



INTERNATIONAL
ASSOCIATION
FOR THE PLANT
PROTECTION SCIENCES



HELLENIC
SOCIETY
OF PHYTIATRY



AGRICULTURAL
UNIVERSITY
OF ATHENS



**1-5
JULY 2024**

MEGARON ATHENS
INTERNATIONAL
CONVENTION CENTER

**ATHENS
GREECE**

XX International **Plant Protection Congress**

**Healthy Plants
Support Human
Welfare**



**Final
Program**



Welcome to the 20th IPPC



The International Association for the Plant Protection Sciences welcomes you to the **20th International Plant Protection Congress**

The first International Plant Protection Congress (IPPC) was held in Louvain, Belgium in 1946. It took 50 years before IAPPS became the official organisation responsible for subsequent Congresses.

The IAPPS Board consists of:

An Executive - President, Vice President, Secretary General, and Treasurer

Thirteen Regional Coordinators - Covering the major regions of the world, and

Six Industry and Institutional Representatives

IAPPS membership subscriptions (<https://www.plantprotection.org/subscriptions/>) consist of:

- Developed country
- Student
- Developing country
- Institutional

IAPPS communicates and interacts with its members, and the plant protection community at large, in the following ways:

- The Global Plant Protection News Service
- Involvement in Regional Symposia and Workshops
- Monthly IAPPS Newsletter - published online and in “Crop Protection” (IAPPS Official Journal)



- The IAPPS Website (www.plantprotection.org)



- An Education and Training section of the website including:
 - Plant Protection stories that illustrate the complex multi-disciplinary aspects of many plant protection issues
 - Online publications - including a recent review of digital identification tools for plant biosecurity
 - Digital pathway keys for important rice pests and beneficials in Asia and West Africa

Welcome address from the Chairman

Dear colleagues and friends,

The Hellenic Society of Phytiatry, my colleagues from the Laboratory of Plant Pathology at AUA, and I are honored by IAPPS to organize the XX IPPC in Athens. As chairman and organizational coordinator, I am proud to welcome you.



Having organized and participated in numerous international plant protection congresses, I understand the immense effort and pressure involved in ensuring smooth coordination and decision-making among organizing committees and participants. The COVID-19 pandemic significantly impacted attendance, overlapping with other scientific congresses, yet we greatly appreciate the participation of scientists from around the world.

With the excellent collaboration of Secretary General Short Heinrichs and the IAPPS Governing Board, we have secured outstanding chairs and speakers to enhance the quality of the congress. We are thrilled to have so many top Plant Protection scientists join us in Athens, the cradle of civilization, science, and art.

The program includes 11 keynote-plenary presentations, 550 invited/oral presentations, and 200 posters from over 700 scientists from nearly 60 countries. We are especially proud to welcome over 200 young scientists, including graduate and postgraduate students and postdocs, who will exchange scientific experiences and forge future connections.

We are pleased to host the 14th International Verticillium Symposium during the congress. The International Plant Protection Congress offers a valuable opportunity to exchange information, recognize efforts, and reward scientific achievements in plant protection.

We extend our gratitude to international organizations like FAO and EPPO for their contributions, and to our sponsors BASF, Syngenta, and Corteva for their substantial support. We also thank the IAPPS Governing Board, the local organizing committee, the Agricultural University of Athens, and the Ministry of Rural Development and Food for their assistance.

Special thanks to the congress secretariat led by Mr. Panagiotis Georgakopoulos and Global Events S.A. under Mrs. Bessy Paliouras for their tremendous effort in managing requests and communications.

Welcome to Athens and enjoy the XX IPPC and Greece!

Eleftherios (Eris) Tjamos

Chairman of the XX IPPC ATHENS 2024



XX International Plant Protection Congress Healthy Plants Support Human Welfare

Organizers



Hellenic Society
of Phytiatry



International
Association for the
Plant Protection
Sciences



Agricultural University
of Athens

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IAPPS President

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IAPPS Vice-President

Prof. Elvis “Short” Heinrichs
IAPPS Secretary General

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IAPPS Treasurer

Prof. Eris Tjamos
Chairman IPPCATHENS 2024 HSF

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Vice chair Hellenic Phytopathological Society
and AUA

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AUA Entomological Society of Greece

Prof. Falia Economou
AUA Weed Science Society of Greece

Hellenic Society of Phytiatry HSP

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Prof. S. Tjamos AUA

Prof. A. Tsagkarakis AUA

Dr. P. Ioannidis Private sector

Mr. A. Klitsinaris Private sector

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Prof. G. Karaoglanidis AUTH

Dr. C. Varveri Benaki Phytopathological
Institute

Prof. I. Eleftherohorinos AUTH

Prof. P. Sarris University of Crete

Prof. J. Vontas University of Crete

Prof. K. Kalantidis University of Crete

Prof. Z. Vryzas AUTH

Prof. I. Stringlis AUA

Prof. D. Gkizi U West ATTICA

Prof. A. Tzima AUA

Prof. E. Chatzivassiliou AUA



Local Organizing and Scientific Committee

Greek Plant Protection Scientific Societies and the Board members of the Hellenic Society of Phytiatry

Prof. Eris Tjamos

(Plant Pathology, Plant Medicine), President of the Hellenic Society of Phytiatry, Chairman, Athens, Greece

Prof. Epaminondas Paplomatas

(Fungal diseases, Molecular Plant Pathology) Vice Chairman, former Vice Rector of AUA Athens, Greece

Prof. Dionysios Perdikis

President of the Hellenic Entomological Society (Insects-Biological Control), AUA, Athens, Greece

Prof. Falia Economou

(Weeds-Herbicides), AUA, Athens, Greece President of the Weed Science Society of Greece, Athens, Greece

Prof. Dimitris Tsitsigiannis

(Fungal diseases-Mycotoxins), AUA, Athens, Greece

Prof. Sotiris Tjamos

(Biological control, Molecular Plant Pathology), AUA, Athens, Greece

Prof. Antonios Tsagkarakis

(Insects), Athens, AUA, Greece

Dr. Philippos Ioannidis

(Private sector) Salonika Greece

Mr. Anastasios Klitsinaris

BASF, Athens Greece

Agricultural University of Athens, AUA

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 Prof. Spyros Fountas
 Prof. John Vontas
 Prof. Emmanouil Flemetakis
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 Prof. Iordanis Chatzipavlidis
 Prof. Dimitris Georgakopoulos
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 Prof. Kostas Aliferis
 Prof. Kostas Saitanis
 Prof. Ilias Travlos
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 Prof. Polydefkis Hatzopoulos

Aristotle University of Thessaloniki, AUTH

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 Prof. Zisis Vryzas

University of Patras -Patra

Prof. Eirini Karanastasi

University of Thessaly (UTH)-Volos

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Demokritos University of Thrace, Orestias

Prof. Christos Zamioudis
 Prof. George Broufas



XX International

Plant Protection Congress Healthy Plants Support Human Welfare

Local Organizing and Scientific Committee

Mediterranean University of Crete, Heraklion

Prof. Dimitris Goumas
Prof. Emmanouil Roditakis
Prof. Anastasia Tampakaki

Hellenic Agricultural Organization ELGO-DIMITRA

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Dr Fani Hatjina
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Crop Protection Section Greek Ministry of Agricultural Development and Food

Dr. A. Mauridou
Mr. K. Simoglou
Dr. D. Stauridis
Mr. A. Paraskeuopoulos

Hellenic Crop Protection Association - ESYF

Mrs. Frantseska Ydraiou,
Athens Greece

Greek S Scientists outside Greece

Vardis Ntoukakis
Prof. Dr. Themis Michailidis
Kearny CA USA
Prof. Nicolas Panopoulos
Dr. Thomae Kakouli-Duarte
Ireland

