BINA Sub-station, Gopalganj
471	Yield performance of Aus rice at different transplanting method at Gopalganj	• To investigate the proper transplanting method of Aus rice	BINA Sub-station, Gopalganj
472	Effect of seedling age on growth and yield contributing characters of BINA released Aman rice varieties cultivated in Gopalganj region	• To investigate the effect of seedling age on yield contributing characters and and its impact on grain yield. • To select the suitable seedling age for better yield.	BINA Sub-station, Gopalganj
473	Establishment of BINA technology village in Gopalganj region through block demonstration and quality seed dissemination	• To encourage farmers in adopting BINA released crop varieties • To develop new cropping pattern using BINA developed varieties instead of existing cropping pattern. • To improve farmer's socio-economic status in Gopalganj region.	BINA Sub-station, Gopalganj
474	Seed production of BINA released crop varieties popular in Gopalganj region	• To produce and distribute the quality seed of BINA released crop varieties	BINA,Sub-station, Gopalganj
BINA Sub-station, Chapainawabganj			
475	Influence of organic residue with alternate wetting and drying irrigation on rice yield, water productivity and soil physicochemical properties.	• To investigate the effects of selected organic residue on rice yield and water productivity under alternate wetting and drying (AWD) irrigation. • To determine the changes in soil physicochemical properties influenced by selected organic residue under AWD conditions.	Sub-station experimental field
476	Development of profitable cropping pattern in Chapainawabganj area.	• To identify and practice the most appropriate cropping patterns suitable for drought prone areas.	Sub-station experimental

Sl.	Research Title	Objective(s)	Location(s)
			field and farmer's fields
477	Effect of stale seed bed technique to minimize herbicide cost without compromising yield.	• To determine the extent of herbicide use reduction. • To estimate cost differences between herbicide and no herbicide plots.	Sub-station experimental field
478	Determining precise water use by BINAdhan-17 in comparison with BRRI dhan-71	• To determine amount of water used in BINAdhan17 and BRRI dhan-71 • To estimate water use efficiencies of conventional irrigation system and AWD irrigation system	Sub-station experimental lysimeter

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Sl.	Research Title	Objective(s)	Location(s)
BREEDING DIVISION (VARIETAL IMPROVEMENT)			
1	Hybridization for high sugar high yield short duration and self detrash varieties of sugarcane	• Developing improved varieties of sugarcane in relation to higher cane (>100 t/ha) and sugar (pol% cane >13) yield • Selecting short duration (10 months) and lodging tolerant variety of sugarcane • Selecting self-detrashing variety of sugarcane	BSRI, Ishurdi, Pabna
2	Evaluation of sugarcane clones as site specific gur variety	• Selecting promising clone(s) with high gur recovery as site specific gur variety	Bandarban, Barisal, Chapainawabgonj, Gazipur
3	Evaluation of sugarcane clones as site specific chewing variety	• Selecting sugarcane clone(s) with improved chewing attributes • Developing location specific chewing cane variety	Bandarban, Gazipur, Chuadanga, Chapainawabgonj
4	Development of salt tolerant varieties of sugarcane	• Developing salt tolerant (12-15 dS/m) clones for southern region • Selecting clones free from salt in juice	BSRI, Ishurdi
5	Development of drought tolerant varieties of sugarcane	• Developing sugarcane varieties tolerant to drought stress • Selecting high yield potential clones under rainfed condition	BSRI, Ishurdi and Rajshahi
6	Genetic enhancement of sugarcane (Saccharum sp. Hybrids) for resistant to red rot disease	• Developing red rot resistant clones through interspecific hybridization • Selecting progenies resistant to red rot disease.	BSRI, Ishurdi
7	Preservation of sugarcane pollen and evaluation of pollen viability for cross synchronization	• Viability assessment of stored sugarcane pollen for cross synchronization • Optimizing pollination technique and identifying potential storability of sugarcane pollen • Determining compatibility upon crossing with preserved pollen	BSRI, Ishurdi
8	Collection characterization and conservation of indigenous and exotic germplasm of sugarcane	• Collecting, characterizing and evaluating indigenous and exotic germplasm for using as parent materials and commercial varieties • Assessing the genetic diversity • Identifying and documenting the accessions	BSRI, Ishurdi, Pabna and QS, Gazipur
9	Varietal improvement of sugarcane through induced mutation	• Developing sugarcane variety having high sucrose content and • Developing sugarcane varieties tolerant to red rot and smut diseases	BSRI, Ishurdi, Pabna
10	Photoperiodic regulation of flowering in sugarcane	• Inducing flower at early in mid and late flowering genotypes; • Inducing flower at late in early flowering genotypes; • Inducing flower in sparse flowering genotypes and	BSRI, Ishurdi, Pabna

Sl.	Research Title	Objective(s)	Location(s)
		• Synchronizing the flowering time of different genotypes	
11	Evaluation of promising sugarcane clones under different yield trials at varying agro-climatic conditions	• Determining the performance of the clones under varying agro-climatic conditions; • Selecting location specific variety and • Determining the ratooning potential of the clones	BSRI, Ishurdi; Rajshahi; RSRS, Thakurgaon; Carew & Co., Joypurhat and Jamalpur
12	Breeder seed multiplication of promising clones/ varieties of sugarcane	• Producing breeder seeds of potential varieties and clones • Maintaining purity of existing varieties • Distributing quality seeds to different stakeholders	BSRI, Ishurdi
13	Morphological characterization of stevia germplasm	• Determining the morphological diversity among stevia gemplasm • Evaluating biomass accumulation, morphological characters and physiological indices for assessing its breeding potential	BSRI, Ishurdi, Pabna and RSRS, Thakurgaon
14	Improvement of date palm using artificial pollination and molecular breeding	• Improving local date palm for quality juice and fruit yield • Optimizing tissue culture plant regeneration protocol for date palm	BSRI, Ishurdi, Pabna
15	Characterization and documentation of local and exotic date palm	• To assess the genetic diversity • To register the accession and avoid duplication • To establish the relationship between the species • To computerize the data for better crossing program • To establish the core collection	BSRI, Ishurdi, Pabna
16	Selection of palmyra palm germplasm based on juice yield and quality	• Identifying palmyra palm genotypes based on juice yield and quality • Selecting parents for hybridization program	BSRI, Ishurdi, Pabna
BIOTECHNOLOGY DIVISION			
17	Characterization and documentation of sugarcane using molecular markers	• Identification of sugarcane varieties, active germplasm and developed soma clones through DNA Fingerprinting; • Determination of genetic diversities among the sugarcane varieties, active germplasm and soma clones using molecular markers; • Tagging of marker against identified character; and • Developing Marker Assisted Selection (MAS) method for sugarcane.	BSRI, and BAU Lab.
18	Genetic enhancement of sugarcane through development of stress tolerant soma clones and their field evaluation	• Development of soma clones under selection pressure using NaCl, polyethylene glycol and mutagenic agents; and • Evaluation and selection of soma clones for salinity and drought as well as sugarcane soma clones with desirable traits	BSRI Lab, BAU, and BJRI Lab.
19	Genetic transformation of salt and drought tolerant genes in sugarcane	• Collection and maintenance of Agrobacterium strains with salt and drought tolerant genes.	BSRI, BAU, DU Lab. and BARI Lab.

Sl.	Research Title	Objective(s)	Location(s)
		• Transformation of salt and drought tolerant genes in sugarcane; • Confirmation of transformation and expression of salt and drought tolerant genes in sugarcane; and • Transgenic sugarcane development.	
20	Micropropagation for vegetative seed production of sugarbeet	• Identifying the suitable sources of explants for micropropagation; • Finding out the suitable media for micropropagation; • Developing tissue culture protocols for micropropagation of Sugarbeet; and • Hardening plantlets for transplanting.	BSRI Lab. Pot and Field
21	Micropropagation of sugarcane varieties for rapid multiplication and high-quality seeds (HQS) production	• Optimizing variety specific media for micropropagation; • Production of micro propagated plants for high quality seed; • Evaluating field performances of micro propagated plants; and • Evaluating genetic stability in micro propagated plants using DNA Fingerprinting.	BSRI Lab and Field
22	Tissue culture for multiplication of Arabian Date Palm and Palmyra Palm	• Identification of suitable sources of explants; • Finding out the suitable media; • Production of plantlets; and • Developing tissue culture protocols for Arabian Date Palm and Palmyra Palm.	BSRI Lab. Pot, Field, Khulna, Patuakhali and Valuka
23	Development of somaclones of stevia through tissue culture techniques and subsequent molecular diversity analysis	• Identification of suitable sources of explants; • Finding out the suitable media; • Production of plantlets; • Production of plantlets; and • Developing desirable non flowering stevia plantlets and molecular diversity analysis.	BSRI Lab. Pot and Field.
PHYSIOLOGY AND SUGAR CHEMISTRY			
24	Screening Sugarcane Genotypes Under ZYT-I, II & III Against Drought Stress	• Selecting sugarcane clones with superior tolerance to drought stress; • Finding out morphological and physiological basis for drought tolerance to sugarcane and • Identifying parents to use in further crossing programme to develop drought tolerant varieties.	Godagari, Rajshahi RSRS, Thakurgaon BSRI Yard
25	Screening Sugarcane Genotypes Under ZYT-I, II & III Against Water-Logging Stress	• Selecting sugarcane clones with superior tolerance to water-logging; • Finding out morphological and physiological basis for water-logging tolerance to sugarcane and • Identifying parents to use in further crossing programme to develop water-logging tolerant varieties.	BSRI Gaibandha Sub-Station Ishurdi, Pabna BSRI Farm BSRI Yard
26	Screening Sugarcane Genotypes Under ZYT-I, II & III Against Flood Stress	• Selecting clones with superior tolerance to flood stress; • Finding out morphological and physiological basis for flood tolerance to sugarcane and	Lalpur, Natore BSRI Yard

Sl.	Research Title	Objective(s)	Location(s)
		• Identifying parents to use in further crossing programme to develop flood tolerant varieties.	
27	Screening Sugarcane Genotypes Under ZYT-I, II & III Against Salinity Stress	• Selecting sugarcane clones with superior tolerance to salinity; • Identifying morphological and physiological characters of salinity tolerance and • Identifying parents to use in further crossing programme to develop salinity tolerant varieties.	Ashasuni, Shatkhira, BSRI Yard
28	Germination potentiality of advanced sugarcane clones under low temperature stress condition	• Evaluating BSRI bred advanced sugarcane clones having inbuilt potential to germinate under lower ambient temperature	BSRI Yard
29	Influence of Physiological Management on Growth, Yield and Quality of BSRI Bred Sugarcane Varieties	• Maximize sugarcane productivity and quality through different physiological management.	BSRI Farm
30	Study on Growth and Development of Date Palm and Palmyra Palm	• To investigate the mechanism, and to find methods to break dormancy for achieving rapid, uniform and high germination • To observe the growth and development phase of date palm and palmyra palm trees	BSRI Farm
31	Study on Antioxidant and Antidiabetic Properties of Date Palm, Palmyra Palm, Licorice, Stevia	• Determining the antioxidant properties of date palm, Licorice, Stevia and summarizing the characteristics, mechanisms, and use of Date palm, Palmyra palm, Licorice, Stevia and their active components for treating diabetes mellitus.	BSRI Physiology Lab
32	Screening sugarcane clones based on maturity behavior and goor manufacture	• Determining maturity behavior of sugarcane varieties/clones and find out peak maturity period. • Screening sugarcane clones suitable for gur production. • Determining the quality of gur after preparation.	BSRI Farm
33	Studies of preservation techniques sugarcane juice	• Optimizing the techniques for preservation of ready-to-serve bottled sugarcane juice of consumer acceptability • Observing shelf life of preserved sugarcane juice.	BSRI Physiology Lab
34	Determination Nutritional Status of Gur produced from BSRI Released Popular Sugarcane Varieties	• To find out different nutrient elements of gur.	BSRI Physiology Lab
35	Effectiveness of Different Packaging Material for Gur Preservation	• To find out effective packaging material for small scale goor preservation and marketing in super market • To observe shelf life of preserved goor marketing in super market. • To observe overall quality of goor after preparation and preservation.	BSRI Physiology Lab

Sl.	Research Title	Objective(s)	Location(s)
AGRONOMY & FARMING SYSTEMS			
Programme area: Varietal Improvement			
36	Agronomic Evaluation of BSRI Developed Promising Sugarcane Clones at Different Planting Dates	• To study the comparative performance of different promising clones; • To find out the optimum date of planting for advanced promising clones of sugarcane; • To generate agronomic information to meet up the requirement of National Seed Board.	BSRI Farm
Programme area: Crop and Soil Management			
37	Sequential Intercropping of Oil Crops with Sugarcane	• To select the best variety of mustard for intercropping with sugarcane; • To select the suitable combination of oil crops intercrop in sugarcane.	BSRI Farm and Sherpur
38	Effect of Spacing and Planting Material on Yield and Quality of Chewing Cane	• To identify the optimum line spacing for chewing cane; • To select the suitable planting material for chewing cane.	BSRI Farm
39	Ratooning Ability of Newly Released Sugarcane Varieties in Response to Planting Material in High Ganges River Floodplain Soils (AEZ 11)	• Selecting suitable cane variety(s) for ratoon in High Ganges River Floodplain Soil; • To find out highest production potential of planting materials from different source of setts/ settlings for ratoon cane.	BSRI Farm
40	Yield and Quality of Sugar beet under Different Harvesting Date	• To find out the maturity time of sugar beet genotypes; • To find out the optimum harvesting date of sugar beet.	BSRI Farm
41	Weed Control Efficiency of Some Herbicide in Sugarcane	• To study the performance of herbicides in controlling weeds in sugarcane field; • To find out the economic advantage of weed control by herbicide.	BSRI Farm
42	Critical Period of Crop Weed Competition in Sugarcane	• To find out the critical period of crop-weed competition in sugarcane field; • To find out the effect of weed on growth and yield of sugarcane.	BSRI Farm
43	Productivity of Sugarcane with Different High Value Intercrops under Young MeghnaEstuarine Floodplain (AEZ 18)	• To select the suitable high value intercrops with sugarcane in AEZ18; • To assess the productivity of sugarcane with different intercrops; • To increase crop production and economic benefit per unit area of sugarcane field.	Subarnachar, Noakhali
SOILS & NUTRITION			
44	Nutrient Requirement for Sustainable Sugarcane Production Under Different AEZs	• Finding out the optimum and economic nutrient requirement for sustainable sugarcane production in different AEZs	Shibgonj, Chapainawabgonj (AEZ 26) & Chuadanga (AEZ 11)
45	Determination of Carew's Organic Fertilizer	• Evaluating and developing an economically suitable package with Carew's organic fertilizer and inorganic	BSRI farm (Ishurdi),

Sl.	Research Title	Objective(s)	Location(s)
	Requirement for Sugarcane Cultivation	fertilizers for sustaining yield of sugarcane and intercrop. • Improving soil health through integrated use of Carew's organic fertilizer and inorganic fertilizer for maintaining stable soil fertility, microbial population and apparent nutrient balance in soil.	RSRS farm (Thakurgaon)
46	IPNS Based Nutrient Management for Cultivation of Sugarcane with Intercrops	• To develop integrated nutrient management strategy for sugarcane with intercrops based cropping patterns. • To determine the effect of integrated nutrient management practices of sugarcane based cropping pattern on soil properties. • To evaluate the economics of integrated management practices of sugarcane based cropping pattern.	BSRI Farm (AEZ 11) and RSRS Gazipur (AEZ 28)
47	Effect of Fertilizer Management on Sweet Sorghum Yield and Quality	• To study the effect of fertilizer management on sweet sorghum yield and quality. • To determine the fertilizer management practice for year-round cultivation of sweet sorghum for syrup and ethanol production.	BSRI Farm (AEZ 11) and RSRS Farm, Thakurgaon (AEZ 1)
48	Nutrient Management of Sugarcane for Different Spacing	• Determining fertilizer requirement of sugarcane for different row spacing. • Comparing soil fertility status and economics of different row spacing for sugarcane cultivation.	BSRI Farm and RSRS Thakurgaon
49	Effect of Vermicompost on Nutrient Uptake, Growth and Yield of Sugarcane in Saline Soil	• To assess the effect of vermicompost on yield and quality of sugarcane • To study the impact of vermicompost on soil fertility • To evaluate the optimum dose of vermicompost for coastal region	Subornachar, Noakhali and Kalapara, Patuakhali
50	Growth Yield and Quality of Chewing Cane as Influenced by Organic Source of Nutrients	• To determine the growth, yield and quality of chewing sugarcane as influenced by organic source of nutrient.	BSRI Farm, Ishurdi (AEZ 11), RSRS Farm, Thakurgoan (AEZ 1) and Madaripur (AEZ 13)
51	Influence of Minimum Tillage and Organic Amendments on Sugarcane Yield and Soil Physical Properties	• To study the effect of minimum tillage and organic amendments on sugarcane productivity. • To observe the effect of minimum tillage and organic amendments on soil physical properties	BSRI Farm (AEZ 11)
52	Isolation and Characterization of Plant Growth Promoting Bacteria (PGPB) From Sugarcane Soil-Plant System	• Isolation of PGPB from rhizosphere, rhizoplane, roots and stem of the sugarcane. • Determination of biochemical and genetic characterization of bacteria • Investigation of performance of PGPB on sugarcane growth, yield and quality.	BSRI Microbiology laboratory
53	Biological N2-Fixation by Free-Living and Associative Bacteria in	• To identify / screen out suitable sugarcane genotypes favoured with biological N2-fixing system under N-stressed field condition.	BSRI farm, Ishurdi (AEZ 11)

Sl.	Research Title	Objective(s)	Location(s)
	Sugarcane Genotypes of Bangladesh	• To investigate the occurrence of diazotrophic bacteria in sugarcane genotypes. • To estimate the input of N, via BNF, into the sugarcane genotypes under study.	
54	Effect of Diazotrophic Bacterial Bio-Fertilizer on Growth and Yield of Sugarcane	• To determine the nitrogen fixing capacity and growth hormone production of diazotrophs. • To evaluate the effect of diazotrophs on growth and yield of sugarcane.	BSRI farm, Ishurdi (AEZ 11)
55	Growth, Yield and Quality of Chewing Sugarcane as Influenced by Zinc and Boron Application	• To determine the response on growth, yield and quality of chewing sugarcane as influenced by zinc and boron application.	BSRI Farm, Ishurdi (AEZ 11) and RSRS Farm, Thakurgoan
ON-FARM RESEARCH			
56	On-farm trial of Promising Sugarcane Clones at Different AEZs Under Farmers' Field.	• To evaluate field level performance of advanced clones/lines in different AEZs. • To obtain farm reaction about the advanced clones/lines.	Rajshahi, Joypurhat, Chuadanga, Thakurgaon
57	Performance of Newly Released BSRI Sugarcane Varieties in Char land Ecosystem	• To identify suitable BSRI released varietie(s) for Charlands • To assess the economic profitability of BSRI released varieties in the Charlands	Sirajganj, Rajshahi
58	Adaptive Trial of Chewing Cane with Intercrop in Different Region of Bangladesh	• To find out of chewing varieties for higher yield and economic return for different agro-ecological zone • Ensuring food and nutrition, employment opportunity of chewing cane growers	Satkhira, Gaibandha, Rajshahi, Pabna
59	Performance of Different Sugarcane Varieties with maize as Intercrop	• To evaluate performance of different sugarcane varieties with maize intercropping. • To observe the suitability of maize as intercrop with sugarcane. • To increase productivity and interim economic benefit per unit area and time in sugarcane field.	Rajshahi
60	Performance of BSRI Akh 42 with Different Row Spacing at Noakhali Region	• To identify the suitable row spacing for BSRI Akh 42 at Noakhali Region	Noakhali
61	Performance of Selected Cropping Patterns under Date Palm Based Agro-Forestry Systems	• To evaluate the performance of selected crops in association with date palm tress throughout the year • To identify suitable cropping patterns to fit under date palm-based agroforestry systems • To increase the productivity of date palm based cropping systems.	Chuadanga
AGRICULTURE ENGNEERING			
62	Design and development of a sugarcane detrasher	• Designing and development of a sugarcane detrasher • To perform low cost and timeliness operation of sugarcane detrashing.	BSRI
63	Design and development of earthing up machine for sugarcane	• To design and develop a earthing up machine for sugarcane;	BSRI

Sl.	Research Title	Objective(s)	Location(s)
		• To evaluate technical and economic performance of the machine.	
64	Developing a Cost-effective Cultivation System for Sugarcane: Approaching CA	• To reduce cost of investment in cultivation of sugarcane; • To increase productivity through intercropping with suitable crops; • To develop ratooning practice for profitability.	BSRI Farm
65	Performance evaluation of different tillage machinery for sustainable sugarcane cultivation (Ongoing)	• To evaluate the effect of different tillage machinery on yield and yield attribute characteristic of sugarcane • To find out the effect of tillage on soil physical property • To identify the economic tillage method for sugarcane production	BSRI Farm
66	Design and Development of a Food Dryer and Storage System with Air Dehumidification	• To develop a dryer to produce quality dry food products • Increasing energy use efficiency of dryer • Development of storage system of semi solid jaggery	BSRI
67	Conservation Agriculture approach for sustainable sugarcane farming in Bangladesh	• Evaluation of conservation tillage on sugarcane farming • Finding out effects of residue management and intercropping	BSRI Farm
PATHOLOGY			
Programme area: Varietal Improvement			
68	Screening of sugarcane genotypes under PYT, AYT, ZYT-I, ZYT-II, ZYT-III, advanced and tissue culture derived clones against red rot	• Identifying and selecting of the sugarcane genotypes having higher level of resistance against red rot diseases. • Recommending of new resistant varieties/tolerant clones for final release to the growers and to preserve in the gene bank for breeding purposes	BSRI, Ishurdi and RSRS, Thakurgaon
69	Screening of sugarcane genotypes against wilt disease	• Identifying and selecting of the sugarcane genotypes having superior resistance to wilt disease • Recommending of new resistant varieties/tolerant clones for final release to the growers	BSRI, Ishurdi
70	Screening of sugarcane genotypes under AYT, ZYT-I, ZYT-II and ZYT-III against smut disease	• Identifying and selecting of the sugarcane germplasms having superior resistance to smut disease • Recommending of new resistant varieties/tolerant clones for variety development	BSRI, Ishurdi
71	Screening of sugarcane genotypes against pineapple disease	• Identifying and selecting of the sugarcane germplasms having superior resistance to pineapple disease • Recommending of resistant varieties/tolerant clones for variety development	BSRI, Ishurdi
Programme area: Disease Management			
72	Performance of different sett treating chemicals in controlling sett rot disease of sugarcane	• To Determination the performance of new chemicals over existing recommended sett treating fungicides in controlling sett rot disease of sugarcane • To Recommendation more fungicides in controlling sett rot disease of sugarcane	BSRI, Ishurdi

