Agricultural Research Institute at Pusa, Bihar during Lord Curzon's Vice-Royalty (1898-1905). This marked the beginning of agricultural research with an Agriculture College and Experimental Station. Presently, RPCAU, Pusa is a Central Agricultural University, enriched with various faculties and constituent colleges. RPCAU has only grown stronger and better through this post-pandemic era bagging 5 National awards and many more feathers to its hat of achievements.

Important Dates

- Duration of course: 21 days (29.01.2024 to 18.02.2024)
- Last date of receipt of application: 5th January, 2024
- Intimation of selection to participants:8th January, 2024
- Confirmation of participation by candidates: 10th January, 2024

• Number of participants: 25 (Twenty-five)

Correspondence should be directed to

Dr. Pushpa Singh

Professor & Course Director Department of Entomology Post Graduate College of Agriculture Dr. Rajendra Prasad Central Agricultural University Pusa (Samastipur), Bihar -848125 Mobile No. +91-9430560507 E-mail: pushpa@rpcau.ac.in

For more information, please contact

Dr. Sanjay Kumar Sahoo, Professor Course Coordinator Email: <u>sksahoo@rpcau.ac.in, Phone: +91 9872655270</u> Dr. Md. Abbas Ahmad, Associate Professor Course Coordinator Email: <u>abbas.ento@rpcau.ac.in</u> Phone: +91 9431433706

REGISTRATION FORM

ICAR WINTER SCHOOL On "EPIGENETIC REGULATIONS AS DRIVERS OF INSECTICIDE RESISTANCE AND RESILIENCE TO CLIMATE CHANGE IN AGRICULTURAL PESTS"

1.1	Name:				
2. I	Designation:				
3.I	3. Present employer address:				
4.4	Address for corresp	ondence:			
Tel	lephone:		Mob:		
En	Fmail.				
5.1	5 Permanent address:				
6 Date of Birth					
7. Gender:					
9. Educational Qualification (Graduation onwards):					
	Drgree	Year	University	OGA/Division	

10. Teaching/Research/Professional Experience (Mention post held during last five 5 years and number of publications):

Post Held	Instittution	Period	No. of Publications

11. Mention if you have participated in any summer/winter school/short course etc. during the previous years under ICAR/other organizations.

Training/ Short Course	Institution	Duration	Organizing Institute

It is certified that all the information furnished by me is true to the best of my knowledge. Date:

Signature of applicant

Recommendation of forwarding authority with seal:





ICAR SPONSORED WINTER SCHOOL ON "EPIGENETIC REGULATIONS AS DRIVERS OF INSECTICIDE RESISTANCE AND RESILIENCE TO CLIMATE CHANGE IN AGRICULTURAL PESTS"

(January 29 to February 18, 2024)



Course Director: Dr. Pushpa Singh, Professor

Course Coordinator: Dr. Sanjay Kumar Sahoo, Professor Dr. Md. Abbas Ahmad, Associate Professor

DEPARTMENT OF ENTOMOLOGY POST GRADUATE COLLEGE OF AGRICULTURE DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL UNIVERISTY PUSA (SAMASTIPUR), BIHAR-848125

ABOUT THE COURSE

Changes in global temperature and humidity as a result of climate change are producing rapid evolutionary changes in many animal species, including agricultural pests and disease vectors, leading to changes in allele frequencies of genes involved in thermo tolerance and desiccation resistance. As generally adaptable organisms, insect pests respond differently to different causes of climate change. The interactions between adaptation to climate change and resistance to insecticides can affect insecticide resistance in the field in phytophagous and hematophagous insects, focusing on the effects of increased temperature and increased aridity.