Forest Pathologist

Dr. Panagiotis Tsopelas

West Attica University

Prof. Danai Gkizi



KEYNOTE SPEAKERS



Keynote Speakers



Dan Bebber, UK

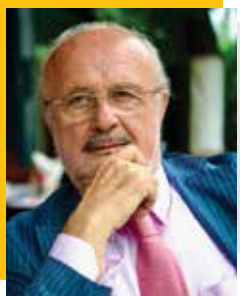


The effect of climate change on plant protection

Monday, 1 July | 20.00-20.30

Dan Bebber obtained his PhD in Tropical Ecology at the University of Oxford, studying the effect of El Nino-related drought and insect herbivores on tree regeneration in Sabah, Malaysia. He then moved to the Faculty of Forestry, University of Toronto to take up a postdoctoral position in forest regeneration in Ontario, followed by a research into the role of fungi in forest nutrient dynamics at the Department of Plant Sciences, University of Oxford. In 2007 he joined the environmental NGO Earthwatch, based in Oxford, as Head of Climate Change Research, managing an international citizen science research programme into forest carbon dynamics. He joined Exeter in 2013, studying the global distributions of crop pests and pathogens and the impacts of climate change on crop production. He is particularly interested in abiotic and biotic threats to tropical crops like coffee and banana, and works closely with the organization CABI on pest and pathogen impacts. He is currently Chair of the British Mycological Society's Fungal Biology Research Committee, and co-Technical Director of CABI's Global Burden of Crop Loss initiative.

Keynote Speakers



Prof. Eleftherios C Tjamos, Greece



Phytiatry as a distinct University science, for the benefit of global agriculture and forestry

Monday, 1 July | 20.30-21.00

Prof. Eris Tjamos: Chairman of the IPPCATHENS 2024 is the founder of the Hellenic Society of Phytiatry. As for his involvement with IAPPS Prof. Eris Tjamos was an invited speaker in the Washington International Plant Protection Congress in 1979. He was also an invited speaker at the Jerusalem in International Plant Protection Congress 1999, speaker in the Berlin International Plant Protection Congress in 2015, and keynote plenary speaker in the Hyderabad, India XIX IPPC 2019. Prof. Eris Tjamos started his scientific carrier as plant pathologist at the Benaki Phytopathological Institute of Athens, Greece, where he obtained a vast experience in plant disease and pest diagnosis and control. His main scientific career was continued at Imperial College of Science and Technology, London, UK for his Ph.D. studying mechanisms of resistance of tomatoes to *Verticillium albo-atrum*. He worked as Post Doctoral fellow in Lexington, KY, USA on the role of unsaturated fatty acids in the resistance of potatoes to *Phytophthora infestans* and also studying modes of triggering immunization phenomena in plants (paper in Science). He was elected Professor in Plant Pathology at the Agricultural University of Athens in 1987. He worked as visiting Professor at Beltsville Maryland, USA on biological control agents against *Verticillium dahliae*, and studied and applied commercially soil solarization and soil disinfestation in Greece. In Agricultural University of Athens, he founded one of the world's recognized laboratories for studying *Verticillium* wilt from all applied, biological, biochemical and molecular aspects. Promoted the research on biological control of plant diseases and started working on the control on mycotoxigenic fungi in Greece. He is member of the American Phytopathological Society since 1989, member of the International Association for the Plant Protection Societies. He was President of the Mediterranean Phytopathological Union, President of the Hellenic Phytopathological

Society and the founder and current president of the Hellenic Society of Phytiatry. Prof. Tjamos has published over 100 research papers in Science, Phytopathology, Plant Disease, Journal of Phytopathology, Canadian Journal of Plant Pathology, EPPO Bulletin, Journal of Plant Pathology, European Journal of Plant Pathology, Biological Control, Physiological Plant Pathology, Plant Pathology, Plant Disease Reporter, Crop Protection, Phytoparasitica, Phytopatologia Mediterranea and Acta Horticulturae. Prof. Tjamos and his colleagues have a long-standing experience in organizing and successfully running International Scientific Congresses of high standards such as:

1. NATO ASI on Active Defense Mechanisms in Plants 1980, CAPE SOUNION, GREECE (RKS Wood & Tjamos)
2. NATO ARW on Vascular Wilt Diseases 1988, CAPE SOUNION GREECE (Tjamos & Beckman)
3. NATO ARW on Biological Control of Plant Diseases-Progress and Challenges for the Future 1991, CAPE SOUNION, GREECE (Tjamos, Papavizas and Cook)
4. 7th International Verticillium Symposium 1997, ATHENS, GREECE
5. Induced Systemic Resistance in Plants 2000, CORFU ISLAND, GREECE (Tjamos, Kuc, Kloepper, Metraux, Hammersmith and Van Loon) (300 participants)
6. International congress on Soil and substrate disinfection 2004 (ISHS-Tjamos & Katan) CORFU ISLAND, GREECE
7. Mediterranean Plant Pathology Congress 2006, RHODES ISLAND, GREECE (400 participants)
8. GREMPA meeting 2008, ATHENS, GREECE
9. 10th International Verticillium Symposium 2009, CORFU ISLAND, GREECE (E. Tjamos, Paplomatas, Tsitsigiannis, Antoniou, S. Tjamos)
10. Molecular Plant Microbe Interaction Congress 2014, RHODES ISLAND, GREECE Tjamos and MPMI (1,500 participants).
11. IX International Symposium on soil and substrate disinfestation 2018, HERAKLION CRETE ISLAND, GREECE (ISHS-Tjamos & Paplomatas).
12. XX International Plant Protection Congress 2024. Athens Greece



Keynote Speakers



Geoff Norton , Australia



Strategies for developing and implementing digital identification tools

Tuesday, 2 July | 15.00-15.30

Geoff Norton is currently Adjunct Professor at The University of Queensland (UQ), Brisbane as well as a Director of the software development company - Identic Pty. Ltd., a spin-off company involving staff initially based at UQ. Previously Geoff was Director of the Centre for Pest Management, Imperial College, University of London (1984 - 1992); Director of the Cooperative Research Centre for Tropical Pest Management, CSIRO, Australia (1992 - 98); and Director of the Centre for Biological Information Technology at UQ (1998 - 2012).

The overall theme of Geoff's research over almost 50 years has been at the interface of socio-economics and ecology. This lead to the development and worldwide application of systems analysis, stakeholder involvement processes, and the development of decision support tools for addressing specific resource management problems, especially decisions involving crop protection issues.

Geoff has published over 100 journal articles, books and book chapters in this field and is currently President of the International Association for the Plant Protection Sciences (IAPPS)

Keynote Speakers



Dr. Victor Carrion, Spain



Enabling sustainable agriculture through understanding and enhancement of microbiomes

Tuesday, 2 July | 15.30-16.00

Víctor Carrión studied Biology and did his MSc and PhD at the University of Málaga (Spain). During his PhD he used molecular microbiology techniques to characterize virulence factors in *Pseudomonas syringae*, under the supervision of Prof. Antonio de Vicente and Prof. Francisco M. Cazorla. In October 2012 he joined the group of Prof. Jos M. Raaijmakers, at the Wageningen university and later at the Netherlands Institute of Ecology, in Wageningen (The Netherlands), where he studied how the endophytic microbiome can protect plants against fungal diseases. In 2018 he became Assistant Professor and started his group of Metagenomics and Plant-Microbe Interactions at Leiden University. His research program focuses on understanding the underlying mechanisms of plant protection against (a)biotic stresses mediated by microorganisms, and the use of bioinformatic tools for the prediction of bacterial lifestyles. In September 2022 he took up his position as a Ramon y Cajal researcher at the Microbiology department in the University of Málaga.

