ISSN 2581-6330 (Online)

Indian Phytopath News

A quarterly Newsletter of Indian Phytopathological Society

http://ipsdis.org/

Volume 8 • Issue 1 • January - March 2025

From President's Desk

Nanotechnology in Plant Pathology: Future outlook

Plant diseases impose a major burden on global food production and security. Worldwide, pathogens and pests routinely reduce yields of staple crops by 10-40%. One estimate puts annual global crop losses to diseases at about US$220 billion. Climate change and global trade are accelerating the emergence and spread of pant diseases incited by various fungal, bacterial, phytoplasma, viral and other pathogens. Traditional control measures (chemical pesticides, resistant varieties, cultural practices and biological control) often prove inadequate, slow or environmentally harmful particularly higher doses of pesticides. Consequently, the novel and advanced tools are urgently needed to protect the plant from diseases. Nanotechnology, a science of materials at the 1-100 nm scale offers a promising new dimension in the field of agriculture. At this scale, many materials exhibit novel properties (optical, electrical, and catalytic) which are not seen in bulk form. In agriculture, a variety of nonmaterial including metal and metal-oxide nanoparticles (e.g. silver, copper, zinc oxide, titanium dioxide, silica) that can act directly as antimicrobials or carrier platforms; carbon-based nanomaterials (carbon nanotubes, graphene/graphene oxide, fullerenes) with high strength and conductivity; and organic/polymeric nanocarriers (e.g. chitosan nanoparticles, liposomes, dendrimers) for encapsulating agrochemicals. Nano pesticides can also be formulated as nanoemulsions (ultra-fine oil-in-water droplets) for hydrophobic fungicides. Nanoscale carriers can improve solubility and stability of the agrochemicals, allow slow/triggered release, and enhance uptake into plant tissues. For instance, nanoparticle delivery systems have been shown to "minimize environmental contamination by delivering smaller amounts of active molecules" compared to bulk sprays. Many nanocarriers (e.g. lipid or biopolymer based) are biodegradable, further distinguishing them from persistent chemicals. Nanocarriers often require much lower doses; the high surface-area-to-volume ratio and enhanced uptake mean that smaller quantities of chemical can achieve the same effect, reducing runoff and residues. The main aim of nanotechnology is to "do more with less" delivering crop protection with greater precision and efficiency.

Nanotechnology offers new tools to detect, prevent and treat plant diseases. In particular, nano-sensors and nano-formulated pesticides can act early and precisely, and often with eco-friendly profiles. Nanoscale biosensors are being developed for rapid, on-site disease diagnostics. These devices typically incorporate nanomaterials (e.g. Au/Ag nanoparticles, carbon nanotubes, graphene) with biological recognition elements (antibodies, DNA probes). For example, electrochemical or optical nano-sensors can detect pathogen DNA, proteins or toxins at very low levels, giving real-time alerts of infection. Researchers are also integrating these sensors with portable devices and artificial

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intelligence for in-field use. Nano-pesticides can be either carrier-based formulations or active nanomaterials themselves. In carrier formulations, the conventional fungicides are encapsulated within polymeric or lipid nanoparticles. These nanocarriers improve the stability and dispersal of the chemical and allow controlled release. Metal and metal-oxide NPs can serve as broad-spectrum biocides. Nanotechnology enables smart delivery of protective agents. The nanoparticles enter via stomata and slowly release, activating the plant's salicylic-acid-dependent immunity. In effect, the nanoparticles serve as tiny carriers that both nourished and "vaccinated" the plant. Similarly, nanoparticle carriers have been used to deliver fungicides or RNA biopesticides directly into leaf tissues. These systems can be designed to release cargo at the infection site (e.g. triggered by pH or enzymes), maximizing efficacy and minimizing off-target loss. Overall, the nanocarriers and the nanoemulsions allow smaller doses and more uniform coverage than bulk sprays, reducing chemical footprints while maintaining disease control. By requiring lower active inputs and using biodegradable materials, nano-based solutions can lessen the environmental impact of crop protection.

At the pathogen and plant cell level, the nanoparticles act through multiple mechanisms. One key advantage is their small size, which allows them to penetrate plant tissues and make intimate contact with microbes. Indeed, electron micrographs reveal metal nanoparticles just a few nano-meters across lodging inside leaf cells. This *in vivo* localization enables nanoparticles to interfere directly with pathogens or to deliver antimicrobials intracellularly. Once in proximity to pathogens, nanoparticles attack via biocidal action. Metal nanoparticles (e.g. Ag, Cu) release metal ions (Ag^{+}, Cu^{2+}) which are toxic to bacteria, fungi and viruses. These ions can disrupt cell walls, denature proteins, and generate reactive oxygen species inside microbial cells. This broad attack can "knock out" diverse pathogens; for instance, by oxidizing fungal spores or inactivating virus particles on contact. The high surface reactivity of nanoparticles also means they cling to microbial surfaces, ensuring sustained assault. Simultaneously, nanocarriers can improve uptake and transport within the plant. Their nanoscale dimensions allow transit through stomatal pores and even intercellular spaces. In the silica-nanoparticle are absorbed through stomata and distributed into the leaf mesophyll. Other carriers (e.g. lipid nanoparticles, polymer nanoemulsions) can merge with cell membranes to deposit cargo inside cells.

