IARI-VEGETABLES ONLINE TRAINING

Recent Advances in Cucurbits: Integrating genetic improvement and sustainable production practices

30 Nov.-06 December, 2026



About the Training Programme

Cucurbits are important vegetable crops contributing to nutritional security, farm income and agricultural diversification. However, their productivity and quality are constrained by biotic and abiotic stresses, limited genetic variability for desirable traits, and challenges associated with sustainable crop production under changing climatic conditions. Recent advances in molecular, genomics-assisted breeding and genome editing offer new opportunities to improve stress tolerance, fruit quality and resource-use efficiency in cucurbits. The advanced production technologies including protected cultivation and precision farming also play a crucial role in enhancing production and profitability in cucurbits. The proposed training program will familiarize participants with these emerging technologies and sustainable cultivation practices to strengthen their research capabilities and accelerate cucurbit crop improvement.

Division of Vegetable Science
ICAR-Indian Agricultural Research Institute, New Delhi – 110 012

Schedule of the training

Date	Key Talk / Lecture Title	Speaker / Expert
30 Nov 2026 (Mon)	Inauguration and Overview of the Training Programme	**Training Coordinators**
	Inaugural lecture: Sustainable Vegetable Production for Nutrition, Health and Income Security	**Dr Ch. Srinivasa Rao**, Director, ICAR-IARI, New Delhi
	Cucurbitaceous Vegetable Varieties for Earliness, High Yield and Climate Resilience	**Dr K K Gangopadhyay**, Head, Division of Vegetable Science, ICAR-IARI, New Delhi
	Genetic Enhancement and Production Innovations in Muskmelon for Earliness, Yield and Stress Resilience	**Dr H Choudhary**, Pr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
01 Dec 2026 (Tue)	Genetic Enhancement and Production Innovations in Cucumber for Yield and Stress Resilience	**Dr S S Dey**, Pr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Genetic Improvement and Production Innovations in Bitter gourd for Earliness, Yield and Stress Resilience	**Dr G S Jat**, Sr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Genome Editing in Cucurbitaceous Vegetables for Nutrition, Yield and Stress Resilience	**Dr C. Viswanathan**, Joint Director (Research), ICAR-IARI, New Delhi
02 Dec 2026 (Wed)	Genetic Improvement and Production Innovations in Bottle gourd for Yield and Stress Resilience	**Dr J K Ranjan**, Pr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Recent Advances in Improvement of *Cucurbita* species for Yield, Quality and Stress Resilience	**Dr A K Sureja**, Pr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	QTL Mapping in Cucurbitaceous Vegetable for Yield, Quality and Stress Resilience	**Dr T K Behera**, Director & Pr. Scientist, ICAR-IIHR, Bengaluru
03 Dec 2026 (Thu)	Genetic Improvement of *Luffa* for Earliness, Yield and Stress Tolerance	**Dr Vinay N D**, Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Genome Wide Association Mapping for Economic Traits in Cucurbitaceous Crops	**Dr Suman Lata**, Sr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Marker Assisted Breeding for Improvement of Cucurbit Vegetables	**Dr Manisha Mangal**, Pr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
04 Dec 2026 (Fri)	Practical Implications in Cucurbits: Floral Biology, Pollination Management, Crossing and Selfing Techniques	**Dr Jogendra Singh Rathore**, Sr. Scientist, Div. of Vegetable Science, ICAR-IARI, New Delhi
	Recent Advances in Production Technologies of Cucurbitaceous Crops	**Dr Balraj Singh**, Ex Vice Chancellor, SKNAU, Jobner, Jaipur
	Recent Advances in Seed Production Technologies of Cucurbitaceous Crops Under Open Field and Protected Cultivation	**Dr B S Tomar**, Ex Head, Div. of Vegetable Science, ICAR-IARI, New Delhi
05 Dec 2026 (Sat)	Climate Smart Protected Cultivation Technologies for Enhancing Yield and Income	**Dr Awani K. Singh**, Head, ICAR-RCER, FSRCHPR, Plandu, Ranchi
	Experimental Design, Field Layout and Good Agricultural Practices in Vegetable Experiments	**Dr. Dinesh Kumar**, Pr. Scientist, Div. of Agronomy, ICAR-IARI, New Delhi
	Data Analysis and Bioinformatics for GWAS and QTL seq.	**Dr Mir Asif Iquebal,** Principal Scientist, ICAR-IASRI, New Delhi
06 Dec 2026 (Sun)	Statistical Tools and Data Analysis for Vegetable Research	**Dr Deepak Singh**, Senior Scientist, ICAR- IASRI, New Delhi
	Participant Interaction, Feedback, and Valedictory Programme	**Training Coordinators**

Participation Details

Target Participants

- Scientists, Faculty Members, Subject Matter Specialists and Extension Professionals from ICAR Institutes, Agricultural Universities, KVKs, Government Organizations, etc.
- M.Sc. and Ph.D. Scholars pursuing research in Vegetable Crops preferably Cucurbits Breeding, Biotechnology and Production Aspects

MODE	SESSION TIMINGS	REGISTRATION FEE
Virtual (Zoom Platform)	02:30 PM - 05:30 PM (IST)	Rs 1500/-

Selection Criteria

Limited seats are available; participants will be selected on a first-come, first-served basis, with preference given to applicants from core Vegetable Science disciplines.

Bank Account Details

A/C Holder: Director, ICAR-IARI
Bank: Canara Bank
Branch: IARI, Pusa Campus, New Delhi
IFSC: CNRB0019029
A/C No.: **90293050000017**

Link to register: https://script.google.com/macros/s/AKfycbxBrMFRO2VGx85S12hEFGOo9MZ-TYoftev2eejvzrToyp6d9tuTOCh1pzsZjZXT1Bg/exec

Expected Learning Outcomes

- Sustainable Vegetable Production
- Genetic Improvement Strategies
- Genome Editing for Yield, Nutrition and Stress
- QTL Mapping and GWAS
- Marker-Assisted Breeding in Cucurbits
- Climate-Smart Production and Protected Cultivation
- Advanced Seed Production Techniques
- Experimental Designs and Statistical Tools
- Analysis of Genomic Data using Bioinformatics
- Experimental Design and Statistical Analysis

TRAINING COORDINATORS

Dr G S Jat
Sr. Scientist, Division of Vegetable Science

Dr Vinay N D
Scientist, Division of Vegetable Science

Dr K K Gangopadhyay
Head & Principal Scientist, Division of Vegetable Science

Contact:

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