



WORKSHOP PROGRAM



International Phytoplasma Working Group - Workshop  
**Multidisciplinary Approaches Toward  
Phytoplasma Associated Diseases,  
Detection and Management**

February 25<sup>th</sup> - 28<sup>th</sup>, 2025

ICAR - Indian Sugarcane Research Institute, Lucknow, India



	Feb 25, 2025 <b>TUESDAY</b>	Feb 26, 2025 <b>WEDNESDAY</b>	Feb 27, 2025 <b>THURSDAY</b>	Feb 28, 2025 <b>FRIDAY</b>	
8:30 am					8:30 am
9:00 am	Registration and poster mounting 8:30 am - 10:00 am				9:00 am
9:30 am					9:30 am
10:00 am		Interactions I 9:30 am - 11:00 am	Country status III 9:30 am - 11:00 am	Country status IV 9:30 am - 10:10 am	10:00 am
10:30 am	Welcome & opening 10:00 am - 11:00 am				Citrus crops 10:10 am - 11:00 am
11:00 am					11:00 am
11:30 am		Coffee Break	Coffee Break	Coffee Break	11:30 am
12:00 pm	Omics 11:00 am - 1:00 pm	Interactions II 11:30 am - 1:00 pm	Epidemiology and control 11:30 am - 1:00 pm	Management 11:30 am - 12:30 pm	12:00 pm
12:30 pm					
1:00 pm				Palm trees 12:30 am - 2:00 pm	1:00 pm
1:30 pm	Lunch	Lunch	Lunch		1:30 pm
2:00 pm					2:00 pm
2:30 pm	New detection tools I 2:00 pm - 3:30 pm	Country status I 2:00 pm - 3:30 pm	Sugar crops I 2:00-3:30	Lunch	2:30 pm
3:00 pm					
3:30 pm				Certificates and farewell	3:30 pm
4:00 pm	Coffee break	Coffee break	Coffee break		4:00 pm
4:30 pm					4:30 pm
5:00 pm	New detection tools II 4:00 pm - 5:30 pm	Country status II 4:00 pm - 5:30 pm	Sugar crops II 4:00 am - 5:30 am		5:00 pm
5:30 pm					
6:00 pm					6:00 pm
	Cultural program and dinner		Social dinner		

**Optional tour of the Taj Mahal**  
**Saturday March 1<sup>st</sup>, 2025**

More information at the registration desk



## IPWG 2025 Scientific Committee



Abdullah Al-Sadi - Oman  
Khalid Alhudaib - Saudi Arabia  
Yaima Arocha Rosete - Canada  
Assunta Bertaccini - Italy  
Sandrine Eveillard - France  
Nicola Fiore - Chile  
Barbara Jarasch - Germany  
Wolfgang Jarasch - Germany  
Lia Liefting - New Zealand  
Kenro Oshima - Japan  
Govind Pratap Rao - India  
Rakefet Sharon - Israel  
Valeria Trivellone - USA  
Wei Wei - USA



International Phytoplasma  
Working Group  
[www.ipwgnetwork.org](http://www.ipwgnetwork.org)

## Workshop Program



**Tuesday**  
February 25<sup>th</sup>, 2025

- 8:00 am Bus departure from hotels
- 8:30 am Registration and poster set-up
- 10:00 am Welcome, inauguration and group photo**

