



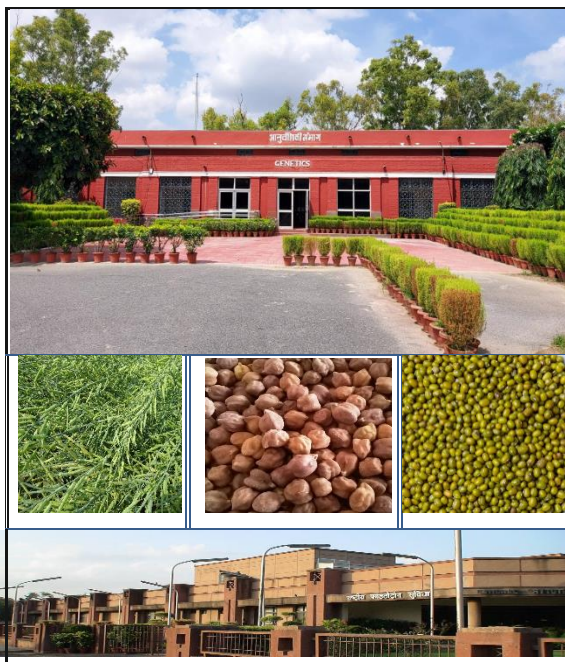
ICAR Sponsored Short Course



on

“Ameliorating quality and productivity of oilseeds and pulses through classical, modern and disruptive technologies”

(17-26 February, 2025)



Organized by

Division of Genetics
ICAR-Indian Agricultural Research Institute
New Delhi-110012

ICAR Sponsored Short Course

on

Ameliorating quality and productivity of oilseeds and pulses through classical, modern and disruptive technologies

About The Institute

The Indian Agricultural Research Institute (IARI) is the country's premier institution for agricultural research, education and extension. It has been serving the cause of science and society with distinction through basic research, generation of appropriate technologies and development of human resources. The Division of Genetics at IARI, widely regarded as the "Seat of Green Revolution" in India, is one of the important pillars of this institute. This Division has been in existence at IARI since 1960. Since its inception, the Division has been making significant contributions to basic, strategic and applied research in genetics and plant breeding of various crops as well as model genetic organisms. The leadership and vision of several eminent scientists, such as Dr. B.P. Pal, Dr. M.S. Swaminathan, Dr. A.B. Joshi, Dr. H.K. Jain and Dr. V.L. Chopra, have immensely contributed to the development of the Division of Genetics at IARI as a center of excellence in teaching and research related to genetics and plant breeding. The Division of Genetics has nurtured a large contingent of post-graduate students, both from India and abroad. Alumni of the Division have either served or have been serving diverse national and international research organizations as geneticists and plant breeders of high repute. In its endeavour to develop highly trained human resources, the Division has been continuously upgrading its postgraduate education and research programmes, keeping in view the recent developments in crop genetics and breeding.

Introduction

Oilseeds and pulses are vital for India's food security, nutritional balance, and sustainable agriculture. With the global population expected to reach 10 billion by 2050, ensuring nutritional security requires significant improvements in the productivity and quality of these crops. This challenge must be addressed within the constraints of limited resources like land, water, and energy, while protecting the environment.

To meet this demand, a combination of classical breeding and innovative techniques is essential. Advanced methods such as marker-assisted selection (MAS), genetic engineering, and genome editing allow breeders to precisely modify specific genes, accelerating the development of improved crop varieties. Unlike traditional techniques, these approaches provide access to genetic diversity from wild relatives and exotic germplasm, enabling the creation of crops with enhanced resistance to pests, diseases, and environmental stresses. Techniques like genomic selection and speed breeding further expedite breeding cycles, allowing rapid responses to evolving environmental and market demands. Phenomics, a cutting-edge field improving phenotyping precision, is gaining momentum. Training crop scientists in these advanced techniques is vital for accelerating crop improvement and ensuring agricultural sustainability in the face of growing global challenges.

Theme

Modern plant breeding techniques like Marker-assisted selection has revolutionized crop improvement by enhancing precision and efficiency. Genomics and phenomics has provided insights into genetic and trait variations, while CRISPR enables precise gene modifications. Role of pre-breeding in introducing novel traits from wild species and speed breeding to shortens crop cycles is vital for further genetic gain. Exploitation of heterosis is an urgent need in oilseed and pulses. This training aims to impart exposure on these innovations as a supplementary tool to classical plant breeding techniques to address challenges, ensuring sustainable oilseeds and pulses production.

Objectives

The objective of the short course is to give an opportunity to the teachers and young scientists working in the ICAR institutes, SAUs, CUs/DUs and State Universities to gain updated information and hands on training on the modern plant breeding techniques to increase quality and productivity of oilseeds and pulses.