Sl.	Research Title	Objective(s)	Location(s)
73	Management of Orobanche in sugarcane cultivation	• Finding the appropriate management practices of controlling Orobanche parasite under field condition. • Finding an eco-friendly package against Orobanche parasite management.	Faridpur Sugar Mill Area
74	Management of red rot of sugarcane through chemical and biological means	• Investigating the efficacy of different chemicals and biocontrol agents throughout the cropping season • Finding out the most suitable management practice (chemical and/or biological) of red rot to suggest the farmers	BSRI, Ishurdi
75	Identification and documentation of date palm, palmyra palm and stevia diseases in Bangladesh	• Identifying different diseases of date palm, palmyra palm and stevia in Bangladesh • Investigating and documenting the pathogens that are responsible for such diseases in those crops	BSRI, Ishurdi and all Sub Station area
Program area: Seed Technology			
76	Production, quality control and distribution of disease-free clean seed of sugarcane	• Supplying the disease-free clean seeds for the requirement of different divisions of BSRI and out-station experiments. • Distributing the disease-free clean seeds to the mills and non-mill zones for further multiplication. • Minimizing the disease incidence of sugarcane throughout the country.	BSRI, Ishurdi
ENTOMOLOGY			
77	Screening of selected sugarcane clones for possible resistance against some major insect pests in ZYT I, II & III.	• Screening advance clones for possible resistance to Some major insect pests of sugarcane and • Comparing selected clones with standard to fulfil the requirement of National Seed Board (NSB).	BSRI Farm, Ishurdi and RSRS, Thakurgaon
78	Assessment of selected bio-agents against major insect pest of sugarcrop	• Production of mass quantity of bio-agents and ensuring their availability for field release • Maintaining bio-agents stock in the laboratory and • Evaluating their field performance against major insect pests of sugarcane and tropical sugarbeet.	IPM laboratory, Entomology Division, BSRI
79	Evaluation of new molecules for management of major insect pests of sugarcane	• Comparing the effectiveness of new insecticides; • Documenting intensity of insect pests' infestation against different insecticides; • Finding suitable and effective insecticides and • Getting more chemical control measure for the farmers.	BSRI, Ishurdi Pabna RSRS and Mohon Farm, Thakurgoan Bhabanipur Farm, NBSM Ltd, Nator, Farmers plot PBSM, Pabna
80	Integration of bio-intensive pest management (BIPM) components against sugarcane stem borer	• Finding the effective management practice(s) against stem borer • Assessing of different management options and • Monitoring of population abundance in different treatment regime. •	BSRI, Ishurdi, Pabna Natore

Sl.	Research Title	Objective(s)	Location(s)
81	Bio-efficacy of insecticides against the incidence of sugarcane mealy bug	• Finding effective management practices for sugarcane mealy bugs insect and • Estimating the effects of mealy bugs insect on yield of sugarcane.	BSRI farm, Ishurdi, Pabna FSM, Faridpur and PSM, Panchagor
82	Eco-friendly management practices in controlling sucking pests of sugarcane by using botanical products	• Finding the effective management practice (s) against different Sucking pests • Monitoring of population abundance in different treatment regime •	BSRI, Ishurdi, Pabna
83	Seasonal incidence of major pests of sugarcane and their natural enemies	• Determining the population density/ fluctuation throughout the year/cropping season • Finding the prevalence of their natural enemies and • Recording the new insect pests and their natural enemies	RSRS farm, Subornochar, Noakhali
84	Development mass rearing technique of sugarcane stem borer Chilo tumidicostalis Hampsan under laboratory condition	• To develop favourite diet for rearing technique of Sugarcane stem borer chilo tumidicostalis Hampson and ensuring their availability for radiation and inherited sterility research purpose.	Entomology Divison Laboratory, BSRI, Ishurdi, Pabna
85	Management of Varroa mite in honeybee, Apis mellifera colonies	• Development of effective management practice(s) against Varroa mite and • Assessing of different management options	Biological Control Laboratory, BSRI, Ishurdi, Pabna, Honey Growers field, Pabna
86	Controlling Small hive beetle in honeybee, Apis mellifera colonies	• Development of effective management practice(s) against small hive beetle and • Assessing of different management options	Do
87	Effects of natural raw honey on blood glucose level of type 2 diabetes mellitus	• To know the Bee honey consumption effects on Diabetes Mellitus and • ii) To know the specific amount of honey to be consumed.	BSRI, Ishurdi, Pabna
88	Performance of sugar substitutes for honey bee colony during offseason and monitoring of its effectiveness	• Evaluating of different food supplement of bees during dearth period and • Monitoring the effectiveness of different food supplement in bee colonies.	Biological Control Laboratory, BSRI, Ishurdi, Pabna
89	Effects of different treatments on the crystallization of natural mustard raw honey	• To find out the suitable preservatives for preventing crystallization of mustard raw honey. • To increase the shelf life of honey by preventing crystallization of honey.	BSRI Entomology Laboratory, Ishurdi, Pabna
90	Effects of different approaches in controlling red palm weevil in date palm	• Finding the effective management practices and • Monitoring of population abundance in different treatments.	BSRI farm, Ishurdi, Pabna Goyeshpur, Pabna

Sl.	Research Title	Objective(s)	Location(s)
			Mujib Nagar, Meherpur
AGRICULTURAL ECONOMICS			
91	A Comparative Profitability Analysis of Sugarcane Cultivation with Different Cropping Patterns (On going)	• To estimate the cost and return of sugarcane based cropping pattern. • To determine the comparative profitability of sugarcane and other cropping patterns in Bangladesh; • To identify constraints of sugarcane cultivation.	Chapainawabganj, Chandpur, Sirajganj and Manikganj
92	Effects of BSRI provided extension services on date palm juice and gur production in some selected areas of Bangladesh	• To estimate the socio-demographic characteristics of BSRI extension services receiver and non-receiver; • To determine the date palm juice and gur production of BSRI extension services receiver and non-receiver; • To estimate the effect of BSRI provided extension services on date palm juice and gur production and • To suggest some policy recommendations based on research findings.	Natore, Rajshahi, Jashore and Chuadanga
93	Assessment of nutrient use gaps between farmers practice and recommended nutrient doses of major sugarcane growing areas of Bangladesh	• To determine fertilizer, use gaps of sugarcane farmers; • To find out the factors affecting nutrient use gaps of sugarcane farmers; • To estimate the effects of nutrient use gaps on sugarcane yield and farming profitability; • To suggest some policy recommendations based on research findings.	Mill-zone: TSM, NSM and FSM area & Non-mill-zone: Barishal, Gazipur and Hobiganj
TRAINING AND TECHNOLOGY TRANSFER			
Programme area: Socio-Economics & Technology Transfer			
94	Adoption of Modern Sugarcane Production Technologies in Selected Sugar Mills and Non-mill Zones	• To determine the extent of adoption of BSRI developed modern sugarcane production technologies in the sugar mills and non-mill zones; • To assess sugarcane farmers' knowledge on BSRI recommended sugarcane production technologies; • To identify the bottlenecks that retard adoption of modern sugarcane production technologies and • To ascertain the differences in adoption of modern sugarcane production technologies between the growers of sugar mills and non-sugar mills zones.	Mill Zone: Thakurgaon Sugar Mills Ltd. Thakurgaon North Bengal Sugar Mills Ltd.Natore& Zeal Bangla Sugar Mills Ltd. Jamalpur Non-Mill Zone : Gazipur, Barishal and Chunarughat
95	Monitoring of Technology Based Subsidy Program in Sugarcane	• To monitor, review and identify the gaps (if any) in implementing the subsidy-based technology transfer program; • To identify the mid-term success to the govt./authority about the subsidy-based technology transfer program; and	Thakurgaon Sugar Mills Ltd. Thakurgaon Joypurhat Sugar Mills Ltd. Joypurhat North Bengal Sugar Mills Ltd. Natore Natore Sugar Mills Ltd, Natore, MobarakganjSugar Mills Ltd. Jhenaidah FaridpurSugar Mills Ltd.Faridpur Carew & Co (Bd)

Sl.	Research Title	Objective(s)	Location(s)
		• To establish a linkage between program planner and implementers.	Ltd. Chuadanga, RajshahiSugar Mills Ltd.Rajshahi Zeal Bangla Sugar Mills Ltd. Jamalpur
96	Demonstration of BSRI Bred Latest Sugarcane Varieties	• Showing the performances of newly released varieties; • Explaining the necessity of sugarcane new varieties and • Ensuring local and/or farmers participation in technology transfer activities of BSRI.	BSRI HQ, Pabna, Natore, Thakurgaon, `Tangail, Gazipur, Narsingdi, Sirajganj, Manikganj, Joypurhat, Jamalpur Rajshahi, Chuadanga, Sobarnochar, Gaibandha, Barishal, Faridpur, Madaripur, Gopalganj, Satkhira Chunarughat, Bandarban, Khagrachari& Rangamati
97	Demonstration of BSRI Sugarcane Varieties with Intercropping	• Showing the performances of sugarcane varieties with intercrops; • Explaining the necessity of intercropping with sugarcane and • Ensuring local and/or farmers participation in technology transfer activities of BSRI.	BSRI HQ, Pabna, Natore, Thakurgaon, `Tangail, Gazipur, Narsingdi,Sirajganj, Manikganj, Joypurhat,Jamalpur,Rajshahi, Chuadanga,Sobarnochar, Gaibandha, Barishal, Faridpur, Madaripur,Gopalganj, SatkhiraChunarughat,Bandarban, Khagrachari & Rangamati
98	Demonstration of Quality Gur Production Technique	• Studying the performance of BSRI developed sugarcane varieties for superior gur production in the non-mill zone • Determining the quality of prepared gur from different sugarcane varieties.	Bandarban, Chunarughat, Sobarnochar, Gaibandha, Barishal, Sherpur, Sirajganj, Gazipur & Chapainawabganj
99	Improved Sugarcane and Intercrops Production Technologies for Sugarcane Farmers of Mills and Non-mill Zones	• Toupdate themodel farmers on improved sugarcane and intercrops production technologies; and • To capacitate the farmers for guiding other neighbour sugarcane farmers on improved sugarcane and intercrops production technologies.	BSRI HQ, Thakurgaon, Gazipur, Chuadanga, Joypurhat, Jamalpur, Barishal, Sirazganj, Chunarughat, Rajshahi, Gaibandha, Bandarban and Subornachor
Regional Sugarcrop Research Station (RSRS) and Quarantine Station, Gazipur			
Quarantine Station, Gazipur			
100	Quarantine Follow-Up of Imported Germplasms	• To remain vigilant about the entry and introduction of new pathogens and insect pests carried along with the germplasms brought from abroad	Quarantine Station, Gazipur
101	Quarantine Follow-Up of Local Germplasms	• To remain vigilant about the entry and introduction of new pathogen or insect pests from one location to other carried along with the varieties/ clones during collection	Quarantine Station, Gazipur
102	Maintenance of BSRI Released sugar Cane Varieties at Quarantine Station	• Conserving the BSRI released sugarcane varieties for producing disease free seed cane for local use as well as foreign exchange	Quarantine Station, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
Regional Sugarcrop Research Station (RSRS), Gazipur			
103	IPNS based Nutrient Management for Cultivation of Chewing Cane	• To determine IPNS based nutrient management packages for chewing sugarcane • To study the impact of IPNS based nutrient management packages on soil fertility status	Regional Station, Gazipur
104	Production of Vermicompost as a Source of Organic Manure	• To produce quality vermicompost as a source of organic manure • To study the impact of vermicompost on soil fertility	Regional Station, Gazipur
105	Enhancement of Chewing Cane Tiller Production through Exogenous Application of Ethrel and Gibberellic Acid	• To improve sprouting, tiller population, yield attributes and yield of chewing cane • To identify the best way to increase sprouting and tiller population and • To find out the economic acceptability of the new technology	Regional Station, Gazipur
106	Assessment of Post Harvest Quality of Bsri Akh 41 Grown under Low Land	• To determine the yield potentiality of BSRI Akh 41 in low land compared to high land condition • To assess the post-harvest quality of BSRI Akh 41 which is grown under both high and low land conditions	Regional Station, Gazipur
107	Performance of BSRI Released Latest Sugarcane Varieties Suitable for Goor Production in Aez 28	• To find out suitable sugarcane varieties for goor production from plant cane • To identify the potentiality of these varieties for yield and goor production as plant cane	Regional Station, Gazipur
108	Effect of Nitrogen Level and Harvesting Time on Growth, Yield and Quality of Stevia	• To find out the optimum harvesting time of stevia • To find out the effect of nitrogen level and harvesting time on quality stevia	Regional Station, Gazipur
109	Performance of Chewing Cane Varieties with Intercrop Onion under Madhupur Tract (AEZ 28)	• To select suitable chewing cane variety under AEZ 28 • To popularize chewing cane in Madhupur Tract • To find out the best combination of onion with chewing cane	Regional Station, Gazipur
110	Yield Performance of Arabian Date Palm at Gazipur	• To find out the growth pattern of Arabian date palm year to year • To find out the sequence of yield potential	Regional Station, Gazipur
111	Effect of Time and Level of Earthing Up on Tiller Production of Plant and Ratoon Cane	• To find out the optimum time and level of earthing up of plant and ratoon cane • To find out the economic acceptability of the new technology	Regional Station, Gazipur
112	Survey on Pest Status and Incidence of Arabian Date Palm (Phoneix Dactylifera) at Gazipur	• To find out and document Arabian date palm insect pest status at Gazipur region • To monitor severity and populations in individual tree to inform grower treatment decisions	Regional Station, Gazipur
113	Demonstration of Chewing Sugarcane with Intercrop	• To disseminate BSRI developed technologies	(Kaultia & Panishail) Gazipur
114	Demonstration of BSRI Released Chewing Sugarcane Variety	• To disseminate BSRI developed technologies	RSRS Farm & Kapasia, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
115	Varietal Demonstration of BSRI Released Sugarcane	• To disseminate BSRI developed technologies	RSRS Farm, Gazipur Palash, Narsingdi Belabo, Narsingdi
Regional Sugarcrop Research Station (RSRS) Thakurgaon			
116	Performance of BSRI Bred Sugarcane Varieties Under Water-logging and Flood Condition at Northern Region of Bangladesh	• To select sugarcane varieties with superior tolerance to water- logging and flood stress condition • To find out morphological and physiological basis for water-logging and flood tolerance to sugarcane	Farmer's field (Pirganj, Thakurgaon)
117	Performance of Latest Sugarcane Varieties Grown in Old Himalayan Piedmont Plain	• Selecting suitable latest varieties for increasing the yield and quality of sugarcane in Old Himalayan Piedmont Plain (AEZ 1) • Increasing farmers' earning through latest sugarcane cultivation.	Farmer's field, (Pirganj, Thakurgaon)
118	Ratooning Potentiality of BSRI Bred Newly Released Sugarcane Varieties in the Old Himalayan Piedmont Plain	• To screen out the ratooning potentiality of BSRI released varieties for Old Himalayan Piedmont Plain (AEZ 1) • To popularize ratooning practice in (AEZ 1).	Farmer's field, Thakurgaon
119	Evaluation of Chewing Sugarcane Genotypes at Old Himalayan Piedmont Plain Soil	• Selecting suitable chewing varieties for increasing the yield and quality of sugarcane in in Old Himalayan Piedmont Plain (AEZ I) • Increasing farmers' earning through chewing sugarcane cultivation.	RSRS farm, Thakurgaon
120	Maximization of Crop Production from Sugarcane Field with Some Short Duration Crops as Intercrop in Late Planting Season	• Maximizing total crop production and economic return from sugarcane field planted in late season • To select suitable intercrops with sugarcane in late planting season • To sustain sugarcane farming by producing more crops from the same land.	RSRS farm, Thakurgaon
121	Productivity and Profitability of Sugarcane Grown with Oil Seed Crops in Sequence as Intercrop	• To select suitable oil seed crop(s) as intercrop with sugarcane • To get interim return and more monetary benefit • To sustain sugarcane farming by producing more crops from the same land	RSRS farm, Thakurgaon
122	Productivity of Sugarcane in Flatbed and Furrow Planting Method with Intercrop in Late Planting Season	• To increase tiller production in late planted sugarcane • To get more space for intercrop production • To increase yield and sustain sugarcane farming.	RSRS farm, Thakurgaon
123	Effect of De-Trashing on the Infestation of Stem Borer and Scale Insect of Sugarcane at Old Himalayan Piedmont Plain	• To know the effect of de-trashing on stem borer infestation in sugarcane field • To know the effect of de-trashing on scale insect infestation in sugarcane field • To reduce insecticide, use and minimize production cost in sugarcane field.	RSRS farm, Thakurgaon

Sl.	Research Title	Objective(s)	Location(s)
124	Effects of Plant Growth Regulators on Growth, Yield and Quality of Stevia	• To investigate growth dynamics and yield potential of stevia using PGRs in acidic at Northwest region of Bangladesh • To assess the soil nutrient content changes under different levels of PGRs during stevia cultivation	RSRS farm, Thakurgaon
125	Integrated Effect of Organic Manure and Chemical Fertilizer on Productivity of Stevia	• To find out the effect of integrated nutrient management • practice for stevia • To optimize the number of fertilizers needed for stevia • To get more stevia leaf yield.	RSRS farm, Thakurgaon
126	Productivity of Stevia Leaf as Influenced by Different Organic Manures	• To find out the effect of different organic matter on stevia leaf production • To optimize the amount of organic matter needed for stevia • To increase biomass yield from stevia plant.	RSRS farm, Thakurgaon
Regional Sugarcrop Research Station (RSRS), Subarnachar, Noakhali			
127	Efficacy of spacing with organic and inorganic fertilizer on growth and yield of stevia in AEZ 18	• To know the the performance of stevia on growth and yield in AEZ 18 • To explore the suitable spacing with different dozes of fertilizer in AEZ 18	RSRS Farm, Subarnachar
BSRI Sub-Station: Joypurhat			
128	Performance of some BSRI recommended sugarcane varieties as plant and ratoon crop in Tista Meander Floodplain soil	• To select suitable sugarcane varieties in Tista Meander Floodplain Soil • To study the comparative performance of different latest sugarcane varieties	Vadsha, Chokpahunanda and Ramvadrapur, Joypurhat
129	Effect of chemical fertilizers and poultry litter on growth and yield of sugarcane and soil chemical properties	• To find out the effects of chemical fertilizer and poultry litter on growth and yield of sugarcane and • To evaluate the effects of integrated use of chemical fertilizers and poultry litter on soil chemical properties and plant nutrient content	Vadsha, Joypurhat sadar, Joypurhat
BSRI Sub-Station: Rajshahi			
130	Field Performance of Some Newly Released Sugarcane Varieties and their Ratooning Potentiality in Mill Zones	• To observe the suitability of BSRI recommended varieties in RJSM areas • To select the good ratooner varieties for this area • To study the comparative performance of different latest varieties	Horian, Paba, Rajshahi
131	Performance of Different Winter Crops with Single Row of Chewing Cane	• To ensure higher production and maximum profit through cultivation of intercrops with sugarcane	Charghat, Rajshahi
132	Performance of BSRI Newly Released Sugarcane Varieties in Char Lands of Rajshahi	• To find out the performance of newly released varieties in the Char land of Rajshahi • To find out the economic profitability of BSRI released varieties in the Char land of Rajshahi	Charghat, Char land