## Omics based research

11:00 am - 1:00 pm

chairs: Suman Lakhanpaul & Kenro Oshima

- 11:00 am** **Insights into phytoplasma genomes of Indian origin**  
Kiran Kirdat, Sneha Verma, Srinibas Behara, Ramachandran Sundararaj and **Amit Yadav**
- 11:20 am** **Characterization of the membrane protein of onion yellows phytoplasma that has a domain of Deg/HtrA family protease**  
Hidemasa Oda, Ai Endo, Takahiro Sambe, Kensaku Maejima, Shigetou Namba, Yasuyuki Yamaji and **Kenro Oshima**
- 11:35 am** **Delineating the molecular mechanism of phytoplasma infection in sesame**  
**Suman Lakhanpaul**, Vibhuti Singh, Sachin Kumar, Amrita Singh, Pratima Verma and Akash Kumar
- 11:55 am** **Diversity analysis of SAP05 effector molecule from 'Candidatus Phytoplasma' infected sesame**  
**Akash Kumar**, Vibhuti Singh and Suman Lakhanpaul
- 12:00 pm** **Unveiling the 3D structure of phytoplasma effectors: a streamlined protocol for SAP11CaPM expression and purification**  
**Mattia Tabarelli**, Amelie Blabl, Alberto Ceccon and Katrin Janik
- 12:15 pm** **Transcriptome analysis of sesame phyllody phytoplasma: towards identification of resistance-imparting genes**  
**Hemavati Ranebennur**, Celia Chalam Vasimalla, Govind Pratap Rao, Kirti Rawat, Manoj Kumar Yadav, Shivani Gupta, Ashutosh Rao and Rashmi Yadav
- 12:30 pm** **CRISPR/Cas9-mediated generation of tomato RAD23 knockouts for studying phytoplasma-induced symptoms**  
**Junichi Inaba**, Bo Min Kim, Yan Zhao and Wei Wei
- 12:45 pm** **"Flavescence dorée" phytoplasma strains genetic variability: a comparative genomics approach**  
**Zahra Golestani Hotkani**, Giulia Calia, Diego Micheletti, Alberto Gelmetti, Alessandro Cestaro, Matteo Brillì and Mirko Moser

1:00 pm



Lunch

## New tools for phytoplasma detection I

2:00 pm - 3:30 pm

chairs: Nicola Fiore & Hemavati Ranebennur

**2:00 pm**     **Artificial intelligence in phytoplasmology: image-based disease detection models for phytoplasma infection in flower crops**

**Kizhalot Prabha**, Kadukothanahalli Veerabhadraiah Shivakumar, Sapkal Saurabh, Govind Pratap Rao and Kuchimanchi Venkataramana Prasad

**2:20 pm**     **Leveraging artificial intelligence and big data to advance phytoplasma disease detection and crop health management**

**Wei Wei**, Jonathan Shao and Yan Zhao

**2:40 pm**     **Development of a multilocus sequence typing method for accurate identification of 16SrV phytoplasma strains via Oxford nanopore**

**Stefano Costanzo**, Sam Grinstead, Yan Zhao and Wei Wei

**2:55 pm**     **Oxford nanopore sequencing using metabarcoding as detection and identification tool for 'Candidatus Phytoplasma' and 'Ca. Liberibacter' taxa**

Ellen A. Everaert, **Kris De Jonghe**, Maaïke Heyneman, Yoïka Foucart, Dieter Slos and Annelies Haegeman

**3:10 pm**     **PhenoTruck<sup>AI</sup>: a mobile laboratory for hyperspectral and molecular detection of phytoplasma quarantine diseases like "flavescence dorée"**

**Wolfgang Jarausch**, Bonito Thielert, Markus Michel, Patrick Menz, Miriam Runne, Gesa Götte, Sebastian Warnemünde and Sylvia Wagner

3:30 pm



Coffee break and poster visit

## New tools for phytoplasma detection II

4:00 pm - 5:30 pm

chairs: Wei Wei & Amit Yadav

**4:00 pm**     **Molecular variation of 'Candidatus Phytoplasma ziziphi' isolated during co-cultivation from micropropagated jujube witches' broom infected shoots**  
Anton Zakurin, Jidong Li, Francesco Pacini and **Assunta Bertaccini**

**4:20 pm**     **A colorimetric LAMP based assay for rapid screening of sandalwood spike phytoplasma**  
**Donald James**, Adharsh Tharayil Sunder, Meenu Muralikrishnan, Preethu Thekkepurath, Murali Revanasiddappa and Suma Arun Dev

**4:35 pm**     **Recombinase polymerase amplification assay: a simplified and rapid approach for detection of fastidious plant pathogens**  
**Virendra Kumar Baranwal**

**4:50 pm**     **Evaluation of a hybridization probe-based multilocus sequence typing technique for identification of diverse phytoplasmas**  
**Harvinder Bennypaul**, Daniel Sanderson, Tim Dumonceaux and Christine Hammond

