



**ICAR-Indian Agricultural Research Institute
New Delhi-110012**

**Online Training on
“Advances in Pathogenomics and Crop Disease Management”**

2-6 November 2026



Organized by

**Division of Plant Pathology
ICAR-Indian Agricultural Research Institute
New Delhi-110012**

***Mode
Virtual Platform via Online Link***

Register Here



Invitation

We are pleased to inform you that the Division of Plant Pathology, ICAR-IARI, New Delhi, is organising a short-term training on *Advances in Pathogenomics and Crop Disease Management* from 2-6 November 2026.

About the Division of Plant Pathology

The journey of plant pathology research in India began at the **Division of Plant Pathology, IARI, New Delhi**, marking the start of a legacy in agricultural innovation and disease management. Indian plant pathology dates back to the late 19th century, when scientists began addressing agricultural challenges by studying plant diseases. **E.J. Butler**, the founder of the Division and fondly called the "**Father of Indian Plant Pathology**," made pioneering contributions by investigating fungal diseases such as rusts, smuts, and wilts and by authoring the influential book *Fungi and Diseases in Plants* (1918).

Organised plant pathology research in Asia began with the establishment of the **Imperial Agricultural Research Institute** (now **Indian Agricultural Research Institute**) at Pusa in 1905. IARI played a pivotal role in systematically studying crop diseases, laying the foundation for modern plant pathology in India. Post-independence, IARI continued to lead advancements in plant pathology, with its research programs inspiring similar initiatives across agricultural universities and **ICAR institutes**. Today, the field thrives, with plant pathologists addressing emerging threats and developing sustainable disease management strategies that significantly contribute to India's agricultural resilience and food security.

Pathogenomics at IARI

The **Division of Plant Pathology** at IARI, a partner of the **ICAR-Consortium Research Platform (Genomics)**, is advancing pathogenomics to decipher the genetic basis of pathogen diversity, virulence, evolution, and host adaptation. Integrating genomics, transcriptomics, population biology, and bioinformatics, the Division is developing genome-informed diagnostics, surveillance strategies, and precision disease management solutions for emerging and re-emerging plant diseases.



About the Training Programme

We are pleased to announce the training programme on “**Advances in Pathogenomics and Crop Disease Management**,” a specialized capacity-building initiative aimed at advancing scientific excellence in contemporary plant health research. The programme will provide participants with state-of-the-art knowledge and practical exposure to emerging approaches in pathogen genomics, molecular diagnostics, genomic epidemiology, disease surveillance, multi-omics, and precision disease management. With a strong emphasis on innovation, translation, and field relevance, the training seeks to equip researchers and professionals with cutting-edge tools for developing **sustainable, climate-resilient, and science-driven strategies for crop disease management and food security**.

Training Contents: Lectures and Practicals

Introduction to Pathogenomics

- Concept, scope and applications
- From conventional identification to genome-based pathogen characterisation

Pathogen Genome Sequencing & Bioinformatics

- Short/long-read sequencing
- Genome assembly, annotation and comparative genomics
- Phylogenomics

Genomics of Pathogenicity

- Effectors, virulence factors, CAZymes and toxins
- Host–pathogen interactions
- Pathogen evolution and adaptation

Pathogen Diversity & Genomic Surveillance

- Population genomics and pathogen evolution
- Emerging pathogens and genomic epidemiology
- Tracking virulent lineages

Genomics-Enabled Diagnostics

- PCR, qPCR, LAMP and metagenomics
- Development of pathogen-specific diagnostic markers

Pathogenomics for Disease Management

- Resistance breeding and effector-informed screening
- Fungicide-resistance monitoring
- Genome editing and biological control

Multi-Omics & Precision Plant Pathology

- Integration of genomics, transcriptomics and metabolomics
- Host–pathogen–microbiome interactions
- Disease prediction and precision management

Case Studies

- *Magnaporthe*, *Fusarium*, *Ralstonia*, Nationally important plant viruses & Phytoplasma
- Genome analysis, phylogenomics and effector prediction

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MODE:
Virtual (Zoom Platform); Link will be shared with the registered participants

DATE: 2-6 November 2026
SESSION TIMINGS:
02:30 PM - 05:30 PM (IST)

Target Participants:

- ❖ Faculty/Scientist serving State Agricultural Universities/Research Institutes/Industry, Research scholars and PhD students
- ❖ Maximum number of participants: 80, on a first-come, first-served basis.
- ❖ Benefits to Participants
 - ✓ *Certificate of Participation: Participants will receive a certificate upon successful completion of the training programme.*
 - ✓ *Practical Training Manual: All registered participants will receive a comprehensive practical manual containing protocols and methodologies.*

REGISTRATION FEE

The training will be open to registered delegates. Registration fee details are below.

Applicant Type	Fee
Scientist / Faculty at Research Institute/University	
Industry Personnel	INR 1500/-
*Students/Research Staff (Submit Valid Student Identity Card)	(For All Participants)

BANK DETAILS FOR RTGS/ONLINE TRANSFER

Bank Account Details: A/C Holder: Director, ICAR-IARI Bank; Canara Bank Branch: IARI, Pusa Campus, New Delhi; IFSC: CNRB0019029 A/C No.: 90293050000017

Register Here: <https://forms.gle/dJDoXuVrANMtkxXy7>

If the link is inactive, kindly copy and paste it into your browser or scan the registration QR code below to access the form.



You need a Gmail account to access the forms; This is not a payment QR code

Last Date for Completing the Registration and Payment: 25 October 2026



Organizers

Guidance

Dr. Ch. Srinivas Rao, Director

Dr. Anupama Singh, Joint Director (Edu)

Dr. C. Viswanathan, Joint Director (Res)

ICAR-IARI

New Delhi-110 012

Training Directors

Dr. Aundy Kumar, Professor & Dr. M.S. Saharan, Head

Division of Plant Pathology, ICAR-IARI

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Coordinators

Dr. Bishnu Maya Bashyal & Dr. Amrita Das, ICAR-IARI, New Delhi-110 012

Co-Coordiators

Dr. Nitika Gupta & Dr. Pankhuri Singhal, ICAR-IARI, New Delhi-110 012

For further details, please contact

Head

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Division of Plant Pathology ICAR-IARI

Division of Plant Pathology, ICAR-Indian Agricultural Research Institute

Section Fungal Pathology: Uncovering Fungal Threats, Protecting Plant Health!