



TRAINING CALENDAR 2026-2027



भाकृअनुप-केंद्रीय कंद फसल अनुसंधान संस्थान

(भारतीय कृषि अनुसंधान परिषद)

श्रीकार्यम, तिरुवनंतपुरम 695017, केरलम, भारत

ICAR - CENTRAL TUBER CROPS RESEARCH INSTITUTE

(Indian Council of Agricultural Research)

Sreekariyam, Thiruvananthapuram - 695 017, Keralam, India



ICAR-Central Tuber Crops Research Institute
(Indian Council of Agricultural Research)
Sreekariyam 695 017, Thiruvananthapuram, Keralam, India

TRAINING CALENDAR
2026-2027

From the Director



I take immense pleasure in presenting the training calendar for the year 2026-27 for the benefit of all the stakeholders in our country. Tuber crops represent a vital and strategically important group of food crops within tropical and subtropical agricultural systems, owing to their substantial contribution to food and nutritional security, livelihood sustenance, and agricultural sustainability. Crops such as cassava, sweet potato, yams, aroids, and other minor tubers are distinguished by their high photosynthetic efficiency, superior carbohydrate accumulation, wide ecological adaptability, and tolerance to biotic and abiotic stresses, making them indispensable for climate-resilient and resource-conserving farming systems.

This training calendar has been meticulously designed to provide a structured and comprehensive framework for capacity enhancement and scientific knowledge dissemination among researchers, extension functionaries, agri-entrepreneurs, students, and other stakeholders. The training programmes have been judiciously designed to address contemporary challenges and emerging opportunities in tuber crop research, development, and commercialization, with an emphasis on improving productivity, profitability, nutritional quality, and sustainability.

The calendar delineates a diverse spectrum of training modules encompassing the development and dissemination of improved, biofortified, and stress-tolerant varieties; production of high-quality and disease-free planting materials; integrated nutrient, water, pest and disease management strategies; precision and climate-smart agronomic interventions; advances in post-harvest physiology, storage, processing, and value addition; promotion of entrepreneurship and agri-based enterprises. The programmes emphasize evidence-based scientific principles, participatory and experiential learning approaches, field-oriented demonstrations, and exposure to validated technologies to facilitate effective technology transfer and adoption.

It is envisaged that this Training Calendar will serve as an authoritative reference and practical guide for stakeholders seeking to strengthen their scientific acumen and technical competence in tuber crop production systems. The Institute anticipates active participation, meaningful interaction, and constructive feedback from all stakeholders, which will be instrumental in continually refining training strategies and advancing sustainable and inclusive development of the tuber crops sector.

27 March 2026


G. Byju
Director

About ICAR-CTCRI

The ICAR-Central Tuber Crops Research Institute (ICAR CTCRI) was established during the Third Five Year Plan for intensification of research on tuber crops (other than potato). The Institute started functioning on 01 July 1963 with its headquarters (HQ) at Sreekariyam, Thiruvananthapuram, Kerala. It has one Regional Station (RS) at Bhubaneswar, Odisha. The All India Co-ordinated Research Project on Tuber Crops (AICRP TC) was started in 1968 for testing and popularizing the location specific tuber crops technologies in various parts of India. It has presently 21 centres including ICAR-CTCRI HQ and Regional Station. The Institute is also one of the centres of the All India Co-ordinated Research Project on Pre and Post-Harvest Technology as well as AINPOF. The ICAR-CTCRI is conducting basic, strategic and applied research on various edible tropical tuber crops.

Vision

Root and tubers for ensuring better health, wealth generation and inclusive growth.

Mission

To integrate root and tuber crops as sustainable farming system components to ensure food and nutritional security of the nation and livelihood improvement of rural population.

Mandate

- ❖ Basic, strategic and applied research on genetic resource management, crop improvement, sustainable production and utilization of tropical tuber crops.
- ❖ Co-ordinate research and validation of technologies through AICRP on Tuber Crops.

Core Values of ICAR-CTCRI

- ❖ Innovations
- ❖ Diversity
- ❖ Commitment
- ❖ Excellence
- ❖ Farmers welfare

Divisions/Sections/Regional Station of ICAR-CTCRI

The Institute conducts research and development on tropical tuber crops through three divisions, two sections, and one Regional Station.