Despite promise, nano-agrochemicals face hurdles. Ecotoxicity is a major concern. Nanoscale materials do not always behave like bulk. They can persist, accumulate and interact with ecosystems in unpredictable ways. Studies show that the common plant-protection nanoparticles (TiO_2, ZnO, Ag) can disrupt beneficial soil microbes and nutrient cycles. Nanoparticles can also be phytotoxic at high concentrations. Excessive uptake may stunt roots, reduce germination or cause leaf chlorosis by interfering with photosynthesis. Moreover, airborne nanoscale particulates (e.g. from drift or dust) could deposit on non-target plants and water, raising broader environmental and health issues.

Regulatory and safety frameworks are still catching up. Presently, most countries lack specific guidelines for nano-agrochemicals, making approval processes slow and uncertain. Producers of nano-formulations often face higher R&D and testing costs. There are also knowledge gaps. Long-term fate and transformation of nanoparticles in soil, water and plants remain poorly understood. Looking ahead, researchers are actively addressing these issues. Green nanotechnology using plant or microbial synthesis of nanoparticles can minimize toxic by-products. Biodegradable nanocarriers (lipid, polysaccharide) and even edible nano-coatings are being developed to ensure rapid breakdown after use. In future, nano-sensors and delivery systems will likely integrate with precision agriculture and digital tools.

Dinesh Singh
President
Indian Phytopathological Society

Research Highlights

Severe recurrence of tomato big bud disease associated with *Candiddatus* Phytoplasma australiaticum in Andhra Pradesh, India

Shivani Gupta[1], Sesha Kiran Kollipara[2], Tirukoillur Mohanbabu Hemalatha[3], Hemavati Ranebennur[1] and Govind Pratap Rao[1]*

[1]Division of Plant Pathology, ICAR-Indian Agricultural Research Institute, New Delhi, India; [2]Horticultural Research Station, Dr. Y.S.R. Horticulture University, Madanapalli, Andhra Pradesh, India, [3]Department of Plant Pathology, Acharya NG Ranga Agricultural University, Tirupati, Andhra Pradesh, India

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In recent years tomato big bud (TBB), a phytoplasma-associated disease has been noticed alarming in several districts of Andhra Pradesh, India. Field surveys in 2024 and 2025 across the Tirupati and Annamaya districts of Andhra Pradesh revealed an incidence of tomato big bud disease ranging from 32-100% with phyllody symptoms in tomato hybrid variety, Saaho (TO 3250) (Fig. 1). The phytoplasma association was investigated employing universal phytoplasma specific nested primer pairs, from TBB symptomatic samples from both Tirupati and Annamaya districts. The 16S rRNA gene sequence comparison analysis of TBB phytoplasma strains from both the surveyed districts identified association of '*Ca.* P. australasiaticum' reference (16SrII-D) strain. *Parthenium hysterophorus* was also identified as natural host of TBB phytoplasma strain in both the districts (Source: *Phytopathogenic Mollicutes,* 15(1): 103-104).

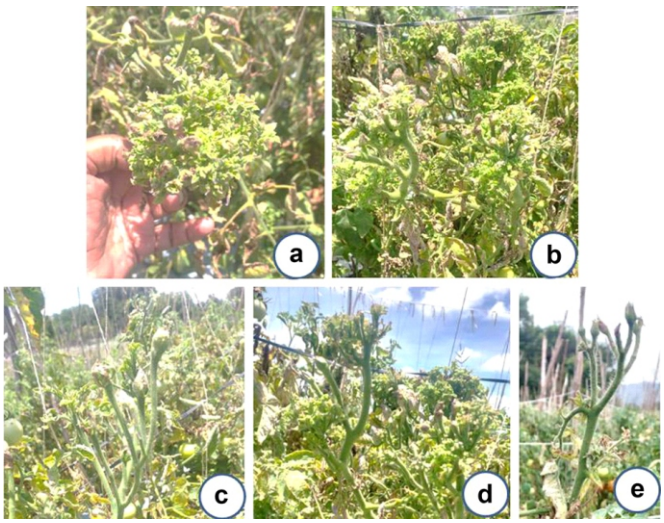

Fig. 1. Phyllody along with witches' broom symptoms at Pudipatla village (a, b); big bud symptoms with malformed inflorescence and sterile vegetative structures without flowers and fruit at Billurivaripalle village (c, d, e)

Outbreak of Root-Knot Nematode (*Meloidogyne incognita*) and wilt disease-complex on tomato crop in Sagar District, Madhya Pradesh, India – A serious concern for tomato growers