Venue

The venue of the training is Division of Genetics, ICAR-Indian Agricultural Research Institute, New Delhi- 110012

Duration of The Course

The course has been planned for 10 days duration from 17-26, February, 2025. The training will comprise of lecture and practical sessions by experts from the IARI and other premier University/Institutions.

Local & Weather Condition

Delhi is well connected through railways and roads with different parts of the country. IARI, commonly known as Pusa Institute, is centrally located in New Delhi. The weather during course duration is predicted to remain cool and pleasant. Light warm garments would make the stay more comfortable.

Participants' Eligibility

Young active researchers/teachers not below the rank of Assistant Professor or equivalent from SAUs / CUs / DUs / ICAR / National Institutes, having minimum two years of experience in the disciplines of Genetics/ Plant Breeding/ Seed sciences and Technology/ Molecular Biology/ Plant Biotechnology/ Plant Physiology/ Biochemistry/ Food processing and Technology/ Entomology/ Pathology and allied Sciences in Agriculture are eligible to apply. A total of 25 candidates will be selected for this course. The selection of the candidates will be made by a Screening Committee as per the available guidelines of the ICAR.

Mode of Application

Scientists desirous of participating in the course should apply through proper channel in the given proforma. The participants should submit their application online using CBP portal (<https://cbp.icar.gov.in>) or under the link Capacity Building Program at <http://icar.org.in>). For this, after filling the online application, take a printout of the application and get it approved by the competent authority of the organization and upload the scanned copy of application through CBP portal. The hard copy of the application in the given format for participation in the Short Course duly forwarded by the competent authority of the Institute/university should be submitted to the Course Director on below mentioned address.

The last for receipt of the application is **25th January, 2025**. Selected candidates will be informed by **30th January, 2025** through e-mail. The advance scanned copy of the nomination may be sent by e-mail (shortcourseoilseedpulses2025@gmail.com). Please feel free to contact the Course Director for any assistance. The selected participants will have to pay Rs. 50/- (non-refundable) as registration fee at the time of their registration in the training programme in the form of postal order drawn in favor of Director, IARI, New Delhi payable at Post Office, New Delhi - 110012.

Accommodation & Travelling Allowance

Boarding and lodging will be provided to the participants during the training period at the hostel/ guest house facilities of ICAR-IARI / IASRI/ NBPGR. Travel Allowance to the participants will be paid as per their entitlement for the class of travel, restricted to the maximum of AC II tier fare (except Rajdhani & Shatabdi trains) by the shortest route. Participants are required to produce money receipt/ tickets in support of their claims. The reimbursement will be made as per ICAR guidelines. However, the candidates are encouraged to arrange their travel & accommodation expenses from their parent Institutes.

All Correspondences May Kindly Be Addressed To

Dr. Rajendra Kumar

Principal Scientist, Course Director

Division of Genetics

Indian Agricultural Research Institute New Delhi-110012, India

Phone:011-25841481, 08004910406

email:shortcourseoilseedpulses2025@gmail.com

Dr. Kumar Durgesh and Dr. Yashpal

Sr. Scientist and Scientist, Course Coordinators

Division of Genetics

Indian Agricultural Research Institute New Delhi-110012, India

Phone:011-25841481, 07982638311, 09350065627

e-mail: shortcourseoilseedpulses2025@gmail.com

Last date for submission of application for the short course is 25.01.2025

The circular is also available on IARI website (<http://www.iari.res.in>)

APPLICATION FORM FOR PARTICIPATION IN SHORT COURSE

Ameliorating quality and productivity of oilseeds and pulses through classical, modern and disruptive technologies

1. Full name (in block letters) :
2. Designation :
3. Present employer & address :
4. Address for communication:
- Telephone (O): (R) (Mobile)
- Fax No..... E-mail:
5. Permanent address :
6. Date of Birth :
7. Sex: Male/Female 7a. Marital status: Married/Unmarried
8. Teaching/ research/ professional experience (post held during last 5 years)

Sr. No.	Post held	Period with date

9. No. of publications :
10. Courses/Trainings/Seminar etc. attended during the last three years

Sr. No.	Name of the training	Venue	Period

11. Details of the Postal Order No..... Date.....
12. Academic record (From graduation)

Degree	Main/Subsidiary Subjects	Year of passing	University	OGPA/% age

Signature

CERTIFICATE

It is certified that information furnished has been verified and found correct. Recommendation of the forwarding Authority/Institution

Signature of the competent authority
With official seal

Date:
Place:

To
Dr. Rajendra Kumar
Principal Scientist & Course Director
Division of Genetics
Indian Agricultural Research Institute New Delhi-110012, India