1. Division of Crop Improvement
2. Division of Crop Production
3. Division of Crop Protection
4. Section of Crop Utilization
5. Section of Extension and Social Sciences
6. Regional Station, Bhubaneswar, Odisha

Mandate Crops

1. Cassava: *Manihot esculenta* Crantz, Euphorbiaceae
2. Sweet potato: *Ipomoea batatas* (L.) Lam., Convolvulaceae
3. Greater yam: *Dioscorea alata* L., Dioscoreaceae
4. White yam: *Dioscorea rotundata* Poir., Dioscoreaceae
5. Lesser yam: *Dioscorea esculenta* (Lour.) Burk., Dioscoreaceae
6. Elephant foot yam: *Amorphophallus paeoniifolius* (Dennst.) Nicolson, Araceae
7. Taro: *Colocasia esculenta* (L.) Schott., Araceae
8. Tannia: *Xanthosoma sagittifolium* (L.) Schott., Araceae
9. Giant taro: *Alocasia macrorrhiza* (L.) Schott., Araceae
10. Swamp taro: *Cyrtosperma chamissonis* (Schott.) Merr., Araceae
11. Chinese potato: *Plectranthus rotundifolius* (Poir.) Spreng., Lamiaceae
12. Yam bean: *Pachyrrhizus erosus* (L.) Urban, Fabaceae
13. West Indian arrowroot: *Maranta arundinacea* L., Marantaceae
14. Queensland arrowroot: *Canna edulis* (Ker-Gawler), Cannaceae
15. East Indian arrowroot: *Curcuma angustifolia* Roxb. Zingiberaceae



Core Training Areas

Crop Improvement	Crop Production	Crop Protection	Crop Utilization	Extension and Social Sciences
• Molecular breeding • Gene editing • Plant tissue culture	• Nutrient management • Organic and natural farming • Hi tech cultivation • Urban farming • Planting material production • Integrated farming systems • Soil analysis	• Integrated pest and disease management • Organic management of pests and diseases • Mass production of bio agents	• Processing techniques • Value addition • Mechanization	• Advanced statistical tools • R package • Entrepreneurship development • Women empowerment • Impact assessment • Climate adaptation studies • Smart farming

Training Programmes (April 2026 - March 2027)

I. Crop Improvement

1. Title : **Genome Editing in Plants**

Date : 27-31 July 2026

Duration : 5 days

Venue : ICAR-CTCRI, Thiruvananthapuram

Training areas : Introduction to gene editing, gene editing construct development, molecular cloning, transformation, basics of in vitro culturing.

Eligibility : Researchers, academicians and students having knowledge in basic plant biotechnology and molecular laboratory techniques.

Training fee (Rs.) : 5000 + 18% GST

Course Director : Dr. Krishna Radhika N.

Course Coordinator : Dr. Senthilkumar K.M.

Contact details : Dr. Krishna Radhika N., Senior Scientist

E-mail: krishna.rn@icar.org.in

Mobile: +91 9447749002

2. Title : **Breeder Seed Stocks Production and Conservation in Medicinal Tropical Tuber Crops**

Date : 12-14 August 2026

Duration : 3 days

Venue : ICAR-CTCRI, Thiruvananthapuram

Training areas : Concept and role of breeder seed in medicinal and minor tuber crops: Importance of breeder seed, nucleus stock, and primary clean planting material in vegetatively propagated medicinal tuber crops. Field/seed gene bank management for genetic purity and conservation. Genetic purity maintenance in vegetatively propagated crops: Source tracing and maintenance of clonal lineage, periodic rejuvenation of planting material from nucleus and breeder stock, maintenance of accession history, field records, and purity status. Documentation and digital management of gene bank

resources. Unearthing phytochemicals and nutraceutical traits in medicinal tuber crops. Identification of elite genotypes for yield, quality, and medicinal traits, scaling up breeder stocks to foundation seed and quality planting material. Establishment of medicinal tuber crops conservation parks. Selection of site, species composition, and layout planning.