Sl.	Research Title	Objective(s)	Location(s)
133	Selection of Suitable Varities for Goor Production in Chapai Nawabganj district	• Evaluating the performance of BSRI released sugarcane varieties in non-mill zone • Selecting the location specific sugarcane varieties for goor production	Sibganj, Chapai Nawabganj
BSRI Sub-Station: Chuadanga			
134	Monitoring of Sugarcane Diseases in Sugarmill Areas	• Maintaining up to date knowledge for the incidence of existing and new diseases (if any) in selected sugar mills areas • Applying suitable management practices in time for current and future outbreak of the disease	Carew & Co. (Bangladesh) Ltd. Sugarmill areas
135	Performance of Different Winter Crop as Intercrop with Sugarcane	• To find out appropriate intercrop for higher crop yield with sugarcane for Chuadanga areas • Ensuring higher production and maximum profit through cultivation of intercrops	Chuadanga (Two locations)
136	Field Performance of Some Sugarcane Varieties and their Ratooning Potentiality (Ratoon)	• Observing the suitability of BSRI bred latest sugarcane varieties in sugarmill areas • Selecting the best ratoon varieties for sugarmill areas	Chuadanga
137	Production and Distribution of Disease-Free Clean Seed of Sugarcane	• To Produce disease free clean seed and supplying to meet up the requirement of mill areas • To Reduce the disease incidence throughout the mill areas	Chuadanga and Jhenaidah
BSRI Sub-Station: Rahmatpur, Barisal			
138	Performance Of Chewing Varieties in Saline Belt Under Southern Region,	• To select suitable cane varieties with high yield and recovery for gur production in saline belt of southern region	Kolapara, Patuakhali
139	Performance Of Chewing Varieties in Saline Belt Under Southern Region,	• To select suitable cane varieties for chewing in saline area of southern region. • To popularize chewing varieties in saline area of southern region	Kolapara, Patuakhali
140	Effect Of Tidal Water on Growth and Yield of Sugarcane in Southern Region of Bangladesh	• selecting the suitable cane varieties for tidal and disaster-prone area under southern region. • Popularizing the BSRI varieties in coastal belt under southern region	Dasmina, Patuakhali
141	Efficacy of organic materials on sugarcane varieties in practicing organic farming.	• Selecting the suitable combination for better yield without use of chemical pesticides and fertilizer	Rahmatpur Substation, Barishal
142	Sugarcane Based Integrated Farming in Sorjon System Under Southern region.	• Increasing sugarcane productivity through Sorjan system • To popularize sugarcane based Sorjan farming under southern region	Rahmatpur Substation, Barishal
BSRI Sub-Station: Jamalpur			
143	Performance of Different Intercrop with Sugarcane in Paired Row System	• Selecting suitable intercrops for sequential intercropping in paired row sugarcane. • Studying the effect of sequential intercropping on sugarcane growth, yield and quality.	Jamalpur Substation Research Field, Jamalpur

Sl.	Research Title	Objective(s)	Location(s)
144	Effect of Vermicompost on Sugarcane Yield and Carbon Accumulation in Soils	• Quantifying the effect of vermicompost on sugarcane growth and yield • Determining the carbon accumulation in soils from vermicompost application	Jamalpur Substation Research Field, Jamalpur
145	Efficacy of Organic fertilizer on Growth and Yield of Stevia in Comparison with Inorganic Fertilizer	• Studying the effect of organic fertilizer on the growth and yield of stevia • Maintaining the fertility status of soils	Jamalpur Substation Research Field, Jamalpur
146	Effect of Mustard Intercropping on Sugarcane Yield and Soil Fertility of Young Brahmaputra-Jamuna Floodplain	• Understanding the soil and crop dynamics influenced by mustard intercrop • Selecting suitable variety(s) of mustard for intercropping with sugarcane.	Jamalpur Substation Research Field, Jamalpur
BSRI Sub-Station: Chunarughat, Hobigonj			
147	Performance of Winter crop as Intercrops on Sugarcane cultivation in wider row system	• To find out suitable intercrops for sequential intercropping in wider system in this area • To identify the potentiality of sugarcane variety for yield as plant cane	Chunarughat
148	Performance of Different Chewing cane varieties with Sequential Intercropping System at Akhaura Terrace	• To Finding out the growth, yield and quality of suitable chewing cane varieties with intercrops • To maximizing the productivity and economic return from chewing cane	Chunarughat
BSRI Sub-Station: Sirajgonj			
149	Ratooning potentiality of some newly released BSRI bred sugarcane varieties at Jamuna char land under AEZ 4	• Studying the performance of • newly released BSRI bred sugarcane varieties under AEZ • Identifying the suitable newly released sugarcane varieties for specific location purposes. • Screening the ratooning potentiality of BSRI released sugarcane varieties.	Shoilabari, Sirajganj sadar, Sirajganj. B. Baria
BSRI Sub-Station:Sirajgonj			
150	Production of sugarcane with different intercrops for increasing the livelihood of char land people in Sirajganj	• Identifying the suitable intercrop with sugarcane for Jamuna char land. • Popularizing the intercrops which can be practiced with sugarcane among the farmers to increase their livelihood at char land in Sirajganj.	Diarpachil, Charpara, Sirajganj sadar, Sirajganj.
151	Productivity of sugarcane with some winter vegetables as first intercrop and Mung bean as second intercrop with single & paired row planting system under AEZ 4	• Selecting suitable winter and summer vegetables as first & second intercrop with sugarcane. • Increasing productivity and interim economic benefit of sugarcane field. • Popularizing the paired row planting system under AEZ 4.	Podompal, Sirajganj sadar, Sirajganj.

Sl.	Research Title	Objective(s)	Location(s)
BSRI Sub-Station: Gaibandha			
152	Performance of Chewing Sugarcane Varieties at TistaMeander Floodplain Soils in Bangladesh	• To select suitable cane varieties with high yield for chewing in AEZ 3 • Increasing farmers income through chewing cane cultivation	Bogura (Sariakandi) Rangpur (Gangachara)
153	Influence of Plant Growth Regulators on Tiller Dynamicsand Yield of Sugarcane	• To determine the suitable plant growth regulator (PGR) for the production of Sugarcane yield • To explore the dynamics of sugarcane tiller using various plant growth regulators (PGRs)	BSRI Sub-Station, Gaibandha

BANGLADESH WHEAT AND MAIZE RESEARCH INSTITUTE

BWMRI

BANGLADESH WHEAT AND MAIZE RESEARCH INSTITUTE

Sl.	Research Title	Objective(s)	Location(s)
WHEAT BREEDING DIVISION			
1	Hybridization	• To create variability by combining and recombining desirable genes in the background of different adapted genotype.	Dinajpur, Joydebpur, Jamalpur
2	Confirmation of single and top crosses	• To confirm F1 hybrids in respect to their female parents and to obtain seed for growing F2 generation in the next season from the selected F1 population.	Dinajpur, Joydebpur, Jamalpur
3	Evaluation and selection in different filial generations ($F_2$to F_6)	• To ensure fixation of desirable additive genes in the advancing filial generations • To select desirable families/individual plants in each filial generation following selected bulk method • To reach homozygosity/stability after hybridization	Dinajpur Gazipur Jamalpur
4	Germplasm Maintenance	• To grow and maintain genotypes with special characteristics every year and are being maintained for future use.	Dinajpur
5	Bangladesh Wheat Screening Nursery-1 (BWSN-I)	• To select high yielding, disease resistance, short stature, and early maturing suitable genotypes for inclusion in preliminary yield trial.	Dinajpur Gazipur Jashore
6	Bangladesh Wheat Screening Nursery-II (BWSN-II)	• To select high yielding, disease resistance, short stature, and early maturing suitable genotypes for inclusion in preliminary yield trial.	Dinajpur Jamalpur
7	Bangladesh Wheat Screening Nursery-III (BWSN-III)	• To select high yielding, disease resistance, short stature, and early maturing suitable genotypes for inclusion in preliminary yield trial.	Dinajpur Jamalpur Rajshahi
8	Bangladesh Wheat Screening Nursery-IV (BWSN-IV)	• To select high yielding, disease resistance, short stature, and early maturing suitable genotypes for inclusion in preliminary yield trial.	Dinajpur
9	Preliminary Yield Trial (PYT)	• To evaluate the performance of the selected advanced lines from BWSN compared to the existing check varieties and select the promising lines for inclusion in the Advanced Yield Trial (AYT) for next year.	Dinajpur Gazipur Jashore
10	Advance Yield Trial (AYT)	• To evaluate the performance of the advanced lines compared to the existing	Dinajpur, Gazipur,

Sl.	Research Title	Objective(s)	Location(s)
		varieties and select the promising lines for further evaluation in multi-location trials at farmers' field.	Jamalpur, Jashore, Rajshahi
11	Candidate Variety Demonstration (CVD)	• To evaluate the performance of the candidate lines for multi-location adaptive trials at farmers' field and to forward as a upcoming variety.	Dinajpur, Jashore
12	Early Heat Tolerance Wheat Screening Nursery (10th EHTWSN)	• Evaluating selected promising genotypes for early heat tolerance and high yield potential in early seeding. • Selecting promising lines for inclusion in preliminary yield trial and/or using as parent.	Dinajpur
13	Molecular screening of blast and leaf rust resistance wheat genotypes using molecular markers	• To screen for blast and leaf rust resistant wheat genotypes	Dinajpur
14	Characterization of Bread Wheat Genotypes Using SSR Markers for Terminal Heat Tolerance	• To characterize widely grown bread wheat cultivars and breeding lines for heat tolerance so as to be adapted to different regions in Bangladesh.	Gazipur
15	Elite Spring Wheat Yield Trial (43th ESWYT)	• To evaluate the advanced lines comparing with our local check variety for selecting the promising ones for Bangladesh environment.	Dinajpur
16	International Bread Wheat Screening Nursery (55th IBWSN)	• To select desirable bread wheat advanced lines for Bangladesh environment.	Dinajpur
17	High Temperature Wheat Yield Trial (21th HTWYT)	• To select promising heat tolerant lines that can be exploited in developing heat tolerant wheat variety	Dinajpur, Rajshahi, Gazipur
18	Semi-arid Wheat Yield Trial (30th SAWYT)	• To select the promising CIMMYT advance lines under rain-fed condition adapted to Bangladesh environment.	Dinajpur Rajshahi
19	Semi-Arid Wheat Screening Nursery (40th SAWSN)	• To evaluate exotic drought adapted CIMMYT genotypes under Bangladesh condition.	Rajshahi
20	High Zinc Wheat Yield Trial (2th HZWYT)	• To evaluate exotic Zinc and Iron biofortified CIMMYT genotypes under Bangladesh condition.	Dinajpur Gazipur Rajshahi
21	High Zinc Advance Nursery (14th HZAN)	• To evaluate exotic Zinc and Iron biofortified CIMMYT genotypes under Bangladesh condition.	Dinajpur
22	Stress Adaptive Trait Yield Nursery-Heat (12th SATYN)	• To find out genotypes having physiological traits along with yield potentiality which can contribute to	Dinajpur Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		avoidance/tolerance mechanism against stress.	
23	Hybrid Wheat Evaluation Nursery	• To test adaptability and performance of exotic hybrid wheat locally with the aims to release hybrid wheat variety in Bangladesh condition.	Dinajpur Rajshahi
24	Hybrid Wheat Production Through BLA Technology	• To produce elite wheat hybrids F_1 locally adapted Bangladesh condition. • To extend the benefits of hybrid wheat to researchers, wheat breeders, farmers and consumers in Bangladesh by establishing a hybrid wheat seed industry.	Dinajpur
25	Wheat BLA Line Production	• To produce blue seeds as a maintainer line of the respective BLA line. • To produce sterile white seeds that will be used as a female parent in hybrid production.	Dinajpur
26	Maintenance of First- and Second-Year Lines of Recommended Varieties	• To maintain varietal purity and produce standard quality of nucleus seed of cultivated varieties.	Dinajpur
27	Breeder Seed Production of Recommended Wheat Varieties	• To maintain purity as well as to produce standard quality of breeder seed of cultivated varieties in order to supply a handful quantity to BADC, NGOs & Private Seed Companies.	Dinajpur Panchagarh Thakurgaon
MAIZE BREEDING DIVISION			
28	Maintenance and Characterization of Locally Developed and Exotic Maize Inbred Lines	• To characterize and maintain newly developed and introduced inbred lines	Dinajpur, Gazipur and Jashore
29	Advancing S5 to S6 generation of field corn	• To extract elite/superior inbred lines of field corn locally for hybrid development	Gazipur
30	Study on combining ability and heterosis in maize over location	• To study the general combining ability of the parent and specific combining ability of the crosses; • To estimate standard heterosis and selection of better crosses.	Dinajpur, Gazipur and Jamalpur
31	Demonstration trial of released and promising hybrids with commercial hybrids over location	• To demonstrate the performance of released, promising and commercial maize hybrids at different locations	Dinajpur, Gazipur, Jamalpur and Jashore
32	Evaluation of single cross hybrids of field corn (3 sets)	• To test the performance of locally developed single cross hybrids	Dinajpur, Jamalpur and Jashore

Sl.	Research Title	Objective(s)	Location(s)
33	Evaluation of single hybrids of field corn hybrids at different locations (Set I)	• To test the performance of locally developed single cross hybrids at different locations and select widely adapted ones.	Dinajpur, Gazipur and Jamalpur
34	Evaluation of selected single cross hybrids of field corn over locations (Set II)	• To test the performance of locally developed single cross hybrids at different locations and select widely adapted ones.	Dinajpur, Gazipur, and Jashore
35	Comparative Yield Trial of Imported and Local Maize Hybrids	• To evaluate the yield potentiality as well as the stability of the imported and locally developed hybrid.	Dinajpur, Gazipur, Jashore and Jamalpur.
36	Phenotyping of the HTMA hybrids during Kharif season (11 Sets)	• To select high yielding and heat tolerant maize hybrids.	Dinajpur, Gazipur and Jashore
37	Seed Production of Promising Hybrids of Field Corn in Isolation	• To produce new single cross hybrids for evaluation of inbred lines	Dinajpur
38	Seed production of the parental lines of different released maize hybrids	• To provide large scale breeder seeds of different parent lines to BADC and other seed companies	Dinajpur, Thakurgaon Rajshahi
39 40	Seed Production of Different Released Hybrids	• To increase the hybrid seeds stock of the promising released maize hybrids for demonstration and distribution.	Dinajpur, Thakugaon Debiganj
41	Maintenance and seed production of composite maize varieties	• To supply breeder's seed to BADC and other organization, and to maintain the purity of the popular composite varieties.	Debiganj and Jamalpur
42	Bangladesh Coordinated Maize (BCM) Trial	• To join hands with the private maize growing partners (BRAC & ACI) and to generate robust data	Dinajpur and Gazipur, Nilphamari and Kushtia
43	Evaluation of promising HTMA hybrids	• To select high yielding and heat tolerant maize hybrids	Dinajpur and Gazipur, Nilphamari and Kushtia
44	Seed Production Research (SPR) for Parents of Elite Maize Hybrids	• To evaluate the performance of seed and pollen parents for generating seed production data at seed production hubs.	Dinajpur and Bogura
SOIL SCIENCE DIVISION			
45	Response of different nitrogen levels on the yield and yield components of newly released maize hybrids	• To evaluate the yield and yield components of newly released maize hybrids on different nitrogen doses.	BWMRI research station, Dinajpur.

Sl.	Research Title	Objective(s)	Location(s)
PLANT PATHOLOGY DIVISION			
46	Evaluation of wheat germplasm against Bipolaris leaf blight under field conditions	• To evaluate available germplasm against Bipolaris leaf blight under natural field conditions	Dinajpur, Jashore and Jamalpur
47	Evaluation of wheat genotypes for resistance to Bipolaris leaf blight under inoculated conditions	• To evaluate the response of advanced wheat genotypes against Bipolaris leaf blight under high disease pressure	Dinajpur
48	Evaluation of wheat genotypes for resistance to leaf rust under inoculated field conditions	• To evaluate response of advanced wheat genotypes against leaf rust under induced disease pressure	Dinajpur
49	Efficacy of new fungicides in controlling Bipolaris leaf blight and leaf rust diseases of wheat	• To evaluate the efficacy of some new fungicides in controlling Bipolaris leaf blight and leaf rust diseases of wheat	Dinajpur
50	Surveillance of rusts and blast of wheat in Bangladesh	• To identify rust and blast diseases of wheat, track pathogens and assess disease severity in farmers' fields. • To collaborate with the international partners for developing global rust and wheat blast management strategies	Major wheat growing areas of Bangladesh
51	Determining status of seed-borne fungi including *Magnaporthe oryzae* causing wheat blast	• To determine prevalence of seed-borne pathogens including wheat blast fungus present on the seeds of adapted wheat varieties	Dinajpur
52	Evaluation of wheat germplasm against wheat blast under field/inoculated conditions	• To find out resistant/tolerant lines against wheat blast under natural disease development/high disease pressure	Dinajpur and Jashore
53	Evaluation of elite wheat genotypes for resistance to wheat blast under inoculated field/greenhouse conditions	• To evaluate advanced wheat lines for resistance to wheat blast under inoculated conditions	Jashore and Dinajpur
54	Efficacy of new fungicides in controlling wheat blast	• To evaluate the effectiveness of foliar fungicides in controlling wheat blast	Jashore
55	Sporulation capacity of Magnaporthe oryzae (MoT) in different culture media and identifying virulent isolate	• To identify and select a suitable culture medium which would enhance the sporulation of M. oryzae fungus • To identify virulent isolate of MoT	Dinajpur
56	Development of differential lines against wheat blast	• To identify/find out differential line(s) against blast disease	Dinajpur
57	Effect of sowing dates and genotypes on the severity of wheat blast	• To assess the effect of sowing time on the severity of wheat blast in different adapted wheat varieties	Jashore
58	Molecular detection of wheat blast pathogen Magnaporthe	• To detect Triticum pathotype of wheat blast fungus using molecular tools	Dinajpur

Sl.	Research Title	Objective(s)	Location(s)
	oryzae pathotype Triticum (MoT) using MoT3 assay		
59	Helminthosporium Leaf Blight Screening Nursery (HLBSN)	• To evaluate wheat lines for resistance to Helminthosporium leaf blight or BpLB or spot blotch under natural field conditions	Dinajpur, Jamalpur and Jashore
60	Stem Rust Resistance Screening Nursery (SRRSN)	• To evaluate wheat lines against rusts diseases under natural field conditions	Dinajpur, Jamalpur and Jashore
61	Fusarium Head Blight Screening Nursery (FHBSN)	• To evaluate wheat lines against Fusarium head blight under natural field conditions	Dinajpur and Jamalpur
62	Integrated management of wheat blast	• To find out suitable management option(s) for controlling wheat blast	Jashore
63	Wheat Blast: Precision Phenotyping Platform (PPP)	• To identify new sources of resistance against wheat blast for developing durably resistant varieties	Jashore
64	Survey and monitoring of maize diseases in Bangladesh	• To know the current status of maize diseases in the country • To take appropriate control measure for the diseases	Major maize growing areas of Bangladesh
65	Efficacy of fungicides in controlling leaf blight of maize	• To evaluate the efficacy of some new fungicides in controlling leaf blight of maize	Dinajpur
66	Disease evaluation of maize genotypes in different trials of BWMRI Maize breeding division	• To identify the sources of resistance in maize genotypes against leaf blight, leaf rust and Fusarium stalk rot diseases	Dinajpur
67	Evaluation of maize genotypes against Fusarium stalk rot under field conditions	• To find out resistant/tolerant lines against Fusarium Stalk Rot under natural disease development	Dinajpur
68	Efficacy of new fungicides in controlling leaf rust of maize	• To evaluate the efficacy of some new fungicides in controlling leaf rust of maize	Dinajpur
69	In vitro inhibitory effect of fungicides, bio-agents and botanicals on morpho-physiological characters of Fusarium species, the cause of Fusarium stalk rot of maize	• To find out effective fungicide (chemical/botanical/bio-agent) for controlling Fusarium spp.	Dinajpur
ENTOMOLOY DIVISON			
70	Determination of exposure time prior to seed sowing after treatment with Cyantraniliprole against Fall Armyworm on maize	• To determine the efficacy of cyantraniliprole as seed treatment on different exposure time.	BWMRI, Dinajpur
71	Yield loss assessment due to Fall Armyworm (Spodoptera frugiperda) attack on maize	• To determine the yield loss due to Fall Armyworm on maize planted in different month.	BWMRI, Dinajpur

Sl.	Research Title	Objective(s)	Location(s)
72	Validation trials on yield loss assessment of Fall Armyworm attack on maize.	• To evaluate yield loss potentiality of Fall Armyworm in different locations of Bangladesh.	Nilphamari, Kurigram, Rangpur, Thakurgaon, Rajshahi, Chuadanga, Jhenaidah
73	Agro-ecological approaches boost up the sustainable management of Fall Armyworm, Spodoptera frugiperda on maize	• To develop sustainable management technique for the suppression of Fall Armyworm infestation on maize.	BWMRI, Dinajpur and Poba, Rajshahi
74	Validation trials on the developed IPM package for maize in farmers' field	• To verify the effectiveness of the developed IPM package for maize in farmers' field.	Dinajpur sadar, Thakurgaonsadar, and Mithapukur, Rangpur
75	Development of bio-rational management package to control Fall Armyworm, Spodoptera frugiperda on maize	• To develop an eco-friendly and sustainable management package against FAW S. frugiperda attacking maize.	BWMRI, Dinajpur
AGRICULTURAL ENGINEERING DIVISION			
76	Improvement of a four-wheel tractor operated seeder	• Improvement of the tractor operated seeder for both wheat and maize • To test and evaluate the performance of the tractor driven seeder	Dinajpur
77	Improvement and fine-tuning of strip-till seeder in existing rotavator of power tiller	• To develop and set up strip-till and seeding systems in the existing rotavator of the power tiller • To test and evaluate the seeding performance of the developed implements.	Dinajpur
78	Development and performance evaluation of different types of manually operated weeders for maize	• Fabrication and development of low cost manually operated weeders of different shapes and sizes for maize • To test and evaluate the weeding performance of the developed implements for maize and line sowing crops	Dinajpur
79	Study on performance of mixed ratio of wheat, maize, rice flour for vapa pitha making purpose	• To include wheat and maize partially in rice, wheat and maize mixture to prepare vapa pitha • To find out best mix ratio of flours • To adopt and change the food habit	
BIOTECHNOLOGY			
80	Characterization of bread wheat genotypes using SSR markers for terminal heat tolerance	• To characterization of bread wheat genotypes for heat tolerance and that has	RS, BWMRI, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
		adapted to different local conditions of Bangladesh.	
ON- FARM RESEARCH DIVISION			
ROBI SEASON			
81	Varietal Demonstration of Hybrid Maize 2022-23	• To see the performance of BWMRI released hybrid maize varieties in farmers' field	Dinajpur, Chuadanga, Thakurgaon, Lalmonirha, Panchagarh, Niphamari, Rangpur, Jhinaidah, Gaibandha and Gazipur
82	Block Demonstration of hybrid Maize 2022-23	• To see the performance of BWMRI released hybrid maize varieties in farmers' field	Dinajpur, Meherpur
83	Block Demonstration of Blast resistance wheat varieties in farmers' field 2022-23	• Increase and preserve Blast resistance wheat seed	Kalikapur Block, Dinajpur
KHARIF SEASON			
84	Varietal Demonstration of Hybrid Maize 2022-23	• To see the performance of BWMRI released hybrid maize variety in farmers' field	Dinajpur, Thakurgaon and Rangpur
85	Heat tolerant of hybrid maize trials	• To see the performance of hybrid maize Genotypes in farmers' field	Amair, Kalikapur Block Dinajpur