Since temperature is the most important environmental factor affecting insect population dynamics, it is expected that global climate warming could trigger an expansion of their geographic range, increased overwintering survival, increased number of generations, increased risk of invasive insect species and insecttransmitted plant diseases, as well as changes in their interaction with host plants and natural enemies. As climate change exacerbates the pest problem, there is a great need for future pest management strategies. These include monitoring climate and pest populations, modified integrated pest management strategies. This training will focus on advancement of insecticide resistance studies and their management. The academic, research and extension scientists need specifically trained in these avenues. This will also help in exploring new research areas, develop new teaching modules and extension strategies for helping out all stakeholders.

OBJECTIVES

- To develop better understanding of the recent advancement in pest management through delaying insecticide resistance
- To understand the adaptation strategies for pest management in changing climate scenario
- To promote and inculcate the developed expertise amongst the trainees for effective pest management and transfer of technology to different groups

CONTENT:

- Climate variability, perceptions and political ecology: Factors influencing changes in pesticide use
- Climate warming promotes pesticide resistance through expanding overwintering range of a global pest
- The New Integrated Pest Management Paradigm for the Modern Age
- Statistical analysis of insecticide residues and

resistance studies

- Adaptation Strategies for Pest Management in Climate Change Scenarios
- Molecular techniques in insecticide resistance mechanism
- Biotechnological approaches for insecticide resistance management
- Breeding for insect pest resistance: Advances and Future Perspectives
- Analytical methodology for insecticide residues analysis
- Cross-protection interactions in insect pests: Implications for pest management in a changing climate
- Techniques of studying joint action of insecticides and their analysis
- Climate change and the genetics of insecticide resistance
- Basic Principles of Pesticide Residue Analysis
- Coping with climate change-the role of genetic resources for food and agriculture
- Genetic modification to improve disease resistance in crops

Duration and venue

This 21 days winter school will be conducted from January 29 – February 18, 2024. The venue will be Department of Entomology, Post Graduate College of Agriculture, Dr. Rajendra Prasad Central Agricultural University, Pusa-848125, Samastipur, Bihar

Eligibility

The course is open for active researchers/ Scientists not below the rank of Assistant Professor or equivalent and above in ICAR Institutes SAUs/ CAUs/Agricultural Faculties. A total of 25 participants will be selected for the course as per ICAR Guidelines.

How to Apply

- Visit the website https://cbp.icar.gov.in/HomePage.aspx
- Login using your User Id and Password. To create User Id use "Create New Account" link and fill required information to register.
- After login, click on "Participate in Training "link
- Select the particular training programme and fill the proforma online.

- Take a printout of filled application proforma and sign it.
- Get it signed by competent authority.
- Upload approved scanned copy of the application on the above CBP Portal
- Applicants have to pay Rs.50/- as registration fee (non-refundable) through RTGS/NEFT in the Research Fund A/C Faculty of Agriculture, DRPCAU, Pusa (a/c no. 4512002100001345; IFSC code: PUNB0451200).
- Send approved application duly forwarded by the competent authority by post to Course Director, ICAR-Winter School, Department of Entomology, Post Graduate College of Agriculture, Dr. Rajendra Prasad Central Agricultural University, Pusa (Samastipur), Bihar -848125 along with copy of RTGS/NEFT payment receipt.

Boarding & Lodging:

Participants will be provided free boarding and lodging as per the norms and trainees will be accommodated in the University Guest House. Please note that, no accommodation will be provided to the family members or guests of participants in University Guest House

Travelling Allowance:

The candidates selected for participation in the Winter School will be reimbursed travelling expenses (To and fro) as per their entitlement restricted to 2nd AC rail fare by the shortest route after submission of original tickets.

Evaluation:

The participants will evaluate the course programme for quality of contents, suitability and usefulness of target clientele through well- designed questionnaire. Likewise, participants will also be subjected to an assessment.

About the University

Dr. Rajendra Prasad Central Agricultural University (RPCAU), Pusa is named after Dr. Rajendra Prasad, the first President of independent India, who hailed from Bihar. The University is accomplished with legacy of organized agricultural education, research and extension in India which trails back to 1901 with establishment of Imperial