Eligibility	: Teachers/Assistant Professors/Scientists/Students/other professionals with minimum degree in Life Sciences
Training fee (Rs.)	: 3000/- + 18 % GST
Course Director	: Dr. P. Murugesan
Course Coordinators	: Dr. R. Muthuraj Dr. N. Krishna Radhika
Contact details	: Dr. P. Murugesan E-mail : p.murugesan@icar.org.in Mobile: + 91 9447213281

3. Title : **Molecular Marker Techniques for Crop Improvement**

Date	: 26-30 October 2026
Duration	: 5 days
Venue	: ICAR-CTCRI, Thiruvananthapuram
Training areas	: Introduction to molecular markers and their applications in crop improvement, including overview of marker systems and basic laboratory practices. Preparation of stock solutions and buffers; plant genomic DNA isolation, quantification, and quality assessment using agarose gel electrophoresis. PCR amplification techniques, primer handling, reaction optimization, and analysis of amplified products. Genetic diversity analysis and basic gene mapping using SSR markers, including allele scoring and data interpretation.
Eligibility	: Researchers, academicians and students having knowledge in basic plant biotechnology and molecular laboratory techniques
Training fee (Rs.)	: 5000 + 18% GST
Course Director	: Dr. C. Mohan

Course Coordinator : Dr. Senthilkumar K.M.
Contact details : Dr. C. Mohan, Principal Scientist
E-mail : mohan.c@icar.org.in; cmsan99@gmail.com
Mobile: +91 9495201553

II. Crop Production

- 4. Title : Advance Techniques in Soil, Water and Plant Analysis**
- Date : 4-8 January 2027
- Duration : 5 days
- Venue : ICAR-CTCRI, Thiruvananthapuram
- Training areas : Collection of soil samples and analysis; Soil physical parameters : Soil texture, bulk density, particle density, water holding capacity; Chemical parameters: Soil pH, total soluble salts, lime and gypsum requirement, cation exchange capacity, organic carbon, available nitrogen, phosphorus, potassium, calcium, magnesium, sulphur, iron, copper, manganese, zinc and boron following standard extraction and estimation procedures; Soil Test based Fertilizer Recommendation (STFR) kit, nutrient recommendation based on soil test, generation of soil health cards; Estimation of soil quality indices and soil health; Water quality analysis for critical parameters like SAR, ESP etc; Plant analysis for N, P, K.
- Eligibility : State Soil Testing Agencies, ICAR/SAU faculty members
- Training fee (Rs.) : 5000/- + 18% GST
- Course Director : Dr. V. Ramesh
- Course Coordinators : Dr. Jeena Mathew, Dr. J. Suresh Kumar
Dr. G. Suja and Dr. S. Sunitha
- Contact details : Dr.V. Ramesh, Principal Scientist
E-mail: Ramesh.V1@icar.org.in
Mobile: +91 9486960928

III. Crop Protection

- 5. Title : Advanced Training on Pest, Disease & Nematode Diagnostics and Management**
- Date : 21-25 September 2026
- Duration : 5 days
- Venue : ICAR-CTCRI, Thiruvananthapuram
- Training areas : Advanced/novel techniques for pest & disease diagnosis; Practical application of molecular tools for crop health diagnostics; Systems-based holistic approach to crop health management; Field deployable IPM/IDM advisories and management modules.
- Eligibility : Students/Staff from ICAR Institutes/SAUs/CAU/Deemed Universities/Colleges/KVKs, State Department of Agriculture/Horticulture and Entrepreneurs.
- Training fee (Rs.) : 5000 + 18% GST
- Course Director : Dr. H. Kesava Kumar
- Course Coordinators : Dr. S.S. Veena, Dr. E.R. Harish and Dr. B.G. Sangeetha
- Contact details : Dr. H. Kesava Kumar, Senior Scientist
E-mail: kesava.kumar@icar.org.in
Mobile: +91 7398897724

IV. Crop Utilization

- 6. Title : Circular Economy Approaches in Tropical Tuber Crops Processing and Value Addition**
- Date : 23-29 September 2026
- Duration : 7 days
- Venue : ICAR-CTCRI, Thiruvananthapuram
- Training areas : Practical systems-based competencies to transform tropical tuber enterprises into resource-efficient, climate-resilient and economically viable businesses; Core principles of circular economy as applied to cassava, sweet potato, yams and aroids, and guide participants in mapping major loss and waste streams across

production, processing and marketing stages; Technological options for valorizing by-products (peels, leaves, stems, fibrous residues) into food, feed and industrial applications, alongside appropriate pre- and post-harvest machinery that enable circular practices, value addition and improved market access for tuber-based enterprises; development of gluten-free high-quality cassava flour, fried snack products, functional pasta/noodles and bakery items; Various machineries to be used for setting up tuber based enterprise and techno economic feasibility of various value added products.