Keynote Speakers



Prof. Arie Tsutomu , Japan



Impact and control of transboundary/invasive banana wilt pathogen, *Fusarium oxysporum* f. sp. *cubense*

Tuesday, 2 July | 16.00-16.30

Tsutomu Arie got his Ph. D. in 1989 in Plant Pathology at the University of Tokyo in 'Studies on soilborne vegetable and flower diseases and biological control of tomato wilt disease caused by *Fusarium oxysporum*'. He moved to the RIKEN Institute as a senior researcher (till 2000) and studied 'Detection and molecular mechanisms of pathogenicity in soilborne plant pathogens'. During the period (1995-1996) he stayed in Cornell University, USA as a visiting scientist and worked on 'Molecular mechanisms of mating in ascomycete fungi'. Then he was employed by Tokyo University of Agriculture and Technology (TUAT) where he is studying 'Molecular and genomic analyses on pathogenicity of *F. oxysporum*' and 'Development of environment-safe methods to control soilborne *Fusarium* diseases' as an associate professor (2000-2010) and professor (2010-present), and now he is engaged as the Trustee for Governance, Vice-President, Chief Operating/Academic Officer (2020-present). He served Regional Coordinator, Region X (Northeast Asia), International Association for the Plant Protection Science (IAPPS; 2016-present), President of Fungal Molecular Biology Society of Japan (FMBSJ; 2019-2021) and President of The Phytopathological Society of Japan (PSJ; 2020). He was awarded fellowships from PSJ for 'Phylogeny and pathogenecity mechanisms of soilborne *Fusarium oxysporum*' (2010) and from Pesticide Science Society of Japan for 'Fusarium diseases of cultivated plants, control, diagnosis, and molecular and genetic studies' (2019) and also awarded Japan Prize of Agricultural Science from Association of Japanese Agricultural Scientific Societies for 'Research on the molecular phylogeny and pathogenic differentiation mechanisms of soilborne *Fusarium*' (2024).

Keynote Speakers



Prof. John Vontas, Greece



Molecular diagnostics for rational use of pesticides
and resistance management of agricultural pests

Wednesday, 3 July | 15.00-15.30

John Vontas (www.aua.gr/vontas) is Professor in the Agricultural University of Athens and the Director of the Institute of Molecular Biology and Biotechnology - Foundation for Research and Technology (www.imbb.forth.gr). His research focus on biotechnology based approaches for the control of disease vectors and agricultural pests, with emphasis on the molecular mechanisms by which insects develop resistance to insecticides and the identification of novel insecticide targets. He has published over 250 papers since 2000 (>20,000 citations, h=72) and gave a large number of invited talks worldwide. He was among highly cited researchers Clavirate in 2021 and 2022. He teaches in national and international postgraduate programs and has supervised >25 PhD students and many young researchers (post-doc), many of whom pursue careers in academia and industry. He is Associate/European Editor in Pesticide Biochemistry and Physiology and Editorial Board member in several journals in his field (IBMB etc). He has organized many international conferences. He is panel member in many funding organizations in Europe and worldwide. He has received many major grants from Industry and has coordinated large international European consortia in the field of plant protection, including the recent/current ones: SuperPests (www.superpsets.eu), NextGenBioPest (www.nextgenbiopest.eu), MicroBioPest (www.microbiopest.eu) and CypTox (www.cyptox.eu)

Keynote Speakers



Dr. Sunday Ekesi, Kenya



Microbial pesticides: Discovery, piloting and scaling up in Africa

Wednesday, 3 July | 15.30-16.00

Dr Sunday Ekesi is an entomologist, research for development scientist, and science leader with extensive knowledge and experience in sustainable agriculture (microbial control, biological control, habitat management/conservation, IPM, pesticide management), biodiversity and climate change. He has developed several biopesticides for use in IPM jointly with the private sector. In 2019 alone, these biopesticide products were applied on 132,994 ha of farmland by >53,198 farmers. This has benefitted 212,792 households and minimized the use of synthetic pesticides. Dr Ekesi has successfully developed pre- and postharvest management methods for fruit flies that meet the demands of domestic and quarantine-sensitive export markets. The programme has significantly improved the production of fruits and vegetables affected by fruit flies and increased net income, reaching >100 million beneficiary households across Africa. Most recently, Dr Ekesi has expanded his research activities to the use of insects as alternative sources of protein for food and feed and his R4D is informing policy decisions and leading to the development of standards for the use of insects as protein additives in animal feed and food in Africa. The standards have enabled >300 small, medium, and largescale feed producers to integrate insect-based protein into feed production. Dr Ekesi has published >270 peer reviewed articles in scientific journals and given over 150 presentations at scientific gatherings. He has trained >30 graduate students (PhD and MSc). He has won several awards including Distinguished Scientist Award (2021) of the Entomological Society of America, Curt Bergfors Foundation Food Planet Prize (part of the 2020 team of institutional programme recipient) and The World Academy of Sciences (TWAS) in Agricultural Sciences. He is a Fellow of the Entomological Society of America (FESA), Royal Entomological Society (FRES)-UK, African Academy of Sciences (FAAS) and TWAS. He is a member of the advisory board of several technical agencies and institutions including the 1890 Universities Center of Excellence for Global Feed Security and Defense University of Maryland Eastern Shore, USA.

Keynote Speakers



Prof. Hailing Jin, USA



Cross-kingdom RNA trafficking between plants and fungal pathogens

Wednesday, 3 July | 16.00-16.30

Dr. Hailing Jin is a Professor and the Cy Mouradick Endowed Chair in the Department of Microbiology & Plant Pathology, University of California Riverside, USA. Dr. Jin has been internationally recognized as a leader in the field of small RNAs and epigenetics in plant-microbe interactions. Dr. Jin's lab has made several seminal discoveries in plant molecular biology and microbiology, including the discovery of cross-kingdom RNA interference (RNAi). She is one of the pioneers for spray induced gene silencing, using innovative RNA biology and nanotechnology for crop protection against fungal and bacterial pathogens. Dr. Jin has published total of 107 peer-reviewed papers with an H-index of 63 and an i10-index of 99. She is a highly cited researcher by Web of Science in 2019. Because of her great contribution to the field, she became an elected Senior Member of National Academy of Inventors (NAI), a Fellow of American Academy of Microbiology (AAM), a Fellow of American Association for the Advancement of Science (AAAS), and a CIFAR Fellow of Canadian Institute for Advanced Research.



Keynote Speakers



Prof. Christian Borgemeister, Germany



Food security in Africa needs policy support for sustainable plant health management

Thursday, 4 July | 15.00-15.30

Christian Borgemeister is a Director of the Center for Development Research (ZEF) (www.zef.de) and Professor for Ecology and Natural Resources Management at the University of Bonn, Germany. He was appointed in 2013 at ZEF, and from 2014 to 2022 also served as Managing Director of the Center. Prior he was the Director General of the International Centre of Insect Physiology (icipe - www.icipe.org), a Nairobi, Kenya headquartered pan-African R&D Centre. CB is a trained entomologist and has lived and worked for >20 years in West and East Africa, South East Asia and Latin America. He is a Fellow of the African Academy of Sciences, the Royal Entomological Society, the Entomological Society of America (ESA), Member of the Council of the International Congress of Entomology and from 2020-2023 was the Chairman of the Board of the International Institute of Tropical Agriculture (IITA - www.iita.org). CB has been the recipient of the 2011 International Plant Protection Award of Distinction of the International Association for the Plant Protection Sciences (IAPPS), and the 2015 Distinguished Scientist Award of ESA's International Branch. He has authored and co-authored > 250 papers in peer-reviewed scientific journals, with > 9,500 citations and an h-index of 52, has co-authored a book on biological control in Africa, and has written > 10 chapters for different scientific books.

