

5th Annual Congress on
PLANT SCIENCE & BIO SECURITY

June 23-24, 2025 at Prague, Czech Republic



Venue: Hotel Duo

Teplická 492/19, 19000 Prague 9, Czech Republic

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Day 1

June 23, 2025

Scientific Program	
5th Annual Congress on Plant Science and Biosecurity	
Jun 23 - 24, 2025 at Prague, Czech Republic (Hybrid Event)	
Day -1 (June 23, 2025)	
08:30-09:30 Registrations	
09:30-09:45 Opening Ceremony & Moderator Speech	
Keynote Forum	
09:45-10:15	Title: Genomics and phenomics among and within extant populations of the trifecta <i>Chrysanthemum arcticum</i> L. species complex
	Neil O. Anderson, <i>University of Minnesota, USA</i>
10:15-10:45	Title: The role of drought on the evolution of woodiness in flowering plants
	Frederic Lens, <i>Naturalis Biodiversity Center, The Netherlands</i>
10:45-11:15	Epigenetic Modulation by Natural Metabolites: Enhancing Plant Resistance
	Marta Berrocal-Lobo, <i>Universidad Politécnica de Madrid, Spain</i>
11:15-11:30 Group Photo & Refreshment Break	
Technical Session I	
11:30-11:50	Title: ABA-receptor agonist iSB09 decreases soil water consumption and increases tomato CO ₂ assimilation and water use efficiency under drought stress.
	Andrés A Borges, <i>IPNA-CSIC, Spain</i>
11:50-12:10	Title: Comparative analysis of soil degradation and soil structure in croplands affected by erosion and soil dehydration treated with a biological soil crust forming algal culture
	Jozsef Kutasi, <i>Albitech Biotechnology Ltd, Hungary</i>
12:10-12:30	Title: Cation transport for homeostasis and stress adaptation in plants
	Nobuyuki Uozumi, <i>Tohoku University, Japan</i>
12:30-12:50	Title: Cross-talks between phytochromes and FIN219/JAR1 in regulating the photomorphogenic development of <i>Arabidopsis</i> seedlings
	Hsu-Liang Hsieh, <i>National Taiwan University, Taiwan</i>
12:50-13:10	Title: New insights into legume diseases and the diversity of their causal agents
	Biruta Bankina, <i>Latvia university of life sciences and technologies, Latvia</i>

13:10-14:10 Lunch Break	
Technical Session I	
14:10-14:30	Title: Recent Progress in Understanding the Multifaceted Roles of RACK1 in Plant Growth and Stress Responses
	Jiansheng liang , <i>Southern University of Science and Technology, China</i>
14:30-14:50	Title: A supplement that can be effective in coping with UV-B stress in plants
	Aysegul Akpinar , <i>Bursa Uludag University, Turkey</i>
14:50-15:10	Title: Monitoring climate change in alpine regions through the evolutionary ecology of organisms adapted to cool environments
	Koji Tojo , <i>Shinshu University, Japan</i>
15:10-15:30	Title: Multi-dimensional crop improvement to improve livestock productivity
	Padmakumar Varijakshapanicker , <i>International Livestock Research Institute, Nepal</i>
15:30-15:50	Title: Microbes and microbial strategies in carcinogenic polycyclic aromatic hydrocarbons remediation: a systematic review
	Sandipan Banerjee , <i>Czech University of Life Sciences Prague, Czech Republic</i>
15:50-16:10	Title: Machine Learning Model for cost effective Vegetation Indexes Prediction
	Luciano Ortenzi , <i>Università degli Studi della Toscana, Italy</i>
16:10-16:30 Refreshment Break	
16:30-16:50	Title: Monitoring the distribution of banana bunchy top virus in South Africa: a country-wide survey
	Sinethemba Patience Fanelwe Ximba , <i>Agricultural Research Council, Mbombela, South Africa</i>
16:50-17:10	Title: Building up the mechanical stability of a plant organism
	Tatyana Gorshkova , <i>Kazan Institute of Biochemistry and Biophysics, Russia</i>
17:10-17:30	Slot Available
Day 1 Concludes	

