Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal, PIN - 741252

Research Programmes at Bidhan Chandra Krishi Viswavidyalaya

A. All India Coordinated Research Project(AICRP) and All India Network Projects(AINP)

List of ICAR- All India Coordinated Research Project (AICRP)/ All India Network Project (AINP)

Sl No.	Name of the AICRP	Location	Date of start
AICRPs on Natural Resource Management			
1	AICRP on Integrated Farming Systems	Mohanpur	1968
2	AICRP on Investigation on Soil Test Crop Response	Mohanpur	1994
3	AICRP on Irrigation and Water Management	Goyeshpur	1982
4	AICRP on Weed Management	Mohanpur	2016
5	AICRP on Agroforestry	Jhargram	1983
AICRPs on Field Crops			
6	AICRP on Forage Crops &Utilization	Mohanpur	1972
7	AICRP on Groundnut	Jhargram	1994
8	AICRP on Pulse Seed Hub	Mohanpur	2016
9	AICRP on Wheat and Barley Improvement	Mohanpur	1973
10	AICRP on Maize	Mohanpur	2015
11	AICRP on Chickpea	Mohanpur	2011
12	AICRP on Mungbean,Urdbean, Lentil, Lathyrus, Rajmash& Pea (MuLARP)	Mohanpur	2015
13	AICRP on Jute and Allied Fibres	Mohanpur	1973
AICRPs on Horticultural Crops			
14	AINP on Medicinal & Aromatic Plants and Betelvine	Mohanpur	1983
15	AICRP on Palm	Mohanpur	1981
16	AICRP on Potato	Mohanpur	1971
17	AICRP on Cashew	Jhargram	1980
18	AICRP on Vegetable crop	Mohanpur	1975
19	AICRP on Tuber Crops (Other than Potato)	Mohanpur	1976
20	AICRP on Floriculture	Mohanpur	1977
21	AICRP on Fruits	Mohanpur	1988
AICRP/AINP on Crop Protection			
22	AINP on Acarology	Mohanpur	1988
23	AICRP on Nematology	Mohanpur	1988
AICRP/AINP Environmental Sciences			
24	AINP on Pesticide Residues	Mohanpur	1984
25	AICR on Agrometeorology- NICRA	Mohanpur	2011

B. Reginal Research Stations at different Agroclimatic Zones

The Regional Research Stations at three agroclimatic Zones were established for location specific need-based research in agriculture and allied fields with the following mandates:

- Identification of existing and potential crop sequences under different farming situations
- Optimizing crop production and economic benefits.
- Production of good quality seed of cereals and pulses and sapling materials of fruit crops for farmers.
- Popularisation of green manure like sesbania in *kharif* season and vermicompost in *Rabi*/summer season and Bio-Fertilizer for improving soil health as well as crop productivity
- Screening of varieties for suitability and yield augmentation of crops like rice, mustard, sunflower, lentil, green gram, black gram, potato etc. under different land situations.
- Establishment of cashew, citrus and agroforestry in Red & Laterite zones and its popularization and sapling production
- To popularize the agro-technologies among the farmers for stabilizing and maximizing the productivity of crops.
- Organizing farmers' training and capacity building programmes for promoting scientific agricultural practices and use of high quality inputs including planting material.
- Outline of the on-going research programme

Locations of Reginal Research Stations

Sl. No.	**Name of the Regional Research Station (RRS)/ Regional Research Sub-station (RRSS)**	**Location**
1	RRS, Red Laterite Zone, Jhargram	Jhargram District
2	RRSS, Red Laterite Zone, Raghunathpur	Raghunathpur, Purulia District
3	RRSS, Red Laterite Zone, Sekhampur	Sekhampur, Birbhum District
4	RRS, New Alluvial Zone, Gayeshpur	Gayeshpur, Nadia District

5	RRSS, New Alluvial Zone, Chakdaha	Chakdaha, Nadia District
6	RRS, Coastal-Saline zone, Kakdwip	Kakdwip, South 24-Paraganas district

C. Govt. of West Bengal funded Substantive Research Scheme

Sl. No.	Name of the Scheme	Location
1	Crop Research Unit	BCKV, Mohanpur
2	Survey Selection and Mass Production	BCKV, Mohanpur

Crop Research Unit maintains more than 500 rice genotypes and 170 of them are mostly land race or land race-derived genotypes. They are in use for the discovery of new traits and development of new varieties. Rice line, IET28360, developed from a cross between Vandana x IET25701 with three drought tolerance QTLs from Vandana and 2 PD-tolerance genes from IET25701 is ready for giving release-proposal under SVRC. The line B07 (IET28360) compared with Sahabhagi yield data and reaction to control disease and insect.

Survey, Selection and Mass production of Nodule Bacteria (SSMP) has been strengthened under RKVY funded project entitled, "Establishment of Biofertilizer Production Unit" is an infrastructure-based laboratory and production unit of quality biofertilizers under the brand BCKV. The aim of this project is to provide quality assured biofertilizers to farmers either directly or through Government agencies in order to meet demand and generate trust of the users. This would at the same time increase the yield of legumes, and other crops and improves soil health. For augmenting production of major legumes, *Rhizobium* biofertilizers are considered, and biofertilizers for other crops, viz., *Azotobacter*, *Azospirillum* and Phosphate solubilizing bacteria are considered. Special emphasis is given for preparing liquid formulation (through an automated bottle washing-filling-capping machine) for longer shelf-life of organisms and easy manoeuvrability.

