

The Rani Lakshmi Bai Central Agricultural University (RLBCAU), Jhansi invites applications from faculty members, and researchers of NARES system for a 8-days summer school on "Molecular Approaches to Bring Climate Resilience in Crop Plants" sponsored by the Uttar Pradesh Council of Agricultural Research, Lucknow scheduled on 6 - 13 October, 2025

About University

The RLBCAU has been established as an Institution of national importance under Department of Agricultural Research and Education (DARE) by an Act of Parliament (Act No. 10 of 2014) and notified on 5th March, 2014. RLBCAU dedicated to advancing agricultural education, research, and extension services in India. The university is committed to empowering students and stakeholders in agriculture and allied sciences with modern knowledge and innovative techniques, contributing to national food security and rural development.

About Training Programme

Objectives: To build capacity on basic concepts of molecular breeding and effective use of rational strategies to develop climate resilient crop varieties. To provide hand-on experience in undertaking innovative crop breeding techniques for accelerating genetic gain under climate change.

Background: Climate Change posing pressure to develop climate smart varieties to ensure food and nutritional security. Hence, hastening breeding cycle and acceleration of genetic gain became essential to develop climate smart varieties. The integration of cutting edge technologies combining molecular and physiological tools is essential. Hence, planned training aims to expose researchers on cutting edge technologies for their integration in development of climate smart varieties.



RANI LAKSHMI BAI CENTRAL AGRICULTURAL UNIVERSITY, JHANSI



Summer School Sponsored by
U.P. Council of Agricultural Research



on

Molecular Approaches to Bring Climate Resilience in Crop Plants

October 6- 13, 2025



Chief Patron

Dr. A. K. Singh,

Vice-Chancellor, RLBCAU, Jhansi

Patron

Dr. S. K. Chaturvedi, Director Research

Dr. R. K. Singh, Dean, College of Agriculture

Course Director

Dr. Rakesh Choudhary, Scientist, Sr.Scale (G&PB)

Course Co-Director

Dr. J. K. Tiwari, Assoc. Professor & Head (G&PB)

Dr. Ashutosh Kumar, Asst. Professor (Plant Physiology)

Dr. Rumana Khan, Asst. Professor (G&PB)

Department of Genetics and Plant Breeding
College of Agriculture

Rani Lakshmi Bai Central Agricultural University, Jhansi

Topics to be covered

- Modern breeding tools to accelerate genetic gain
- Use of PGR and prebreeding techniques to develop climate smart varieties
- Advance phenotyping techniques against abiotic and biotic stresses
- Identification and integration of novel gene/QTL in future crop varieties
- Genomics based breeding strategies for climate resilience
- Root architecture in improving resource use efficiency
- Speed breeding to achieve accelerated genetic gain
- Genome editing for improvement in targeted traits

Hands on Sessions

DNA and RNA isolation, PCR and RT-PCR and electrophoresis, Designing of markers through bioinformatics tools, Softwares applications development of linkage map, mapping genes/ QTLs, association mapping, Phenomics in crop improvement, Speed breeding facilities, Hands on experience on physiological tools and Root phenotyping study • Gas Chromatography (GC), HPLC and AAS.

Eligibility

- Training program is open to researchers not below the rank of Assistant Professor in agriculture and allied subjects who are employed at ICAR institutes, SAUs, KVKs, CAUs and Universities
- M.Sc. or Ph.D. degree in Genetics & Plant Breeding/ Plant Biotechnology/ Seed Technology/ Crop Physiology
- **No. of Participants: 25**

Travel and Accommodation

RLBCAU, Jhansi will provide the boarding and lodging at the University guest house. The travelling for the selected participants will be paid to and from by the shortest route as per the entitlement. For the class of travel restricted to the AC-II fare by train or bus fare as per eligibility.

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Application Form

October 6 -13, 2025

Name:.....

Gender:

Date of Birth:.....

Designation:.....Degree:.....

Email:

Mobile no.:.....

Address:.....

Subject/Specialization:.....

College/Department.....

University/Institute:

Signature of Applicant:.....

Forwarding from HoD/Head of the Institution:.....

Important Dates:

- **Last date for submission of Application: September 27, 2025**
- **Communication to Participants: October 01, 2025**

All correspondence may be made to Course Director:

Dr. Rakesh Choudhary, Scientist (SS)- Genetics & Plant Breeding, RLBCAU

M: +918057072701, Email: rakesh.gpb.rlbcu@gmail.com