

# **ICAR Sponsored Winter School**

**on**

## **Microbial Based Interventions for Sustainable Pest Management and Improving Soil Health**

**05-25<sup>th</sup> September, 2018**



**Organized By**



**ICAR- Indian Institute of Pulses Research (IIPR)  
(ISO 9001:2008 Certified Institution)  
Kanpur- 208 024 (Uttar Pradesh)**



## **BACKGROUND :**

Microorganisms are enormous but largely unexplored reservoir of biodiversity on earth. Use of microbes to optimize crop productivity is an ancient practice, however, technological advancement coupled with a need for sustainable crop yield and soil health management, the study of beneficial microbes has been reinvigorated. Microbial pesticides accounts for approximately 1-2 per cent of global pesticide sales, however, they have shown long term growth over the past decade in contrast to chemical pesticides. The increasing growth of microbial pesticides is due to their effectiveness & cost competitiveness in addition to increasing pest resistance to chemical pesticides. Among the Agriculturally Important Microflora (AIM) viz., bacteria, fungi, viruses, actinomycetes, mycorrhiza, protozoa & nematodes are the major microbial agents exploited for the biological control of herbivore insects, diseases & plant growth promotion. Microbes form integral part of soil ecosystem via recycling of energy & organic molecules, bioremediation, biotic elicitors, etc. Their diverse metabolic activities are of significant importance for the sustainable agriculture, however understanding of plant–microbe interactions, formulation & conservation of their diversity is essential. The winter school on “Microbial Based Interventions for Sustainable Pest Management and Improving Soil Health” is designed to sensitize and update the knowledge of agriculture researchers regarding advances in microbial agents; and their application for pests & diseases management.

## **OBJECTIVES :**

- 1) To sensitize the participants regarding advances in use of microbial agents for crop and soil health management
- 2) To provide an opportunity to exchange ideas with resource persons and gain insights on use of microbial agents to mitigate biotic stress in pulses

## **COURSE OUTLINE :**

- 1) Agriculturally important microbes: introduction and diversity
- 2) Beneficial microbes and their role in insect pests, diseases and nematode management
- 3) Microbial fertilizers/Bio-pesticides: characterization, formulations, packaging, delivery.
- 4) Registration and bio-safety issues related to bio-pesticides
- 5) Popularization of beneficial microbes by extension tools

## **FACULTY/ RESOURCE PERSONS :**

Indian Institute of Pulses Research (IIPR) is having experienced faculty/scientists working on various microbes for the control of insect pests and diseases; and soil health management. In addition resource persons/experts from SAU, ICAR and other institutes will be invited for delivering specific lectures and practicals.

## **ELIGIBILITY :**

Participation is open for the researchers/ teachers not below the rank of Scientist/ Assistant Professor/ Lecturer/ Subject Matter Specialist from ICAR institutes/ State & Central Agricultural Universities/ KVK's. The candidate must possess at least Masters degree in Entomology, Plant Pathology, Nematology, Plant Protection or any other related disciplines.

## **VENUE/ DATE/ DURATION :**

**Venue** : Indian Institute of Pulses Research (IIPR), Kalyanpur, Kanpur-208 024 (Uttar Pradesh)  
**Date** : 05-25th September, 2018  
**Duration** : 21 days

## **NOMINATION/ HOW TO APPLY:**

Eligible candidates may submit the Application Form in prescribed proforma. Candidates should compulsorily upload the advance copy of the application in the ICAR-Capacity Building Programme (ICAR-CBP) portal (<https://cbp.icar.gov.in>). Candidates may send the hard copy of the application by speed post/mail/fax through proper channel (duly forwarded by competent authority) to Course Director along with Demand draft/Postal order of Rs. 50/- (registration fee) in favour of ICAR Unit-IIPR Kanpur payable at SBI, Kanpur (SBI Branch code- 1962). Candidates should bring permission/ relieving letter from their respective Institutes. For further details kindly visit <https://cbp.icar.gov.in> and [www.iipr.res.in](http://www.iipr.res.in)

## **NUMBER OF PARTICIPANTS:**

The number of participants for the programme will be limited to 25. The selection of the candidates will be made by screening committee as per the guidelines of ICAR.

