

Eligibility Criteria

Applications are invited from the teachers /researchers not below the rank of Scientists /Assistant Professor/Lecturer/Subject Matter Specialist having a minimum of two years' experience in related teaching/research in Indian Council of Agricultural Research/State Agricultural Universities in the respective fields.

Course Director

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Centre for Advanced Faculty Training on Genetics and Plant Breeding

Department of Plant Breeding and Genetics
Punjab Agricultural, University, Ludhiana

ICAR sponsored CAFT Training on

**Harnessing Modern Plant Breeding Tools for Developing
Climate Resilient and Nutritionally Enriched Crop Varieties**

From January 14 - February 03, 2026

Organized by
Department of Plant Breeding and Genetics
College of Agriculture,
Punjab Agricultural University, Ludhiana-141004
(Punjab)

**NIRF Rank 1st, 2025
(Among State Agricultural Universities)**



About the CAFT Training

The objective of this CAFT training is to equip young researchers with latest advances in genetics and genomics shaping the crop improvement programmes. Both theory and practical sessions will be conducted during the training programmes on modern plant breeding tools such as mapping and cloning of genes and QTLs using advanced technologies, speed breeding for accelerating crop improvement programmes, RNAi and genome editing for tailoring elite cultivars. Discussions will be held on crop improvement programmes during visit of experimental fields. Crop experts will discuss the advances in understanding genetics of different traits in the major crop plants, and utilization in their breeding programmes. Experts from different departments of PAU and other institutes will deliver lectures and conduct practical sessions during the training programme.

Punjab Agricultural University

Punjab Agricultural University (PAU), established in 1962 in Ludhiana, Punjab, is one of Asia's leading institutions for agricultural education and research. A pioneer of India's Green Revolution, PAU has played a vital role in ensuring national food security through the development of high-yielding crop varieties and innovative production, protection, and processing technologies. The University continues to lead in adopting advanced tools for crop improvement, including one of the country's first speed-breeding facilities. Its state-of-the-art genetics and genomics labs, quality testing facilities, and extensive experimental fields support cutting-edge research across diverse crops.

College of Agriculture

The College of Agriculture is the oldest and the largest of the six constituent colleges of Punjab Agricultural University. The college was originally established in 1906 as Punjab Agricultural College and Research Institute, Lyallpur (now in Faisalabad, Pakistan). The College was established at its present site in July 1957. The college imparts quality education, generates unmatched research output and reaches out to the peasantry through a large network of 10 departments / schools. The college strives to achieve its mission through its team of highly competent and well-qualified faculty members and state-of-the-art infrastructure. Its experiential learning units nurture entrepreneurs and job providers in agriculture and allied fields. To date, the college has produced over 7,200 skilled graduates, many of whom have attained distinguished positions such as Vice-Chancellors, Directors General, and Commissioners. Its alumni have earned prestigious honors, including World Food Prizes (2), Padma Bhushan (7), and Padma Shri (11) awards. The college also received the FICCI Award (1977) for its outstanding contributions to Indian agriculture.

Department of Plant Breeding and Genetics

Department of Plant Breeding and Genetics has played a vital role in development and release of more than 800 varieties of different crops such as wheat, rice, maize, pulses, oilseeds and fodder crops. Many varieties of rice and wheat have been developed by marker-assisted-selection for resistance to bacterial blight and rust respectively. The department has significantly contributed in developing biofortified crop varieties, focusing on enhancing nutritional value in staple crops like wheat. The department released variety PBW 723 of wheat for yellow rust resistant, PBW RS 1 for high resistant starch, PBW 1 Chapati & PBW 1 Biscuit varieties developed for specific end-use applications like chapatti and biscuit making, respectively. Two zinc bio fortified wheat varieties PBW Zn 1 and PBW Zn 2 were released by PAU and adopted by farmers of Punjab state. Several genes including rust resistance in wheat, bacterial blight and brown planthopper resistance in rice, yellow mosaic virus disease resistance in mung bean and soybean have been identified from diverse sources.

The department has its own experimental farms equipped with all the latest equipments, screen houses, net houses, high-tech molecular and tissue culture laboratories, high-throughput genotyping and marker-assisted selection labs, growth chambers, rainout shelter, pathotyping and insect rearing labs etc. The crop breeders of the department are using the integrated breeding programmes where conventional breeding programmes are being supported by the advanced biotechnological, genetic and genomic tools. The department is also handling many projects sponsored by national and international funding agencies for developing climate resilient and nutritionally enriched crop varieties.

Travel

Selected participants are eligible for TA (upto 2nd AC Fare by shortest route as per ICAR norms). Food & accommodation will be provided by the organizing institute. No DA is admissible to the participants. The local participants are not eligible for boarding and lodging, however, working lunch and refreshments will be provided.

Important dates

Last date of application	: 10 th December, 2025
Communication to the participants	: 15 th December, 2025
Commencement of Training Programme	: 14 th January, 2026

City & Weather

Ludhiana is a hub for textile and hosiery industry. The average temperature during January in Ludhiana will be around 17.8°C and low temperature will be around 6.4°C.

How to apply

The application forms (as enclosed) duly filled and recommended by the forwarding authority, should be sent to the Director, Centre for Advanced Faculty Training in Genetics & Plant Breeding-cum-Head, Department of Plant Breeding & Genetics, Punjab Agricultural University, Ludhiana-141004 either by email at teachingpbg@pau.edu or by speed post.

Maximum number of participants: 25

**Centre for Advanced Faculty Training in Genetics & Plant Breeding,
Punjab Agricultural University, Ludhiana**

**APPLICATION FORM FOR PARTICIPATION IN TRAINING PROGRAMME
"Harnessing Modern Plant Breeding Tools for Developing Climate Resilient and
Nutritionally Enriched Crop Varieties"**

14.01.2026 to 03.02.2026

1. Full name (in block letters) : _____
3. Designation : _____
4. Present employer and address : _____
5. Address to which reply should be sent (in block letters) : _____

6. a) Telephone No. : _____
b) Fax No. : _____
c) Telegraphic address : _____
d) E-mail ID : _____
7. Date of birth : _____
8. Sex : Male / Female
9. Teaching/Research/Professional experience (mention posts held and number of publications) : _____
10. Marital status (Married/Unmarried) : _____
11. Mention, if you have participated in any research seminar, summer institute, etc. during the previous years under ICAR/other organizations : _____
12. Whether sponsoring institute will pay T.A./D.A. (Say Yes/No) : _____

13. Academic record :

Examination Passed	Subjects Main/ Subsidiary	Year of passing	Distinctions	University or Institution	Other Information
Bachelor's degree					
Master's degree					
Doctorate degree					
Other Certificates, Diplomas, Degree etc.					

Date :

Place :

Signature of the applicant

14. Recommendations of the forwarding authority

Signature

Designation

Address

CERTIFICATE

It is certified that the information furnished by the candidate has been checked from office record and found correct.

Signature and designation of the sponsoring authority