**5:05 pm**     **Comparative study of phytoplasma DNA extraction methods**  
Ida Bashkirova, Aleksey Shvartsev, **Yuri Shneyder** and Irina Smirnova

**5:10 pm**     **A novel approach for detection of sandal spike infection in *Santalum album***  
**Tresa Hamalton** and Sreedevi Cigatagere Nagaraj

**5:15 pm**     **Satellite-based detection of apple proliferation and pear decline**  
Ali Al Masri, Katrin Kohler, Jukka Höhn, Miriam Runne and **Wolfgang Jarausch**

**6:00 pm**     **Cultural programme followed by dinner**

8:00 pm     Bus to hotels



8:30 am Bus departure from hotel

## Phytoplasma-plant-insect vector interactions I

9:30 am - 11:00 am

chairs: Valeria Trivellone & Nicola Mori

**9:30 am** Insect vector transmission of phytoplasmas and citrus greening bacteria in diverse agricultural crops of India

**Govind Pratap Rao**

**9:50 am** Leafhoppers as vectors of phytoplasma diseases

**Naresh M. Meshram**, Akash Nikoshe and Dilip Kumar Ghosh

**9:55 am** Molecular and morphological characterization of leafhoppers as vectors of sesame phyllody in Andhra Pradesh, India

Gopisetty Sandhya, **Madem Gurivi Reddy**, Govind Pratap Rao, Reddypogu Sarada Jayalakshmi Devi and Duddu Bharathi

**10:00 am** A new invader in Germany: *Scaphoideus titanus*, the vector of "flavescence dorée" in grapevine

**Barbara Jarausch**, Lars Askani, Sanela Kugler, Wolfgang Jarausch, René Fuchs, Olaf Zimmermann, Kerstin Zikeli, Miriam Runne and Jürgen Gross

**10:15 am** Monitoring of alternative insect vectors of "flavescence dorée"-related phytoplasmas in different wine-growing regions in Germany

**Barbara Jarausch**, Sandra Biancu, Sanela Kugler, Wolfgang Jarausch and Michael Maixner

**10:30 am** Biology and phytoplasma detection of the newly described *Bamboosella dimorpha* leafhopper in grapevine yellows-affected vineyards

**Nicola Mori**, Enea Guerrieri, Francesco Sanna, Flavio Serina, Sara Torcoli and Fabio Quaglino

**10:45 am** First report of a psyllid vector of 'Candidatus Phytoplasma pruni' (strain 16SrIII-J)

Tomás Llantén, Sebastián Cabrera, Javiera Fuentes, Camila Gamboa, Constanza González, Alan Zamorano and **Nicola Fiore**

11:00 am



Coffee break and poster visit

## Phytoplasma-plant-insect vector interactions II

11:30 am - 1:00 pm

chairs: Barbara Jarausch & Govind Pratap Rao

- 11:30 pm** **Insights into phytoplasma lineages: evaluating single-locus and multilocus trees from next-generation sequencing data**  
**Syeda Wardah Noor**, Christopher H. Dietrich and Valeria Trivellone
- 11:50 pm** **Seasonal dispersal of *Cacopsylla bidens* and its role in the epidemiology of 'Candidatus Phytoplasma pyri' in mixed-crop systems**  
**Rakefet Sharon**, Maor Tomer and Annat Zisovich Charitt
- 12:05 pm** **First identification of *Cacopsylla bidens* as a vector of 'Candidatus Phytoplasma pyri', the agent associated with pear decline**  
**Maor Tomer**, Annat Zisovich Charitt and Rakefet Sharon
- 12:10 pm** **Deciphering the impact of phytoplasma presence on structure and biochemical composition of brinjal crop**  
**Apoorva Srivastava** and Smriti Mall
- 12:30 pm** **Biophysical properties of trichome in sesame phyllody**  
**Kailash Narayan Gupta**, Vivek Chouksey and Anand Kumar Vishwakarma
- 12:35 pm** **A review on phytoplasma induced biochemical responses in plants**  
**Desireddy Vindyasree**, Madem Gurivi Reddy, Reddypogu Sarada Jayalakshmi Devi, Boya Hussainammagari, Chaitanya and Manyam Pradeep
- 12:40 pm** **Association of phytoplasmas with tapping panel dryness syndrome of *Hevea brasiliensis*: a pathological perspective to unresolved mystery?**  
**Shaji Philip**, Ann Tom, Edwin Prem, Ramyasree Puramerimadathil, Ruksana Kuttickal Sajeed, Alphonsa Mathew and Sainamole Kurian