SOIL RESOURCE DEVELOPMENT INSTITUTE

SRDI

SOIL RESOURCE DEVELOPMENT INSTITUTE (SRDI)

Sl.	Research Title	Objective(s)	Location(s)
SOIL RESOURCE DEVELOPMENT INSTITUTE DIVISION			
SALINITY MANAGEMENT AND RESOURCE CENTER, BATIAGHATA, KHULNA			
1	Effect of Different types of organic matter on Soil Salinity and Yield of Sweet gourd in Coastal Saline Soil	• To find out best organic matter for reducing soil salinity. • To find out the effect of different types of organic matter on soil salinity and yield of sweet gourd in coastal saline so0il	Salinity Management and Research Centre (SMRC) Batiaghata, Khulna
2	Management soil salinity through different sowing method of sweet gourd in coastal saline soil	• To find out suitable sowing method for reducing soil salinity.	Do
3	Effect of different degree of soil salinity on growth and yield of cauliflower	• To find out the effect of different degree of soil salinity on growth and yield of cauliflower	Do
4	Effect of different degree of soil salinity on growth and yield of cabbage	• To find out the effect of different degree of soil salinity on growth and yield of cabbage	Do
5	Effect of different degree of soil salinity on growth and yield of knolkhol	• To find out the effect of different degree of soil salinity on growth and yield of knolkhol	Do
6	Effect of different degree of saline water on growth and yield of Indian spinach	• To find out the effect of different degree of saline water on growth and yield of indian spinach	Do
7	Effect of different degree of saline water on growth and yield of okra	• To find out the effect of different degree of saline water on growth and yield of okra	Do
8	Effect of ground water table & salt concentration on top soil salinity	• To find out the effect of ground water table & salt concentration on top soil salinity.	Do
9	Effect of broom grass on controlling soil erosion and on farmers' economy of hill dwellers of CHT.	To minimize soil erosion, retain ground moisture and to increase soil fertility. • To find out alternate source of income • To provide fodder for livestock.	Soil Conservation and watershed management Centre, SRDI, Bandarban.
10	Effect of plantation of bamboo on erosion control and on farmers' economy of hill dwellers of CHT. muli/paiya: *gigantochloarobusta* and ora: *fargesiarobusta.*	• Reclamation of gullied land by minimizing erosion hazard. • To conserve environment and biodiversity. • To improve socioeconomic condition of hill dwellers. • To popularize handy craft as a part off-farm activity.	Do

Sl.	Research Title	Objective(s)	Location(s)
11	Efficiency of brushwood check dam for minimizing erosion and reclamation of gullied land.	• To reduce the velocity of run-off water. • To prevent deepening and widening of gullies. • To manage sedimentation and to recharge the water table.	Do
12	Effect of indigenous &zero tillage against indigenous practice on soil erosion, run off, nutrient mining for cultivation of pineapple on hill slopes of CHT.	• To compare soil loss, runoff and nutrient mining under zero tillage and indigenous practice for pineapple cultivation. • To find out effect of soil loss on soil chemical properties. • To convey research findings to DAE for creating awareness among farmers about soil conservation.	Do
13	Effect of Natural Vegetative Strip (NVS)for cultivation of vegetables to minimize soil erosion on hill slopes of CHT.	• To find out the effect of NVS in reducing soil erosion and maintaining soil fertility hill slopes. • To evaluate efficiency of NVS for vegetables production on hill slope.	Do
14	Study on management and economic value of *Schumannianthusdichotoma* (*murta*/ patibet) in valley bottom (jhiri) land at chittagong.	• To evaluate yield and profitability of Murta grown on hill slopes of CHT. • To transform fallow lands of valley bottom (jhiri) into cropped land intervening through conservation measures. • To provide additional economical supports to the hill dwellers through creating off farm activities & to replace traditional jhum cultivation partially.	Do
15	Upscaling of Quesungual Slash and Mulch Agro-forestry system (QSMAS) for enhancing crop yields and soil quality in CHT.	• To evaluate degree of soil erosion, fertility status, productivity, economic return under different treatment. • To create awareness about soil conservation and watershed management among hill dwellers.	Do
16	Performance of summer water melon on hill slopes following conservation measures.	• To find out the suitability of summer water melon on hill slopes under rainfed condition. • To compare soil loss, runoff and nutrient mining using different hedge species on different slopes. • To introduce high value crop and to boost up farmers income.	Do

BANGLADESH TEA RESEARCH INSTITUTE

BTRI

BANGLADESH TEA RESEARCH INSTITUTE

Sl.	Research Title	Objectives	Location(s)
BOTANY DIVISION			
1.	B1-27-7: Selection of Vegetative Clones at Shumshernugger T. E., Section Main Div. Sec. No. 9 (1993-2023)	• To isolate desirable mother bushes from the existing variable seedling population. • To identify promising plants having yield and quality potential through exploiting existing variability. • To isolate plants tolerant to insect, disease and drought. • To observe rooting ability of the selected mother bushes.	Shumshernugger T. E
2.	B1-28: Selection of Vegetative Clones at Amo T. E., Section No. 8 (1993-2023)	• To assess the growth performance of different tree species in four dendro-ecological regions of the country. • To determine the factors influencing the growth performance. • To determine the silvics of different forest tree species.	Amo T. E.,
3.	B1-31: Selection of Vegetative Clones at Baraoorah T. E., Section No. 8 (2007-2023)	• Do	Baraoorah T. E
4.	B2-40: Yield and Quality Trial of Six Test clones – MZ/39, E/4, D/13, B2T1, BR2/97 and SDL/1 against Standard BT2 (BTRI, 2000-).	• To select promising test clones having desirable characteristics i.e. either yield or quality or both. • To identify stress tolerant test clones such as drought tolerant. • To identify test clones which are less susceptible to pests. • In order to release clones for cultivation from the test clones under trial which have desirable characteristics of commercial importance i.e. yield, cup quality, tolerant to insect, disease, drought etc.	BTRI Experimental Farm
5.	B2-41: Yield and Quality Trial of Four Test clones Selected from Amo T. E.; Test clones – A/8/37, A/8/55, A/8/62 and A/8/66 against Standard BT2	• Do	BTRI Experimental Farm

Sl.	Research Title	Objectives	Location(s)
6.	B2-42: Yield and Quality Trial of Four Test clones Selected from Phulcherra, Amo and Shumshernugger T. Es.; Test clones – A/17/16, Ph/9/1, Ph/9/9 and Sh/B/6/46 against Standard BT1.	• Do	BTRI Experimental Farm
7.	B2-43: Yield and Quality Trial of Four Test clones Selected from Phulcherra and Hybrid Progeny; Test clones– Ph/9/4, Ph/9/25, Ph/9/40 and BS/67 against Standard BT5.	• Do	BTRI Experimental Farm
8.	B2-44: Yield and Quality Trial of Three Test clones Selected from Amo and Phulcherra T. Es.; Test clones– A/8B/1, Ph/9B/1, Ph/9/11 and against Standard BT1.	• Do	BTRI Experimental Farm
9.	B2-46: Yield and Quality Trial of Four Test clones Selected from BTRI Farm (Dulia Section); Test clones – D1/18, D/6, D/10 and D/12 against Standard BT5	• Do	BTRI Experimental Farm
10.	B2-47: Yield and Quality Trial of Four Test clones Selected from Phulcherra T. E. and BTRI Germplasm Bank; Test clones-Ph/9/92, BS/3, Ph/9/108 and G/61/8 against Standard BT15.	• Do	BTRI Experimental Farm
11.	B2-48: Yield and Quality Trial of Four Test clones Selected from Shumshernugger and Amo T. Es. Test clones – A/8/124, Sh/10/2, A/8/125 and A/11/38 against Standard BT2.	• Do	BTRI Experimental Farm
12.	B2-49: Yield and Quality Trial of Four Test clones Selected from Shumshernugger T.E.	• Do	BTRI Experimental Farm

Sl.	Research Title	Objectives	Location(s)
	(Sh/10/5, Sh/D/13/4and Amo T. Es. Test clones – A/8/128, BS/91/6, against Standard BT2		
13.	B2-50: Yield and Quality Trial of Three Test Clones Selected from Baraoorah T.E. and Shumshernugger T.E. Test Clones – B/8/79, Sh/9/43 and B/8/93 against Standard BT2 and BT17	• Do	BTRI Experimental Farm
14.	B2-51: Yield and Quality Trial of Two Test Clones Selected from Amo T.E., and Shumshernugger T.E.; Test Clones – A/8/194 and Sh/9/65 against Standard BT2, BT17 and BTS1. (BTRI, 2015-2032).	• Do	BTRI Experimental Farm
15.	B2-52: Yield and Quality Trial of Four Test Clones Selected from Amo T.E., Baraoorah T.E., and Shumshernugger T.E.; Test Clones–B/8/97, B/8/101, Sh/9/71 and A/8/217 against Standard BT2 (BTRI, 2017-2034).	• Do	BTRI Experimental Farm
16.	B2-53: Yield and Quality Trial of Four Test Clones Selected from Amo T.E., Baraoorah T.E., and Shumshernugger T.E.; Test Clones–B/8/131, B/8/144, Sh/9/85 and A/8/254 against Standard BT2 (BTRI, 2017-2034).	• Do	BTRI Experimental Farm
17.	B2-54: Yield and Quality Trial of Four Test Clones Selected from Rajghat T.E. (Biddyabil Division), Amrail T.E., and Madhabpur T.E.; Test Clones–P/RJG/8/80, P/AML/14/98, P/RJG/11/106 and P/MDP/13/70 against	• Do	Bilashcherra Experimental Farm

Sl.	Research Title	Objectives	Location(s)
	Standard BT2 (BTRI, 2019-2036).		
18.	B2-55: Yield and Quality Trial of Four Test Clones Selected from Rajghat T.E. (Biddyabil Division), Kurmah T.E., and Champarai T.E.; Test Clones– P/RJG/6/57, P/KRM/11/46, P/RJG/6/48 and P/CHM/18/79 against Standard BT2 (BTRI, 2019-2032).	• Do	Bilashcherra Experimental Farm
19.	B2-56: Long term Yield and Quality Trial of Four Test Clones (Multi-location trail) at Amo Tea Estate	• Do	Amo Tea Estate
20.	B2-57: Long term Yield and Quality Trial of Four Test Clones (Multi-location trail) at Hafiz Tea Estate	• Do	Hafiz Tea Estate
21.	B2-58: Yield and Quality Trial of Four Test Clones Selected from Chandbagh T. E., Teliapara T.E., (Satchori Division), Kapnapahar T. E., Madhabpur T. E.; Test Clones–P/CHB/18/67, P/TLP/5/58, P/KPR/56 and P/MDP/12/41 against Standard BT20 (BTRI, 2019-2032).	• Do	BTRI Experimental Farm
22.	B2-59: Yield and Quality Trial of Four Test Clones Selected from Monipore T. E., Amrail T. E., Rajghat T.E. (Biddyabil Division); Test Clones– P/MPR/16a/99, P/AML/12/20, P/MPR/16a/78 and P/RJG/6/19 against Standard BT15 (BTRI, 2019-2032).	• Do	BTRI Experimental Farm
23.	B2-60: Yield and Quality Trial of Three Test Clones Selected from Bethelpara para and Lairunpi para from	• Do	BTRI Experimental Farm

Sl.	Research Title	Objectives	Location(s)
	Ruma Upazila of Bandarban District; Test Clones– P/RU/LAI/13, P/RU/BTL/49 and P/RU/LAI/53 against Standard BT19 (BTRI, 2020-2033).		
24.	B2-61: Yield and Quality Trial of four Test Clones; Test Clones– P1, P2, P3 and P4 against Standard BT2 (BTRI, 2021-2033).	• Do	BTRI Experimental Farm
25.	B2-62: Yield and Quality Trial of Three Test Clones; Test Clones– A1, A2 and A3 against Standard BT13 (BTRI, 2021-2033).	• Do	BTRI Experimental Farm
26.	B3-1.1: Controlled Pollination between Selected Clones/Agrotypes and Selection of Generative Clones for the Establishment of Clonal Seed Reserve (1964-)	• To study compatibility between different clones and agrotypes. • To observe seed setting ability of different cross combinations. • To observe hybrid vigour of seed progeny. • To identify suitable generative clones or agrotypes for hybrid seed (biclonal seed) production. • In order to select vegetative clones from hybrid progeny having desirable characters. • To evaluate indigenous and exotic biclonal seeds.	BTRI Experimental Farm
27.	B3-1.3: Establishment of polyclonal seedbaries according to the proposed model by the Institute and observation on the open pollinated progenies.	• Do	BTRI Experimental Farm
28.	B3-1.5: Establishment of a Biclonal Seedbarie with Clones TV18 and BT3.	• Do	BTRI Experimental Farm
29.	B3-8: Survey and Conservation of Gene Resources of Tea in Bangladesh (BTRI, 1981-)	• Do	BTRI Experimental Farm
30.	B3-11: a. Survey and isolation of mother bush of breeding value in Parkul Tea Estate Seed Barie	• Do	Parkul Tea Estate

Sl.	Research Title	Objectives	Location(s)
31.	B3-11: b. Survey and isolation of mother bush of breeding value in Monipore Tea Estate Seed Barie	• Do	Monipore Tea Estate
32.	B3-11: c. Survey and isolation of mother bush of breeding value in Merina Tea Estate Seed Barie	• Do	Merina Tea Estate Seed Barie
33.	B3-12: Morphological characterization of BTRI released clones, some test clones and wild genotypes.	• Do	BTRI Experimental Farm
34.	B3-13: Study of phenological attributes and floral morphology of some selected tea germplasm in Bangladesh	• Do	BTRI Experimental Farm
35.	B4-10: Effect of drought on morpho-physiological and water relations traits in tea clones at nursery level	• To observe the effect of drought on morpho-physiological and water relations traits in tea clones at nursery level	BTRI Experimental Farm
36.	B4-11: Effect of drought on morpho-physiological and water relations traits in tea clones at field level.	• To observe the effect of drought on morpho-physiological and water relations traits in tea clones at field level	BTRI Experimental Farm
37.	B4-12: Sustainable protocol development of artisan tea and different kinds of value-added tea.	• To develop Sustainable protocol of artisan tea and different kinds of value-added tea.	BTRI Experimental Farm
38.	B4-13: Amendment of existing of tea plantation area and standardization of new extension plantation area by using BTRI released clones for manufacturing better cup quality tea in Northern region of Bangladesh. (2022-)	• To make the amendment of existing of tea plantation area and standardization of new extension plantation area by using BTRI released clones for manufacturing better cup quality tea in Northern region of Bangladesh.	BTRI Experimental Farm
39.	B4-14. Impact of Biokad and micronutrients on productivity and sustainable tea farming (2021-).	• To study the impact of Biokad and micronutrients on productivity and sustainable tea farming	BTRI Experimental Farm
40.	B4-15. Fabrication and characterization of polymer matrix composite based on tea waste and different polymer (2021-).	• To create fabric and characterize the polymer matrix composite based on tea waste	BTRI Experimental Farm

Sl.	Research Title	Objectives	Location(s)
41.	B4-16. Estimation of simple equation for measuring Leaf Area of BTRI released individual clones and biclones (2021-).	• To estimate simple equation for measuring Leaf Area of BTRI released individual clones and biclones	BTRI Experimental Farm
42.	B4-17. Effect of number of tea leaf pubescence and rate of fermentation on made tea quality of BTRI released clones & biclones (2021-).	• To study the effect of number of tea leaf pubescence and rate of fermentation on made tea quality of BTRI released clones & biclones	BTRI Experimental Farm
43.	B4-18: Impact of blending on commercial tea cultivar on black tea quality along with price. (2021-)	• To study the impact of blending on commercial tea cultivar on black tea quality along with price.	BTRI Experimental Farm
44.	B4-19: Effect of nursery-tipping on the development of stem girth in different tea saplings / seedlings.	• To observe the Effect of nursery-tipping on the development of stem girth in different tea saplings / seedlings	BTRI Experimental Farm
45.	B4-20: Effect of different media on tea seed germination	• To observe the effect of different media on tea seed germination	BTRI Experimental Farm
46.	B4-22: SMART tea gardening in Bangladesh	• To develop technology based ecofriendly tea farming in Bangladesh	BTRI Experimental Farm
SOIL SCIENCE DIVISION			
47.	Evaluation of physical properties of some selected tea soils of Bangladesh & their influence on chemical properties & yield of tea. (2017-2022)	• To assess the long-term impact of growing tea on soil physical properties and how it correlates with crop yield.	BTRI, Bilashcherra Experimental Farm and different tea gardens of Bangladesh
48.	Status of micronutrients (Cu, Fe, Mn&Zn) in some selected tea soils of Bangladesh. (2017-2022)	• To know the status of micronutrients (Cu, Fe, Mn & Zn) in tea soils of Bangladesh. • Proper nutrient management.	BTRI, BEF and different tea gardens of Sylhet, Chattogram and Panchagarh.
49.	Present status of heavy metals (Cr, Cu, Fe, Mn, Ni, Zn) in tea soils, green leaves and made tea in bangladesh.(2018-2022)	• To evaluate the status of toxic heavy metals in tea soils, green leaves and made tea.	BTRI, Bilashcherra Experimental Farm and different tea gardens of Sylhet, Chattogram and Panchagarh.

Sl.	Research Title	Objectives	Location(s)
50.	Determination of critical values of nutrients in tea soil and plant leaf in sylhet, chattogram and panchagarh region. (2018-2022)	• To estimate critical values of essential elements in tea soil as well as tea plant leaves on the basis of present scenario of tea soils of Bangladesh.	Different tea gardens of Sylhet, Chattogram and Panchagarh.
51.	Comparative study of conservation and conventional agriculture practice in small holding tea cultivation in response to climate change. (2020-2025)	• To efficient use of external and natural resources. • To economic profitable and viable for small holders. • To provide efficient and sustainable Eco farming systems to compliments the livestock, social structure etc. • To reduce the mortality rate of new plantation in dry season.	Bilashcherra Experimental Farm
52.	Effect of different mulching materials on soil properties, earthworm population and growth of young tea. (2020-2022)	• To improve the condition of soil moisture. • To increase the Carbon content of soil. • To determine the earthworm population and growth & yield of tea. • To determine the properties of young tea soil.	Bilashcherra Experimental Farm and Luskerpore Tea Estate
53.	Formulation of a New Organic Fertilizer cum Pesticides: FCP (Organo 2 in 1) and study the efficiency on tea plant. (2022 –2023)	• For formulation a new pattern of an organic fertilizer. • To determine the quality and effectiveness of the organic fertilizer. • To determine the effectiveness of the organic fertilizer as bio pesticide. • To improve the soil health and growth of tea as well as increase the yield of tea.	BTRI Farm
AGRONOMY DIVISION			
54.	Development of a new pruning cycle for higher sustainable tea yield in the context of present climate change	• To identify the best pruning cycle in the context of present climate change. • To find out standard pruning cycle(s) for specific bush architecture.	BTRI Main Farm, Srimangal, Moulvibazar
55.	Effects of different types of composts on growth and development of clonal tea	• To know the impact of different types of compost on growth and development of young tea plants. • To find out good alternatives of cow dung for tea plantation.	BTRI Main Farm, Srimangal, Moulvibazar
56.	Mechanization in pruning and its impact on the yield of tea	• To check the impact of pruning mechanization on the yield of tea. • To find out the best pruning policy using pruning machine.	BTRI Main Farm, Srimangal, Moulvibazar

Sl.	Research Title	Objectives	Location(s)
57.	Implementation of grafting technique to produce composite tea plant in the nursery for increasing yield and drought resistance capacity of the plant	• To develop drought resistant tea plants as well as to increase the yield.	BTRI Main Farm, Srimangal, Moulvibazar
58.	Effect of different irrigation techniques to irrigate young tea, planted at the hot slope in tillah area	• To observe the efficacy of different irrigation techniques over the control in southern part of tillah area. • To find out the most effective and economic irrigation techniques for hot slope of tillah area.	Bilashcherra Experimental Farm, BTRI, Srimangal, Moulvibazar
59.	Effect of different plucking rounds on yield and quality of tea at Northern Tea growing area of Bangladesh	• To find out the best plucking system for Northern Bangladesh to ensure the quantity as well as the quality of made tea.	BTB Regional Office, Panchagarh
60.	Effect of light pruning (LP) completed at different months on growth and yield of tea	• To find out the best time period of LP for maximizing yield of tea in the context of present climate change.	Bilashcherra Experimental Farm, BTRI, Srimangal, Moulvibazar
61.	Effect of First Frame Formation Pruning of winter planted tea at different times after planting on its growth and survivality	• To identify the appropriate time for first frame formation pruning of young tea. • To minimize the time for young tea maintenance period.	Luskorpore Tea Estate, Luskorpore valley, Habigonj
62.	Development of a standard young tea pruning schedule for Northern Tea Growing areas of Bangladesh	• To find out the best pruning schedule for bringing young tea into bearing for Northern Tea Growing areas of Bangladesh.	BTB Regional Office, Panchagarh
63.	Yield performances of some selected tea clones in the Northern tea growing areas of Bangladesh	• To identify the best performing tea clones in the Northern tea growing areas of Bangladesh.	BTB Regional Office, Panchagarh
64.	Effect of different pruning cycles on the yield of tea in the Chattogram Hill Tracts	• To identify the best pruning cycle for the Chattogram Hill Tracts of Bangladesh.	Bandarban
65.	Development of a standard young tea pruning schedule for the Chattogram Hill Tracts of Bangladesh	• To find out the best pruning schedule for bringing young tea into bearing for the Chattagram Hill Tracts of Bangladesh.	Bandarban
66.	Field Trial 1: Effect of a plant growth regulator (FLORA – Nitrobenzene) on growth and yield of mature clonal tea	• To observe the effect of plant growth regulator 'FLORA' on growth and yield of tea in Bangladesh.	BTRI Main Farm, Srimangal, Moulvibazar

