ABOUT MAU

Mau is an industrially advanced district in eastern Uttar Pradesh, India, with its headquarters in Mau town (also known as Maunath Bhanjan). It is a major center for handloom and textile production, famous for its sarees, zari work, and kashidakari work, and is located on the fertile plains of the Ganges–Ghaghara doab. Historically, it was part of Azamgarh district until it was carved out as a separate district on November 19, 1988. Strategically ICAR-NISST located at Kushmaur in the Mau district of Uttar Pradesh.

NOMINATION AND REGISTRATION

Interested candidates may send their applications in the prescribed format enclosed, duly recommended by the competent authority, through proper channel to the Director, Short course along with a non-refundable registration fee of Rs 50/- in the form of IPO/DD drawn in favour of NISST Fund Account, payable at Maunath Bhanjan or scan the QR code given below . Candidates may send their applications through e-mail as an advance copy but selection will be based on the official copy only. The last date for receiving the nomination is 15th December 2025.

SCAN & PAY

ICAR UNIT
DIRECTORATE OF SEEDS

Note: As per the ICAR instruction, the interested candidates should register and apply offline

IMPORTANT DATES

- Last date for receipt of applications: 15th December, 2025
- Intimation to the selected applicants: 20th December, 2025
- Confirmation for participation: 25th December, 2025

ADDRESS FOR CORRESPONDENCE

Dr. Kalyanrao
Course Director
ICAR-National Institute of Seed Science & Technology
ICAR Parisar, Kushmaur Mau, Uttar Pradesh - 275 103, India
Mo: 76008 69603;
Email: patil.kalyanrao2829@gmail.com

ICAR Short Course on "New frontiers in seed quality testing for sustainable agriculture", January 16 to 25, 2026

APPLICATION FORM FOR PARTICIPATION IN SHORT COURSE

(To be sent directly to the Course Director of Short Course)

FULL NAME (IN BLOCK LETTERS)] _____
DESIGNATION: _____
FULL ADDRESS WITH PIN TO WHICH CORRESPONDENCE SHOULD BE SENT (IN BLOCK LETTERS): _____
_____
TELEGRAPHIC ADDRESS & E-MAIL ID _____
_____
DATE OF BIRTH & AGE: _____
SEX: _____
EXPERIENCE (POST HELD) DURING THE LAST 5 YEARS RESEARCH / TEACHING NO. OF PUBLICATIONS: _____
_____
Discipline and Field of specialization: _____
_____
Please mention, if you have participated in any Summer/ Winter School / Short course, etc. earlier organized by ICAR or and other organization: _____

Academic record starting from graduation:

Degree	Discipline	Year of passing	Class/Rank/ Distinction	University
Ph.D				
Master				
Bachelor				
Other				

Payment details
Postal order/DD No/ UPI No:_____ Dated_____
of Rs. 50. (Not refundable) for registration of application.

Date:
Place: Signature of the applicant

Recommendation of the forwarding institution.

Date: Signature & Designation with official Seal

ICAR sponsored Short Course on

New Frontiers in Seed Quality Testing for Sustainable Agriculture

(January 16 to 25, 2026)

Course Director

Dr. Kalyanrao
Senior Scientist

Course Co-Directors

Dr. Sripathy K. V.
Senior Scientist

Dr. Kalyani Kumari
Senior Scientist

ICAR-National Institute of Seed Science & Technology,
ICAR Parisar, Kushmaur Mau, Uttar Pradesh - 275 103, India
MO: 76008 69603, 94734 35106
Email : patil.kalyanrao2829@gmail.com, kalyani.kumari7@gmail.com
Website: www.seedres.icar.gov.in

INVITATION

The ICAR–National Institute of Seed Science & Technology (ICAR-NISST), Mau, cordially invites researchers, academicians, seed professionals, and stakeholders to participate in a 10-day Short Course on "New Frontiers in Seed Quality Testing for Sustainable Agriculture."

(Dr. Kalyanrao.)
Director, Short Course

ABOUT THE COURSE

India is a country of diverse agro-ecosystems and cropping preferences. It is predominantly rainfed (~60%) with farm holdings that are generally small (~67%). The wide gaps between potential and realized productivity in most crops can be significantly reduced by ensuring the availability of high-quality seeds of improved varieties and hybrids. The transformation of the country from a food-deficient to a food-sufficient nation was largely made possible through the development of High Yielding Varieties (HYVs) and hybrids in major crops such as wheat, rice, maize, sorghum, and pearl millet. However, with increasing population pressure, shrinking arable land, and rising input costs, there is an urgent need to rethink and strengthen our agricultural strategies. Ensuring the supply of superior-quality seed becomes a crucial component of this effort, supported by robust public and private sector participation. It is equally important that the introduction of new varieties and hybrids is accompanied by efficient regulatory and diagnostic systems to verify their identity and maintain their quality, which can be achieved through advanced molecular tools.