Keynote Speakers



Virender Kumar, Philippines



Weed Management Challenges and Opportunities to Close Yield and Profitability Gaps in Smallholder Rice Production in Asia

Wednesday, 3 July | 15.30-16.00

Virender is currently a Principal Scientist - Weed Science & Systems Agronomy, and Deputy Head of Sustainable Impact Platform at International Rice Research Institute (IRRI), Philippines. He also leads the 'Climate-Resilient Farming Systems' Research Unit of IRRI. Virender's R4D program has been centered around five thematic areas aimed at achieving sustainable intensification of rice-based systems and climate change adaptation and mitigation. These include: (1) Integrated weed management program for rice-based systems, (2) Direct-seeded rice (DSR) systems as a sustainable alternative to puddled transplanted rice, (3) sustainable intensification of rice-based cropping systems, (4) climate change adaptation and mitigation, and (5) Big data and analytics for data driven approach in decision making and targeting. Virender has published the results in more than 150 scientific communications, including >75 articles in peer-reviewed international journals.



Keynote Speakers



Fazıl Düşünceli, FAO



Coordinated approach for transboundary plant pest
and disease management

Thursday, 4 July | 15.00-15.30

Fazıl Düşünceli is an agriculture officer working for the Plant production and Protection Division of Food and Agriculture Organization of the United Nations. He obtained his BSc from the 19 May University (Türkiye) in agronomy and PhD from Reading University (UK) in plant protection.

He worked as a research scientist at the Research Institutes in Türkiye and coordinated numerous research projects and programmes at national scale until 2008, acting also as the Director of Field Crops Research Institute. He worked as an agricultural counsellor to represent the country at the UN agencies in Rome until 2011. Since then, He has been working as an agriculture officer in the Plant Production and Protection Division of FAO, developing and supporting projects on prevention and management of transboundary plant diseases in various regions.

He is currently located in the Central Asia Subregional Office of FAO in Ankara supporting design and implementation of projects in the field of plant production and protection. Recently He has been providing technical support for development and implementation of projects covering diverse areas such as land management, adaptation of agriculture to climate change, value chains, farmer field schools and plant disease prevention and management.



PROGRAM AT A GLANCE



Program at a Glance

Monday, 1 July

ROOM MC3.2

14:00-18:00 IAPPS GB meeting

FOYER MEGARON ATHENS INTERNATIONAL CONVENTION CENTER

16:00-20:00 Registration

BANQUET

18:00 -20:00 Opening Ceremony - Welcome address

20:00-21:00 Opening Keynote Lectures

20:00-20:30 The effect of climate change on plant protection

20:30-21:00 Phytiatry as a distinct University science, for the benefit of global agriculture and forestry

21:00 Welcome Reception


Tuesday, 2 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
08:30-11:00	1	2	3	4A	5
	Unlocking the potential of microbiomes for sustainable agriculture	Novel concepts and approaches in management of fruit flies (Diptera: Tephritidae)	Responses of plant genotypes to pathogens and development of novel techniques for improvement of crop resistance to diseases	Grapevine trunk diseases	Vascular wilts
11:00-11:30	Coffee Break - POSTER SESSION				
11:30-14:00	6A	7A	8	4B	9
	Advances with biopesticides to meet plant protection challenges	Understanding pathogen-vector-host interactions in globally important pathosystems	Networking tools to manage transboundary pests	Grapevine trunk diseases	New advances and technologies for postharvest diseases control
14:00-15:00	Light Lunch - POSTER SESSION				
15:00-15:30	Plenary Lecture Strategies for developing and implementing digital identification tools				
15:30-16:00	Plenary Lecture Enabling sustainable agriculture through understanding and enhancement of microbiomes				
16:00-16:30	Plenary Lecture Impact and control of transboundary/invasive banana wilt pathogen, <i>Fusarium oxysporum</i> f. sp. <i>Cubense</i>				



Program at a Glance

Tuesday, 2 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
16:30-17:00	Satellite Lecture Effectiveness of Bait Sprays and Mass Trapping using Dacus Bait 100 for IPM of Bactrocera oleae: Field Results from Crete, Greece 				
17:00-18:00	6B Advances with biopesticides to meet plant protection challenges	7B Understanding pathogen-vector-host interactions in globally important pathosystems	10A Impact and control of transboundary/invasive pests		
18:00-18:30	Coffee Break - POSTER SESSION				
18:30-21:00	11 Canker disease of fruit, nut and vine crops	7C Understanding pathogen-vector-host interactions in globally important pathosystems	10B Impact and control of transboundary/invasive pests	12 Herbicide-Resistant Weeds - A Global Perspective	13 Incorporating indigenous knowledge into plant protection science


Wednesday, 3 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
08:30 - 11:00	14 Microbiomes and their role in plant pathology	15 Components of IRM programs in an IPM framework	16 Diseases in tree crops and forests	17 NLR guided strategies for durable disease resistance in crop plants	18A Fungicide resistance: diagnosis, risk assessment and management, Integrated pest management
11:00-11:30	Coffee Break - POSTER SESSION				
11:30-14:00	19 Plant Health research coordination: an international endeavor	20A Biopesticides and biofertilizers	21 Selected highlights in plant protection	22 Management of biological Invasions in a changing world	18B Fungicide resistance: diagnosis, risk assessment and management, Integrated pest management
14:00-15:00	Light Lunch - POSTER SESSION				
15:00-15:30	Plenary Lecture Molecular diagnostics for rational use of pesticides and resistance management of agricultural pests				
15:30-16:00	Plenary Lecture Microbial pesticides: Discovery, piloting and scaling up in Africa				
16:00-16:30	Plenary Lecture Cross-kingdom RNA trafficking between plants and fungal pathogens				



Program at a Glance

Wednesday, 3 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
16:30-17:30	Satellite Symposium BASF Axalion® active: redefining modern sustainable piercing® sucking insect control 				
17:30-18:00	Coffee Break - POSTER SESSION				
18:00-20:50	23 Plant Health - Phytiatry	20B Biopesticides and biofertilizers	24 Emergent forest diseases in a changing and Interconnected world	25 Emerging pests with relation plant biosecurity and food safety	26 Environmental fate, ecotoxicology, risk assessment, and remediation of pesticide residues

Thursday, 4 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
08:30 - 11:00	27A Biological control of insect crop pests	28 Sustainable mycotoxin management in a climate change future	29A Improving resistance - key to meet future challenges - Plant Breeding	30 Microbial interactions in ecosystems: negative or positive consequences on plant health	1 14th IVS Recent Advances in Verticillium Biology through Genomics
11:00-11:30	Coffee Break - POSTER SESSION				
11:30-14:00	27B Biological control of insect crop pests	31 Tropical Pest Management - Challenges in the Post-Covid World	29B Improving resistance - key to meet future challenges - Plant Breeding	32 Eco-epidemiological and pathobiome perspectives on diseases caused by mycotoxigenic fungi	2 14th IVS Recent Advances in Verticillium wilt Management
14:00-15:00	Light Lunch - POSTER SESSION				
15:00-15:30	Plenary Lecture Food security in Africa needs policy support for sustainable plant health management				
15:30-16:00	Plenary Lecture Weed Management Challenges and Opportunities to Close Yield and Profitability Gaps in Smallholder Rice Production in Asia				
16:00-16:30	Plenary Lecture Coordinated approach for transboundary plant pest and disease management				



Program at a Glance

Thursday, 4 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
16:30-17:00	Satellite Lecture How Biologicals can support the transition to Regenerative Agriculture systems 				
17:00-17:30	Satellite Lecture Reklamel active: a novel tool for integrated nematode management - key learnings from a global nematocide development project 				
17:30-18:00	Coffee Break - POSTER SESSION				
18:00-20:30	33 Unveiling Nature's Arsenal: The Role of Volatile Compounds in Plant Protection	34 Advances in biosecurity measures for emerging and invasive pests	35 Chemical ecology and biological control	36 Challenges in sustainable plant disease management in a changing climate	3 14th IVS Recent Advances in Verticillium - plant interaction