1:00 pm



Lunch

## Country status of phytoplasma diseases I

2:00 pm - 3:30 pm

chairs: Yaima Arocha Rosete & Madem Gurivi Reddy

- 2:00 pm**     **Phytoplasmas diversity in India**  
**Smriti Mall**, Ragini Vishwakarma, Km Preeti and Mithilesh K. Gupta
- 2:15 pm**     **Phytoplasma disease prevalence in Namsai, Arunachal Pradesh, India: an exploratory study**  
**Jutimala Phookan** and Manoj Kumar Kalita
- 2:20 pm**     **Molecular characterization and symptom assessment of phytoplasma infection in king chilli across Assam, India**  
**Shabiba Jahan Hazarika**, Dibya Sree Dutta and Manoj Kumar Kalita
- 2:35 pm**     **Assessment of pear decline prevalence and phytoplasma infection in major commercial orchards of Al-Mafraq, Jordan**  
**Asem H. Abu Alloush**, Kristi D. Bottner-Parker, Fabio Quaglino and Wei Wei
- 2:40 pm**     **Identification of 16SrII-D phytoplasmas in sesame and groundnut crops in Tirupati district of Andhra Pradesh, India**  
**Kudithipudi Suhas**, Madem Gurivi Reddy, Bommu Veera Bhaskara Reddy and Karanam Venkatachalapathi Hari Prasad
- 2:55 pm**     **Unveiling the hidden threat: a comprehensive study on groundnut phytoplasma in the major growing regions of Andhra Pradesh, India**  
**Periyamaya Devar Pusalapuram**, Reddypogu Sarada Jayalakshmi Devi, Harikishan Sudini, Manda Jhonson, Ampagouni Prasanna Rajesh
- 3:00 pm**     **Preliminary identification of phytoplasmas infecting flower crops in Andhra Pradesh, India**  
**Dasari Meghanath**, Kalleti Arunodhayam, Madem Gurivi Reddy, Chitrapu Ruth, Mude Raja Naik, Nagarapu Sai Aswani and Karuba Gopal
- 3:15 pm**     **Multigene characterization of phytoplasmas associated with flat branch disease in sweet cherry and their effects on some fruit properties**  
Kishan Lal Kumawat, **Sajad Un Nabi**, Shreenath, Wasim Hassan Raja, Mahendra Kumar Verma and Govind Pratap Rao

3:30 pm



Coffee break and poster visit

## Country status of phytoplasma diseases II

4:00 pm - 5:30 pm

chairs: Helena Guglielmi Montano & Joao Bila

**4:00 pm** **Morpho-pathological and molecular characterization of a '*Candidatus Phytoplasma australasiaticum*' strain from linseed**

**Lakshman Prasad**, Shashank Kumar Yadav, Davender Singh, Sushma Sagar, Balram Jat, Mahender Singh Saharan, Govind Pratap Rao and Vikender Kaur

**4:20 pm** **Identification of phytoplasma disease infection in forest trees in Jammu region, India**

**Ashok Kumar Singh**, Deepak Kumar and Govind Pratap Rao

**4:35 pm** **Status and challenges of sandal spike disease in Indian forests: an analysis**

Sundararaj Ramachandran, **Athulya Ramakrishnan**, Narasimha Murthy and Amit Yadav

**4:50 pm** **Threat of tamarisk phytoplasmas in man-made tamarisk forest for agricultural crops and natural resources plants in Iran**

**Seyyed Alireza Esmaeilzadeh-Hosseini**, Ghobad Babaei and Assunta Bertaccini

**5:10 pm** **Rice orange leaf phytoplasma: a reemerging disease in coinfection with rice tungro virus in the Philippines**