Shubhi Agrawal[1] and Neetu Singh[2]*

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An outbreak of the root-knot nematode (*Meloidogyne incognita*) and wilt disease complex is severely impacting tomato crops in Sagar District, Madhya Pradesh, India. These pathogens are causing significant yield losses up to 70%, posing a serious concern for local tomato growers (Fig. 1). *M. incognita* induces the formation of galls on tomato roots, disrupting water and nutrient uptake, leading to stunted growth and reduced productivity. The nematode's interaction with soil-borne fungi, particularly *Fusarium oxysporum* f. sp. *lycopersici*, exacerbates the situation by forming a disease complex that intensifies plant wilting and decline (Fig. 2). The region's warm climate and sandy soils create favourable conditions for nematode proliferation, making control efforts challenging. Effective management strategies are crucial to mitigate these losses. Integrated approaches, including crop rotation, resistant cultivars, organic amendments, and biological control agents like *Trichoderma harzianum, Bacillus subtilis* have shown promising results in management of disease complex. Immediate implementation of these measures is essential to safeguard tomato production in the region.

Fig. 1. Tomato field showing symptoms of disease-complex at Menpani Sagar district M.P.

Fig. 2. Tomato plant affected with Root Knot Nematode and wilt disease complex at Menpani, Sagar district M.P.

Awards/Honours/Promotion

- **Dr. A.K. Gupta**, Professor & Head (Retd.), Department of Plant Pathology, Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan has been awarded Bharat Shikhsha Gaurav Puruskar by KT Foundation, New Delhi in the field of Plant Pathology.
- **Prof. B.N. Chakraborty**, conferred with Life time Achievement Award by National Academy of Biological Sciences (NABS), Chennai at TNAU, Tiruchirapalli. He also delivered Prof. S. Kannaiyan Memorial Oration Award during inaugural function of 14th NABS-National Conference on "Innovations in Biology and Biotechnology for their Application in Agriculture and Animal Sciences for Food Security" held at Agricultural College and Research Institute, Kudumiyanmalai (TNAU) on 28th January 2025.
- **Dr. R. Viswanathan**, Director, ICAR-Indian Sugarcane Research institute, Lucknow and President-Elect, IPS received the prestigious Dr K.C. Mehta Memorial Award of National Academy of Agricultural Sciences for the outstanding contribution in Plant Protection during the 17th Agriculture Science Congress (20-22 February, 2025) held at Govind Ballabh Pant University of Agriculture and Technology, Pantnagar. His Excellency Lt. Gen Gurmit Singh, Hon'ble Governor of Uttarakhand and Chancellor gave away the award in the presence of Hon Dr Himanshu Pathak, President, NAAS, Secretary (DARE) and Director General, ICAR, Prof. M.S. Chauhan, Convener & Vice Chancellor, GBPUA&T and Dr A.S. Nain, Organizing Secretary & Director Research.
- **Dr. Sumit Kumar Aggarwal**, Scientist Sr. Scale (Plant Pathology), ICAR-Indian Institute of Pulses Research, Regional Centre, Bikaner, Rajasthan received the Gold Medal award in Crop Improvement and Protection for Ph.D. from PAU Ludhiana during a convocation held on February 9, 2025.
- **Dr. B. Anjaneya Reddy**, Professor (Plant Pathology), HREC, Hogalagere, Srinivasapura, Kolar Dist. Karnataka promoted as Professor (Plant Pathology).
- **Dr. D.L. Yadav**, Assistant Professor, Plant Pathology, Agriculture University, Kota received an appreciation award certificate along with a cash prize of Rs. 4500/- for his research paper titled "Trichoderma isolates against abiotic stress and management of collar rot of lentil caused by *Sclerotium rolfsii*" on January 26, 2025 (Republic Day) at AU, Kota, which was published in the "*Indian Journal of Microbiology*".

IPS Awards conferred in the IPS National Conference 2024-25

A.P. Misra Lifetime Achievement Award: Dr. R.D. Rawal, Principal Scientist & Ex-Head (Retd.), Bengaluru, Karnataka

IPS Recognition Award

(i) Dr. V.B. Nargund, ICAR-Emeritus Professor (Plant Pathology), #69, Ishavasyam, Adhyapak Nagar, Navanagar, Hubli, Karnataka

(ii) Dr. D.P. Singh, Former Principal Scientist (ICAR-IIWBR, Karnal), C13, Gamma 1, Greater Noida, Gautam Budha Nagar, Uttar Pradesh

(iii) Prof. Partha Sarathi Nath, Former Head and Professor, Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, West Bengal

(iv) Dr. K.D. Thakur, Former Head, College of Agriculture, Nagpur, Maharashtra

B.N. Chakraborty & Usha Chakraborty IPS Best Teacher Award: Dr. C. Jeyalakshmi, Professor & Head, Plant Pathology, Pandit Jawaharlal Nehru College of Agriculture, Karaikal, Puducherry

K.C. Mehta and Manoranjan Mitra Award: Dr. S.C. Bhardwaj, Emeritus Scientist, IIWBR-RS, Shimla, Himachal Pradesh

M.K. Patel Memorial Young Scientist Award: Dr. D. Pramesh, UAS, Raichur, Karnataka

Pravasi Fellow

(i) Dr. Jayaraj Jayaraman, Professor of Biotechnology and Plant Microbiology, Dept. of Life Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago

(ii) Dr. N.V.P.R. Ganga Rao, Senior Scientist-Breeding, Eastern & Southern Africa Program CIMMYT-Nairobi

S.P. Raychaudhuri Memorial Lecture: Dr. Himanshu Pathak, Secretary, DARE & Director General, Indian Council of Agricultural Research, New Delhi

Mundkur Memorial Award: Dr. R. Viswanathan,

Director, ICAR-Indian Institute of Sugarcane Research, Lucknow, Uttar Pradesh (Title: Red rot of sugarcane: Travelling the path on the epidemics, pathogen variation, host resistance and management)

S. Sinha Memorial Award: Dr. Bishnu Maya Bashyal, ICAR-IARI, New Delhi (Title: Root cause analysis and sustainable management strategies for an emerging bakanae disease of rice in India)

Sharda Lele Memorial Award: Dr. Raj Kumar Mishra, ICAR-IIPR, Kanpur, Uttar Pradesh (Title: Trichoderma: A Journey from Pulse Crops to Broader Agricultural Applications)

A.K. Sarbhoy Memorial Award: Dr. Manas Kumar Bag, ICAR-NRRI, Cuttack, Odisha (Title: Current understanding and advances in research of false smut disease: a threat to rice growers)

J.F. Dastur Memorial Award: Dr. N.M. Gohel, AAU, Anand, Gujarat (Title: Back to Roots: Natural Farming for Better Plant and Human Health)

Jeersannidhi Award: Dr. Sanjay Kumar Singh, ARI, Pune, Maharashtra (Title: Metabolic and Genomic Analysis of Target Fungi Provide Significant Information for use in Agriculture and Allied Sectors)

Fellow of Indian Phytopathological Society (FPSI)

(i) Dr. L.M. Suresh, Maize Pathology Lead - Sub Saharan Africa, CIMMYT, ICRAF, Nairobi, Kenya
(ii) Dr. Sanjay Kumar Goswami, Senior Scientist (Plant Pathology), ICAR-IISR, Lucknow, Uttar Pradesh
(iii) Dr. Bireswar Sinha, Professor (Plant Pathology), Nagaland University, Medziphema, CAU, Kohima, Nagaland
(iv) Dr. Efath Shahnaz, Associate Professor (Plant Pathology), SKUAST-K, Shalimar, Srinagar, Jammu & Kashmir
(v) Dr. A. Jeevalatha, Senior Scientist (Plant Pathology), ICAR-IISR, Kozhikode (Calicut), Kerala
(vi) Dr. Ram Niwas Sharma, Assistant Professor (Plant Pathology), CoA (SKNAU, Jobner), Kumher, Rajasthan
(vii) Dr. R.S. Jayalakshmidevi, Vice Chancellor, ANGRAU, Guntur (Dist), Lam, Andhra Pradesh
(viii) Dr. Kamal Dev Sharma, Professor and Head (Agricultural Biotechnology), CSKHPAU, Palampur, Himachal Pradesh
(ix) Dr. Mamta Sharma, Theme Leader and Principal Scientist, ICRISAT, Patancheru, Hyderabad, Telangana
(x) Dr. Popy Bora, Senior Scientist (Plant Pathology), AAU-ARRI), AAU, Titabor, Jorhat, Assam

IPS Best Corporate Award: Dr. R.G. Aggarwal, Chairman, Dhanuka Agritech. Ltd.

Advisory Board Member and Honorary Fellow

The names for Advisory Board Member and Honorary Fellow, as Dr. C.L. Jandaik, Advisory Board member and Dr. Akhtar Husain, Honorary Fellow passed away this year.

Advisory Board Member: Prof. M.K. Naik, former Vice Chancellor, UAS, Raichur, Karnataka

Honorary Fellow: Dr. A.K. Misra, Ex-PC, AICRP on (STF), CISH, Lucknow, Uttar Pradesh

Prof. M.J. Narasimhan Academic Merit Award 2024-25

This year total 12 candidates from 7 zones were participated in the Prof. M.J. Narasimhan Academic Merit Award 2024-25. Ms. Sudeepta Pattanayak, *Division of Plant Pathology, ICAR-IARI, New Delhi* (Presentation title: Determination and exploitation of maize endophytic microbiome for the induction of resistance against maydis leaf blight disease); and Mr. Aditya Kukreti, *Department of Plant Pathology, IGKV, Raipur, Chhattisgarh* (Presentation title: First Report of Indigenous *Bacillus thuringiensis* Exhibiting Lipopeptide-Mediated Antifungal Activity Against *Rhizoctonia Solani*) awarded for Prof. M.J. Narasimhan Academic Merit Award contest 2024-25.