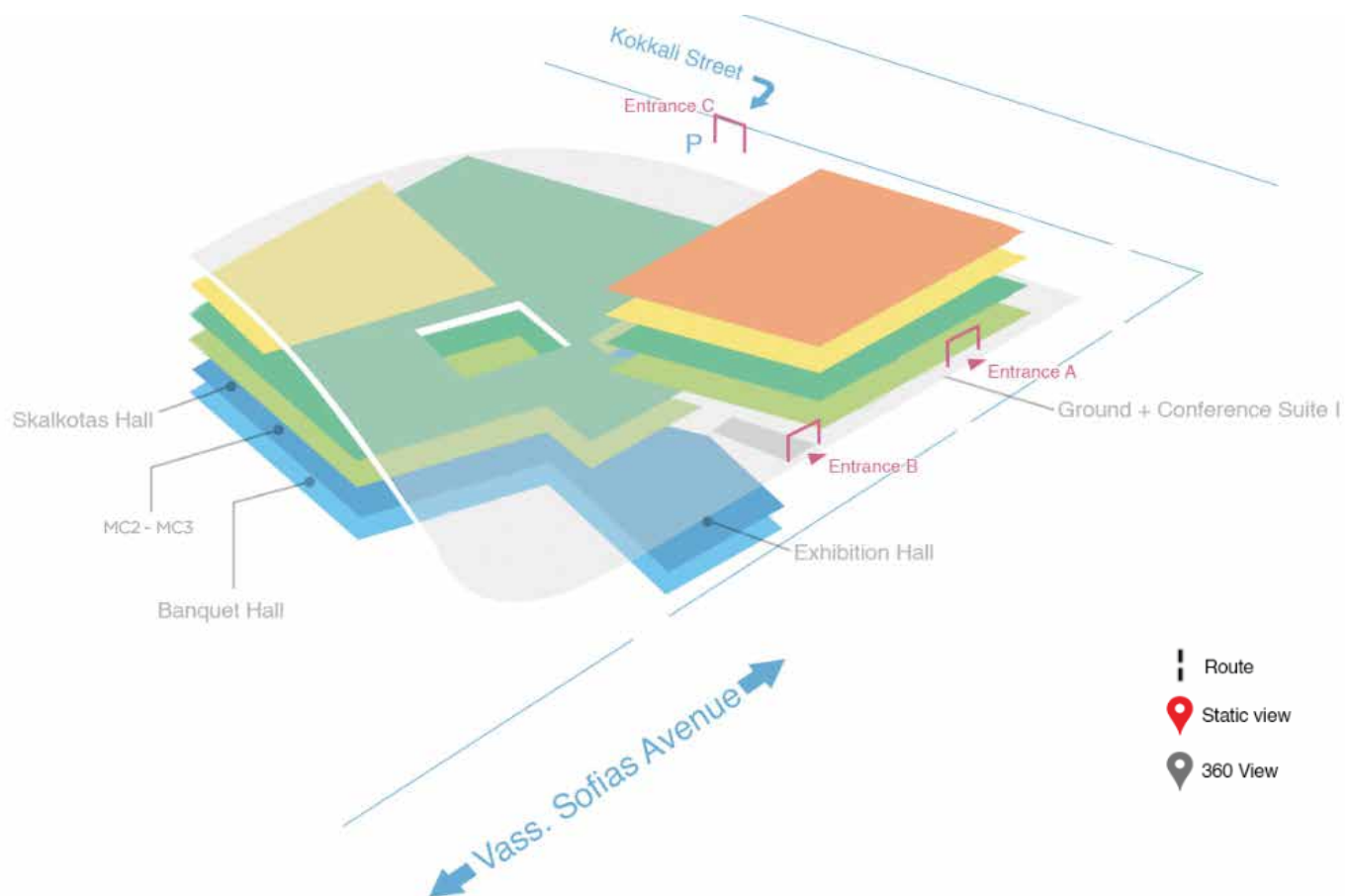
Friday, 5 July

	BANQUET	SKALKOTAS	MC2	MC3	CONFERENCE I
08:30 - 11:00	37A Recent advances in plant virology	38 Precision agriculture and remote sensing for future plant disease management	39 Prevention and sustainable management of transboundary plant pests	40A Recent advances in vegetable IPM	4 14th IVS Biological Control of Verticillium wilt pathogens
11:00-11:30	Coffee Break - POSTER SESSION				
11:30-14:00	37B Recent advances in plant virology	41 Advances in nematode research and plant protection	42 Biological plant protection	40B Recent advances in vegetable IPM	43 Approach to integrated soil and plant health assessments in IPM systems
14:00-15:00	Light Lunch - POSTER SESSION				
15:00-17:30	44 Plant protection products	- -	45 Xylella fastidiosa	46 Post-harvest pest and disease management	47 Molecular Plant Microbe Interactions
17:30-18:00	Coffee Break - POSTER SESSION				
18:00-20:30	48 Phytoplasmas and Viroids in world agriculture	49 Endophytes as bioinsecticides	50 -	51 Interactions between Plant Protection and Pollinators	52 Frost damage mitigation strategies for crops, organized by project LIFE-FROSTDEFEND



XX International Plant Protection Congress Healthy Plants Support Human Welfare

Venue





SCIENTIFIC PROGRAM



Scientific Program **Monday, 1 July**

10.00-14.00 Optional excursion to Acropolis Museum and Acropolis

ROOM MC3.2

14.00-18.00 IAPPS GB meeting

FOYER MEGARON ATHENS INTERNATIONAL CONVENTION CENTER

16.00-20.00 Registration

BANQUET

18.00-20.00 Opening ceremony
Welcome address

20.00-21.00 Opening keynote lectures

Chair: **Elvis “Short” Heinrichs** (*IAPPS Secretary General, USA*)
Epaminondas Paplomatas (*Agricultural University of Athens, Greece*)

20.00-20.30 **K01** The effect of climate change on plant protection
Dan Bebber (*University of Oxford, UK*)

20.30-21.00 **K02** Phytiatry as a distinct University science, for the benefit of global agriculture and forestry
Eleftherios C Tjamos (*Hellenic Society of Phytiatry, Greece*)

21.00 Welcome reception



Scientific Program **Tuesday, 2 July**

BANQUET

08.30-11.00 **Concurrent Session 1**

Unlocking the Potential of Microbiomes for Sustainable Agriculture

Chair: Altier Nora (*Instituto Nacional de Investigación Agropecuaria, INIA Las Brujas, Uruguay*)

Eduardo Abreo (*Inia Uruguay*)

Linda Kinkel (*University of Minnesota, USA*)

- 08.30-08.45 **SE01 C01** Unlocking the secrets of plant microbiomes.
Víctor Carrión (*IHSM-UMA-CSIC, Universidad De Málaga, Spain*)
- 08.45-09.00 **SE01 C02** Examining the Microbiome through the lens of the one health concept.
Gabriele Berg (*Environmental Biotechnology, Graz University of Technology, Austria*)
- 09.00-09.15 **SE01 C03** What determines the functional capacities of endophytic and soil microbiomes?
Linda Kinkel (*University of Minnesota, USA*)
- 09.15-09.30 **SE01 C04** Managing soil and root-associated microbiomes in agroecosystems.
Doreen Babin (*Julius Kühn Institute, Germany*)
- 09.30-09.45 **SE01 C05** Microbiomes in agricultural settings: invisible partners revealed.
Eduardo Abreo (*Inia Uruguay*)
- 09.45-10.00 **SE01 001** Variable effect of microbiome manipulation in the southern green stink bug *Nezara viridula* and its implications for the symbiotic control.
Sofia Victoria Prieto (*Department of Agricultural, Forest and Food Sciences, University of Turin, Italy*)
- 10.00-10.15 **SE01 002** "Cry for Help" upon pathogen attack across the Brassicaceae family.
Melissa Uribe Acosta (*Department of Biology, Utrecht University, The Netherlands*)
- 10.15-10.30 **SE01 003** Continental screening of the biocontrol yeast *Aureobasidium pullulans* across Europe: the case for local adaptation and mining.
Nataliia Khomutovska (*Swedish University of Agricultural Sciences, Sweden*)
- 10.30-10.40 **SE01 C06** Final considerations: how do microbiomes contribute to the plant protection sciences and the concept of one health?
Altier Nora (*Instituto Nacional de Investigación Agropecuaria, INIA Las Brujas, Uruguay*)