Sl.	Research Title	Objectives	Location(s)
67.	Field Trial 2: Effect of a plant growth regulator (Clybio) on growth and yield of tea	• To observe the effect of plant growth regulator 'Clybio' on growth and yield of tea in Bangladesh.	BTRI Main Farm, Srimangal, Moulvibazar
ENTOMOLOGY DIVISION			
68.	Biopesticides as promising alternative to chemical pesticides for sustainable management of thrips in tea	• To evaluate the efficacy of different sticky traps with pheromone lure against thrips in tea. • To determine the efficacy of bio-rational insecticides against thrips in tea. • To find out the comparative efficacy of tested bio-insecticides.	BTRI & BEF experimental farm, Srimangal, Moulvibazar
69.	Formulation of a new organic fertilizer cum pesticide (FCP) and study the efficiency of foliar spray on tea plant	• To determine the effectiveness of the new organic fertilizer (FCP) as bio pesticide for controlling major pests of tea.	Entomology laboratory, Nematology filed laboratory & BTRI main farm, Srimangal, Moulvibazar
70.	Survey and monitoring of new insect pests in tea due to change in climate: Causes and Remedies	• To identify the species of insect pest • To study the nature of damage of the insect pest • To study bio-ecology of the weevil and management of the insect pest	
71.	Screening of pesticides against Helopeltis, Red spider mites, Termites, Looper caterpillar, Thrips& Nematodes in tea	• To determine the effectiveness of different group of insecticides against major pests in tea. • To find out a wide range of alternative and economic pesticides to avoid pest resistance. • To ensure variable choice of effective pesticides by the management.	BTRI main farm & Bilashcherra experimental farm, Srimangal, Moulvibazar
PLANT PATHOLOGY DIVISION			
72.	Investigations on phytotoxicity of commonly used fungicides for controlling tea diseases in Bangladesh.	• To know fungicide residue on tea plants. • To study the vascular system (xylem and phloem) • To analyze the stomatal characteristics of tea plants.	BTRI & its experimental farm and Plant Pathology laboratory, BTRI, Srimangal.
73.	Cross Inoculation and Host Range Studies of some important tea pathogens in tea ecosystem.	• To specify the alternate harbor and /or succumb of tea pathogens by the sets of plants. • To regulate the matrices of compatible and incompatible reactions and the identification of races in tea ecosystem.	

Sl.	Research Title	Objectives	Location(s)
74.	Screening of BTRI released tea clones against different tea diseases.	• To find out the tolerance level of BTRI released tea clones against major diseases of tea in Bangladesh.	
75.	Effect of different group of herbicides on tea soil environment.	• To reveal the impact of different herbicides used in tea cultivation on tea soil environment.	
76.	Screening of new fungicides and herbicides against different diseases and weeds in tea.	• To evaluate and standardize new fungicides and herbicides against different tea diseases and weeds.	BTRI & its Bilashcherra experimental farm
BIOCHEMISTRY DIVISION			
77.	Effect of storage time and packaging materials on the quality of black tea.	• To determine how the flavor attributes of tea changes over time during storage. • To identify the best packaging material for the storage of tea. • To determine the shelf life of tea under a specific packaging material.	Biochemistry lab, BTRI, Srimangal, Moulvibazar
78.	Effect of Brassino steroids on the yield and quality improvement by influencing formation of biochemical components in tea.	• To improve the yield and quality of the tea by the application of phytohormone Brassino steroids.	BTRI Main Farm, Srimangal, Moulvibazar
STATISTICS & ECONOMICS DIVISION			
79.	Adoption of BTRI matured Technologies and its Extension to Tea Estates of Bangladesh	• To study the present status about the adoption of BTRI technologies and its efficiency in crop improvement in the tea estates. • To create a statistical database on adoption of these technologies to the tea estates as well as to find out the limitations of dissemination the technologies.	167 Tea Estates of Bangladesh
80.	Economic efficiency of some selective test clones and standard clones of BTRI	• Study the economic efficiency of the test clones in respect of yield. • Find out the economic efficient test clone(s) comparing internal rate of return. • Use of economic performance as a parameter for suitable selection of significant clone(s).	BTRI Campus

BANGLADESH FOREST RESEARCH INSTITUTE

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Sl.	Research Title	Objective(s)	Location(s)
SILVICULTURE RESEARCH DIVISION			
1.	Growth assessment of established plantations at four Silviculture Research Station.	• To assess the growth performance of different tree species in four dendro-ecological regions of the country. • To determine the factors influencing the growth performance. • To determine the silvics of different forest tree species.	Charaljani SRS, Modhupur, Tangail; Keochia SRS, Satkania, Chattogram; Charkai SRS Birampur, Dinajpur
2.	Assisted Natural Regeneration (ANR) Capacity and its Enhancement by Silvicultural treatments in Degraded Forests of Hazarikhil Wildlife Sanctuary, Chattogram.	• Site assessment to determine the feasibility of restoration the degraded secondary forests through Assisted Natural regeneration (ANR) • Identify the limiting factors that suppress the natural regeneration in succession process. • Assess the social implications on the restoration process through ANR. • Develop protocol of using ANR in large scale reforestation programs for BFD.	Hazarikhil SRS, Chattogram
3.	Development of nursery techniques of four important endangered indigenous forest tree species.	• To standardize the nursery techniques of selected indigenous forest tree species. • To identify the limiting factors that suppress the natural regeneration in succession process. • To provide quality seedlings to planters for successful plantation establishment.	BFRI HQ Nursery, Chattogram
4.	Growth performance of three indigenous fast growing tree species Gamar (*Gmelina arborea*), Toon (*Toona ciliata*), and Shil Koroi (*Albizia procera*).	• To select plantation technique for timber and fuel wood production for native fast growing tree species. • To find the site suitability. • To assess the growth performance.	Charaljani SRS, Modhupur, Tangail; Keochia SRS, Satkania, Chattogram; Lawachara SRS, Moulavibazar
5.	Restoration of degraded Hill and Sal Forest site through Assisted Natural Regeneration (ANR).	• To develop suitable ANR methods for degraded forestland area management.	Charaljani SRS, Modhupur, Tangail; Keochia SRS, Satkania, Chattogram
6.	Nursery and Plantation technique of six important Ficus species at Lawachara and Keochia Silviculture Research Stations.	• To develop nursery and plantation technique of six Ficus species.	Keochia SRS, Satkania, Chattogram; Lawachara SRS, Moulavibazar
7.	Development of Nursery and Plantation techniques of two important threatened species	• To develop nursery technique of Tali and LombaTasbi.	BFRI HQ Nursery, Chattogram;

Sl.	Research Title	Objective(s)	Location(s)
	Tali (*Palaquium polyanthum* Engl.) and Lomba Tasbi (*Miliusa longiflora* Hook. f. & Thomson) Finet & Gagnep.	• To develop plantation technique of Tali and Lomba Tasbi.	Keochia SRS, Satkania, Chattogram
SILVICULTURE GENETICS DIVISION			
8.	Molecular characterization of endangered forest tree species viz. Boilam (*Anisoptera scaphula*), Shada garjan (*Dipterocarpus costatus*) and Telia garjan (*Dipterocarpus turbinatus*) through DNA barcoding.	• To identify the plant species based on extracting a DNA sequence from a tiny tissue sample. • To make a distinction from particular species, varieties or even inter varieties.	BFRI, Chattogram
9.	Micro-propagation and genetic analysis of variation in regenerated Plants of. African Teak oak (*Chlorophora excelsa*), Taxodium (*Taxodium mucronatum*) and Boilam (*Anisoptera scaphula*).	• To develop high micro-propagation efficiency for the selected species. • Production of quality planting stock in a short time.	BFRI, Chattogram
10.	Development of tissue culture techniques for four new bamboo species viz., *Dendrocalamus asper*, *D. sinicus*, *D. latiflorous*, and *Phyllostachys edulis*.	• To develop in vitro protocol for the new bamboo species. • Production of quality bamboo seedlings for large scale cultivation. • To conserve in vitro plants.	BFRI, Chattogram
11.	Optimization of seedling production and mass propagation of ten important village bamboos through branch cutting technique and seedling proliferation.	• To make available bamboo propagules for wider distribution. • Popularization of bamboo branch cutting technique. • To develop linkage with different stakeholders of BFRI.	BFRI, Chattogram
12.	Development of improved protocols for in vitro plant regeneration of selected rubber (*Hevea brasiliensis*) clones.	• To establish embryogenic callus culture and plant regeneration protocol via somatic embryogenesis from potential explants of H. brasiliensis. • To evaluate the in vitro micro-propagation capacity of somatic embryo derived plants. • To produce a homogenous plant population of selected rubber clone.	BFRI, Chattogram
MANGROVE SILVICULTURE DIVISION			
13.	Phenological observation of mangrove species in the Sundarbans of Bangladesh in the context of climate change.	• To find the impact of climate change and phenological characteristics of mangrove species. • To explore survival strategies of mangrove species and compare with climatic factors.	Bangladesh Sundarbans.

Sl.	Research Title	Objective(s)	Location(s)
14.	Ecological monitoring through establishment of Permanent Sample Plots (PSPs) in the Sundarbans of Bangladesh.	• To determine the species composition. • To determine the natural regeneration status of major mangrove species. • To understand the vegetation dynamics in the Sundarbans over time. • To assess the impact of salinity and siltation on the change of vegetation.	Bangladesh Sundarbans.
15.	Impact of climate change on floral biodiversity in the Sundarbans.	• To conserve the species/genetic diversity of plants and animals as well as to preserve the continuity of food chains in the Sundarbans. • To know the impact of climate change as well as soil and water salinity in the Sundarbans. • To assess the floral biodiversity of the Sundarbans.	Bangladesh Sundarbans.
16.	Conservation of mangrove species in the three arboretum areas of three salinity zones in the Sundarbans (Third phase).	• To conserve and demonstrate floral species in natural habitat in the Sundarbans. • To centralize threatened mangrove species. • To enrich the biodiversity of the Sundarbans.	Bangladesh Sundarbans.
17.	Nursery and plantation techniques of Moth goran (*Ceriops tagal*) in the Sundarbans.	• To develop nursery and plantation techniques of moth goran. • To conserve the species and biodiversity.	Bangladesh Sundarbans.
18.	Ex-situ conservation of major mangrove species at the adjacent char land areas of the Sundarbans.	• To ex-situ conservation major mangrove species in the adjacent char land of the Sundarbans. • To expand the mangrove ecosystem and biodiversity.	Bangladesh Sundarbans.
19.	Enrichment and maintenance of mangrove museum.	• To collect and preserve the floral and faunal specimen from the Sundarbans. • To identify the unknown flora and fauna. • To maintenance of mangrove museum. • To demonstrate the forest specimens to the students, teachers, researchers and visitors.	Mangrove Silviculture Division, Muzgunni, Khulna-9000.
SEED ORCHARD DIVISION			
20.	Development of Vegetative Propagation techniques of important forest tree species of Gutgutya and Bandarhola**.**	• To develop a suitable vegetative propagation technique for Gutgutya and Banderhola. • To produce and supply of quality planting materials of Gutgutya and Banderhola to the planters.	Head Quarter Nursery, Seed Orchard Division, Bangladesh Forest Research Institute (BFRI) Head Quarters.
21.	Early evaluation and Production of quality planting	• To evaluate, produce and supply of quality planting materials to the planters.	Head Quarter Nursery, Seed

Sl.	Research Title	Objective(s)	Location(s)
	materials of nine important forest tree species.	• To develop Linkage with planters for awareness about the importance and benefits of quality seedlings.	Orchard Division, BFRI Head Quarters; Ukhya Seed Orchard Centre, Ukhya, Cox's Bazar and Borshijora Seed Orchard Centre, Moulavi Bazar Sadar.
22.	Development of seed Sources of Boilam, Dharmara, Haldu, Civit and Gutgutya through the establishment of seedling seed Orchard.	• To establish seed sources for five endangered species. • To conserve five endangered indigenous species.	Salna Seed Orchard Centre, Salna, Gazipur; Hayankoo Seed Orchard Centre, Fatikchari, Chattogram; Ichamoti Seed Orchard Centre, Rangunia, Chattogram and Dulahazara Seed Orchard Centre, Chakaria, Cox's Bazar.
23.	Enhancement of the life span of Dharmara, Jarul and Toon seeds through different storage media.	• To determine a suitable storage condition/medium concerning storage duration for Dharmara, Jarul and Toon seed.	National Forest Seed Centre, Seed Orchard Division, BFRI Head Quarters.
24.	Effects of seed grading on germination and early growth performance of Tellya-garjan (*Dipterocarpus turbinatus*), Dholi-garjan (*Dipterocarpus alatus*) and Baittya-garjan (*Dipterocarpus costatus*)	• To evaluate the physical and morphological characteristics of seeds of Tellya-garjan, Dholi-garjan and Baittya-garjan. • To assess the influence of seed size on germination, survival and early growth performance of these forest tree species under nursery conditions.	Ichamoti Seed Orchard Centre, Rangunia, Chattogram.
25.	Impact of plant growth regulators (PGRs) on seed germination, seedling behavior and establishment of seed orchard of three endangered forest tree species of Bangladesh.	• To assess impact of different plant growth regulators (PGRs) on seed germination and seedling vigor of SilBatna (Castanopsis indica), Kamdeb (Calophyllum polyanthum) and Padauk (Pterocarpus dalbergioides) under nursery and field conditions. • To establish seed orchard of SilBatna, Kamdeb and Padauk forfuture propagation.	Ichamoti Seed Orchard Centre, Rangunia, Chattogram.
26.	Assessment of latex yield of established clonal and	• Find out the high yielding latex productive clones.	Hayankoo Seed Orchard Centre,

Sl.	Research Title	Objective(s)	Location(s)
	seedling orchard of rubber (*Hevea brasiliensis*).		Fatikchari, Chattogram
PLANTATION TRIAL UNIT DIVISION			
27.	Growth performance of *Avicennia alba* and *Avicennia marina* in the western coastal belt of Bangladesh	• To select site suitability of two Avicennia species in the western coastal areas of Bangladesh. • To assess the growth performance of two baen species in the western coastal belt of Bangladesh.	Rangabali research station, Rangabali, Patuakhali and Char Kukri-Mukri research station, Charfasson, Bhola.
28.	Monitoring and maintenance of existing trial plantations in the coastal areas of Bangladesh	• To assess the growth performance and phenology of different mangrove and non-mangrove species at different char lands. • To develop future seed sources for sustainable coastal forest management.	Rangabali research station, Rangabali, Patuakhali; Char Kukri-Mukri research station, Charfasson, Bhola; Char Osman research station, Subarnochar, Noakhali and Sitakundu research station, Sitakundu, Chattogram.
29.	Introduction of *Kandelia candel* and *Bruguiera gymnorrhiza* in the western coastal belt of Bangladesh	• To assess the growth performance of these two species in the western coastal belt of Bangladesh. • To increase biodiversity in the western coastal belt.	Rangabali Research station, Rangabali, Patuakhali and Char Kukri-Mukri research station, Charfasson, Bhola.
30.	Trial plantation of hijal (*Barringtonia acutangula*), gab (*Diospyros peregrine*), palash (*Butea monosperma*) and kaophal (*Garcinia cowa*) in the coastal raised land of Bangladesh	• To assess the growth performance Hijal, Gab, Palas and Kawphal in the raised land of coastal areas for mono and mixed plantation. • To increase biodiversity in the coastal area.	Rangabali research station, Rangabali, Patuakhali; Char Kukri-Mukri research station, Charfasson, Bhola; Char Osman research station, Subarnochar, Noakhali and Sitakundu research station, Sitakundu, Chattogram.
MINOR FOREST PRODUCTS DIVISION			
31.	Germplasm conservation and management practices of different medicinal plants	• To authenticate the correct identification of medicinal plants • To conserve medicinal plants for scientific study and demonstration • To develop a gene pool of medicinal plants species for propagation purposes • To popularize cultivation and use of medicinal plants	BFRI Headquarters and Hinguli Forest Research Station.

Sl.	Research Title	Objective(s)	Location(s)
		• To determine management techniques for maximum yield of medicinal plants.	
32.	Development of vegetative propagation technique for cashew nut (*Anacardium occidentale* L.)	• To develop a vegetative propagation technique • To facilitate the production of planting materials to improve the yield of cashew nut	BFRI Headquarters
33.	Nursery techniques of three medicinal plants: putranjiva (*Drypetes roxburghii*), painna gula (*Flacourtia jangomas*) and chaulmoogra (*Hydnocarpus kurzii*)	• To develop nursery techniques for production of planting materials • To popularize cultivation and use of those medicinal plants	BFRI Headquarters
34.	Development of suitable nursery techniques of Cocoa (*Theobroma cacao* L.)	• To develop nursery techniques for production of planting materials • To popularize cultivation of the medicinal plants	BFRI Headquarters
35.	Screening of host/nurse plants for raising chandan (*Santalum album*) plantation	• To select suitable host plants for raising chandan plantation • To develop plantation and management techniques for sustain yield	BFRI Headquarters
FOREST PROTECTION DIVISION			
36.	Identification and Evaluation of Entomopathogenic Fungi to Control Lepidopteran Pests of Some Important Forest Tree species [Teak (*Tectona grandis* L.), Koroi (*Albizia* spp.) and Agar *(Aquilaria malaccensis* L.)]	• To evaluate the bio-efficacy of entomopathogenic fungal species on the Lepidopteran pests of Teak, Koroi and Agar tree. • To evaluate the suitability of different substrates for mass multiplication of entomopathogenic fungi.	Teak, Agar and Koroi growing areas of Bangladesh
37.	Investigation of Rain Tree Mortality in Bangladesh Due to Pest and Pathogen and Their Management	• To know the present status of Rain tree mortality at major Rain tree plantation areas of Bangladesh • To find out the causal pest and pathogens associate with massive mortality of Rain tree • To develop a suitable management technique for key pest and pathogens responsible for Rain tree mortality •	Rain tree mortality at major Raintree plantation areas (Khulna, Chattogram, Dhaka and Rajshahi) of Bangladesh
38.	Seed and Seedling Diseases of Five Important Forest Tree Species in Bangladesh and their Management [Garjan (Dipterocarpus pp.), Champa	• To record the incidence % of seed and seedling diseases of five important forest tree species at forest nurseries in different areas of Bangladesh.	Five important forest tree species at commercial forest nurseries in different

Sl.	Research Title	Objective(s)	Location(s)
	(Micheliachampaca), Raj koroi (Albiziarichardiana), Gamar (Gmelinaarborea) and Telsur (Hopeaodorata)]	• To isolate and identify the pathogen associated with seed and seedling diseases of important forest tree species in storage and field condition • To investigate the impact of seed born pathogen on seed germination and seedlings growth. • To develop a suitable management technique of seed and seedling diseases	areas of Bangladesh
39.	Biological Control of Three Commercially Cultivated Medicinal Plant diseases in Bangladesh [Shimul (Bombaxceiba L.), Satamuli (Asparagus racemosus) and Tulsi (Ocimum sanctum L.)]	• To identify antagonistic fungi and bacteria. • To develop a suitable management technique for biological control of major diseases of three commercially cultivated medicinal plants	Major medicinal plant cultivation areas of Bangladesh
40.	Trichoderma microbial fertilizer production from organic waste material and its evaluation on plant growth enhancement and disease control	• To convert organic waste materials (OWM) into organic manureby exploiting Trichoderma as effective microbes. • To evaluatethe formulated Trichoderma compost forplant growth enhancement and disease control as an alternative to chemical fertilizers.	Collection of organic waste materials from different location
SOIL SCIENCE DIVISION			
41.	Development of degraded hill for soil conservation and Watershed management in Baraiyadhala National Park, Sitakunda, Chattogram and Bandarban Hill District	• To rehabilitate the degraded hilly land for soil conservation and watershed management • To involve the local communities for sustainable land management	Goneshpara, Sualok of Bandarban Hill District and Sakrachari, Wagga of Kaptai, Rangamati Hill District
42.	Effect of bamboo plantation on soil erosion minimization in the coastal areas of Chattogram	• To observe the effects of different bamboo species on soil erosion minimization • To assess the growth and survival of different bamboo species in the coastal areas of Chattogram	Premasia, of Banshkhali, upazila and Bogachatar, and Bakkhali of Sitakunda upazila in Chattogram
43.	Assessment of soil quality for sustainable forest ecosystem of hill forest areas at Bandarban Hill District	• To assess the soil quality of different hill forest areas of Bandarban hill district • To observe the effects of soil quality of forest ecosystems	Alikadam upazila of Bandarban Hill District
44.	Effects of shifting (jhum) cultivation on soil properties, vegetation and livelihood in Rangamati Hill District	• To assess the effects of slashing and burning on soil properties • To measure soil erosion due to shifting cultivation	Wagga and Raikhali union of Kaptai upazila in