**Gilda Jonson**, Ivy Lituañas and van Schepler-Luu

6:00 pm Bus to hotel

8:30 am

Bus departure from hotels

## Country status of phytoplasma diseases III

9:30 am - 11:00 am

chairs: Harvinder Bennypaul & Smriti Mall

- 9:30 am** **Growing prevalence of phytoplasma diseases in Ayodhya region, India**  
**Sushil Kumar Singh**, Harshita Yadav, Apoorva Srivastava and Smriti Mall
- 9:50 am** **An update status of phytoplasma diseases in chickpea**  
**Madem Gurivi Reddy**, Govind Pratap Rao, Kudithipudi Suhas and Reddypogu Sarada Jayalakshmi Devi
- 9:55 am** **An update status of recently emerging '*Candidatus Phytoplasma omanense*' strains in Iran**  
**Seyyed Alireza Esmaeilzadeh-Hosseini**, Ghobad Babaei, Abbas Paydar Ardakani and Assunta Bertaccini
- 10:10 am** **Presence of '*Candidatus Phytoplasma asteris*' in red gram and horse gram in Ananthapuramu district of Andhra Pradesh, India**  
**Vemana Kuruba**, Kirti Rawat, Sarada Jayalakshmi Devi Reddypogu, Hemavati Ranebennur, Shivani Gupta and Govind Pratap Rao
- 10:25 am** **Molecular detection of '*Candidatus Phytoplasma australasiaticum*' and '*Ca. P. trifolii*' in grapevine in India**  
Shivani Gupta, Mailem Y. Shimray, Jayesh Gehlot, Abhinav Tiwari, Kirti Rawat, Hemavati Ranebennur, Nitika Gupta, Somnath K. Holkar, Virendra K. Baranwal, Govind Pratap Rao and **Susheel K. Sharma**
- 10:45 am** **Identification of '*Candidatus Phytoplasma trifolii*' associated with mango phyllody in Kerala, India**  
**Sajeena Abdulmajeed**, Shivani Gupta, Dhanya Mannanani Krishnankutty, Makesh Kumar Thangaraj, Muthulakshmi Lajapathy Jeeva, Syamala Swayamvaran Veena, Ayisha Rehman and Govind Pratap Rao

11:00 am



Coffee break and poster visit

# Epidemiology and control of phytoplasma-associated diseases

11:30 am - 1:00 pm

chairs: Rakefet Sharon & Wolfgang Jarusch

- 11:30 am** **Evaluating the threat of phytoplasma disease emergence in agroecosystems and natural habitats**  
**Valeria Trivellone**, Roxana Jafari Haddadian and Christopher H. Dietrich
- 11:50 am** **Emerging hosts of '*Candidatus Phytoplasma trifolii*': a molecular insight into *Luffa acutangula*, *Momordica dioca* and *Lawsonia innermis* from Northeast India**  
**Manoj Kumar Kalita** and Dibya Sree Dutta
- 12:05 pm** **Biological and molecular features of '*Candidatus Phytoplasma prunorum*' associated with a severe outbreak in apricot**  
**Marco Gagliardi**, Romolo Laurita, Roberto Montalbetti, Vittorio Colombo, Nicola Mori, Francesco Pacini and Assunta Bertaccini
- 12:20 pm** **Influence of weather parameters on sesame phyllody**  
**Vivek Chouksey**, Kailash Narayan Gupta and Anand Kumar Vishwakarma
- 12:25 pm** **Identification of resistant germplasm in sesame against phyllody disease**  
**Kailash Narayan Gupta**, Anand Kumar Vishwakarma, Rajani Bisen, Rashmi Yadav, Govind Pratap Rao and Sanjay Kalia
- 12:40 pm** **Epidemiology of brinjal little leaf phytoplasma in Assam, India: genetic diversity and seed transmission**  
**Dibya Sree Dutta**, Rontung Kalita and Manoj Kumar Kalita
- 12:45 pm** **Combating pear decline in Flemish orchards: a comprehensive approach to disease detection and management**  
Ellen Everaert, Tim Belien, Gertie Peusens, Serge Remy, Dany Bylemans and **Kris De Jonghe**
- 12:50 pm** **Further study on the potential of *Frateuria defendens* as a biocontrol agent against phytoplasmas**  
**Lilach lasur-Kruh**, Suzana Moussa and Vered Naor