SKALKOTAS

08.30-11.00 Concurrent Session 2

**Novel Concepts and Approaches in Management of Fruit Flies
(Diptera: Tephritidae)**

Chair: Nikos Papadopoulos (*University of Thessaly, Greece*)

Souleymane Nacro (*INERA, France*)

- 08.30-08.45 SE02 C01** Introduction to management of fruit flies.
Nikos Papadopoulos (*University of Thessaly, Greece*) and **Souleymane Nacro** (*INERA, France*)
- 08.45-09.00 SE02 C02** Enhanced SIT to eradicate and contain small outbreaks of fruit flies.
Antonios Avgoustinos (*ELGO Demeter, Greece*)
- 09.00-09.15 SE02 C03** Novel concepts in Sterile Insect Technique.
Marc Schetelig (*JLu Giessen, Germany*)
- 09.15-09.30 SE02 C04** Effectiveness of four integrated pest management approaches in the control of fruit flies (Diptera: Tephritidae) in mango agro-ecosystems in the South-Sudan zone of Burkina Faso.
Souleymane Nacro (*INERA, France*)
- 09.30-09.45 SE02 C05** *Ceratitis capitata* (Diptera: Tephritidae) invasion success: insights into cold tolerance and overwintering capacity in novel environments.
Georgia Papadogiorgou (*University of Thessaly, Greece*)
- 09.45-10.00 SE02 C06** A novel methodological approach to detect low-density populations of the Mediterranean fruit fly to support efficient eradication and containment approaches.
Elma Bali (*University of Thessaly, Greece*)
- 10.00-10.15 SE02 C07** The fallacy of the classic IPM paradigm in managing fruit flies of tropical origin.
Slawomir Lux (*Insilico-IPM, UK*)
- 10.15-10.30 SE02 001** Dual tephritid fruit fly automated monitoring system for establishing pest free production for the green house tomato.
Ming Yi Chou (*Agricultural Extension Center, National Chung Hsing University, Taiwan*)
- 10.30-10.45 SE02 002** Use of the pestonfarm model for the management of *Ceratitis capitata* (Diptera: Tephritidae) populations.
Marco Colacci (*Agriculture, Environmental and Food Sciences, University of Molise, Italy*)



Scientific Program Tuesday, 2 July

MC2

08.30-11.00 Concurrent Session 3

Responses of Plant Genotypes to Pathogens and Development of Novel Techniques for Improvement of Crop Resistance to Diseases

Chair: Shuxian Li (*Crop Genetics Research Unit, USDA, ARS, USA*)

- 08.30-08.40 **SE03 C01** An overview of research on exploring responses of plants to pathogens and the development of novel techniques for improvement of crop resistance to diseases.
Shuxian Li (*Crop Genetics Research Unit, USDA, ARS, USA*)
- 08.40-08.55 **SE03 C02** The discovery of tandem kinase R-genes: origin, function, and potential in resistance breeding.
Tzion Fahima (*Department of Evolutionary and Environmental Biology, University of Haifa, Israel*)
- 08.55-09.10 **SE03 C03** The potential of plant breeding innovation for improving biotic stress resistance in agricultural crops and vegetables.
Petra Jorasch (*Euroseeds, Belgium*)
- 09.10-09.25 **SE03 C04** Development of high-throughput genotyping assays for genetic mapping of resistant genes and accelerating soybean and common bean breeding for biotic stresses.
Qijian Song (*USDA-ARS, USA*)
- 09.25-09.40 **SE03 C05** CRISPR / Cas9-assisted genome engineering for disease resistance.
Maeli Melotto (*Department of Plant Science, University of California, Davis, USA*)
- 09.40-09.55 **SE03 C06** Strategies using gene silencing and CRISPR tools in tomato to understand and improve plant defense against viroids.
Rosemarie W. Hammond (*ARS NEA Molecular Plant Pathology Laboratory, United States Department of Agriculture (USDA) - USA*)
- 10.00-10.15 **SE03 C07** Combating Rice Tungro-complex disease in Asia
Gilda Jonson (*IRRI, Philippines*)
- 10.15-10.25 **SE03 001** In silico prediction of plant NLR- and pathogen effector interactions provides a targeted approach for functional characterization.
Alicia Fick (*University of Pretoria, South Africa*)
- 10.25-10.35 **SE03 002** In silico characterisation of the Wak/Wakl gene family in avocado and implication in defense against *Phytophthora cinnamomi*.
Aaron Harvey (*University of Pretoria, BGM, FABI, Han Merensky Chair in Avocado Research, South Africa*)
- 10.35-10.45 **SE03 003** Molecular basis of constitutive defense mechanisms underlying resistance to *Verticillium dahliae* in the AC18 clone of wild olive.
Javier Francisco Molina-Hidalgo (*Biochemistry and Molecular Biology, Universidad de Córdoba, Spain*)
- 10.45-11.00 Discussion



MC3

08.30-11.00 Concurrent Session 4A

Grapevine Trunk Diseases

Chair: Epaminondas Paplomatas (*Agricultural University of Athens, Greece*)

Laura Mugnai (*Dagri, University of Florence, Italy*)

- 08.30-08.50 SE04 C01** Recent advances in the management of grapevine trunk diseases.
David Gramaje (*Instituto de Ciencias de la Vid Y Del Vino (ICVV), Universita de la Rioja, Gobierno de la Rioja, Logroño, Spain*)
- 08.50-09.10 SE04 C02** Grapevine trunk diseases affecting table grape: current knowledge and future perspectives in Italy.
Dalia Aiello (*Department of Department of Agriculture, Food and Environment, University of Catania, Italy*)
- 09.10-09.30 SE04 C03** Current etiology of *Aspergillus* vine canker and sour rot of table grapes in California.
Akif Eskalen (*University of California, Davis, USA*)
- 09.30-09.50 SE04 C04** Strategies for the development of a new formulation friendly for the environment and preliminary results from greenhouse to vineyard.
Florence Fontaine (*Université de Reims Champagne Ardenne, France*)
- 09.50-10.10 SE04 C05** Antifungal effects of CU based nanocomposites against fungal trunk pathogens.
Aleš Eichmeier (*Mendeleum - Intitute of Gentics, Mendel University in Brno, Czech Republic*)
- 10.10-10.30 SE04 C06** The oomycete biocontrol agent, *Pythium oligandrum*: root colonization in vineyards worldwide and control of grapevine trunk diseases.
Lisa Chaboussie (*E2S UPPA, CNRS, IPREM, Universite de Pau et des Pays de l'Adour Pau, France*)
- 10.30-10.45 SE04 C07** The status of grapevine trunk diseases in Cyprus: etiology and disease management efforts.
Loukas Kanetis (*Cyprus University of Technology*)



Scientific Program Tuesday, 2 July

CONFERENCE I

08.30-11.00 Concurrent Session 5

Vascular Wilts

Chair: Vardis Ntoulakakis (*School of Life Sciences, University of Warwick, UK*)

Marc Valls Matheu (*Universitat de Barcelona, Spain*)

08.30-08.50 **SE05 C01** Analysing the bacterial wilt disease: bacterial survival strategies and plant structural defences.

Marc Valls Matheu (*Universitat de Barcelona, Spain*)

08.50-09.10 **SE05 C02** Epigenetics in biological control of vascular wilts: the case of *Bacillus velezensis* K165 against *Verticillium dahliae*.

Sotiris Tjamos (*Agricultural University of Athens, Greece*)

09.10-09.30 **SE05 C03** SNC1 guards TOPLESS family members that encode susceptibility genes for Fusarium wilt in tomato and Arabidopsis.