Sl.	Research Title	Objective(s)	Location(s)
	Red Oak) Species in Bangladesh	• To develop a hand lens key on anatomical properties of five species for determining better utilization of the wood.	
FOREST INVENTORY DIVISION			
50.	Development of mathematical model for estimating stem volume of jhau (Casuarina equisetifolia L) plantations in Bangladesh.	• To find out mathematical volume equation and table of jhau in the coastal plantations of Bangladesh. • To prepare relationship between base diameter and diameter at breast height of jhau.	Sea beach areas of Chattogram, Cox's Bazar and Patuakhali.
51.	An Inventory of Bamboo Resources Grown in the Teknaf Wildlife Sanctuary and its Adjacent Villages.	• An Inventory of Bamboo Resources Grown in the Teknaf Wildlife Sanctuary and its Adjacent Villages.	Teknaf Wildlife Sanctuary and its Adjacent Villages.
52.	Tree Resource Assessment of Homestead in the Northern parts of Bangladesh.	• To assess status of homestead biodiversity (Floristic and structural composition and plant utilization pattern) • To assess size/age class distribution of the species. • To assess carbon stock (above and below ground) in home garden.	Pabna, Rangpur Chapainawabganj, Noagoan, Bogra, Punchgor, Rajshahi and Dinajpur,
FOREST CHEMISTRY DIVISION			
53.	Super-hydrophobic coating of finished wood for more durability and self-cleaning.	• To develop a super hydrophobic coating for finished wood.	Bangladesh Forest Research Institute
54.	Extraction of agar oil by steam distillation	• Rapid processing and extraction of agar oil by steam-distillation to ensure higher yield.	Bangladesh Forest Research Institute
55.	Development of Latex-based Eco-Friendly Adhesive from Natural Rubber	• To synthesize novel bio-adhesives from NR and/or NRL that can meet the standard of traditional synthetic rubber-based adhesives. • To examine the effectiveness of the NRL-based bio-adhesives applied on different leather goods as well as wood-based applications.	Bangladesh Forest Research Institute
SEASONING AND TIMBER PHYSICS DIVISION			
56.	Determination of physical and mechanical properties of Farua (Bambusa polymorpha) and Membra bansh (Dendrocalamus membranaceus).	• To assess the suitability of bamboo species for various uses.	Seasoning and Timber Physics Division, Bangladesh Forest Research Institute, Chattogram.
57.	Application of solar heated kiln for determination of seasoning schedule of Ora bansh (Dendrocalamus longispathua) and Talla bansh	• To determine the seasoning schedule of Orabansh (Dendrocalamus longispathua) and Tallabansh (Bambusa longispiculata) round bamboo species.	Seasoning and Timber Physics Division, Bangladesh Forest

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51.	An Inventory of Bamboo Resources Grown in the Teknaf Wildlife Sanctuary and its Adjacent Villages.	• An Inventory of Bamboo Resources Grown in the Teknaf Wildlife Sanctuary and its Adjacent Villages.	Teknaf Wildlife Sanctuary and its Adjacent Villages.
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Sl.	Research Title	Objective(s)	Location(s)
	(Bambusa longispiculata) round bamboo species.		Research Institute, Chattogram.
WOOD WORKING & TIMBER ENGINEERING DIVISION			
58.	Characterization of Ghora neem (*Melia azadarach*) wood for working and finishing properties.	• To assess the suitability of Ghora neem (Melia azadarach) wood for furniture and other utilization purposes.	Wood Working & Timber Engineering Division, BFRI
59.	Characterization of Telsur (*Hopea odorata*) wood for working and finishing properties.	• To determine the physical and mechanical properties of wood. • To determine the treating schedule and the service life of treated wood. • To determine the maximum utilization of wood for ply and particle board manufacture. • To determine the characteristics of Telsur wood for working and finishing properties.	Wood Working & Timber Engineering Division, BFRI
VENEER AND COMPOSITE WOOD PRODUCTS DIVISION			
60.	Suitability of medium density fiberboard (MDF) made from Mahogany *(Swietenia macrophylla)* wood. **Study duration:** 2020-21 to 2022-23	• To determine the suitability of medium density fiberboard made from Swietenia macrophylla wood.	Veneer and Composite Wood Products Division, BFRI, Ctg
61.	Suitability of medium density fiberboard (MDF) made from Rain tree (*Samanea saman*) wood. **Study duration:** 2021-22 to 2023-24	• To determine the suitability of medium density fibreboard made from Rain tree (Samanea saman) wood.	Veneer and Composite Wood Products Division, BFRI, Ctg
62.	Characterization of mitinga (*Bambusa tulda)* bamboo for making bamboo composite lumber. **Study duration:** 2022-23 to 2023-24	• To determine the suitability of bamboo composite lumber made from mitinga (Bambusa tulda) bamboo • To evaluate treating schedule and the service life of treated mitinga bamboo	Veneer and Composite Wood Products Division, BFRI, Ctg
FOREST ECONOMICS DIVISION			
63.	Valuation of ecosystem services in Lawachara National Park, Moulvibazar.	• To assess the forest resources of the park. • To estimate total economic value of the identified provisioning, regulatory, cultural and support services. • To determine the livelihood dependency of local communities on ecosystem services (ES).	Lawachara National Park, Moulvibazar.

Sl.	Research Title	Objective(s)	Location(s)
		• To measure the importance of ecosystem services (ES). of the park to the public and decision makers. • Recommend the necessary measures for conservation of the park to sustain the ecosystem services (ES).	
64.	Community dependency on the Village Common Forests (VCFs) of Bandarban hill district.	• Socioeconomic status measurement of the Forest User Groups (FUG). • Assessment of forest resources of the selected VCFs. • Understanding the pattern of uses (Social and monetary) of forest resources.	Bandarban hill district. (Roangchari, Thanchi and Naikhyongchari Upazilla.)
WOOD PRESERVATION DIVISION			
65.	Efficacy of Calcium Fluoride and Magnesium Fluoride Nanoparticles for Wood Protection.	• To make a potential nano-metal fluoride particles-based wood preservative against brown rot fungi. • To assess the efficacy of nano-metal fluoride particles as a wood preservative against brown rot fungi on four low density wood species.	Wood Preservation Division, Bangladesh Forest research Institute, Chattogram.
66.	Evaluation of copper-azole as wood preservative.	• To evaluate treating schedule of copper azole treated wood. • To determine the service life of treated wood.	
67.	Characterization of Tetuya-koroi (*Albizia odoratissima* Benth.) wood for better utilization.	• To determine the treating schedule and the service life of treated Tetuya-koroi wood. • To determine the maximum utilization of Tetuya-koroi wood by manufacturing ply and particle board. • To determine the physical and mechanical properties of Tetuya-koroi wood. • To determine the working and finishing properties of Tetuya-koroi wood.	
PULP AND PAPER DIVISION			
68.	Development of Deinking Process from Used Paper as Fiber Material	• To explore a cost-effective and environment friendly deinking process of used book pulp • To prepare eco-friendly packaging fiber material.	Pulp and Paper Division Laboratory, Bangladesh Forest Research Institute, Chattogram.
Wildlife Section			
69.	Assessment of wildlife species diversity of Kadighar National Park, Mymensingh **Study Period:** (2022-23 to 2023-24)	• To identify the avian species of Kadighar National Park • To determine the abundance of the wildlife species of Kadighar National Park, Mymensingh	Kadighar National Park, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
		• To find out of feeding ecology and relation of wildlfe species with existing plants and habitat	
70.	Dependency of Birds and Mammals of Mohamaya Eco-Park, Mirsharai, Chattogram in relation to plant diversity. **Study Period:** (2021-22 to 2022-23)	• Survey of floristic Plant composition to find out dependency of Birds and Mammals of Mohamaya Eco-Park in relation to plant diversity. • To identify the different type of wildlife species of Mohamaya Eco-Park • To determine abundance of different type of wildlife species of Mohamaya Eco-Park • To identify the major threats to wildlife species of Mohamaya Eco-Park	Mohamaya Eco-Park, Mirsharai
Regional Bamboo Research and Training Center, Domar, Nilphamari			
71.	Introduction of site suitable bamboo species in Rangpur division of Bangladesh	• To find out the site suitable bamboo species for northern region of Bangladesh • To enhance the bamboo diversity and raw materials for value added products in northern part of Bangladesh	Khansama, Birampur, Boragari, Baghdokra, Kishoregonj and Hatibandha, a total of six locations in Rangpur division

COTTON DEVELOPMENT BOARD

CDB

COTTON DEVELOPMENT BOARD

Sl.	Research Title	Objective(s)	Location(s)
BREEDING DISCIPLINE			
1.	Non-Replicated Progeny Row Trial of Upland cotton	• To select the superior genotypes for new acquisition trials.	Cotton Research Center (CRC), Mahigonj Farm.
2.	Screening of mutant cotton (Gossypiumhirsutum) genotypes in hilly area	• To identify the suitable genotypes for hilly area	CRS. Balaghata, Bandarban.
3.	Replicated Progeny Row Trial of Upland cotton	• To select the superior genotypes for new acquisition trials	CRC, Mahigonj. Rangpur.
4.	Preliminary yield trial of Upland Cotton	• To test the yield and quality performance of some newly promising lines through comparing their agronomic and ginning characters with existing standard cultivars.	CRC, Rangpur, Dinajpur, Jashore & Gazipur.
5.	Advance yield trial of Upland Cotton	• To compare the agronomic, ginning and quality performance of some advanced lines with superior existing cultivars that currently being multiplied for release to farmers.	CRC, Rangpur, Dinajpur, Jashore & Gazipur
6.	Candidate variety Trial / Zonal Yield Trial of Upland Cotton	• To test the yield and adaptability of some advanced lines with the existing cultivars at zonal level in farmers field that currently being multiplied for release to farmers.	13 (Thirteen) Zones of CDB.
7.	Evaluation of Introduced Chinese Hybrid Cotton	• To test the adaptability and yield potentiality of the hybrids	CRC, Jashore
Germplasm evaluation: 2022-2023			
8.	Evaluation and Characterization of Some Materials of Upland Cotton	• To select the superior genotypes for new acquisition trials. • To evaluate the yield and quality performance of some lines.	CRC, Jagadishpur
Mutation Breeding 2022-2023			
9.	Non-replicated progeny rows of M5 generation	• To evaluate the performances of mutant genotypes in M5 generation.	CRCs, Sreepur, Gazipur;
10.	Replicated progeny rows of M6 generation	• To evaluate the performances of mutant genotypes in M6 generation.	CRCs, Sreepur, Gazipur
11.	Evaluation of mutant genotypes under high	• To evaluate the performances of mutant genotypes in M6 generation under high	CRCs, Sreepur,

Sl.	Research Title	Objective(s)	Location(s)
	density planting system	density planting system.	Gazipur
12.	Evaluation of mutant genotypes under high density planting system at Farmers field	• To find out the optimum spacing for mutant variety at Zonal level in farmers' field.	13 Zones of CDB
13.	Evaluation of the Cotton Mutant Varieties Obtained from IAEA	• To know the performances of the mutant varieties obtained from IAEA in comparison with CDB developed varieties by reducing plant spacing	CRC, Jagadishpur,Jashore.
14.	Effect of mutation on SR-25 Tree cotton (Gossypiumarboreum)	• To find out the better performing mutant of SR- 25 Tree cotton	CRC, Sreepur, Gazipur
Agronomy Discipline:2022-2023 (Revenue Budget)			
15.	Effect of Planting Arrangement on Yield and Yield Contributing Characters of Cotton	• To Know the Effect of Planting Arrangement on Yield and Yield Contributing Characters of Cotton	CRC, Sreepur, Gazipur
16.	Performance of natural colour cotton under organic cultivation method.	• To find out the performance of different color cotton germplasm following the standard operative procedures of organic farming.	CRC, Sreepur, Gazipur
17.	Evaluation of High-Density Planting System (HDPS) in Cotton under different Cultivation Practices.	• To evaluate cultivation practice, plant spacing and sowing method in HDPS. • To observe insect and disease abundance in HDPS. • To estimate economics of HDPS and cultivation practice.	Cotton Research Centre, Sreepur, Gazipur, Sadarpur, Dinajpur and Jagadishpur, Jashore.
18.	Comparative study on different weed control practices in cotton	• To determine the effect of different weed control measures on the growth and yield of cotton • To determine the efficiency of different measures in terms of labor and cost.	CRC, Sreepur,Gazipur
19.	Effect of plant population density on growth and yield of cotton variety CB- 15	• To investigate the effect of plant population density on cotton growth • To understand how to make the most efficient use of plant population to incorporate into Production strategies.	CRC, Sreepur
20.	Intercropping of Cotton with Jute Seed Crop	• To know the compatibility of jute seed for intercropping with cotton	CRC, Rangpur, Dinajpur, Jashore Gazipur & Bandarban
21.	Intercropping of Cotton with Onion	• To know the compatibility of onion for intercropping with cotton	CRC, Rangpur, Dinajpur, Jashore Gazipur & Bandarban
22.	Intercropping of Cotton with ground nut	• To know the compatibility of ground nut for intercropping with cotton	CRC, Sreepur, Gazipur

Sl.	Research Title	Objective(s)	Location(s)
23.	Intercropping of Cotton with black gram	• To know the compatibility of black gram for intercropping with cotton	CRC, Sreepur, Gazipur
ENTOMOLOGY DISCIPLINE			
24.	Testing of some insecticides against cotton sucking pest	• To find out the of insecticides to control sucking pest in cotton field.	CRS, Balaghata, Bandarban
25.	Impact of cotton growth regulator and cultivars on Jassid infestation	• To know the impact of growth regulator and cultivars on jassid infestation	CRC, Sreepur, Gazipur
26.	Bio-efficacy of Beaureria bassiana against Boll worm	• To know the effectiveness of *Beaureria bassiana application* against Boll worm • (*Helicoverpa armigera*) larvae	CRC, Sreepur, Gazipur
27.	Baseline Information of pest and beneficial insects Bio-diversity of Coton in Bangladesh	• To study the pest and beneficial insects diversity in cotton ecosystem in BD. • To study the population dynamics of pest and beneficial insects in cotton ecosystem.	Coton research centre Sreepur & BAU Research Field
PATHOLOGY DISCIPLINE			
28.	Efficacy of fungicide to control boll Rot of cotton	• To identify effective fungicide to control ball Rot	CRC, Sreepur, Gazipur
29.	Effect of fungicides on seedling disease of cotton	• To compare the effectiveness of applied fungicides. • To reduce the mortality rate of cotton seedlings.	Cotton Research Centre, Rangpur.
Research of DCRTT Project			
BREEDING DISCIPLINE			
30.	Hybrid Seed Production Program.	• To Produce hybrid seed for distribution among the farmers	Cotton Research Farm, Jagodishpur, Jashore.
31.	Breeder Seed Production Program of Different Cotton Genotypes/lines through selfing.	• To Produce Breeder seed for the maintenance of varietal purity	Cotton Research Farm, Jagodishpur, Jashore.
AGRONOMY DISCIPLINE			
32.	Evaluation of cotton-based cropping patterns	• To determine suitable cotton- based cropping pattern • To increase the return from a unit area of land • To utilize fellow land	Cotton Research Center, Jagadishpur, Jashore
33.	Effect of plant spacing and Irrigation methods on growth yield and fibre quality of cotton in salain area.	• To find out suitable plant spacing for growth, yield and yield of cotton • To identify the irrigation technique for growth, yield and yield of cotton.	Amtoly, Borguna

Sl.	Research Title	Objective(s)	Location(s)
34.	Intercropping of cotton with mungbean	• To know the compatibility of Mungbean for intercropping with cotton	Cotton Research Farm, Sreepur
35.	Effect of different plant spacing on cotton yield and yield contributing characters of CB- 14/JA-14/8	• To find out the suitable spacing for the highest seed cotton yield	CRC, Jagadishpur, Jashore
36.	A comparative study on effects of mulching and foliar application of drought mitigation chemicals on growth, yield and fiber quality of cotton under rain-fed conditions	• To find out adaptation technology for cotton production in barind tract. • To find out agronomic management technology for cotton production in barind tract.	CRS, Chapainawabganj.
37.	Effect of intercropping and balanced nutrient management for sustainable cotton production under rain-fed condition.	• To find out suitable intercropping practice and nutrient management for higher productivity and economic return.	CRS, Chapainawabganj.
38.	Effect of doses and application times of mepiquat chloride on growth and yield of cotton	• To find out appropriate doses of MC for cotton production without affecting yield and fiber quality of cotton. • To find out application times of MC for better yield and quality of cotton.	Cotton research sub-station, Chapainawabganj.
39.	Effect of sowing time and methods on yield and crop duration in cotton (G hirsutum)	• To find out the effect of sowing time on crop duration and yield • To find out the effect of seedling age on crop duration and yield.	Cotton Research Centre, Rangpur. Sadarpur, Dinajpur.
SOIL SCIENCE DISCIPLINE			
40.	Determination of Optimum Dose of NPKS for CDB tula M1	• To find out the optimum dose of NPKS for yield maximization of CDB tula M1	Cotton Research Farm, Sreepur
41.	Effect of organic fertilizer on yield and quality of cotton and nutrient content of soil	• To estimate the effect of organic fertilizers on yield and quality of cotton. • To determine the nutrient status of the soil after harvesting of the crop. • To determine the organic matter content of the soil after harvesting of the crop.	Cotton Research Farm, Jashore. and Cotton Research Farm, Sreepur
ENTOMOLOGY DISCIPLINE			
42.	Effectiveness of some Insecticides against cotton Jassid	• To find out the best insecticides against cotton Jassid	Cotton Research Farm, Sreepur
PATHOLOGY DISCIPLINE			
43.	Survey of Cotton Diseases in Bangladesh	• To know the occurrence and severity of cotton diseases at Different Location	5 locations(farm) and fields

Sl.	Research Title	Objective(s)	Location(s)
44.	Social and economic impact assessment of cotton farming in Bangladesh.	• To know the socio economic and demographic characteristics of farmers that adopt cotton cultivation • To know the main barriers and facilitators of cotton cultivation in Bangladesh • To understand socio-economic outcomes of cotton farmers in Bangladesh	100 farmers interview all over Bangladesh
Collaborative research of DCRTT Project			
AGRONOMY DISCIPLINE			
45.	Reducing Field Duration of Robi Cotton through Seedling Transplanting Technique under Intercropping Practice with Mung bean	• To shorten the field duration of the cotton without significant compromise of yield • To evaluate the cotton-based cropping pattern.	PSTU
46.	Performance of cotton under sole and inter-cropping practice	• To find out suitable intercropping practice of different crops with cotton.	PSTU
BREEDING DISCIPLINE			
47.	Induced mutation for the evolution of desirable plant architecture in upland cotton (gossypiumhirsutum)	• Creation of new variabilities for quantitative and qualitative characters in upland cotton. • Remodeling of plant architecture emphasizing on dwarfness, compact canopy structure profuse boll setting and short duration. • Selection of insect resistance and high lint fiber yielding mutants with a view to develop new cotton varieties.	Cotton Research Centre, Sreepur, Gazipur
48.	Selection of drought tolerant genotypes through morphological traits and QTL mapping of upland cotton (Gossypiumhirsutum L.)	• Selection of early picking of genotypes • Identification of genotypes tolerant in drought condition.	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research farm Sreepur, Gazipur
49.	Evaluation of Promising Short Duration Cotton Genotypes Selected from Segregating Population	• To know the performance of fiber yield and quality traits of selected genotypes / advanced lines, • To select the best genotypes from the segregating generation for the development of new short duration cotton variety	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Researchfarm Sreepur, Gazipur
50.	Genome-wide Association to Study Genetic basis of Fiber Yield and Quality Traits	• To understand the genetic mechanisms responsible for fiber yield and quality traits • To identify and mine fiber yield and quality related quantitative trait loci (QTLs) and	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and

Sl.	Research Title	Objective(s)	Location(s)
	in Upland Cotton	genes	Research,farm Sreepur, Gazipur
51.	Development of Mapping Population by Crossing Selected Parents with Resistance and Susceptible Traits	• To develop F1 generation	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research Farm Sreepur, Gazipur
52.	Development of 8-way Magic Population through Crossing of Selected Genotypes-I	• To get F1 generation of 4 hybrid combinations of 8 selected parental genotypes	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Farm, Sreepur, Gazipur
Joint Cotton Research Program under Bangladesh- Turkey- Islamic Development Bank RL project			
53.	Evaluation of Turkish varieties under High Density Planting System (HDPS)	• To know the adaptability of Turkish varieties in Bangladesh under HDPS	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
54.	Evaluation of Turkish varieties under High Density Planting System (HDPS)	• To know the adaptability of Turkish varieties in Bangladesh under HDPS	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
55.	Evaluation of Turkish varieties under High Density Planting System (HDPS)	• To know the adaptability of Turkish varieties in Bangladesh under HDPS	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
56.	Non-replicated progeny rows trial	• Agro-morphological characterization of Turkish varieties	Jagadishpur, Jashore
57.	Effect of Variety and fertilizer rates on cotton yield under high density planting system	• To know the fertilizer rates suitable for high density planting system	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
58.	Growing of F2 Hybrid seed	• To develop new cotton varieties following pedigree method	Mahigonj, Rangpur; Sreepur, Gazipur

BANGLADESH SERICULTURE RESEARCH AND TRAINING INSTITUTE

BSRTI

Bangladesh Sericulture Research and Training Institute

SL No	Research Title	Objective(s)	Location(s)
MULBERRY SECTION			
MULBERRY BREEDING			
1.	Collection Conservation of mulberry Genetic Resources and Development of Mulberry Varieties.	• To increase the genetic materials of mulberry for further varietal development.	BSRTI, Rajshahi.
2.	Collection conversation and evaluation of mulberry genetic resources.	• To select the develop varieties from open pollinated seeds.	
3.	Selection of developed mulberry varieties from open pollinated seeds.	• To available the mulberry genotype superior to the existing genotype.	
4.	Development of mulberry varieties through hybridization.	• To develop the high yielding mulberry varieties.	
SILKWORM SECTION			
5.	Conservation and evaluation of Silkworm genetic resources.	• To conserve and evaluate the Silkworm genetic resources in order to maintain the Silkworm germplasm bank in our country.	BSRTI, Rajshahi.