1:00 pm  Lunch

## Phytoplasma diseases of sugar crops I

2:00 pm - 3:30 pm

chairs: Bojan Duduk & Kadirvel Nithya

- 2:00 pm**    **Fastidious, phloem-limited bacteria, pathogens of sugar beet**  
**Bojan Duduk**, Jelena Stepanovic, Nikola Stanojevic, Emil Rekanovic, Nina Vuckovic, Nataša Duduk and Ivana Vico
- 2:20 pm**    **Identification of '*Candidatus Phytoplasma solani*' in sugar beet in the Voronezh region of the Russian Federation**  
Yuri Prikhodko, Maria Pruchkina, Tatiana Zhivaeva, **Yuri Shneyder**, Olga Stognienko and Elena Gerr
- 2:25 pm**    **Molecular identification of phloem-restricted bacteria in insects and sugar beet crops in Italy**  
**Luca Guerrini**, Anton Zakurin, Francesco Pacini, Nicola Mori, Sri Tej Mateeti, Giovanni Campagna, Massimo Zaghi, Maria Fattori and Assunta Bertaccini
- 2:45 pm**    **Multigene characterization of a 16SrII-D phytoplasma associated with sugarcane in Oman**  
**Ali M. Al-Subhi**, Azza K. Al-Aamri, Rashid A. Al-Yahyai and Abdullah M. Al-Sadi
- 3:00 pm**    **Identification of diverse phytoplasmas in sugarcane yellow canopy syndrome**  
**Francesco Pacini**, Eleonora Satta, Samanta Paltrinieri and Assunta Bertaccini
- 3:15 pm**    **Mechanized sett treatment: an innovative technology to deliver various agro-inputs for the management of sugarcane diseases including the grassy shoot**  
**Palaniyandi Malathi**, Rasappa Viswanathan and Amalraj Ramesh Sundar

3:30 pm  Coffee break and poster visit

## Phytoplasma diseases of sugar crops II

4:00 pm - 5:30 pm

chairs: Maria Fattori & Rasappa Viswanathan

**4:00 pm**    **Grassy shoot of sugarcane in India: impact to cane cultivation, diagnostics and sustainable disease management**  
**Rasappa Viswanathan**

**4:20 pm**    **Management grassy shoot disease of sugarcane associated with '*Candidatus Phytoplasma sacchari*'**  
**Dinesh Singh**, Shweta Singh, S. K. Goswami, Chandramani Raj, Rahul Kumar Tiwari, Arun Baitha, Lalan Sharma, Arun Baitha, K. Srinivas, D. N. Borase, Yogesh Thorat, Prakash Chandra Tripathy and Rasappa Viswanathan

**4:35 pm**    **Diagnostics of sugarcane grassy shoot phytoplasma for a healthy seed nursery programme in sugarcane**  
**Kadirvel Nithya**, Ramaswamy Manimekalai, Kalimuthu Kaverinathan, Ramasamy Nithyanantham and Rasappa Viswanathan

**4:55 pm**    **Seed treatment: suitable approaches for establishing nursery of sugarcane free of phytoplasma associated diseases**  
**Nilesh Singh**, Madhupriya Pandey, Pankaj Kumar Rai, Sant Sharan Tripathi and Ajay Kumar Tiwari

**5:10 pm**    **A multiplex PCR assay for rapid differentiation of sugarcane phytoplasmas reveals co-infection in samples from Thailand**  
**Weerakorn Saengsai**, Benjawan Ruttawat and Suchirat Sakuanrungsirikul

**5:15 pm**    **Antagonist bacteria in action: a strategy for managing sugarcane white leaf disease**  
**Weerakorn Saengsai**, Benjawan Rattawat, Sineenat Phomthirat, Chamaiporn Kaiyaphai, Raweevan Chuekittisak, Nattapat Khumla and Suchirat Sakuanrungsirikul