## **IMPORTANT DATES:**

Last date for receipt of nomination form	:	1 <sup>st</sup> August, 2018
Intimation of selection	:	4 <sup>th</sup> August, 2018
Confirmation by participants	:	8 <sup>th</sup> August, 2018
Intimation to waitlisted participants if selected	:	25 <sup>th</sup> August, 2018

## **TRAVEL, BOARDING AND LODGING:**

Participants are eligible for TA (up to AC-II tier train fare or bus by shortest route as per ICAR norms). Food & accommodation will be provided by the organizers as per ICAR guidelines. 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. Participants are requested not to bring family/accompanying persons along with them.

**APPLICATION FORM**  
**for Participation in Winter School**  
(To be sent directly to Course Director)

on

**Microbial Based Interventions for Sustainable Pest Management and Improving Soil Health**

1. Full name (In capital letter) :  
2. Designation :  
3. Present employer and address :  
4. Address for correspondence :  
5. Tel. No.: (O) \_\_\_\_\_ Mobile : \_\_\_\_\_ E-mail : \_\_\_\_\_  
6. Date of Birth :  
7. Gender (Male/Female) :  
8. Marital Status:(Married/ Unmarried) :  
9. Teaching/Research/Professional Experience :  
(Mention post held during last 5 years)  
10. Detailed list of publications in the relevant area :  
11. Academic record :

Examination	Subject	Years of passing	University/ Institution	OGPA/ % Marks
Graduation				
Post graduation				
Doctoral				
Others				

12. Mention, if you have participated in Summer or Winter Schools/ Short Courses, etc. during last five years under ICAR/other organizations.  
13. DD/PO No ..... Date ..... for Rs.50/- (Rupees fifty only) (non-refundable) payable at ICAR Unit-IIPR, Kanpur for registration of application

Date :  
Place :

**Signature of the applicant**

**Recommendations of the forwarding authority**

The application of Mr/Ms/Dr:..... is hereby recommended and forwarded for attending Winter School on “Microbial Based Interventions for Sustainable Pest Management and Improving Soil Health” at IIPR, Kanpur during 05-25<sup>th</sup> September, 2018.  
It is certified that the information furnished by the candidate has been verified and found correct.

**Signature**  
**Designation, address and office seal**

**Certificate**

It is certified that the information was furnished by the office record and was found correct.

**Signature, Designation, Address and Office Seal of the Sponsoring Authority**



## **HOST INSTITUTE :**

Indian Institute of Pulses Research (IIPR), Kanpur (*Bharatiya Dalhan Anusandhan Sansthan*) is located on GT road at 12<sup>th</sup> railway crossing. The institute is 12 km from Kanpur Central Railway Station (CNB) and 10 km from Jhakarkatti Bus Station, Kanpur. Kanpur city is well connected by rail/road to rest of the cities in our country. Kanpur is situated on the bank of Ganga River and is also known as Manchester of the East. The weather during the month of September will be pleasant at Kanpur with temperature ranging from 25-34°C.

### **CORRESPONDENCE**

All correspondence may be address to

#### **COURSE DIRECTOR**

**Dr Krishna Kumar**

Head & Principal Scientist (Plant Pathology)

Division of Crop Protection

ICAR-IIPR, Kanpur- 208 024 (Uttar Pradesh)

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Mobile: +91 98187 40144

#### **COURSE CO-ORDINATOR'S**

**Dr Bansa Singh**

Principal Scientist (Nematology)

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#### **FOR FURTHER DETAILS :**

**Dr N. P. Singh, Director,**

**ICAR-Indian Institute of Pulses Research (IIPR),**

**Kanpur- 208 024 (Uttar Pradesh)**

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