BANGLADESH FISHERIES RESEARCH INSTITUTE

BFRI

BANGLADESH FISHERIES RESEARCH INSTITUTE

Sl.	Research Title	Objective(s)	Location(s)
FRESH WATER STATION			
1	Stock improvement of major carps (Rui & Catla) and DNA barcoding of Important freshwater fishes in Bangladesh (July 2020 - June 2023)	• To improve Rohu and catla stocks using DNA technology • To analyze genetic variability of Rohu and catla stocks using DNA markers • To identify freshwater fishes at the species level based on DNA barcoding data	Freshwater Station, Mymensingh
2	Conservation and seed production of indigenous fish species in Bangladesh (July 2020 - June 2023)	• To refine breeding technique of dhela (*Osteobrama cotio*) and rani (*B. dario*) for mass seed production • To develop nursery and culture technique of dhela (*O. cotio*) and rani (*B. dario*) in ponds under different stocking density • To collect & domesticate hiralu (*Barilius bendelisis*), gang tengra (*Gagata youssoufi*) and garua (*Clupisoma garua*) • To investigate the efficacy of different hormones doses for induced breeding of hiralu (*Barilius bendelisis*), gang tengra (*Gagata youssoufi*), mohashoal (*T. tor*) and garua (*Clupisoma garua*) • To collect indigenous freshwater fish species from different regions for live gene-bank	
3	Identification of etiological agents responsible for fish diseases using pcr techniques and mitigation measures (July 2020 – June 2023)	• To isolate and identify the causal agents responsible for fish diseases with special references to pabda and gulsha • Detection of etiological agents based on PCR techniques • To determine the antibiotic resistivity of isolated pathogens. • To find out the protective measures against diseases	
4	Ecological assessment of inland open water fisheries population with bio-physicochemical properties to frame EBFM approach (Comp-A) (July 2020- June 2023)	• To estimate population ecology and diet composition of available inland (*haor & beel*) open water fishes • To assess the bio-physicochemical properties of inland water bodies with seasonal variation • To assess stock of available major fish groups through using modern techniques based on catch and CPUE data • To assist for farming or formulating ecosystem based management approach for inland open waters with emphasizing to increase productivity and conservation of fisheries resources	
5	Improvement of breeding and culture technique of cuchia, *M. Cuchia* (July 2021 - June 2024)	• To refine fry to fingerling of *Monopterus cuchia* rearing technology using different types of feed; • To refine cuchia breeding technology using different types of feed ingredients with various stocking density in pond/cistern ecology; • To disseminate control breeding and baby eel rearing technology	

Sl.	Research Title	Objective(s)	Location(s)
6	Improving feed formulation and quality from conventional and non-conventional feed ingredients supplementation with amino acids for commercially important fish farming (July 2020 - June 2023)	• To optimize dietary protein to energy ratio (P/E ratio) • To evaluate the effect of supplementation limiting amino acids in the formulated diets for commercially important fish species; • Todevelop feed formulation and quality from conventional and non-conventional feed ingredients for fish farming; • To recommend the potential limiting amino acids as feed additives in the formulated diets	Freshwater Station, Mymensingh
7	Production performance of hairy river prawn, *Macrobrachium rude* with feed and fertilizer in pond condition (July 2020 - June 2023)	• Explore the triggering factor of natural production of small prawn in pond without stocking • Development of nursing technique of gurachingri, *M. dayanum* • Development of poly-culture technique of gurachingri, mola and Jaitputi fish • To produce improved quality post larvae (PLs) of *Macrobrachium rosenbergii* through proper genetic techniques and disseminate to the fish farmer/hatchery owners	
8	Development of YY GIFT production using marker assisted selection and quality bi-sex seed production of GIFT strain through Cohort breeding (July 2021 - June 2024)	• To develop MAS-selected YY super-males • To produce of quality mass seed of GIFT strain using Rotational Breeding	
9	Breeding biology of commercially important freshwater mollusks and development of culture techniques with fish (July 2021 - June 2024)	• To investigate breeding biology of commercially important mollusk (mussel and snail) available in Bangladesh • To develop breeding technique and culture system of mollusk in confined condition and pond ecosystem	
10	Development of breeding technique of snakehead fish (July 2021 - June 2024)	• Collection & domestication of various types of Snakeheads • Study of the reproductive biology of Snakeheads • Development of control & induced breeding technique of Snakehead	
11	Improved germplasm production of carps, white pangus and pure-line breeding of kalibaus (*Labeo calbasu*) (July 2021 - June 2024)	• To upgrade & produce Quality seeds of carps, Suborno rui, Catfish & distribute to the fish farmer/hatchery owners • To develop live gene bank with quality brood stocks through implementation of effective breeding plan • To produce improve pure-line stocks of kalibaus through cross breeding & mass selection techniques • To evaluate the growth performance of selected pure breeds with non-selected breeds of kalibaus (Generation to generation)	Freshwater Station, Mymensingh

Sl.	Research Title	Objective(s)	Location(s)
12	Culture of indigenous small fishes in biofloc aquaculture system (July 2019 - June 2023)	• To optimize the stocking density of shing, *Heteropneusteus fossilis* and pabda, *Ompok pabda,* gulsha, *Mystus cavasius* in Biofloc system • To evaluate the growth & production of prawn, *M. rosenbergii* in Biofloc system • To evaluate the growth & production of magur, *Clarias batrachus* in Biofloc system (2021-2022) • To analyse the economic benefits of Biofloc system	
13	Upgradation of pearl quality using different techniques in freshwater mussel (July 2022 - June 2025)	• To improve pearl quality by using different techniques in lab condition • To reduce mortality rate of operated freshwater mussel by using different treatment • To expand the technology through field trial of image pearl culture	
14	Ecological assessment of inland openwater fisheries population with bio-physicochemical properties to frame EBFM approach (comp. B, FSS) (July 2020 - June 2023)	• To estimate population ecology and diet composition of some commercially significant inland open water (beel) fishes • To assess bio-physicochemical properties of inland waterbodies with then seasonal variation • To assess stock of commercially significant open water fishes through using modern techniques based on catch and CPUE data • To assist for framing or formulating ecosystem-based management approach for inland open waters with emphasizing to increase productivity and conservation of the fisheries resources	Freshwater Sub-station, Santahar
15	Development of induced breeding and culture techniques for Gangetic endangered fish species (July 2020 - June 2023)	• Refinement of induced breeding techniques of the batashi and pialy • Development of induced breeding technique of the kajoli • Development of nursing and culture technique of batashi and pialy	
16	Species availability and develop a suitable technology of fermented dried fish product (Shidol) in flood plain region of Bangladesh (July 2021 - June 2024)	• Survey of the available SIS species for Shidol production • To analyze the proximate composition and nutritive value of Shidol. • To develop suitable technology of Shidol production	
17	Assessment of existing hatchery management practices and dissemination of BFRI evolved improved germplasm in Joshore region. (July 2022 - June 2025)	• To assess the present status of fish seed production and its marketing channel in Jashore • To identify the major problems and constraints in fish hatchery and nursery management • To evaluate the role of value chain actors and their functions for producing quality fish • seed • To standardize the fish seed production, marketing system and value chain in Jashore	Freshwater Sub-station, Jashore

Sl.	Research Title	Objective(s)	Location(s)
18	Development of breeding and culture technique of needle fish and river catfish (July 2021 - June 2024)	• To develop breeding and larval rearing technique of kakila fish in captive condition • To domesticate and brood development of tatkini fish in captive condition • To develop breeding and larval rearing technique of tatkini fish in captive condition • To develop culture technique of kakila and tatkini fish in captive condition	Freshwater Sub-station, Jashore
19	Ecological assessment of inland open water fisheries (Baor) population with bio-physicochemical properties to frame EBFM approach (Comp. C, FSS, Joshore) (July 2020 - June 2023)	• To estimate population ecology and diet composition of some commercially significant inland open water (baor) fishes • To assess bio-physicochemical properties of inland waterbodies with then seasonal variation • To assess stock of commercially significant open water fishes through using modern techniques based on catch and CPUE data • To assist for framing or formulating ecosystem-based management approach for inland open waters with emphasizing to increase productivity and conservation of the fisheries resources	
20	Present status of aquatic biodiversity of Teesta and its adjacent rivers (July 2022 - June 2025)	• To find out the present status of Teesta river adjacent to Rangpur, Nilphamari and Lalmonirhat district. • To identify the major threats of declination of fisheries resources. • To estimate the relationship among primary productivity, water quality and fish abundance.	Freshwater Sub-station, Saidpur
21	Domestication and conservation of some important threatened stream fishes in Northern part of Bangladesh (July 2018 – June 2023)	• To collect the selected fishes from wild sources; • To study the reproductive biology of the fishes; • To domesticate and brood development of the fishes in captive condition; • To determine the reproduction response of the selected fishes to different doses of natural and synthetic hormones in captive condition; and • To develop the larvae and nursery rearing techniques of the selected fishes in captive condition.	
22	Culture suitability of *Barilius barila*, *Labeo angra* and *Labeo dero* under polyculture in farmers pond of Northern region of Bangladesh (July 2021 - June 2024)	• To evaluate the production potential of *Barilius barila, Labeo angra* and *Colisa fasciatus* with short-cycle species in the seasonal water bodies of farmers field • To assess the water quality parameters of cultural water bodies • To assess the BCR of culture technologies; and • To disseminate suitable culture techniques of *Barilius barila Labeo angra* and *Colisa fasciatus* in different aqua-ecological zones in the northern part of Bangladesh.	
23	Climate change and anthropogenic actors affecting fisheries resources	• To determine the effects of climate change on bio-physicochemical parameters of water and water quality index	Riverine Station, Chandpur

Sl.	Research Title	Objective(s)	Location(s)
	and livelihoods in riverine ecosystem of Bangladesh (July 2022 - June 2027)	• To determine the effects of climate change on riverine fish species diversity • To determine the effects of climate change on livelihood of riverine fishers along the Meghna River basin in Bangladesh • To know the present status of the impact of climate change in riverine ecology, fish diversity and livelihood of the fishers	
24	Domestication and conservation of commercially important threatened riverine finfish (July 2022 - June 2027)	• To collect the riverine fish from wild sources • To study the food, feeding habits and reproductive parameters of the collected fishes • To develop the brood management techniques of the fishes in captive condition • To develop the induced breeding techniques of the selected fishes in captive condition • To develop the nursery rearing techniques of the selected fishes in captive conditions • To assess the growth and yield performance of selected fishes in captive condition	Riverine Station, Chandpur
25	Niche characterization of Meghna River basin: eco-morphological and hydrodynamic modeling (July 2021-June 2024)	• To formulate GIS-based models to picterize effects of different ecological traits • To generate spatio-temporal models of ecological risk factors in context of Meteorological alterations, interaction between different traits, ecological degradation • To develop models of geo-morphological and Hydro dynamic aspects using GIS • To produce GIS-based models for characterization of entire niche to assess suitability	
26	Ecological assessment of inland open water fisheries population with bio-physicochemical properties to frame EBFM approach (Comp-D, RS, Chandpur) (July 2020 - June 2023)	• To estimate population ecology and diet composition of some commercially significant inland open water fishes(especially *haor* and *beel* resident fishes) • To assess bio-physicochemical properties of some selected inland water bodies (*haors* and *beels*) including seasonal variation and impact assessment of agro-chemicals level • To assess stock and biomass of some important ecological fish groups i.e. planktivores, herbivores, detrivores, carnivores & omnivores based on catch and CPUE data • To formulate ecosystem-based management approach of some major inland open water bodies (especially *haors* and *beels*) with emphasizing to increase productivity, stock enhancement and conservation of the fisheries resources	
27	Impact of lunar periodicity, saline intrusion, rainfall and water discharge on hilsa fisheries in a changing climate in	• To determine the effects of lunar periodicity and tidal fluctuations on hilsa breeding and production • To assess the extent and intensity of saline intrusion on hilsa navigation route in Bangladesh and its impact on hilsa abundance and distribution	

Sl.	Research Title	Objective(s)	Location(s)
	Bangladesh (July 2021-June 2024)	• To determine the impacts of rainfall and water discharge on hilsa production • To estimate the impact of physicochemical parameters on hilsa production • To update hilsa management interventions and policy guidelines	
28	Estimation of nutrient flux and primary productivity in the major nursery grounds of hilsa (July 2020-June 2023)	• To assess the primary productivity of nursery grounds of hilsa • To study the factors affecting primary productivity of nursery grounds of hilsa • To assess the carrying capacity of nursey grounds of hilsa	
29	Assessment of effectiveness of existing hilsa sanctuaries for	• Reassess the previously identified spawning and nursery grounds • Identification of spawning and nursery grounds of	
30	Diversity of adaptive gear and their impact on Kaptai Lake fisheries (July 2019 – June 2023)	• To identify the traditional/improvised gear used in the Kaptai Lake • To determine the CPUE and catch composition • Cataloging fish and gear of Kaptai lake • To analyze cumulative length frequency	Riverine Sub-station, Rangamati (Revenue-3)
31	Ecological assessment of inland open water (Kaptai lake) fisheries population with bio- physicochemical properties to frame EBFM approach (Comp.-E, RSS) (July 2020 - June 2023)	• To estimate population ecology and diet composition of some commercially significant fishes of Kaptai Lake. • To assess stock and biomass of some important ecological fish groups i.e. planktivores, herbivores, detrivores, carnivores & omnivores based on catch and CPUE data • To assess bio-physicochemical properties of above water bodies including seasonal variation • To formulate ecosystem based management approach for Kaptai Lake with emphasizing to increase productivity, stock enhancement and conservation of the fisheries resources	
32	Refinement and validation of culture technology of cuchia in hill tract districts (July 2021-June 2024)	• To develop breeding technique of *M. cuchia* • To disseminate the *M. cuchia* culture in Chittagong Hill Districts • To popularize cuchia culture in Hill tract area	
33	Adoption of culture techniques and bioactive compound analysis of commercially important seaweeds in the Mid-Southern coast of Bangladesh (July 2022-June 2025)	• To introduce seaweed culture practice at the Kuakata coastline and the Sundarbans areas • To analyze proximate composition and mineral content of commercially important seaweeds in the region • To assess heavy metals in the commercially important seaweeds • To develop and isolate bioactive compounds from seaweeds • To develop different value-added products from seaweeds	Riverine Sub-station, Khepupara

Sl.	Research Title	Objective(s)	Location(s)
34	Domestication and captive breeding of brackishwater finfish species at Patuakhali region (July 2022-June 2025)	• To identify the present status of fish diversity in major river ecosystem in Patuakhali region • To domesticate and breeding of commercially important finfishes • To determine the impacts of meteorological variables on the physicochemical and biological parameters	
35	Development of mariculture practice of seabass (*Lates calcarifer*) in the South-West coast of Bangladesh (Comp. C, RSS, Kepupara) (July 2021 – June 2024)	• To develop cage culture technique of Seabass in coastal water of Bangladesh • To develop brood of Seabass in coastal environment. • To study growth and survival of Seabass in net cage.	
36	Development of integrated multi-trophic aquaculture systems in South-West coast of Bangladesh (July 2022-June 2025)	• To optimize species combination and stocking density • To maximize production and economic return for ensuring food security	Brackish water Station, Khulna
37	Population dynamics of important fish and shell fishes in the Sundarbans mangrove of Bangladesh (July 2021- June 2024)	• To assess abundance and to estimate growth parameters of species; • To calculate the mortality rate and exploitation level of important species; and • To identify vulnerable size groups of fishes/shellfishes in the Sundarbans.	
38	Potentiality of aquatic weed as alternative feed ingredients for the development of cost-effective fish feed for coastal aquaculture (July 2021 – June 2024)	• To investigate the status of available aquatic weed in South-west region and make inventory based on morphometry and DNA barcode analysis • To observe the nutritional status (macro & micro elements) of important aquatic weed • To examine the potentials of explored weed as dietary ingredients in fish feed • To know the effect of aquatic weed in fish immune system	
39	Domestication, reproductive biology, breeding, and culture of indigenous brackishwater prawns under captive conditions (July 2021-June 2024)	• To domesticate brackishwater prawns under captive condition for brood stock development • To investigate the reproductive biology (fecundity, GSI, breeding time, embryonic development, etc.) of the prawns • To develop breeding and larvae rearing protocol of the prawns	
40	Improvement of soft-shell mud crab (*Scylla olivacea*) culture technique in South-West coastal region of Bangladesh (July 2020–June 2023)	• To observe the effect of environmental conditions (salinity variations and aeration) on molting efficiency of mud crab; • To observe the effect of physical stress (limb trimming) on molting of mud crab; and • To compare the performance of soft-shell shedding between hatchery produced and natural crablets.	

Sl.	Research Title	Objective(s)	Location(s)
41	Domestication, breeding and seed production of some commercially important brackishwater fishes (July 2021 – June 2024)	• To domesticate the commercially important fishes of brackishwater environment. • To observe the feeding habit and reproductive biology of the fishes • To develop induced breeding, seed production and nursery management technique of the fishes	
42	Application of Nano particles (NPs) as feed additives and efficient therapeutic strategy for shrimp health management (July 2022-June 2025)	• To explore antimicrobial capabilities of different NPs against infectious pathogens of shrimp • To develop an efficient feed additive for feed industry • To assess the biocompatibility of using NPs	Shrimp Research Station, Bagerhat
43	Effect of *Najas* sp. on physico-chemical parameters of soil, water and immunogenic properties in shrimp (*P. monodon*) farming (July 2021 – June 2024)	• To assess the primary productivity and soil, water quality of pond • Comparative study on microbial community and shrimp health status • To assess the bioactivity of *Najas sp.*	
44	Prophylactic and nutritional properties of algal supplements as larval molting promoter and immune modulator in shrimp and prawn aquaculture (July 2021 – June 2024)	• To develop pathogen checklist for prawn hatchery • To infer prophylactic activity of different natural sources • To develop improved larvae rearing technique using enriched artemia, higher nutrient rich compounds and probiotics • To develop medicated feed for shrimp and prawn culture	
45	Refinement of existing organic shrimp (*Penaeus monodon*) farming using eco- friendly management protocol in southwest region of Bangladesh (July 2021– June 2024)	• To assess the present status of organic shrimp (*P. monodon*) farming in southwest region of Bangladesh • To mitigate the gaps of existing culture practices according to the standard protocol	
46	Biochemical analysis of bottom soil of ghers in relation to shrimp production (July 2022-June 2025)	• To study the available agrochemicals and existing biodiversity of shrimp and prawn • To determine the residual concentration of agrochemicals in shrimp and prawn and their toxicological risk • To develop an easily affordable processing technique for the reduction of pesticides residue loads from raw shrimp and prawns	
47	Isolation, production and development of indigenous microalgae based live feed supply chain for Shrimp Hatchery (July 2022-June 2025)	• To isolate commercially important live feed from the Bay of Bengal • To utilize live feed as ready primary feed for various marine larvae • To develop a portable photo-bioreactor model to facilitate pure live feed stock culture at field level	Marine Fisheries & Technology Station, Cox's Bazar
48	Identification and culture practice of commercially	• To make a detailed inventory of available seaweed species in Bangladesh coast	

Sl.	Research Title	Objective(s)	Location(s)
	important Seaweeds in Bangladesh coast (July 2021 – June 2024)	• To develop culture technique (indoor to field) of selected seaweed in St. Martin and other suitable areas • To develop *in-vitro* tissue culture technique of some selected seaweed species • To develop value added products from selected seaweeds • Genetical identification of seaweeds available in our coast	
49	Development of breeding, seed production and nursery techniques of seabass, *Lates calcarifer* (July 2018 – June 2023)	• To study the reproductive biology of Seabass • To develop the captive brood Seabass • To confirm the hormones and standardize the dosages in breeding of Seabass. • To develop the larval rearing technique of Seabass. • To develop the nursery technique of Seabass.	Marine Fisheries & Technology Station, Cox's Bazar
50	Development of mariculture practice of some important finfishes (seabass, mullet) in the South-East Coast of Bangladesh (Comp. B) (July 2019 – June 2024)	• To develop a proper nursery and grow-out management protocols for cage culture of suitable species (Mullets, Seabass). • To optimize stocking density and evaluate production performance in cage culture. • To develop suitable species (Mullets, Seabass) cage culture co-management practice through pilot project.	
51	Breeding and culture potential of marine oyster and green mussel in the Bay of Bengal Bangladesh Coast (Comp. A) (July 2021 – June 2024)	• To develop culture techniques of oyster and green mussel in Cox's Bazar and other suitable areas • To develop breeding techniques of oyster in captivity • To develop larval rearing techniques of oyster	
52	Domestication and breeding of blue swimming crab (*Portunus pelagicus*) and horseshoe crab (*Tachypleus gigas*) of the Bay of Bengal Bangladesh (July 2021 – June 2024)	• To domesticate the blue swimming crab (*Portunus pelagicus*) and horseshoe crab (*Tachypleus gigas*) broodstock under captive/ hatchery conditions. • To develop breeding technology of blue swimming crab (*Portunus pelagicus*) in captive/hatchery conditions. • To develop larval and nursery management technique of blue swimming crab. • To isolate commercially important microalgae from Bay of Bengal and investigate its habitat	
53	Assessment of stock and standardization of the spawning potential ratio (SPR) of commercially important marine fish groups of Bangladesh (July 2021 – June 2024)	• To estimate the life-history characteristics and stocks of commercially important marine fish species (Tuna and Mackerels) of Bangladesh • To estimate the biological reference points (BRP) of Tuna and Mackerels. • To standardize Spawning Potential Ratio (SPR) of Tuna and Mackerels	

BANGLADESH LIVESTOCK RESEARCH INSTITUTE

BLRI

BANGLADESH LIVESTOCK RESEARCH INSTITUTE

Sl.	Research Title	Objective(s)	Location(s)
ANIMAL PRODUCTION RESEARCH DIVISION			
A. Discipline/Program area: Animal and Poultry Breeding and Genetics			
1	Strategic development of beef cattle in Bangladesh	• To develop suitable beef breed (s) using selective exotic beef sire (s) and native dams • To develop feeding and management system/package for crossbred beef progeny • To determine meat production efficiency and quality of different beef genotypes at certain ages	Cattle Research Farm, BLRI, Savar, Dhaka.
2	Conservation and improvement of native cattle	• To characterize Munshigonj and North Bengal Grey cattle phenotypically and genetically • *Ex-situ* conservation of Munshigonj and North Bengal Grey bulls and cows at BLRI research farm • To evaluate performance of progeny of Munshigonj and North Bengal Grey cattle by using superior sires and dams • To study the distribution, density, population size and phenotypic characteristics of Natrokona Black and Hilli Black cattle through base line survey	Cattle Research Farm, BLRI, Savar, Dhaka; Munsiganj; Godagari, Rajshahi; Naogaon; Joypurhat; Rangpur; Natrokona districts.
3	Upgrading indigenous cattle genetic resource through breeding, feeding and health management at Baghabari and Jashore	• To develop Bangladeshi HF using Pabna cattle and exotic HF • To improve purebred Pabna cattle and upgrade local cattle using elite Pabna bulls • To conserve genetic diversity of Pabna purebred cattle in Bangladesh	Baghabari, Sirajganj; and JashoreSadar, Jashore.
4	Conservation and improvement of Red Chittagong cattle and fodder germplasm bank at regional station, Rajshahi	• To evaluate the productive and reproductive performances of Red Chittagong cattle at Rajshahi regional station • To conserve and multiply different fodder varieties • To distribute fodder cutting and evaluate their production performance at farmers's field	BLRI regional station, Rajshahi.
5	Conservation and improvement of indigenous chickens as worthy genetic resources of Bangladesh and development of the heat tolerant high yielding breed/strain	• To assess the performances of three indigenous chicken genotypes under intensive management • To select parental birds (males and females) and breed them in an assortative plan for the production of eleventh generation • To estimate variance, covariance components and genetic parameters of economic traits of indigenous chicken genotypes	Poultry research farm, BLRI, Savar, Dhaka.