- Eligibility** : Employees from ICAR Institutes/State AUs/CAUs/Deemed to be Universities/Colleges affiliated to general Universities who are interested/associated with value addition and allied aspects of agro processing.
- Training fee (Rs)** : 7000+ 18 % GST
- Course Director** : Dr. M.S. Sajeev
- Course Coordinators** : Dr. A.N. Jyothi, Dr. T. Krishnakumar and Dr. C. Pradeepika
- Contact details** : Dr. M. S. Sajeev, Principal Scientist & Scientist In Charge
E-mail: sajeev.ms@icar.org.in
Mobile: +91 9446102911

V. Extension and Social Sciences

- 7. Title** : **Smart Farming Driven by Artificial Intelligence**
- Date** : 08-12 June 2026
- Duration** : 5 days
- Venue** : ICAR-CTCRI, Thiruvananthapuram
- Training areas** : Introduction to AI in agriculture, understanding smart farming concepts, AI technologies in agriculture, data collection and sensing techniques, data analysis and predictive modelling, resource management and optimization, pest and disease detection, automation and robotics, integration with farm management systems, case studies and best practices, hands-on training and

	practical application, ethical and regulatory considerations, evaluation and certification.
Eligibility	: Scientists, Teachers and Students of NARS, other R&D institutions and Universities of Governmental and Non-Governmental systems.
Training fee (Rs.)	: 5000 + 18 % GST
Course Director	: Dr. V.S. Santhosh Mithra
Contact details	: Dr. V.S. Santhosh Mithra, Principal Scientist E-mail: vss.mithra@icar.org.in Mobile: +91 9495155965

Training Methodology

- Front end teaching
- Interactive training
- Hands on training
- Experiential learning

Training Partners

- ICAR Institutes, SAUs, Universities, NAARM, MANAGE, IMG, IITs etc.

Facilities at ICAR-CTCRI

- Air conditioned smart lecture halls of varying seating capacity equipped with advanced audio visual aids
- Computer labs with GIS, multimedia, E-learning facilities
- Conference rooms for video conferencing
- State of the art training halls with all modern facilities
- Well equipped laboratories
- Fully furnished guest rooms to accommodate 28 participants
- Library with latest editions of books and journals
- Campus wide Wi-Fi connectivity
- Agri Business Incubation centre with all facilities for the incubates and upcoming start ups
- Agricultural Knowledge Management Unit (AKMU)
- Dairy Unit
- Techno Incubation Centre (TIC)
- Departmental Canteen



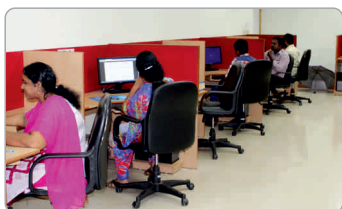
Integrated organic farming system



AAS laboratory



Library



Agricultural Knowledge
Management Unit



Agri Business Incubation centre



Techno-Incubation centre



Museum



Dairy Unit



Guest House

How to Apply

The interested candidates may send their filled-in applications (as per the format attached) for various training programmes to the concerned course director through e-mail. Participants for the training will be selected after an initial screening and selected candidates will be informed individually.

Fee Payment Details

Account Name	:	ICAR UNIT CTCRI
Account No	:	57019705533
Bank	:	State Bank of India
Branch	:	Kallampally
IFSC Code	:	SBIN0070288

Faculty of ICAR-CTCRI

Crop Improvement

1. Dr. Manas Ranjan Sahoo, Principal Scientist (Horticulture) & Head
2. Dr. P. Murugesan, Principal Scientist (Vegetable Science)
3. Dr. K.I. Asha, Principal Scientist (Economic Botany and PGR)
4. Dr. C. Mohan, Principal Scientist (Genetics and Plant Breeding)
5. Dr. A. Asha Devi, Principal Scientist (Genetics and Plant Breeding)
6. Dr. Shirly Raichal Anil, Principal Scientist (Genetics and Plant Breeding)
7. Dr. L.K. Bharathi, Principal Scientist (Vegetable Science)
8. Dr. N. Krishna Radhika, Senior Scientist (Agricultural Biotechnology)
9. Dr. Kalidas Pati, Senior Scientist (Vegetable Science)
10. Dr. C. Visalakshi Chandra, Senior Scientist (Genetics and Plant Breeding)
11. Dr. K.M. Senthilkumar, Senior Scientist (Agricultural Biotechnology)
12. Dr. T.P. Sujatha, Scientist (Agricultural Biotechnology)
13. Dr. S. N. Rahana, Scientist (Genetics and Plant Breeding)