Since the success of seed production and distribution systems relies heavily on the genetic purity and physiological quality of seeds, effective seed quality testing becomes vital. Factors such as inadvertent seed mixing, deterioration, and environmental influences can compromise seed quality. Therefore, genetic purity testing and quality evaluation play a critical role for seed producers, seed analysts, and plant breeders. These assessments include grow-out tests, biochemical assays such as isozyme electrophoresis, and DNA-based techniques involving RAPD, SSR, and SNP markers. With comprehensive and high-throughput testing approaches, it is possible to significantly enhance the accuracy, reliability, and efficiency of seed quality assessment.

I am pleased to inform you that the ICAR- National Institute of Seed Science and Technology (ICAR-NISST), Mau, Uttar Pradesh, is organizing a 10-day Short Course on "New Frontiers in Seed Quality Testing for Sustainable Agriculture" from January 16 to 25, 2026. This programme is designed to refresh, strengthen, and update participants' knowledge in seed quality testing and genetic purity evaluation for sustainable agriculture.

OBJECTIVES

The intention of conducting the proposed course is to provide background knowledge and hands-on training on seed quality on physical purity, germination, viability, vigour & molecular aid for genetic purity, as well as to update the theoretical and practical understanding of crop improvement scientists with recent developments to face the challenges ahead. The understanding of basic and applied aspects of seed quality testing and genetic purity will undoubtedly influence the success of a scientist in developing High Yielding Varieties (HYVs) and hybrids in different crops.

COURSE CONTENTS

- Concept of physical purity test
- Seed image analysis for seed quality
- Advanced methods for seed moisture estimation
- Advanced method for seed germination & vigour
- Effect of ageing on viability, vigour and chromosomal damage in seed
- Nanotechnology technique for enhancing seed germination and vigour
- DNA fingerprinting of commercially released varieties and hybrids
- Seed Testing for GMOs: Techniques and Regulatory Mechanism
- Seed quality enhancement through cold plasma techniques in pulses
- Genotypic identity based on morphological DUS descriptors
- Genetic purity test of commercial hybrids by biochemical tests
- Advanced technique in seed borne disease diagnoses and management
- Techniques for detection of insect pests of stored grains
- ISTA Accreditation for seed quality assurance
- Role of legislation in seed quality teasing
- Speedy seed kit for seed viability

ELIGIBILITY

Participants not below the rank of Assistant Professor/Scientist with a minimum of three years of experience in the fields of Seed Science & Technology, Genetics & Plant Breeding, Plant Physiology, Plant Biotechnology, and Biochemistry in ICAR institutes, Central/State Agricultural Universities, and KVKs can apply.

DATE AND DURATION

January 16 to 25, 2026 (10 Days)

BOARDING AND LODGING

Boarding and lodging facilities will be provided free of cost to the participants at the ICAR campus. No DA will be paid to the participants. The candidates selected for participation in the training will be provided travelling expenses as per their entitlement, restricted to II Tier AC rail fare by the shortest route, only after submission of the original tickets. For places not connected by rail, bus fares will be paid as per the Council's rules.

Note: Participants are advised not to bring their spouse or children along with them during the training period.

ORGANIZING COMMITTEE

Patron: Dr. A. Anandan, Director ICAR- NISST
Course Director: Dr. Kalyanrao (Senior Scientist)
Course Co-Director: Dr. Sripathy K.V. (Senior Scientist)
Dr. Kalyani Kumari (Senior Scientist)

ABOUT THE INSTITUTE

ICAR–National Institute of Seed Science & Technology (ICAR-NISST), Mau, is India's only premier institute dedicated exclusively to seed science and technology research. Its journey began in 1979 with the National Seed Project, later evolving into the Directorate of Seed Research in 2004, the Indian Institute of Seed Science in 2016, and finally ICAR-NISST under the EFC approval for 2021–26.

Strategically located at Kushmaur in Mau district, Uttar Pradesh—India's major seed production hub—the institute works closely with farmers and the seed industry. ICAR-NISST integrates traditional seed science with advanced biotechnology and molecular approaches to develop practical, research-based solutions for seed production, quality enhancement, testing, and management. It plays a vital national role in ensuring farmers' access to high-quality seeds and supporting the growth of India's agricultural sector.