

How to Apply

1. Download and take a printout of the Application form
append to this brochure, fill it in completely and
obtain the approval of the competent authority of
your organization.
2. The application may then be scanned and sent to
sonuksgowda@gmail.com on or before 10.11.2026.
The selected participants will be informed via email.
3. **Submit an advance copy online through the
Google Form: [Click Here to Apply](#)**
4. Pay the ₹50/- registration fee (non-refundable) in the
form of an Indian Postal Order or Demand Draft
drawn in favour of "ICAR UNIT, NDRI", payable at
Karnal, and enter the payment details in the
application form.

Important: As the ICAR Capacity Building Programme (CBP) portal is not functional, applications are invited through e-mail/post as per the ICAR sanction.

Dates to Remember

Last date of applications	10th November 2026 (Tue.)
Communication to Participants (latest by)	13th November 2026 (Fri.)
Commencement of Winter School	1st December 2026 (Tue.)

Boarding and Lodging

Free boarding and lodging will be provided to the participants during the training programme as per the approved ICAR norms for Winter Schools. Travel Allowance (TA) will be paid to the participants as per their entitlement, restricted to a maximum of AC II tier train fare by the shortest route. Air travel is not permissible. For Rajdhani/ Duronto/ Vande Bharat trains, the entitlement is limited to AC III tier fare. Please note that, strictly, no accommodation in the guest house will be provided to family members or guests of the participants. No DA will be paid, and participants are required to produce original tickets in support of their TA claim.

Chief Patron

Dr. Dheer Singh
Director, ICAR-NDRI

Patron

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Joint Director Academic, ICAR-NDRI

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ICAR-Sponsored 21-Days Winter School

on

Next-Generation Rapid, Non-Destructive and AI-Enabled Technologies for Quality, Safety and Authenticity Assessment of Milk and Milk Products

01st – 21st December 2026



Sponsored by
**Agricultural Education Division,
Indian Council of Agricultural Research, New Delhi**

Organized by
Division of Dairy Chemistry
ICAR-National Dairy Research Institute
(Deemed University), Karnal-132001

www.ndri.res.in

About the Course

India is the world's largest producer of milk, and the dairy sector continues to grow rapidly in scale, product diversity and market reach. Milk and milk products remain vulnerable to adulteration, chemical and microbiological contamination, veterinary drug and pesticide residues, mycotoxins and other forms of food fraud, creating a need for rapid, reliable and effective approaches for quality and safety assessment.

Conventional analytical approaches, although well established and essential for laboratory confirmation, are often time-consuming, laboratory-intensive and dependent on sophisticated instrumentation and sample preparation. Recent advances in spectroscopy, chromatography, mass spectrometry, biosensing, lateral-flow assays, microfluidics and portable analytical technologies, coupled with chemometrics, machine learning and artificial intelligence (AI), are creating new opportunities for rapid, sensitive, non-destructive and field-deployable assessment of milk and milk products.

This Winter School aims to provide faculty members and researchers under the National Agricultural Research and Education System (NARES) with an opportunity to update their knowledge and strengthen practical skills in next-generation analytical and digital technologies for dairy quality, safety and authenticity assessment. The programme will emphasize the operation, application and interpretation of advanced analytical platforms; chemometrics, machine learning and AI for data interpretation, classification and prediction; and rapid and field-deployable approaches for dairy quality and safety monitoring.

Selected Topics to be Covered

1. Rapid and Non-Destructive Spectroscopic Platforms
2. Chromatography and Mass Spectrometry
3. Contaminants, Residues and Toxins

4. Adulteration and Authenticity Assessment
5. Rapid Screening, Biosensors and Field-Deployable Assays
6. Chemometrics, Machine Learning and Artificial Intelligence
7. Foodomics and Next-Generation Quality Assessment
8. Quality Assurance, Regulation and Accreditation
9. Emerging Technologies and Allied Topics
10. Microbiological quality and rapid microbial testing
11. Industry perspectives and clean milk production