6:00 pm    Bus to hotel

**7:00 pm**    **Social dinner at Picadilly hotel Lucknow**



8:30 am Bus departure from hotels

## Country status of phytoplasma diseases IV

9:30 am - 10:10 am

chairs: Elisa Angelini & Manoj Kalita

**9:30 am Severe recurrence of tomato big bud disease associated with 16SrII phytoplasmas in Andhra Pradesh, India**

**Shivani Gupta**, Sesa Kiran Kollipara, Tirukoillur Mohanbabu Hemalatha, Hemavati Ranebennur and Govind Pratap Rao

**9:45 am Identification of a 'Candidatus Phytoplasma citri' strain associated with phyllody disease of cumin**

**Manish Kumar**, Ramesh and Govind Pratap Rao

**9:50 am Emerging phytoplasma threat: plum orchards under siege in Himachal Pradesh, India**

**Abhinav Thakur**, Anil Handa and Aman Chauhan

**10:05 am Multilocus gene characterization of phytoplasmas in infected weeds in chickpea crops in Andhra Pradesh, India**

Desireddy Vindyasree, Madem Gurivi Reddy, **Manyam Pradeep**, Boya Hussainammagari Chaitanya, Madduri Subrahmanya Venkata Chalam and Reddyogou Sarada Jayalakshmi Devi

## Phytoplasma diseases of citrus crops

10:10 am - 11:00 am

chairs: Dinesh Singh & Kizhalot Prabha

**10:10 am Present status of developing diagnostics, molecular characterization and novel management strategies for "huanglongbing" in India**

**Dilip Kumar Ghosh**, Ashwani Kumar Sharma and Swadeshmukul Santra

**10:25 am Mixed infection of phytoplasmas, "huanglongbing" and citrus tristeza virus in major citrus species decline at New Delhi, India**

**Surabhi Mitra**, Govind Pratap Rao, Eapen Punnapuzha Koshy and Shailendra Kumar Srivastava

**10:40 am** First report of '*Candidatus Phytoplasma aurantifolia*' associated with witches' broom disease of grapefruit in Oman

**Mohammed Al-Sadrani**, Emran Al-Jahwari and Ali Al-Subhi

**10:45 am** CRISPR/Cas-based detection of *Spiroplasma citri* for citrus stubborn disease management

**Justin Shih** and Wei Wei

11:00 am



Coffee break and poster visit

## Integrated disease management and diseases of quarantine importance

11:30 am - 12:30 pm

chairs: Vasimalla Celia Chalam & Vinyaka Hegde

**11:30 am** Role of plant quarantine in preventing transboundary movement of phytoplasmas in Asia

**Vasimalla Celia Chalam**, Hemavati Rannebenur, Pooja Kumari and Ashutosh Rao

**11:50 am** Presence of "flavescence dorée" phytoplasma in grapevine lignified canes and effectiveness of different sanitation methods

Nadia Bertazzon, Chiara De Gregorio, Olesya Kalinina, Francesco Rampino, Veronica Sofia Bottarel, Cezar Dumitrescu, Luisa Filippin and **Elisa Angelini**

