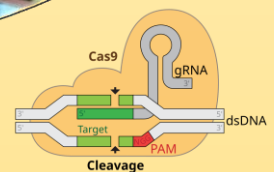
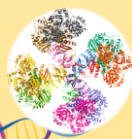




10 Days Training Program on

Biotic and Abiotic Stress Resilience Through Innovative Biotechnological Approaches in Oilseed Brassica

December 01-10, 2025



Patron

Director, ICAR-IIRMR, Bharatpur

Course Director

Dr. Prashant Yadav

Sr. Scientist (Ag. Biotechnology)



Co-Course Director

Dr. Bhagirath Ram

Pr. Scientist (GPB)

Co-Coordiators

Dr. Anubhuti Sharma

Pr. Scientist (Biochemistry)

Dr. H. K. Sharma

Sr. Scientist (GPB)

Dr. N. R. Bhardwaj

Scientist (Plant Pathology)

Organized by

ICAR-Indian Institute of Rapeseed-Mustard Research

Indian Council of Agricultural Research, Department of Agricultural Research and Education
Ministry of Agriculture and Farmers Welfare, Government of India
Sewar, Bharatpur, 321303, Rajasthan

About ICAR- Indian Institute of Rapeseed-Mustard Research, Bharatpur

The ICAR established the National Research Centre on Rapeseed-Mustard (NRCRM) in Bharatpur on October 20, 1993, for research on rapeseed-mustard crops. Its mandate includes basic and applied research, developing sound agro-technologies, and coordinating research nationally through a network of 51 centers under AICRP-RM. In February 2009, NRCRM was renamed the Directorate of Rapeseed-Mustard Research (DRMR). It was further upgraded in 2024 to the ICAR-Indian Institute of Rapeseed-Mustard Research (IIRMR). The IIRMR now functions as a core institute supporting the production system research for the entire rapeseed and mustard group of crops.

About the Training Program

Oilseed Brassica, a cornerstone of India's edible oil security, faces substantial yield and quality losses due to complex biotic and abiotic stresses, often causing significant yield and quality losses, particularly under climate variability. Key diseases such as Sclerotinia stem rot, white rust, Alternaria blight, powdery mildew, and insect pests like aphids, along with drought, heat, salinity, and frost, adversely affect crop establishment, seed set, and oil quality. Modern biotechnological approaches including genomics, transcriptomics, marker-assisted selection, genomic selection, genome editing (CRISPR/Cas), speed breeding, doubled haploidy, and microbial interventions provide effective tools for developing stress-resilient cultivars. These technologies help identify key resistance genes and pathways, enhance precision in selection, and accelerate the development of multi-stress tolerant varieties. Advanced phenotyping, pangenomics, GWAS, and RNA-seq further strengthen climate-resilient Brassica improvement. This online training module is designed to provide scientists, researchers, and academicians with updated insights and practical exposure to modern biotechnological strategies for enhancing stress resilience in oilseed Brassica. Through expert-led sessions, *virtual* laboratory demonstrations, interactive data-analysis modules, and case-based learning, participants will gain a comprehensive understanding of how to integrate advanced tools into Brassica advanced breeding techniques. IIRMR's robust research facilities, digital learning resources, and field-validated technologies offer a strong foundation for effective online training. The following broad areas will be covered during the training program:

- Molecular pathways and gene networks involved in biotic and abiotic stress responses
- Molecular breeding approaches, including marker-assisted and genomic selection
- Genome editing and transgenic technologies
- Rapid-generation advancement and speed breeding techniques
- Omics-driven phenotyping, biochemical analyses, and integrative data interpretation
- Approaches for developing climate-resilient and high-yield-potential Brassica cultivars

Eligibility

Scientists/ Assistant professors/SMS or equivalent and above working in ICAR institutes/ SAUs/ KVKs and CAUs can apply for this training programme. The participants must have a master's degree in agriculture and allied subjects. The number of participants will be 25 including the institutional candidates (10%).

Travel and Accommodation

The training will be organized in **online** mode. The link of the training will be provided to the selected candidates.

How to Apply?

Applications are invited through the proper channel to the email id of the Director, IIRMR (director.drmr@gmail.com). The last date for receiving nomination is **November 25, 2025**. The hard copy of the application along with a **registration fee Rs. 1000/-** must be submitted to the Course Director. Registration fee may be credited in IIRMR bank account through online (Account name: ICAR-Unit DRMR; State Bank of India; **A/C No.: 11034770377**; IFSC code: SBIN0002313; Branch: Kumher Gate, Bharatpur, Rajasthan). The application of the candidate should be submitted in the prescribed format.



ICAR- Indian Institute of Rapeseed-Mustard Research Bharatpur-321 303, Rajasthan

10 Days Training Program

on

Biotic and Abiotic Stress Resilience Through Innovative Biotechnological Approaches in Oilseed Brassica

(December 01-10, 2025)

Name:

Gender:Date of Birth:.....

Designation:

University/Institute:.....

Educational qualification:.....

Mobile No.:.....WhatsApp No:.....

Email ID:

Subject/Specialization:

Corresponding Address with PIN Code:.....

Signature of Applicant:.....

Forwarding from HoD/Head of the Institution:.....

Signature & Office Seal

Important Dates:

- Last date for receipt of application: 25/11/2025
- Selection intimation to applicants: 28/11/2025

All correspondence may be made to the Director, IIMR

Dr. Vijay Veer Singh

Mobile no. +91-7597004107; +91-7597004174 (Office)

Email: director.drmr@gmail.com

Course Director: Dr. Prashant Yadav-+91-8094350580 (M); Email-
prashantnduat@gmail.com

Course Co-Director: Dr. Bhagirath Ram- +91-9660114965 (M); Email-
bhagirathram_icar@yahoo.com