About ICAR-NDRI, Karnal

ICAR-National Dairy Research Institute (NDRI), Karnal is one of the premier institutions in the dairy sector and has played a pivotal role in the growth of the Indian dairy industry and in the country's emergence as the world's largest milk producer. The lineage of the Institute goes back to the Imperial Institute for Animal Husbandry and Dairying, established at Bangalore in 1923. It was renamed the Imperial Dairy Institute in 1936 and shifted to its present site at Karnal in 1955, when it was renamed the National Dairy Research Institute. The Institute has been under the Indian Council of Agricultural Research since 1970 and has the distinction of being a Deemed University since 1989, offering postgraduate education in dairying that has no parallel in Asia.

Spread over a campus of about 560 hectares, NDRI carries out research, education and extension in dairy production, dairy processing and dairy management through 12 research divisions. The other support sections of the Institute includes National Referral Centre for Milk Quality and Safety (NRCMQS), National Library on Dairying,, Experimental and Model Dairy Plant, Technology Business Incubator, Small Animals House, Livestock Research Center, Artificial Breeding Research Centre, Forage Research & Management Centre, National Bio-informatic

Centre, Computer Centre, Krishi Vigyan Kendra & Dairy Training Centre, Agriculture Technology Information Centre and Central Instrumentation Facility equipped with high-end instruments.

The Division of Dairy Chemistry is a nationally recognized centre for research on milk quality and safety, adulteration detection and authenticity assessment. NRCMQS, a designated National Reference Lab (FSSAI) has chemical and microbiological sections, maintain NABL-accredited testing facilities, advanced chromatographic and mass spectrometric platforms, rapid diagnostic and strip-test technologies, rapid microbiological testing kits, chemometric and spectroscopic methodologies and industry-linked translational outputs — providing an exceptional ecosystem for advanced training in the proposed theme.

Eligibility

Faculty and researchers in dairy science, food science, livestock products technology and related disciplines from State Agricultural Universities, ICAR Institutes, Central and State dairy, fisheries and veterinary universities, deemed to be Universities, Central Agricultural Universities and Krishi Vigyan Kendras under NARES, not below the rank of Assistant Professor/Scientist or equivalent in the concerned subject, are eligible to apply. Applicants must hold a Master's degree in the relevant discipline and should be engaged in teaching, research or extension.

Selection of Participants

A maximum of twenty-five participants will be selected for the programme based on the prescribed eligibility criteria. Candidates with experience in areas pertaining to the training will be given preference. Nomination by the head of the sponsoring organization does not entail confirmed participation in the programme. ICAR-NDRI will provide an official confirmation letter to the selected candidates.

ICAR-SPONSORED 21-DAYS WINTER SCHOOL
on
“Next-Generation Rapid, Non-Destructive and AI-Enabled Technologies for Quality, Safety
and Authenticity Assessment of Milk and Milk Products”
Date: 01st –21st December 2026

Venue: Dairy Chemistry Division, ICAR–National Dairy Research Institute, Karnal – 132001, Haryana

APPLICATION FORMAT FOR PARTICIPATION IN TRAINING

1. Name (in block letters) :
2. Designation :
3. Present employer address :
4. Address to which reply should be sent (in block letters) :
5. Permanent address :
6. Date of birth :
7. Sex :
8. Marital Status :
9. Teaching/research/professional experience :
(mention post held during last five years and numbers of publications)
10. Mention if you have participated in any research seminar, Summer/Winter/Short Course etc. during last five (5) years under I.C.A.R./Other organizations :.
11. Online Payment/Transaction (attach copy of payment receipt) :
12. Academic Record

Degree	Discipline	Year	Class	University
Ph.D				
Master				
Bachelor				
Others				

Signature of the Applicant: _____ Date: _____ Place: _____

13. Recommendation of the Forwarding Institute:

Signature: _____

Name: _____ Designation: _____

Address: _____

Certificate: Certified that the information furnished by the applicant has been verified with the official records and found to be correct.

Signature and Seal of the Competent Authority

Date: _____