

**CENTRE OF ADVANCED FACULTY TRAINING
IN**

PLANT BIOTECHNOLOGY



2019

**Rajasthan Agricultural Research Institute
SKN Agriculture University, Jobner
Durgapura, (Jaipur), Rajasthan -302018**

Progress and Impact during 2017-20

1. Name of the CAFT: Centre of Advanced Faculty Training
Plant Biotechnology
Rajasthan Agricultural Research Institute
(SKNAU, Jobner), Durgapura, Jaipur-302018

2. Brief Introduction about the CAFT (about 100 words)

Introduction

The CAFT in Plant Biotechnology was started in 2017 at Rajasthan Agricultural Research Institute (SKNAU, Jobner), Durgapura, Jaipur-302018. Rajasthan Agricultural Research Institute (RARI) is a constituent of Sri Karan Narendra Agriculture University, Jobner, Jaipur. Since its inception in 1943 it has come a long way, overcoming an era of national food deficits to that of self-sufficiency with a surplus food-grains reserve. The aims of research for agriculture are to enhance crop yields, improve food quality, and preserve the environment where human beings and other organisms live. The best way for conservation of plant biodiversity and its environment, would be to achieve high crop productivity per unit area.

3. Objective of CAFT: To conduct trainings of teachers in the field of Plant Biotechnology and develop facilities for better Research for PG students.

4. Faculty: Name & Designation (as on 20.1.2020)

Name	Designation	Expertise Areas
Dr. A. C. Mathur	Head of Department, Plant Pathology	Plant Pathology
Dr. K. C. Gupta	Assoc. Professor (Agronomy)	Agronomy
Dr. Rani Saxena	Asstt. Professor (Agromet.)	Climate studies
Dr. S. P. Bisnoi	Asstt. Professor (Nematology)	Nematology
Dr. Yogesh Sharma	Asstt. Professor (Horti)	Horticulture

5. Human Resource Development:

Particulars of CAFT training program for HRD conducted during 2017-2019 period.

S. No.	Name of the programme	Period	No. of participants		
			Internal	External	Total
1.	Application of Molecular Markers for Assessment of Genetic Purity and Crop Diversity	2017-18	4	17	21
2.	Biotechnological interventions to Enhance crop productivity under stress conditions	2018-19	3	19	22
3.	Advances in agricultural techniques to enhance crop production: Towards climate resilient agriculture	2018-19	3	12	15
4.	Physiological and biotechnological interventions towards climate resilient agriculture	2019-20	2	15	17

6. Infrastructure development (equipments etc.):

Equipments:

1. Gel documentation system
2. PCR
3. RT PCR
4. Nano drop
5. Electrophoresis
6. Shaker
7. P^H meter
8. Weighing Balance
9. Dry Bath
10. Magnetic Stirrer
11. Micro Centrifuge
12. Vortex mixture
13. Micro wave oven
14. Centrifuge

7. Renovation of Lecture Room/Laboratories: Pending

8. Library upgraded: Under progress

9. Publications

Kumawat S., Gupta S., Purohit S., Garg N.K., Singh J. and Gupta N. K. (2019). Effect of PEG induced water deficit stress on physio-biochemical characteristics of different pearl millet varieties. *Journal of Plant Development Sciences* 11 : 143-150. 2019

Khan A., Gupta N.K., Rizwan M. and Singh G. (2019) Effect of high temperature stress on physiological attributes and anti-oxidative defense mechanism in wheat (*Triticum aestivum* L.). *International J Chemical Studies*.7: 2183-87

Yuri Shavrukov, Nikolai Borisjuk and Narendra K. Gupta (2019). Plant Genetics and Gene Study. *Biomed Research International*. Article ID 3560374, <https://doi.org/10.1155/2019/3560374>.

Sodani R., Singhal R.K., Gupta, S, Gupta, N.K., Chauhan K.S. and Chauhan, J. (2017). Performance of yield and yield attributes of ten Indian mustard (*Brassica juncea* L.) genotypes under drought stress. *International Journal of Pure and Applied Bioscience Int.* 5 : 467-476.

Agarwal V.P., N. K. Gupta, P. C. Gupta, M. Rizwan and G. Singh (2017). Sulphydral Compounds Mitigate the Adverse Effect of High Temperature Stress in Contrasting Wheat Genotypes. *Vegetos* , 30:1-5.

Awards

Dr. N K Gupta, Dean, College of Agriculture, Navgaon received prestigious J J Chinoy Gold Medal Award 2019 from Indian Society for Plant Plant Physiology, New Delhi for his contribution in Plant Physiology and Contingent Sciences.

10. ANY OTHER

- **Training Manuals 2017**
- **Training Manuals 2018**