DAY 2

June 24, 2025

Keynote Forum

09:40-10:10	Title: Enabling crop Improvement for Nitrogen Use Efficiency in rice: From phenotype to candidate genes/processes and the role of G-protein signalling
	Nandula Raghuram, Guru Gobind Singh Indraprastha University, India
10:10-10:40	Title: Minimizing operator exposure: field data analysis of three closed transfer systems for pesticide mixing and loading
	Juan Sasturain, BASF SE, Germany
10:40-11:10	Slot Available
11:10-11:30 Refreshment Break	
Technical Session III	
11:30-11:50	Title: Stigma secreted microRNA in pear and its potential role in fire blight control
	Yehoram Leshem, Israel Migal Galilee research center, Israel
11:50-12:10	Title: Spatiotemporal Insights into Plant Defense: Integrating Untargeted Metabolomics and Mass Spectral Imaging to Unveil Eucalyptus Responses to Gonipterus platensis Herbivory
	Andy J. Perez, Universidad de Concepcion, Chile
12:10-12:30	Title: CFD-Based dynamic analysis of the flow evolution of multiple pesticide droplets impacting onto a vibrating leaf-surface
	Lin Zhu, Anhui Agricultural University, China
12:30-12:50	Title: Cell wall dynamics in the parasitic plant (Striga) and rice pathosystem
	Sylvia Mutinda, University of Toronto, Canada
12:50-13:10	Slot Available
13:10-14:00 Lunch Break	
Technical Session IV	
14:00-14:20	Title: Recent Progress in Understanding the Multifaceted Roles of RACK1 in Plant Growth and Stress Responses
	Amir Sharon, Tel Aviv University, Israel
14:20-14:40	Title: Fungal microbiomes associated with soil, root and nodules of food-quality winter peas in the Pacific Northwest, USA
	Svetlana N. Yurgel, USDA-ARS, United States

14:40-15:00	Title: Improving Fusarium Wilt Race 2 Resistance and Brix Content in Watermelon Using Genomic Selection
	Anju Biswas, USDA-ARS, United States
15:00-15:20	Title: The nature of biogenic Si and its potential role in Si supply in agriculture
	Richard John Haynes, The University of Queensland, Australia
15:20-15:40	Slot Available
15:40-16:00	Slot Available
16:00-16:20 Refreshment Break	
16:20-16:40	Title: Regulation pathway of photosynthetic glyceraldehyde 3-phosphate dehydrogenase
	Simona Fermani, University of Bologna, Italy
16:40-17:00	Title: Fusarium Head blight resistance breeding in Triticum aestivum by means of Gamma irradiation mutation breeding
	Eben Von Well, ARC-Small Grain, South Africa
17:00-17:20	Slot Available
Panel Discussion & Closing Ceremony	
This program is purely tentative and subject to changes. We are still accepting abstracts. To book your slot, contact: peter_griffin@acpsb.com	

Virtual Program

June 24, CET

5th Annual Congress on Plant Science and Biosecurity

Virtual Program

Day-02 (June 24, 2025)

Time Zone: Central European Summer Time (CEST)

09:00-09:20	Title: Increasing sugarcane productivity and environmental improvement in acid sulphate soils: a win win system
	Robert Graham Quirk , <i>Australian Cane Farmers Association, Australia</i>
09:20-09:40	Title: Phylogeography and chromosome number variation in <i>Micranthes nelsoniana</i> and related species (Saxifragaceae) in Northeast Asia
	Tomoko Fukuda , <i>Mie University, Japan</i>
09:40-10:00	Title: Molecular phenology reveals the influence of climate change on dormancy break timing in 'Somei-yoshino' flowering cherry tree
	Atsuko Miyawaki-Kuwakado , <i>Kyushu University, Japan</i>
10:00-10:20	Title: Arabidopsis AGB1 participates in salinity response through bZIP17-mediated unfolded protein response
	Yueh Cho , <i>Institute of Plant and Microbial Biology, Academia Sinica, Taiwan</i>
10:20-10:40	Title: Suppressing wheat sucrose phosphate synthase 1-B protects wheat against stripe rust
	Jin-Ying Gou , <i>China Agricultural University, China</i>
10:40-11:00	Title: Prediction of plant complex traits via integration of multi-omics data
	Peipei Wang , <i>Kunpeng Institute of Modern Agriculture at Foshan, China</i>
11:00-11:20	Title: BEACH domain-containing protein SPIRRIG facilitates microtubule cytoskeleton-associated trichome morphogenesis in Arabidopsis
	Lijun An , <i>Northwest A&F University, China</i>
11:20-11:40	Title: Special phenomena and mechanism in Lilium breeding
	Shujun Zhou , <i>Jiangxi Agricultural University, China</i>
11:40-12:00	Title: Diversifying crop rotation increases food production, reduces net greenhouse gas emissions and improves soil health
	Xiaolin Yang , <i>China Agricultural University, China</i>
12:00-12:20	Title: Growth, Structural Adaptations, and Physiological Fluctuations of <i>Alternanthera tenella</i> Colla. Towards Cadmium Stress