Sl.	Research Title	Objective(s)	Location(s)
		• To develop heat tolerant high yielding dual purpose variety suited for the extreme hot-humid climatic condition of Bangladesh	
6	Development of meat type quail through appropriate breeding	• To increase the sixth week body weight of Dhakai and BB-white quail through selective breeding • To select parental birds (males and females) and breed them using best to best mating plan for the production of 12^{th} generation birds	Poultry research farm, BLRI, Savar, Dhaka.
7	Improvement of egg and meat producing duck through selection and breeding: Production performance of 8^{th} generation (G_8) and field trial of BLRI improved native duck	• To evaluate the production performance, reproductive performance and egg quality parameter of 8^{th} generation of two native duck genotypes under intensive management condition • To evaluate the growth, carcass characteristics and economic efficiency of native and pekin duck by using azolla (*azollapinnata)* enriched diet	Poultry research farm, BLRI, Savar, Dhaka.
8	Conservation and improvement of exotic germplasm and validation the performance of BLRI layer chicken-1(Shuvra) and BLRI layer chicken-2(Shorna)	• To estimate genetic improvement and breeding value of 4 (four) pure line chickens under intensive management condition • To refine, up scaling and popularization of BLRI developed egg (Shuvra, Shorna) type chicken • To Produce and evaluate of cross-breed, using native with locally adopted exotic germplasms	Poultry research farm, BLRI, Savar, Dhaka.
9	Conservation and performance evaluation of pure RCC cattle and their graded progeny at community level	• To evaluate the performance of progressive generations of pure and graded RCC • To evaluate the genetic merit of the potential RCC bulls of BLRI • To conserve RCC at rural community level	Anowara and Chandanaishupazila ,Chattogram; Godagariupazila, Rajshahi; Sakhipurupazila, Tangail.
10	Ex-situ conservation and improvement of native sheep at Bangladesh Livestock Research Institute	• To develop a stock of superior native sheep germplasm and to continue their improvement at BLRI • To study the productive and reproductive performance of native sheep • Molecular characterization of Garole sheep of Bangladesh at BLRI	Sheep research farm, BLRI, Savar, Dhaka.
11	Evaluation of Exotic pure and their crossbred sheep in Bangladesh	• To evaluate the productive and reproductive performances of different crossbred genotypes • To evaluate the adaptability of different crossbred genotypes in hot and humid climatic conditions	Sheep research farm, BLRI, Savar, Dhaka.

Sl.	Research Title	Objective(s)	Location(s)
12	Conservation and improvement of indigenous buffalo for milk production through open nucleus breeding program	• To improve milk production of indigenous river buffalo through selective breeding in subsistence farming condition • To conserve indigenous buffalo for maintaining germplasm of indigenous stock as part of maintaining bio-diversity	Buffalo research farm, BLRI, Savar, Dhaka.
13	Analysis of Candidate Genes for Growth, Prolificacy and Milk Production Traits in Black Bengal Goat of Bangladesh	• To quantify and evaluate data on growth, prolificacy and milk production traits of BBG goat • To detect genetic polymorphisms (SNPs) in selected candidate genes related to growth, prolificacy and milk production traits in goat • To investigate association between identified SNPs and aforementioned traits in order to develop molecular marker(s) with commercial impacts in BBG of Bangladesh	Goat Production Research Division, BLRI and Bangladesh Agricultural University (BAU).
B. Discipline/Program area: Biotechnology, Environment, Climate Resilience and Waste Management			
14	Production and utilization of gelatin from bovine hides	• To know the existing production, marketing and utilization system of hides and gelatin in selected areas of Bangladesh • Determination of physical and chemical properties of hides • Development of gelatin extraction protocols from hides and its quality assessment	Savar, Dhaka; DNCC; DSCC; Meat Laboratory, BLRI, Savar, Dhaka.
15	Establishment of semen bank for BLRI improved germplasm	• Develop efficient semen cryopreservation technique for different species • Conserve BLRI improved indigenous germplasm of high socio-economic importance	Biotechnology laboratory and Cattle research farm, BLRI, Savar, Dhaka.
16	*De novo* whole genome sequence of indigenous chicken of Bangladesh and genome annotation to unveil genetic variations to explore the evolution and adaptation at genomic level	• To develop a whole genome of Hilly chicken of Bangladesh with high sequence coverage (50X) using state-of-the-art next generation sequencing (NGS) approach and other modern computational biology tools • To determine functional gene and protein annotation to explore the evolution and adaptation at genome level • To develop essential dataset of our Hilly species for further analysis to achieve the goal to sufficient egg and meat production	Biotechnology laboratory, BLRI Poultry research farm, Savar and Naikhongchhori, Bandarban.
17	Production of oxalate free napier grass through gene editing and tissue culture technology	• To develop protocol for determination of oxalate in Fodder in Bangladesh • To produce oxalate free Napier grass in Bangladesh • Optimization and adaptation of oxalate free Napier grass production at field level	Biotechnology laboratory, BLRI, Savar, Dhaka.

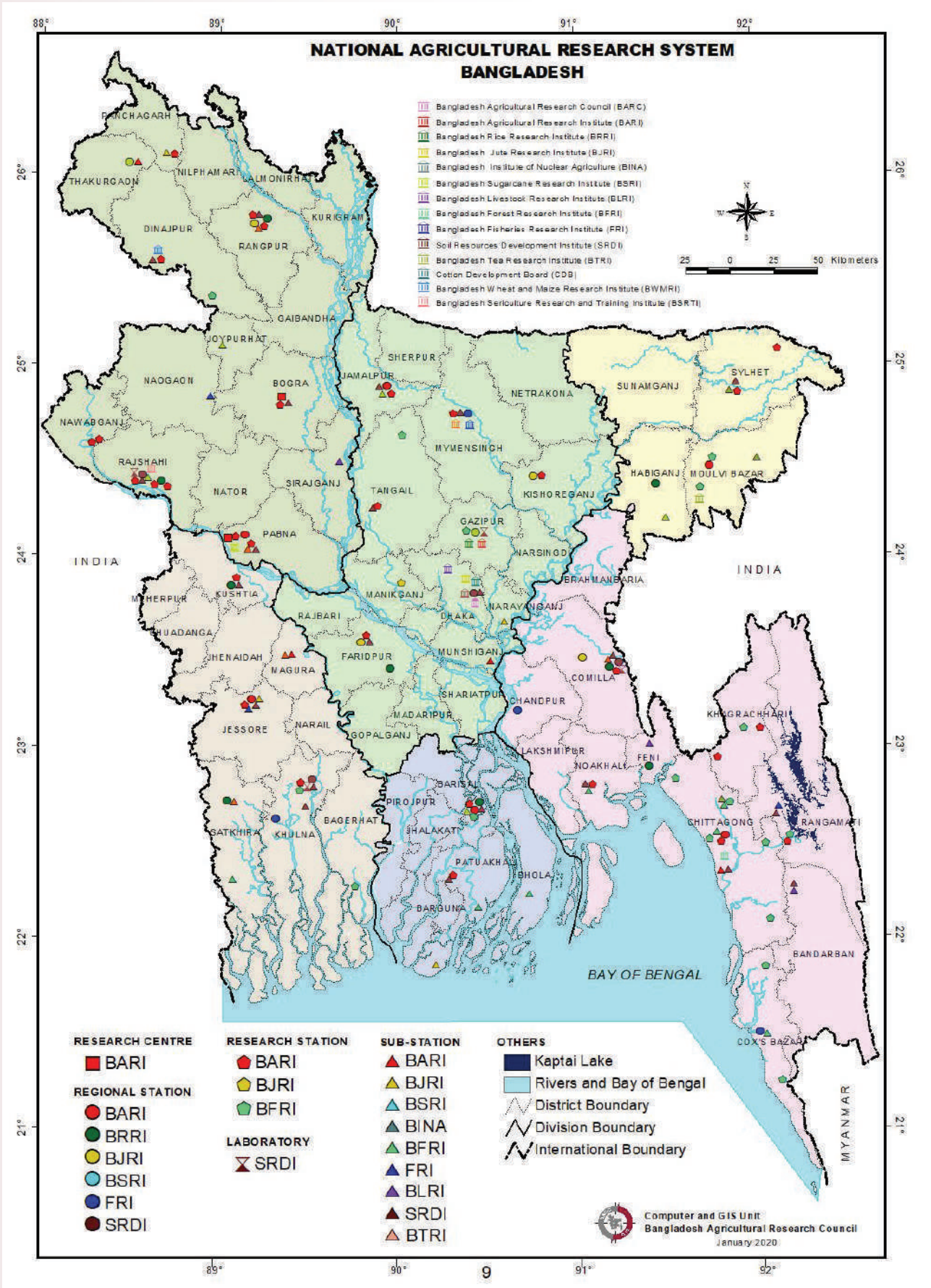
Sl.	Research Title	Objective(s)	Location(s)
18	Establishment of milk processing facilities for the development of premium dairy products	• To establish a modern milk processing and quality control facilities at BLRI to prepare different dairy products • Isolation, identification and conservation of lactic acid bacteria starter culture for the production of different fermented dairy products • To determine the nutritional quality, safety properties and cost benefit analysis of developed dairy products to introduce pilot scale production of different dairy products.	Dairy Research and Training Centre (DRTC) laboratory, BLRI, Savar, Dhaka; Dahi samples were collected from seven districts (Lokkhipur, Bhola, Naikongchhari-Bandorban, Bogura, Rajshahi, Madarganj-Jamalpur).
19	Quality and safety assessment of milk and development of fortifying dairy products	• To determine the physical, chemical and microbiological properties of milk samples • To measure the level of antibiotic residue in milk • To determine the time dependent screening of antibiotic residues in milk • To evaluate the thermal treatment on the degradation of antibiotic residues in milk • To measure the level of heavy metals in milk • To develop fortified milk and milk products	Dairy Research and Training Centre (DRTC) laboratory, milk samples were collected from different regions of Bangladesh (Divisional cities, districts, upazilas and milk pocket areas).
20	Assessment of environment stresses on different genetic groups of dairy cattle and development of their mitigation strategies	• To measure the cyclic environmental stresses on different genetic groups of dairy cattle • To know the effect of environmental stresses on the productive, reproductive and physiological responses of dairy cattle • To develop the mitigation strategies of the environmental stresses on dairy cattle	BLRI cattle research farm and Central cattle breeding and dairy farm, Savar, Dhaka.
21	Production of beta cyclodextrin for the development of low cholesterol milk and milk products	• To produce beta cyclodextrin from starch • To reduce cholesterol content from milk and cream • To produce low cholesterol milk and milk products	Dairy Research and Training Centre (DRTC) laboratory, BLRI, Savra, Dhaka.
22	Assessing baseline status, and knowledge, service and technology need of livestock farmers in selected areas (Drought and Coastal Areas-Cyclone and Saline)	• To assess vulnerability and loss in livestock enterprise during extreme/prolonged climatic events • To identify farmers need of scientific knowledge, services and technology for increasing resilience and exploring options for their provisions	Dakop, Khulna; Shyamnagar, Shatkhira; Godagari, Rajshahi; Nachole, Chapainababganj.

Sl.	Research Title	Objective(s)	Location(s)
C. Discipline/Program area: Anima/Poultry Nutrition, Feeds and Feeding Management			
23	Improvement of feeds and fodder for low-cost ration formulation for Dairy and Beef Cattle at different area in Bangladesh	• Identification of problem and prospect of existing feeds & fodder status at different area in Bangladesh • Development of fodder entrepreneurs or fodder nursery at different area in Bangladesh • Development of low-cost feeding technology • To develop fodder base feed market alternatives to concentrate	Barishalsadar, Jhalokatisadar, Patuakhalisadar, Golachipa and Bholasadar, RangpurSadar, SayedpurSadar, NilphamariSadar, Bhanga, Jashore, Sirajgonj, Rajshahi, Naikhongchar.
24	Development of feeds and fodder data base for efficient feeding system for livestock production	• To establish a national feed inventory for the development of a feed resources database for livestock (dairy and beef cattle) production in Bangladesh • To develop online animal feed resources knowledge hub (data bank) for livestock production	Charfashion, Madarganj, Godagari, Ishwardi, Barishalsadar, Jhalokatisadar, Patuakhalisadar, Golachipa, Bholasadar, Rangpur Sadar, Sayedpur Sadar, Nilphamari Sadar, Bhanga, Jashore, Sirajgonj, Rajshahi, Naikhongchari.
25	Development of TMR based feeding strategy for dairy cattle	• Formulation of TMR using seasonal and perennial grass • Evaluation of formulated TMR in terms of nutrient composition, feeding value and shelf-life • Development of entrepreneur to use formulated the TMR	BLRI, Savar, Dhaka.
26	Determination of best management practice of napier grass to increase the production performance of cattle	• To identify the optimum plant density level along with different plant heights of Pakchong grass on production efficiency, morphological characteristics and its nutritional quality • Effect of different level of grain (energy) supplementation on local growing bulls fed Napier grass managed with best management practice (BMP)	Fodder Research Farm and Cattle Research Farm, BLRI, Savar, Dhaka.
27	Field validation of salt tolerant mutant lines of napier fodder developed by BLRI	• To conserve and improve a stress tolerant mutant lines of fodder varieties in BLRI Fodder Germplasm Bank. • Production and distribution of salt tolerant mutant lines developed by BLRI under on-station condition • Establishment of salt tolerant Napier (BLRI grass -5) Nursery under on-station & on farm condition • Improvement of quality and quantity of salt tolerant Napier (BLRI grass -5) following Best Management Practice under on farm condition	Fodder research farm, BLRI, Savar, Dhaka; Shyamnagar, Sathkira; Koyra, Khulna.

Sl.	Research Title	Objective(s)	Location(s)
28	Performance, carcass characteristics and meat chemical composition of BLRI improved non-descriptive desi (ND) and naked neck (NN) chickens fed graded levels of dietary energy and protein concentration	• To evaluate the different energy and protein regimens on growth performance, carcass characteristics and feed efficiency of BLRI improved ND and NN chicken during starter and growing period • To evaluate different energy and protein regimens on blood parameter and meat quality of BLRI improved ND and NN chicken during starter and growing period	Poultry research farm, BLRI, Savar, Dhaka.
29	On farm measurement of noxious greenhouse gases from poultry litter and their possible utilization	• To develop low-protein diets supplemented with glutamine for laying hens • To develop an odor reducing model for poultry farms • To utilize poultry litter as a valuable products	Poultry research farm, BLRI, Savar, Dhaka.
D. Discipline/ Program area: Animal and Poultry Disease and Health			
30	Monitoring and evaluation of Peste des Petits ruminant's virus isolates circulating in Bangladesh and development of vaccine seed	• To monitor the effectiveness of PPR eradication program in some selected areas of Bangladesh • To detect and characterize PPRV genotypes to understand the possible impact of currently available vaccines • To isolate and maintain PPR virus repository at SAARC PPR laboratory • To develop live attenuated PPR vaccine seed from circulating strain	Serum samples were collected Jashore (PPR control village and Rangpur (vaccinated areas).
31	Development of lumpy skin disease vaccine seed from circulating strain in Bangladesh	• Molecular characterization of circulating lumpy skin disease virus in Bangladesh • Development of live attenuated lumpy skin disease virus vaccine seed from circulating strain	Animal health research laboratory, BLRI, Savar, Dhaka.
32	Surveillance and molecular evolution of avian influenza virus in Bangladesh	• Detection, isolation and molecular evolution of avian influenza virus circulating in Bangladesh • Development of reference antisera from circulating A/H5N1 Clade 2.3.2.1a.	Sampleshave been collected from commercial chicken farms of Gazipur, Dhamrai and Rajshahi.
33	Development of duck plague vaccine (DPV) seed from circulating strain	• To isolate, identify and characterize DPV from suspected duck's samples • To adapt the virulent strain of DPV by several passages in suitable host systems like in developing duck/chicken embryo or their primary fibroblast cell • To develop live attenuated vaccine seed from circulating DPV isolate	Duck plagues suspected samples were collected from different locations of Bangladesh.
34	Genomic Mapping and Elucidating the antimicrobial microbial resistance pathogens	• To investigate the antimicrobial resistance (AMR) pattern in companion and farm animals (2022-25)	Samples were collected from various sources including hospital

Sl.	Research Title	Objective(s)	Location(s)
	evolution in companion and farm animals	• To identify the cross over points for transmission and hotspots of ARGs (2022-25) • To elucidate the mechanism of AMR evolution and adaptation of evolved pathogens under diverse selective pressure (2024-25)	settings of companion and farm animals and also from environment in different regions (Chattogram, Dhaka, Barishal and Rajshahi) of Bangladesh.
35	Investigation of Pneumonic Pasteurellosis and PPR in Sheep and their mitigation to develop a model sheep health management package for ideal farming	• To identify causal agents of Pneumonic Pasteurellosis in Sheep	Small ruminant research laboratory.
E. Discipline/Program area: Socioeconomics and Farming System Research			
36	Establishment of "BLRI Technology Village" at BLRI Regional stations	• To disseminate BLRI developed region-based livestock technologies for increasing productivity • To measure the level of adaptation of BLRI developed technologies • To develop community business model and Entrepreneur • To acquaintance with the "BLRI technologies village" and adaptation it's at farm community	BLRI five regional stations (Rajshahi; Baghabari, Sirajganj; JashoreSadar; Vangha, Faridpur and Naikhongchari, Bandarban) and Dhamrai, Manikganj.
37	Reinforcement of regional livestock research at Naikhongchari	• To conserve and improvement of different livestock and poultry germplasm suitable for hilly region • To promote the various High Yielding Fodders (HYFs) in hilly area • To develop a tick control package for livestock at hilly region • To promote the feed technologies at farm and community	BLRI regional station research farm Naikhongchari and community level.
38	Production and marketing of beef in different areas of Bangladesh	• To identify the National & International beef Price • To measure the profitability of beef production in different areas of Bangladesh under different farming categories • To identify the factors influencing beef price in Bangladesh • To suggest some policy guidelines to increase profitability and increase marketing efficiency	Data were collected eight (8) districts from eight (8) divisions.

Sl.	Research Title	Objective(s)	Location(s)
		• To identify the profitability of beef marketing by butchers • To evaluate the food safety and quality control issues of beef marketing • To identify marketing channel and the market actor's involvement with their functions	
39	Assessing livestock rearing knowledge, attitude and practices in the coastal belt of Bangladesh	• To identify the present livestock scenario in the study areas • To analyze present knowledge and practices for rearing livestock • To find the potential opportunities for improving livestock production practices	Data were collected from four (4) districts of Barisal divisions.
40	Impact of training given to farmers on BLRI Technologies	• To determine the impact of training on farmers in adoption of BLRI technology • To identify the economic impact of farmers before and after training • To suggest some policy recommendations based on the finding	BLRI regional stations site.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