Frank Takken (*Molecular Plant Pathology, University of Amsterdam, The Netherlands*)

09.30-09.50 **SE05 C04** The role of histone acetyltransferases in plant immunity.

Vardis Ntoulakakis (*School of Life Sciences, University of Warwick, UK*)

09.50-10.00 **SE05 001** Biocontrol agents mitigate maize late wilt: enhancing crop resilience for food security.

Diana Matos (*University Of Aveiro, Portugal*)

10.00-10.10 **SE05 002** The role of ATP-dependent chromatin remodelling complexes in regulation of plant immunity against fusarium oxysporum.

Litsa Ampetelnour (*School of Life Sciences, University of Warwick, UK*)

10.10-10.20 **SE05 003** Dissecting into the effect of starch metabolism on *Arabidopsis thaliana* defense against the vascular wilt pathogen *Fusarium oxysporum*.

Eleni Kalogeropoulou (*Benaki Phytopathological Institute, Greece*)

11.00-11.30 Coffee Break - POSTER SESSION



BANQUET

11.30-14.00 Concurrent Session 6A

Advances with Biopesticides to meet Plant Protection Challenges

Chair: Trevor Jackson (*Agresearch, New Zealand*)

Laura Villamizar (*Microbial Solutions, AgResearch Ltd., New Zealand*)

- 11.30-11.45 SE06 C01** Overcoming constraints and meeting the potential of microbes for plant protection: technology and sustainability
Trevor Jackson (*Agresearch, New Zealand*) and **Laura Villamizar** (*Microbial Solutions, AgResearch Ltd., New Zealand*)
- 11.45-12.00 SE06 C02** Leveraging the power of two bacterial symbionts in plant protection: *Photorhabdus* and *Xenorhabdus*.
Selcuk Hazir (*Biology, Aydin Adnan Menderes University, Turkey*)
- 12.00-12.15 SE06 C03** Advances and challenges in biopesticide production - a producer perspective.
Arne Peters (*e-nema GmbH, Germany*)
- 12.15-12.30 SE06 C04** Multifunctionality in the entomopathogenic endophytic fungi *Metarhizium* spp.
Federico Rivas (*Bioinputs, National Institute for Agricultural Research, Uruguay*)
- 12.30-12.40 SE06 001** Spray-induced gene silencing in managing soybean fungal diseases.
Zhi-Yuan Chen (*Louisiana State University Agricultural Center, USA*)
- 12.40-12.50 SE06 002** Controlling olive anthracnose with antifungal metabolites from *Bacillus* species: a biological approach.
Hafiz Husnain Nawaz (*Agricultural, Environmental and Food Sciences, Free University of Bozen Bolzano, Italy*)
- 12.50-13.00 SE06 003** New promising “biofungicides” targeting the fungal cell wall to control the cucurbit powdery mildew *Podosphaera xanthii*.
Isabel Padilla-Roji (*Universidad de Málaga, Spain*)
- 13.00-13.10 SE06 004** Insect parasitoids offer a natural source of novel bio-insecticides for sustainable plant protection in diverse ecologies.
Zain UL Abdin (*Entomology, University of Agriculture (Faisalabad), Pakistan*)
- 13.10-13.20 SE06 005** List of success of oligonucleotide insecticides: Hemipteran pests under control of the unmodified antisense DNA.
Vol Oberemok (*Molecular Genetics and Biotechnologies, V.I. Vernadsky Crimean Federal University, Russia*)
- 13.20-13.30 SE06 006** Evaluation of entomopathogenic nematodes viability as affected by spray application techniques and operational parameters.
Elena Gonella (*Department of Agricultural, Forest and Food Sciences, Università Degli Studi di Torino, Italy*)
- 13.30-13.40 SE06 007** Methylobacterium-induced plant bleaching: analyzing molecular mechanisms towards the establishment of R&D basis for microbial herbicides.
Masataka Izumi (*Tokyo University of Agriculture and Technology, Japan*)
- 13.40-13.50 SE06 008** Evaluation of rhizobacteria and biogenic silver nanoparticles for the management of *Pseudomonas syringae* pv. *syringae* causing bacterial canker on plum.
Raees Ahmed (*University of Poonch Rawalakot, Pakistan*)



Scientific Program Tuesday, 2 July

SKALKOTAS

11.30-14.00 Concurrent Session 7A

Understanding Pathogen-Vector-Host Interactions in Globally Important Pathosystems

Chair: Shaonpius Mondal (*University of Nebraska - Lincoln, USA*)

Elizabeth Jeannette Cieniewicz (*Clemson University, USA*)

11.30-11.55 **SE07 C01** Understanding wheat curl mite transmitted viruses and their co-infection dynamics in wheat.

Shaonpius Mondal (*University of Nebraska - Lincoln, USA*)

11.55-12.20 **SE07 C02** Exploring the role of pollinators and thrips in spreading pollen-borne viruses in fruit crops in the southeast U.S.

Elizabeth Cieniewicz (*Clemson University, USA*)

12.20-12.40 **SE07 C03** Impact of double virus infections on the yield of melon plants subjected to water stress.

Alberto Fereres (*Department of Crop Protection-CSIC, Spain*)

12.40-13.00 **SE07 C04** Molecular mechanisms underlying transmission of *Liberibacter* by psyllids.

Murad Ghanim (*Entomology, Volcani Institute, Israel*)

13.00-13.20 **SE07 C05** Biological, epidemiological, and environmental factors drive the prevalence and dominance of whitefly-transmitted viruses in cucurbits.

William Wintermantel (*Virology, USDA-ARS, USA*)

13.20-13.40 **SE07 C06** Seasonal spread of cotton leafroll dwarf virus by the cotton aphid in the United States.

Alana Jacobson (*Entomology and Plant Pathology, Auburn University, USA*)



MC2

11.30-14.00 Concurrent Session 8

Networking Tools to Manage Transboundary Pests

Chair: Daren Mueller (*Iowa State University, USA*)

Laura Iles (*North Central Integrated Pest Management Center, USA*)

11.30-11.50 SE08 C01 Enhancing crop protection: the collaborative impact of the Crop Protection Network (CPN).

Daren Mueller (*Iowa State University, USA*)

11.50-12.10 SE08 C02 Networking for effective integrated pest management: spotlight on working groups and pest management strategic plans in the regional IPM centers.

Lynnae Jess (*North Central IPM Center, USA*)

12.10-12.25 SE08 C03 Youtube transforms IPM education: from insights to action.

Brandon Kleinke (*Iowa State University, USA*)

12.25-12.40 SE08 C04 Integrated weed management with grow: getting rid of weeds.

Michael Flessner (*School of Plant and Environmental Sciences, Virginia Tech, USA*)

12.40-12.55 SE08 C05 Developing tools to empower stakeholders for effective pest management: the US national predictive modeling tool initiative

Kaitlyn M. Bissonnette (*Cotton Incorporated, USA*)

12.55-13.10 SE08 C06 Networking tactical sciences in the United States to enhance plant and animal biosecurity.

Marty Draper (*Plant Pathology, Kansas State University, USA*)

13.10-13.25 SE08 C07 The national plant diagnostic network: transregional collaborations for plant protection in the United States.

Zachary Schumm (*Plant Pathology, Entomology and Microbiology, Iowa State University, USA*)

13.25-13.40 SE08 C08 How a public-private partnership changed the management of a billion-dollar pest: The SCN coalition.