**12:05 pm** Testing for '*Candidatus Phytoplasma phoenicium*' and peach latent mosaic viroid presence in Russia

**Yuri Shneyder**, Elena Karimova, Tatiana Zhivaeva, Evgeniya Lozovaya, Ida Bashkirova and Yuri Prikhodko

**12:10 pm** Evaluation of sesame germplasm against the phyllody disease

**Pankaj Sharma**, Jaswinder Kaur, Amandeep Singh, Anna Goyal, Priya, Tanisha Gupta and Prabhjot Singh Sandhu

**12:25 pm** Management of phyllody of sesame

**Vivek Chouksey**, Kailash Narayan Gupta and Anand Kumar Vishwakarma

# Phytoplasma diseases of palm trees

12:30 pm - 2:00 pm

chairs: Assunta Bertaccini & Madhavan Kochu Babu

- 12:30 pm** **Current and future molecular diagnostics of palms phytoplasmas**  
Ramaswamy Manimekalai, Smita Nair, Govind Pratap Rao, Madhavan Kochu Babu, Virendra Kumar Baranwal and **Karthikeyan Gandhi**
- 12:45 pm** **Search for coconut lethal yellowing alternate hosts among coconut associated weed and cultivated crops in Mozambique**  
Amide Bangali, Marília Mazivele, Nils Hogberg and **João Bila**
- 1:00 pm** **Detection, epidemiology and management of phytoplasma diseases of palms**  
**Vinayaka Hegde**, Merin Babu and Arulappan Josephraj Kumar
- 1:20 pm** **Comparative symptomatology of root (wilt) and mid whorl yellowing diseases of coconut in Kerala, India**  
**Amitha Paul**, Joy Michal Johnson, Sinijadas K, Radhika Nurani Subramanian, Radhakrishnan Nanjil Venkata Chalam, Usha Chacko Thomas, Swapna Alex and Manju Ramakrishnan Nair Vimala Devi
- 1:25 pm** **Phytoplasma diseases of oil palm**  
**Madhavan Kochu Babu**, Govind Pratap Rao, Kochubabu Sumi and Ramaswamy Manimekalai
- 1:45 pm** **Transmission studies on spear rot disease of oil palm**  
**Madhavan Kochu Babu**, Govind Pratap Rao, Kochubabu Sumi and Ramaswamy Manimekalai
- 2:00 pm**  **Lunch**
- 3:00 pm** **Certificate distribution, valedictory session, and poster removal**
- 4:00 pm** Bus to hotels



## IPWG 2025 Organizing Committees

### Patron

Dr. T. R. Sharma, DDG (Crop Science), ICAR, New Delhi, India

### Convener

Dr. R. Viswanathan, Director, ICAR-IISR, Lucknow, India

### Organizing Secretaries

Dr. Govind P. Rao, ICAR-IARI, New Delhi, India

Dr. Prasant K. Dash, ICAR, New Delhi, India

### Co-organizing Secretaries

Dr. Dinesh Singh, Project Co-ordinator, ICAR-IISR, Lucknow

Dr. Dinesh Singh, Head, Division Crop Protection, ICAR-IISR, Lucknow

### International Advisory Committee

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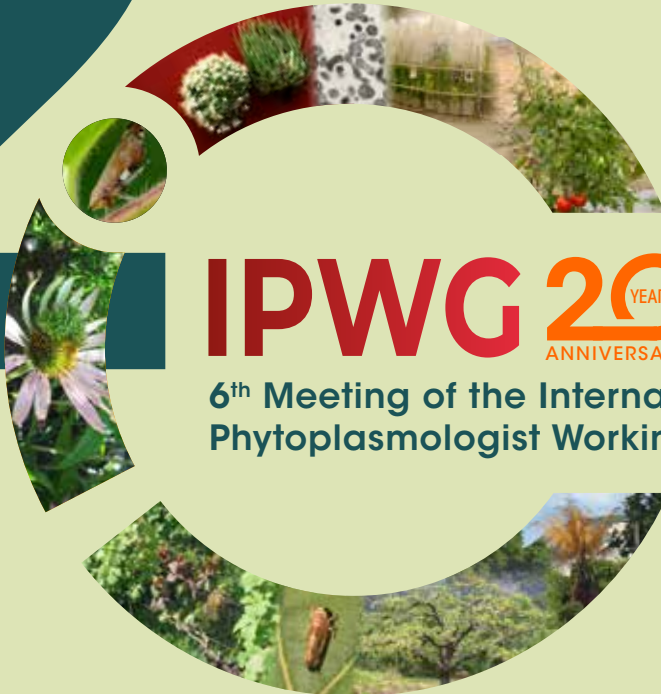
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# 20

# Years Anniversary



# IPWGW 2027

YEARS  
ANNIVERSARY

6<sup>th</sup> Meeting of the International  
Phytoplasmologist Working Group



[www.ipwgnet.org](http://www.ipwgnet.org)



Italy 2007

Germany 2011

Mauritius 2015

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## International Phytoplasma Working Group - Workshop 2025

ICAR – Indian Sugarcane Research Institute, Lucknow, India

February 25<sup>th</sup> – 28<sup>th</sup>, 2025

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