The following other candidates were recommended for the commendation award:

(i) Mr. Pritam Das, *CPGSAS, CAU (Imphal), Umiam, Meghalaya* (Title: Integrated Management of *Fusarium* dieback in tea with Homeopathic Medicines and Bio-control Agents)
(ii) Mr. Krishnendu Kundu, *Department of Plant Pathology, BCKV, Mohanpur, Nadia, West Bengal* (Title: Formulation of effective natural plant extracts and their exploitation for repressing diseases of lentil under field condition)
(iii) Ms. Asharani Patel, *ICAR-IARI, Hazaribag, Jharkhand* (Title: *Microbacterium testaceum*: An unexplored rice leaf-associated bacterium for blast disease suppression in rice)
(iv) Dr. D. Shanmuga Priya, *Department of Plant Pathology, PAJANCOA & RI, Karaikal, Pondicherry* (Title: Development of microbial consortia to mitigate the soil-borne pathogens in glory lily)

(v) Ms. M.L. Supriya, *Department of Plant Pathology, CoA, UAS, GKVK, Bengaluru, Karnataka* (Title: Unraveling mango defense responses to anthracnose: screening, genetic, biochemical and pathogenicity insights)

(vi) Ms. Lopamudra Giri, *Department of Plant Pathology, PJTAU, Hyderabad, Telangana* (Title: Role of Plant Growth Promoting Rhizobacteria in Enhancing the Resistance in Tomato against *Fusarium oxysporum* f. sp *lycopersici*)

(vii) Ms. Divya, *PAU, Ludhiana, Punjab* (Title: Mapping resistance genes against loose smut (*Ustilago tritici*) of wheat (*Triticum aestivum* L.))

(viii) Mr. Shashank P. Patel, *Rani Lakshmi Bai Central Agricultural University, Jhansi, Uttar Pradesh* (Title: Eco-Friendly Biofumigation: Harnessing Brassica Tissues and Mustard Cake for Effective Management of Soilborne Fungal Pathogens)

(ix) Ms. Rohini Verma, *GBPUAT, Pantnagar, Uttarakhand* (Title: Harnessing Bacillus spp. for Groundnut Resilience: Enzymatic Fortification and Yield Enhancement)

(x) Dr. Charishma Krishnappa, *Division of Plant Pathology, ICAR-IARI, New Delhi, India* (Title: Genome and metabolome characterization of phyllosphere adapted Pantoea sp. for antimicrobial metabolites against blast and bacterial blight in rice)

APS-IPS Travel Sponsorship Award

5 candidates participated and contested for APS-IPS Travel Sponsorship from 4 zones of the Society. All the participants have been recommended for final selection by American Phytopathological Society.

(I) Ms. Aasiya Nabi, *Division of Plant Pathology, SKUAST-K, Srinagar, Jammu & Kashmir* (Title: Exploration of genome editing, effector-protein prediction modelling and transcriptomic tools for understanding the *Phaseolus vulgaris-Colletotrichum lindemuthianum* interface)

(ii) Mr. Abhisek Rath, *Department of Plant Pathology, AAU, Jorhat, Assam* (Title: Bacillus-Mediated Zinc-Chitosan Nanohybrid: A Novel Approach to Combat *Ralstonia Solanacearum*, A Soil-Borne Nemesis of Tomato Plants)

(iii) Ms. Chaitra G.V., *Department of Plant Pathology, Agricultural College, ANGRAU, Bapatla, Andhra Pradesh* (Title: Rapid Detection of Tobacco Streak Virus in Sunflower Using Crude Sap-Based RT-RPA Assay)

(iv) Mr. Lydia Vanlaltani, *CPGSAS, CAU (Imphal), Umiam, Meghalaya* (Title: Biosynthesized Silver nanoparticles can be an option for management of citrus greening diseases)

(v) Mr. Roshan Sanjay Chandurkar, *Dr. PDKV, Akola, Maharashtra* (Title: Harnessing actinomycetes for agricultural biocontrol: A path to reducing chemical dependence)

Symposia/Workshop: Organized/Attended

- **International Phytoplasma Workshop and Training Course at Indian Sugarcane Research Institute, Lucknow, India (February 23-28, 2025)**

Phytoplasmas, unique bacterial pathogens, severely impact agricultural crops worldwide, causing significant yield and quality losses. Despite their importance, awareness among agricultural scientists and farmer's remains limited. To address this, an international workshop was held at ISRI, Lucknow, India, from February 25-28, 2025. The event drew 150 delegates from 16 countries, who shared updates on phytoplasma disease distribution, diagnosis, epidemiology, and management in 10 technical sessions. A pioneering international training program on "International Training Course on Phytoplasma Outbreaks: Collection, Preservation, and Identification" was also organized at the Indian Sugarcane Research Institute, Lucknow, India from February 23-24, 2025. The event drew 30 participants, including students, researchers, and professionals from 7 countries. Renowned phytoplasma experts Dr. Assunta Bertaccini (Italy), Dr. Wei Wei and Valeria Trivellone (USA), and Dr. Barbara Jarausch (Germany)

conducted hands-on training sessions on molecular identification and characterization of phytoplasmas from plants and insects (Dr. Assunta Bertaccini, Chairman; Dr. R. Viswanathan, Convener; Dr G.P. Rao, Secretary, Dr. Dinesh Singh, Joint Secretary).