D. *The Regional Nuclear Agriculture Research Centre (RNARC)*

The RNARC at Bidhan Chandra Krishi Viswavidyalaya is established by financial support for four years from the Board of Research in Nuclear Science (BRNS) under the Bhaba Atomic Research Station (BARC) with the following major goals a) Genetic improvement of crop plants, especially for West Bengal region, through induced mutations,

conventional breeding etc. b) Use of nuclear technique for food preservation and tracer technique to improve plant nutrition monitoring. c) Evaluation and multiplication of improved BARC released varieties and distribution thereof in parts of West Bengal. d) Creation of Central facility.

E. Projects under Rashtriya Krishi Vikas Yojana (RKVY)

Thirteen projects under RKVY are being operational for reinforcement of regional station activities covering areas under promotion of medicinal aromatic plants, biofertilizer production unit, testing laboratories, Training and Testing Institute on Agricultural mechanization, ground water supported safe irrigation, crop diversification in western tracts, mango orchard model and organic farming since 2015. Six new RKVY projects have been implemented at BCKV during 2021.

F. Research projects funded by State/Central Government

Time bound research projects are awarded to this Viswavidyalaya by various central and state govt./agencies on the following thrust areas of research in the state:

- Water management in Citrus and Vegetables
- Socio-economic upliftment SC/ST
- Jute Agro- Textiles (JAT) for Growth of plants and Suppression of Weeds
- Economic empowerment of rural women belonging to SC through introduction of small-scale fish culture in homestead ponds
- Improvement of nutritional status of economically backward SC community through duck-cum-fish culture in house hold pits
- Development of low-cost technology for small-scale culture of non-conventional fresh water fishes
- Capacity building of economically backward rural women through participatory training on integrated fish farming with improved backyard poultry breeds in homestead ponds
- Women empowerment through small-scale integrated fish farming in homestead ponds and linking up with Self Help Groups
- Cropping systems intensification in the salt affected coastal zones of Bangladesh and West Bengal, India
- Influence of bagging on fruit quality and mineral composition of litchi

- Nutritional security and Socio-economic upliftment of rural women belongs to SC / ST community through homestead kitchen garden, zero-energy cool chamber and small-scale processing unit
- Radiation technology in conjunction with pre-harvest management practices for extending the shelf life of mango and litchi grown in West Bengal.
- Researches on developing a model for canopy management andtraining andpruningstrategiesofhighdensitymangoorchardforyieldandqualityimprovementand export promotion
- Exploring the possibility of growing Millets in Red and Laterite zone of West Bengal with an emphasis to market linkages
- Generation of virus resistant rice for India: Diversifying Transgenic Resistance to popular varieties studying virus–host interactions and new marker free Transgenics against Tungro disease
- Detoxed grasspea: sustainable sustenance for stressful environments
- Herbal Pesticide Formulations for Sustainable Crop Protection
- Value Addition and luetin extraction of Marigold
- Yeast based liquid bio-control product to manage post-harvest diseases of fruits
- Adaptability and Improvement of cow pea in West Bengal
- Adaptability and Improvement of pointed gourd in West Bengal
- Development of Hybrids in Vegetable crops
- Exploration and utilization of biodiversity for improvement of some Vegetable crops in West Bengal
- Export Oriented Vegetable Production under low-cost Poly house
- Standardization of agro-techniques for quality seed production of onion under Gangetic alluvial plain of West Bengal
- Development of export quality green and dry chilli with long staying high colour and oleoresin content
- Analysis of constraints for intra-state imbalance in productivity of vegetable crops for micro-level planning
- Indo-Bulgaria Inter-Governmental project “Developing tomato germplasm possessing economically important traits
- Isolation of mutant with exerted stigma and anther non-dehiscence characterin*ps-2* functional male sterile line of tomato for utilization in hybrid seed production
- Molecular and biochemical characterization of three fruit pigment enhancing mutantgenes (*hp*, og^C and *dg*) and introgression of these genes with the fruit shelf-life enhancing mutant gene *in* in respective dihomozygote condition to develop breeding line

with extended shelf-life and elevated carotenoids in the fruits of tomato (*Solanum lycopersicum*);

- Enhancement of nutritional quality of tomato by increasing lycopene and anthocyanin contents through mutant genes
- Nuclear-intervened molecular breeding and *in-vitro* culture for increasing yield and phyto-medicine production in bitter gourd (*Momordica charantia*)
- Viruses of Crops and Weeds in India (A higher education link project between IACR and Rothamsted Plant Health Clinic Project (National Horticultural Mission)
- Sustainable farming system to enhance and ensure livelihood security of the poor in Purulia, Bankura and West Midnapore districts of WestBengal.
- Bioefficacy and phytotoxicity studies of insecticides against insect-pests of vegetable crops
- Evaluation of some hybrid vegetable varieties
- Model development for sustainable babycorn-vegetables intercropping system
- Development of early high yielding, multiple disease resistant and drought tolerant Faba bean early varieties in India
- Applied mutagenesis by gamma rays in Snake gourd (*Trichosanthesanguina*L.)
- Study the effect of Agrisilica^{TM} Liquid (Orthosilicic acid 20%) on growth and yield of tomato.