Crop Production

1. Dr. G. Byju, Director (Soil Science)
2. Dr. G. Suja, Principal Scientist (Agronomy) and Head
3. Dr. M. Nedunchezhiyan, Principal Scientist (Agronomy) & SIC, Regional Station
4. Dr. K. Susan John, Principal Scientist (Soil Science)
5. Dr. S. Sunitha, Principal Scientist (Agronomy)
6. Dr. K. Laxminarayana, Principal Scientist (Soil Science)
7. Dr. K. Sunilkumar, Principal Scientist (Vegetable Science)
8. Dr. V. Ramesh, Principal Scientist (Soil Science)
9. Dr. R. Muthuraj, Principal Scientist (Seed Science and Technology)
10. Dr. R. Saravanan, Principal Scientist (Plant Physiology)
11. Dr. Jeena Mathew, Senior Scientist (Soil Science)
12. Dr. J. Suresh Kumar, Scientist (Vegetable Science)

Crop Protection

1. Dr. T. Makesh Kumar, Principal Scientist (Plant Pathology) and Head
2. Dr. M.L. Jeeva, Principal Scientist (Plant Pathology)
3. Dr. S.S. Veena, Principal Scientist (Plant Pathology)
4. Dr. E.R. Harish, Senior Scientist (Agricultural Entomology)
5. Dr. H. Kesava Kumar, Senior Scientist (Nematology)
6. Dr. B.G. Sangeetha, Senior Scientist (Agricultural Biotechnology)
7. Dr. R. Arutselvan, Scientist (Plant Pathology)

Crop Utilization

1. Dr. M.S. Sajeev, Principal Scientist (Agricultural Structures & Process Engineering) & Scientist In Charge
2. Dr. A.N. Jyothi, Principal Scientist (Agricultural Chemicals)
3. Dr. T. Krishnakumar, Scientist (Agricultural Structures & Process Engineering)
4. Dr. C. Pradeepika, Scientist (Vegetable Science)

Extension and Social Sciences

1. Dr. V.S. Santhosh Mithra, Principal Scientist (Computer Applications & IT) & Scientist In Charge
2. Dr. Sheela Immanuel, Principal Scientist (Agricultural Extension)
3. Dr. J. Sreekumar, Principal Scientist (Agricultural Statistics)
4. Dr. P. Sethuraman Sivakumar, Principal Scientist (Agricultural Extension)
5. Dr. D. Jaganathan, Senior Scientist (Agricultural Extension)
6. Dr. P. Prakash, Scientist (Agricultural Economics)

HRD Team

Nodal Officer	: Dr. Sheela Immanuel, Principal Scientist E-mail: sheela.immanuel@icar.org.in
Co-Nodal Officer	: Dr. P. Prakash, Scientist E-mail: prakash.p1@icar.org.in
Members	: Dr. R. Muthuraj, Dr. C. Pradeepika, Dr. B.S. Prakash Krishnan, Mr. T. Manikantan Nair, Mr. R. Ajith Kumar, Ms. S.S. Sneha, Ms. L. Sreelakshmi and Mr. P. Aswin Raj



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Telephone: 0471-2598551, <https://www.ctcri.org>, E-mail: director.ctcri@icar.org.in

APPLICATION FORM

Name	
Gender	
Designation & office address (if employed)	
Postal Address (In capital letters)	
Date of birth and age	
Nationality	
Educational qualifications	
Experience	
Mobile number	
Email ID	
Training course applied for	
Whether accommodation is required at ICAR-CTCRI (Yes/No)	

Date:

Place:

Signature of the applicant

For office use only

SAO/FAO/Cashier Pls.

A total amount DD / online payment of Rs.+18% GST may be accepted from the candidate towards the training fee for.

.....

.....DD NO / Online transaction No

.....dated.....of.....

AAO, ESTABLISHMENT

Signature of the Course Director

March 2026

TRAINING CALENDAR 2026-2027

Compiled and edited by

Dr. Sheela Immanuel, Dr. P. Prakash and Dr. D. Jaganathan

Published by

Dr. G. Byju
Director



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Food, Health, Wealth and Prosperity***



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Social Media

Facebook
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 Instagram
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