- A National Conference on **Implications of Climate change and Conservation of Natural Resources and Cultural Heritage** was organized jointly by International Council of Biodeterioration of Cultural Property (ICBCP) and Botany Department, Manipur University. Shri Ajai Bhalla Governor of Manipur inaugurated the event on 26th February, 2025. **Prof Arun Arya,** Organizing Secretary and life member and Fellow of IPS presented the Keynote address. The papers on Fungal degradation of Paper and wood in Saw mills, and Miyawaki Plantations were presented. Total 134 Papers were received in 4 different themes and presented.
- **Dr. D.L. Yadav**, Agriculture University, Kota organized farmers training programme on "Improved technology on potato cultivation" at Arjunpura under Trichoderma project funded by NABARD dt. 14.01.2025 and on Trichoderma at ARS, Kota under Trichoderma project funded by NABARD on 25.01.2025.
- **Dr. D.L. Yadav**, Assistant Professor of Plant Pathology at Agriculture University, Kota, successfully participated in a 21-day ICAR Winter School focused on "Mass production of microbial formulation for sustainable agricultural productivity, soil health, and plant disease management". This program was organized by the College of Agriculture at ANDUA&T, Kumarganj, Ayodhya, and took place from February 6, 2025, to February 26, 2025.
- **Dr. D.L. Yadav**, Assistant Professor (Plant Pathology), ARS, Kota, presented an oral paper on "Stem necrosis disease of potato and its management" at the National Symposium on "Harnessing Potato Innovations, Diversity for Food and Nutritional Security" on January 27-29, 2025, at ICAR CPRI, Regional Station, Modipuram, Meerut, Uttar Pradesh.

IPS Symposia 2024-25

IPS Mid-Eastern Zone Symposium

IPS Mid-Eastern Zonal Meet and National Conference on "Plant Microbes Interaction for Sustainable Agriculture and Food Security" was organized by Rani Lakshmi Bai Central Agricultural University (RLBCAU), Jhansi, in collaboration with Indian Phytopathological Society, New Delhi during January 3-4, 2025 at RLBCAU, Jhansi campus. In this two-days conference, there were 02 Plenary Lectures, 16 Lead Lectures/Invited Lectures, 20 Oral Presentations and 122 Poster presentations covering five themes. The conference was organized by Dr. Prashant Jambhulkar, Zonal President and Dr. R.K. Pandey, Zonal Councillor, IPS-MEZ.

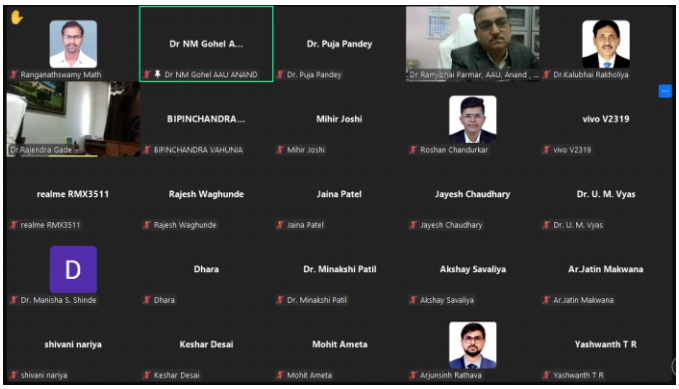
IPS Delhi Zone Symposium

The National Symposium on "Integrating Genomics in Plant Pathology: New Frontiers in Disease Management," held on 15-16 January 2025 jointly organized by the Division of Plant Pathology, ICAR-IARI, New Delhi in collaboration with Indian Phytopathological Society, New Delhi was a successful and enriching event with 133 registered participants including representatives from industries. The symposium featured, 24 Invited Lectures, 40 Poster Presentations and three engaging technical sessions, offering valuable insights into the role of genomics in advancing disease management strategies. The

symposium was organized by Dr. A. Kumar, Zonal President and Dr. Nitika Gupta, Zonal Councillor, IPS-Delhi Zone.

IPS Western Zone Symposium

The IPS West zone e-Conference on "Natural Farming: A Unified Approach to Plant Health" was organized virtually on 9th January 2025 at Anand Agricultural University, Anand, Gujarat in collaboration with the Indian Phytopathological Society (IPS), New Delhi. The inaugural session was graced by Dr. K.B. Kathiria, Hon. Vice Chancellor of AAU, Anand, who served as the chief guest and Dr. M.K. Jhala, Director of Research & Dean, PG Studies, as the guest of honor. Dr. R.G. Parmar, Zonal President of IPS-WZ and Organizing Secretary, warmly welcomed the dignitaries. The conference was organized by Dr. R.G. Parmar, Zonal President and Dr. N.M. Gohel, Zonal Councillor of IPS-WZ.