	Resmi Mohankumar Saraladevi , <i>Sree Neelakanta Government Sanskrit College, India</i>
12:20-12:40	Title: Pulp colour in guava: Trait genetics and molecular background MADHUBALA THAKRE , <i>ICAR-IARI, New Delhi, India</i>
12:40-13:00	Title: Screening for drought-tolerant mungbean root nodule bacteria with multiple plant growth promoting traits in Aridisol Hemanta Kumar Mondal , <i>Parul university, India</i>
13:00-13:20	Title: Evaluation of genetic variability and trait correlations among landraces and traditional varieties of small millets from the hilly regions of Tamil Nadu Lydia Pramitha , <i>Karunya Institute of Technology and Sciences, Coimbatore, India</i>
13:20-13:40	Title: Comparative Uptake, Translocation, and Accumulation of Chlorpyrifos in Two Varieties of Withania somnifera Under Hydroponic Conditions Deepika Yadav , <i>CSIR-Central Institute of Medicinal and Aromatic Plants, India</i>
13:40-14:00	Title: The N-region sequence context impacts the chloroplast import efficiency of multi-TMD protein Namitha Nayak , <i>Birla Institute of Technology and Science, India</i>
14:00-14:20	TBA Ch Bhanupriya , <i>IIT Kharagpur, India</i>
14:20-14:40	Title: First description and conservation implications of a unique stand of the Caucasian wingnut in Lapankuri (Georgia) Nino Davitashvili , <i>Ilia State University, Georgia</i>
14:40-15:00	Title: The impact of ATBC 2019 in Madagascar scientific community Hajanirina Rakotomanana , <i>University of Antananarivo, Madagascar</i>
15:00-15:20	Title: Environmental DNA as a tool for improving plant pathogen surveillance in forest systems Kirsty McLaughlin , <i>Agri-Food and Biosciences Institute, UK</i>
15:20-15:50	Keynote: Dietary transition from animal to plant-based foods: Are there risks to health David Ian Givens , <i>University of Reading, UK</i>

15:50-16:20	Keynote: Biocentrism, Forests and Climate Change
	Robin Attfield , <i>Cardiff University, UK</i>
16:20-16:50	Keynote: Selecting for short-strawed winter wheat varieties with less Fusarium head blight in the presence of two reduced height (Rht) genes
	Thomas Miedaner , <i>University of Hohenheim, Germany</i>
16:50-17:10	Title: Critical periods for waterlogging effects on yield and grain components in sunflower (<i>Helianthus annuus</i>), soybean (<i>Glycine max</i>) and Sorghum (<i>Sorghum bicolor</i>): a comparative study
	Miqueas Sandoval , <i>National Institute of Agricultural Technology (INTA), Argentina</i>
17:10-17:30	Title: Outdoor and indoor detection of plant ultrasonic emissions with a contactless microphone
	Luca Bonisoli , <i>University of Modena and Reggio Emilia, Italy</i>
17:30-17:50	Title: Bioenergy feedstock production on marginal lands using sewage sludge
	Yaroslava B. Mosiichuk , <i>Institute of Water Problems and Land Reclamation of NAAS , Ukraine</i>
17:50-18:10	Title: Cicer pinnatifidum- A wild reservoir for introgression of valuable economic traits and disease resistance into cultivated chickpea
	Sonia Salaria , <i>Clemson University, United states</i>
18:10-18:30	Title: Cortical cell size regulates root metabolic cost
	Jagdeep Sidhu , <i>South Dakota State University, United states</i>
18:30-18:50	Title: Effects of combining soil-applied insecticide and Bt corn for integrated pest management and resistance management of western corn rootworm (Coleoptera: Chrysomelidae)
	John B McCulloch , <i>University of Georgia, United states</i>
18:50-19:10	Title: Evolution history and the importance of genomic diversity facing climate change. The case of Agave marmorata Roehl., an agave used for mezcal production in México
	Karen Yazmin Ruiz Mondragon , <i>National Autonomous University of Mexico, Mexico</i>
19:10-19:30	Slot Available

19:30-19:50	Slot Available
19:50-20:10	Slot Available
20-10-20:30	Slot Available
End of the session	
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