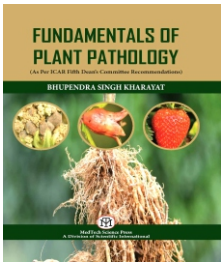


National Conference on Emerging Issues and Sustainable Strategies in Plant Health Management: A Global Perspective (19-21 January, 2025)

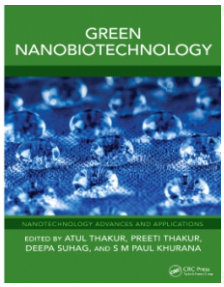
The Indian Phytopathological Society (IPS), New Delhi and ICAR-Central Citrus Research Institute (CCRI), Nagpur, Maharashtra, jointly organized the National Conference on "Emerging Issues and Sustainable Strategies in Plant Health Management: A Global Perspective" during 19-21 January, 2025 at Nagpur, Maharashtra. Shri Nitin Gadkari, Union Minister for Road Transport and Highways, was the chief guest for the occasion and delivered an inspiring speech, emphasizing the importance of sustainable agricultural practices and the role of plant health management in ensuring food security and environmental stability. He appreciated the efforts ICAR-CCRI is taking for importing exotic citrus from USA. The event was presided over by Dr. Himanshu Pathak, Secretary (DARE) and Director General (ICAR), who underscored the significance of innovative approaches in plant health management, highlighting the need for integrated strategies that address global challenges. Dr. Dilip Ghosh, President (IPS) and Director of ICAR-CCRI, offered the welcome address as Convenor, setting the tone for the conference. Dignitaries Dr. C.D. Mayee, former Chairman (ASRB), Dr. Ravi Khetarpal, Executive Director, APARI, Thailand; Dr. K.V. Subbarao, Distinguished Professor, University of California, USA, and Dr. R.G. Aggarwal, Founder Chairman of Dhanuka Group of Companies, also graced the event with their addresses. Apart from, Dr. Dinesh Singh, President elect, Dr. K.K. Biswas, Secretary, IPS, Dr. L. Prasad, Jt. Secretary, Dr. Malkhan Singh Gurjar, Treasurer, IPS were graced in this occasion. The conference, with its theme focusing on sustainable plant health management, witnessed participation of over 300 national and international delegates, including renowned scientists, researchers, policymakers, and industry leaders.

Book Published

Fundamentals of Plant Pathology
Author: Bhupendra Singh Kharayat
Publisher: MedTech Science Press New Delhi
Year of Publication: 2025
Page Count: 631
ISBN: 978-93-6363-969-0



Green Nanobiotechnology
Editors: Atul Thakur, Preeti Thakur, Deepa Suhag and S.M. Paul Khurana
Publisher: CRC Press
Year of Publication: 2024
Page Count: 324
ISBN: 9781040259467, 1040259464



IPS Election Result 2025

Election result of the Society for the year 2025 is as follows:

President Elect (2025): Dr. Rasappa Viswanathan, Director, ICAR-IISR, Lucknow, Uttar Pradesh, India

Zonal Chapters

Zonal President (Central Zone): Dr. M.K. Jyosthna, SV Agricultural College, Tirupati, Andhra Pradesh, India

Zonal Councillor (Central Zone): Dr. Pradeep Manyam, SV Agricultural College, Tirupati, Andhra Pradesh, India

Zonal President (Delhi Zone): Dr. Ashish Kumar, ICAR-NIPB, New Delhi, India

Zonal Councillor (Delhi Zone): Dr. M.K. Khokhar, ICAR-National Research Institute for Integrated Pest Management, New Delhi, India

Zonal President (Eastern Zone): Dr. Abhijeet Ghatak, Bihar Agricultural University, Sabour, Bhagalpur, Bihar, India

Zonal Councillor (Eastern Zone): Dr. A. Srinivasaraghavan, Bihar Agricultural University, Sabour, Bhagalpur, Bihar, India

Zonal President (Mid-Eastern Zone): Dr. H.V. Singh, ICAR-NBAIM, Mau, Uttar Pradesh, India

Zonal Councillor (Mid-Eastern Zone): Dr. Abhijeet S. Kashyap, ICAR-NBAIM, Mau, Uttar Pradesh, India

Zonal President (Northern Zone): Dr. Ritu Bala, Punjab Agricultural University, Ludhiana, Punjab, India

Zonal Councillor (Northern Zone): Dr. Yogita Bohra, Punjab Agricultural University, Ludhiana, Punjab, India

Zonal President (North-Eastern Zone): Dr. Gireesh Chand, CAU (Imphal), Pasighat, Arunachal Pradesh, India

Zonal Councillor (North-Eastern Zone): Dr. Amit Kumar Singh, CAU (Imphal), Pasighat, Arunachal Pradesh, India

Zonal President (Southern Zone): Dr. C. Jeyalakshmi, PJNCA & RI, Karaikal, Puducherry (UT), India

Zonal Councillor (Southern Zone): Dr. P. Balabaskar, Annamalai University, Chidambaram, Annamalainagar, Tamil Nadu, India

Zonal President (Western Zone): Dr. V.M. Gholve, VNMKV, Parbhani, Maharashtra, India

Zonal Councillor (Western Zone): Dr. G.P. Jagtap, VNMKV, Parbhani, Maharashtra, India

IPS Awards Result 2025

The IPS award result for the year 2024 is as follows:

A.P. Misra Lifetime Achievement Award: Dr. Pranjib K. Chakrabarty, Former Member (Plant Sciences), ASRB and ADG (PP&B), New Delhi

S.P. Raychaudhuri Memorial Lecture: Dr. P. Chowdappa, Former Director (CPCRI) & Vice Chancellor, Bharatiya Engineering Science and Technology Innovation University, Anantapur, Andhra Pradesh

IPS Recognition Award

(i) Dr. D.S. Singh, Ex. Principal Scientist, ICAR-CPRI, Shimla, Himachal Pradesh

(ii) Prof. Srikanta Das, Professor (Plant Pathology), BCKV, Mohanpur, Nadia, West Bengal

(iii) Dr. M.S. Patil, Former & Head (Plant Pathology), UAS, Dharwad, Karnataka

(iv) Dr. Pratibha Sharma, Former Professor & Head (Plant Pathology), ICAR-IARI, New Delhi

(v) Dr. A.N. Sabalpara, Retd. DoR & Dean, PGS, NAU, Navsari, Gujarat

Mundkur Memorial Award: Dr. Ramesh Chand, Director, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh

Pravasi Fellow: Dr. Udayan Chatterjee, California, USA

IPS Best Corporate Award

(i) Dr. Amitava Sanyal, Regulatory Director, Sumitomo Chemical India Pvt. New Delhi

(ii) Shri Rajju D. Shroff, Chairman and Managing Director, UPL, Mumbai, Maharashtra

A.N. Mukhopadhyay Oration Award (2025): Dr. Gururaj Sunkad, Dean (Postgraduate Studies) and Professor (HAG) and Head, UAS, Raichur, Karnataka

A.N. Mukhopadhyay Oration Award (2023): Dr. Arup Mukherjee, Principal Scientist (Plant Pathology), ICAR-NRRI, Cuttack, Odisha

B.N. Chakraborty and Usha Chakraborty IPS Best Teacher Award: Dr. Samir Kumar Biswas, Professor (Plant Pathology), CSAUAT, Kanpur, Uttar Pradesh

D.P. Misra & R.N. Pandey IPS Best Women Scientist Award: Dr. Efath Shahnaz, Associate Professor, SKUAST-K, Srinagar, Jammu and Kashmir

S. Sinha Memorial Award: Dr. Prem Lal Kashyap, Senior Scientist, ICAR-IIWBR, Karnal, Haryana

Sharda Lele Memorial Award: Dr. R. Selvarajan, Director, ICAR-NRC for Banana, Tiruchirappalli, Tamil Nadu

A.K. Sarbhoy Memorial Award: Dr. Kamal Dev Sharma, Professor & Head (Agricultural Biotechnology) CSKHPKV, Palampur, Himachal Pradesh

M.K. Patel Memorial Young Scientist Award: Dr. Sajad Un Nabi, Scientist, ICAR-CITH, Srinagar, Jammu and Kashmir

J.F. Dastur Memorial Award: Dr. A. Ishwara Bhat, Principal Scientist & Head (Crop Protection), ICAR-IISR, Kozhikode, Kerala

K.C. Mehta and Manoranjan Mitra Award: Dr. Pramod Prasad, Senior Scientist, ICAR-IIWBR, Regional Station, Shimla, Himachal Pradesh

S.N. Dasgupta Memorial Award: Dr. Sudheer Kumar, Head, IIPR, Regional Center, Bikaner, Rajasthan

Fellow of Indian Phytopathological Society (FPSI)

(i) Dr. Sunita Mahapatra, Assistant Professor (Plant Pathology), BCKV, Mohanpur (Nadia), West Bengal

(ii) Dr. Ashwini Charpe, Professor CAS (Plant Pathology), Dr. PDKV, Akola, Maharashtra

(iii) Dr. Dipak T. Nagrale, Senior Scientist (Plant Pathology), ICAR-CICR, Nagpur, Maharashtra

(iv) Dr. Ritu Bala, Plant Pathologist (Wheat), PAU, Ludhiana, Punjab

(v) Dr. S. Chandra Nayaka, Professor University of Mysore, Mysuru, Karnataka

(vi) Dr. Vivek Singh, Associate Professor (Plant Pathology), ANDUAT, Kumarganj, Ayodhya, Uttar Pradesh

(vii) Dr. V. Venkataravanappa, Senior Scientist, Division of Plant Pathology, ICAR-IIHR, Bengaluru, Karnataka

(viii) Dr. Gajendra Jagtap, Professor (CAS) Plant Pathology, VNMKV, Parbhani, Maharashtra

(ix) Dr. Shankara S. Bhat, Ex Professor and Co-Ordinator of Microbiology, #397, Ibbani Road A&B Block, Kuvempunagar, Mysuru, Karnataka

(x) Dr. Supriya Chakraborty, Professor, JNU, New Delhi

(xi) Dr. Anand Kumar Tewari, Professor (Plant Pathology) GBPUA&T, Pantnagar, Uttarakhand

Published by
Indian Phytopathological Society
New Delhi , India
E-mail: ipsdis@yahoo.com, website: http://ipsdis.org