Sam Markell (*Plant Pathology, North Dakota State University, USA*)

Scientific Program **Tuesday, 2 July**

MC3

11.30-14.00 Concurrent Session 4B

Grapevine Trunk Diseases

Chair: Epaminondas Paplomatas (*Agricultural University of Athens, Greece*)
Laura Mugnai (*Dagri, University of Florence, Italy*)

- 11.30-11.45 SE04 C08** An overview of grapevine trunk diseases and Fusarium root-basal rot in Turkish grapevine nurseries.
Akgul Soner (*Plant Protection, Çukurova University, Turkey*)
- 11.45-12.00 SE04 C09** Understanding early responses to ESCA-pathogens of wood tissues: a way to open curtains on mechanisms of action of biocontrol agents.
Jacques Alban (*PPGV - INP-PURPAN, France*)
- 12.00-12.20 SE04 001** Exploring Cytospora canker diversity in european grapevines: molecular and phylogenetic characterization
Catarina Leal (*Instituto de Ciencias de la Vid y del Vino, Spain*)
- 12.20-12.40 SE04 002** Around the world in eight white rot species: understanding wood degradation in ESCA complex of diseases.
Alessandro Puca (*University of Florence (DAGRI) - University of Haute-Alsace (LVBE), Italy*)
- 12.40-13.00 SE04 003** Infection routes for pathogens causing grapevine trunk diseases in California nursery.
Philippe Rolshausen (*Botany and Plant Sciences, University of California, USA*)
- 13.00-13.15 SE04 004** Identification and characterization of fungal species associated with grapevine trunk disease in South Tyrol (Northern Italy).
Sanja Baric (*Free University of Bozen - Bolzano, Italy*)
- 13.15-13.30 SE04 005** Development of a biocontrol-based strategy for the management of *Phaeomoniella chlamydospora* in grapevine nurseries.
Christos Tsoukas (*Agricultural University of Athens, Greece*)



CONFERENCE I

11.30-13.00 Concurrent Session

New Advances and Technologies for Postharvest Diseases Control

Chair: Davide Spadaro (*Disafa, University of Turin, Italy*)

James Adaskaveg (*Microbiology and Plant Pathology, University of California, USA*)

11.30-11.45 **SE09 C01** Postharvest loss management through novel technologies - bridging the gap between research and practice.

Gianfranco Romanazzi (*Marche Polytechnic University, Italy*)

11.45-12.00 **SE09 C02** Overview of Post Harvest disease management practices on apple: prevention, monitoring and control.

Davide Spadaro (*Disafa, University of Turin, Italy*)

12.00-12.20 **SE09 C03** Recent advances in alternative treatments including biocontrols, biopesticides, inorganic salts, and physical technologies for managing postharvest decays of fruit and vegetable crops.

James Adaskaveg (*Microbiology and Plant Pathology, University of California, USA*)

12.20-12.40 **SE09 001** DNA-aptamers as a novel strategy in agriculture to control the gray mold disease caused by *Botrytis cinerea*.

Alba López-Laguna (*University of Málaga, Spain*)

14.00-15.00 Light Lunch - POSTER SESSION



Scientific Program Tuesday, 2 July

BANQUET

Chair: **Corne Pieterse** (*Plant-Microbe Interactions Group, Utrecht University, The Netherlands*)
Geoff Norton (*University of Queensland, Australia*)

15.00-15.30 Plenary Lecture

K03 Strategies for developing and implementing digital identification tools

Geoff Norton (*University of Queensland, Australia*)

15.30-16.00 Plenary Lecture

K04 Enabling sustainable agriculture through understanding and enhancement of microbiomes

Victor Carrion (*University of Malaga, Spain*)

16.00-16.30 Plenary Lecture

K05 Impact and control of transboundary / invasive banana wilt pathogen, *Fusarium oxysporum* f. sp. *cubense*

Arie Tsutomu (*Tokyo University of Agriculture and Technology, Japan*)

16.30-17.00 Satellite Lecture

Effectiveness of bait sprays and mass trapping using dacus bait 100 for IPM of *Bactrocera oleae*: field results from Crete, Greece.

Chair: **Dimitroulia Kelly** (*Agricultural Journalist, Founder of Efori Gi*)

Speaker: **George Pavlidis** (*A.U.TH. Agronomist, Sales Manager of EVYP LLP*)





BANQUET

17.00-18.00 Concurrent Session 6B

Advances with Biopesticides to meet Plant Protection Challenges

Chair: Trevor Jackson (*Agresearch, New Zealand*)

Laura Villamizar (*Microbial Solutions, AgResearch Ltd., New Zealand*)

17.00-17.10 SE06 009 Impacts of α-solanine and α-chaconine on key plant pathogens and beneficial organisms.

Marília Bueno Da Silva (*Forschungszentrum Jülich GmbH, Germany*)

17.10-17.20 SE06 010 Biopesticides as tools for green plant protection in main crops of Europe.

Maira Lykogianni (*Department of Pesticide Control and Phytopharmacy, Benaki Phytopathological Institute, Greece*)

17.20-17.40 SE06 011 Control of potato late blight by exploiting the antimicrobial and biostimulant properties of exo-metabolites produced by *Trametes versicolor*.

Rosita Silvana Fratini (*Sapienza University of Rome, Italy*)

17.40-17.50 SE06 012 ε-Poly-L-Lysine, a food-approved preservative, mixed with cinnamaldehyde as a potential new agricultural bactericide.

James Adaskaveg (*Microbiology and Plant Pathology, University of California, USA*)

17.50-18.00 SE06 013 The dynamic changes in olive fruit phenolic metabolism and its contribution to the activation of quiescent *Colletotrichum* infection.

Hristofor Miho (*Universidad de Córdoba, Rabanales, Spain*)

18.00-18.10 SE06 014 Integrated management system for olive anthracnose.

Anastasia Papageorgiou (*Agricultural University of Athens, Greece*)



Scientific Program **Tuesday, 2 July**

SKALKOTAS

17.00-18.00 **Concurrent Session 7B**

Understanding Pathogen-Vector-Host Interactions in Globally Important Pathosystems

Chair: Shaonpius Mondal (*University of Nebraska - Lincoln, USA*)

Elizabeth Jeannette Cieniewicz (*Clemson University, USA*)

17.00-17.20 **SE07 C07** The molecular interplay between plant viruses and insect vectors.

Anna Whitfield (*Entomology and Plant Pathology, North Carolina State University, USA*)

17.20-17.40 **SE07 C08** Elucidating the etiology and epidemiology of pepper yellows disease.

Varvara Maliogka (*School of Agriculture, Aristotle University of Thessaloniki, Greece*)

17.40-18.00 **SE07 C09** Exploring the SRBSDV-*Sogatella furcifera*-rice plant interactions for reduction of virus transmission.

Maolin Hou (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)



MC2

17.00-18.00 Concurrent Session 10A

Impact and Control of Transboundary / Invasive Pests

Chair: Moriyama Hiromitsu (*Tokyo University of Agriculture and Technology, Japan*)

Arie Tsutomu (*Tokyo University of Agriculture and Technology, Japan*)

17.00-17.15 SE10 C01 Potentialities of mycoviruses infecting lower eukaryotic organisms, plants and insects as biocontrol agents.

Moriyama Hiromitsu (*Tokyo University of Agriculture and Technology, Japan*)

17.15-17.30 SE10 C02 Challenges and prospects for control of citrus greening disease in Japan.

Kazuki Fujiwara (*Department of Agrobiological Resources, Faculty of Agriculture, Meijo University, Japan*)

17.30-17.45 SE10 C03 Development of management techniques against sugarcane white leaf disease based on epidemiological research and computer simulation.

Youichi Kobori (*Japan International Research Center for Agricultural Sciences, Japan*)

17.45-18.00 SE10 C04 Toward control invasive insect species by targeting nicotinic acetylcholine receptors.

Kazuhiko Matsuda (*Institute of Agriculture, Kinki University, Japan*)

18.00-18.30 Coffee Break - POSTER SESSION



Scientific Program Tuesday, 2 July

BANQUET

18.30-21.00 Concurrent Session 11

Canker Disease of Fruit, Nut and Vine Crops

Chair: Themis Michailidis (*UC Davis, USA*)

- 18.30-18.50 **SE11 C01** Canker diseases of nut crops caused by *Botryosphaeriaceae* in California.
Themis Michailidis (*UC Davis, USA*)
- 18.50-19.10 **SE11 C02** Epidemiology and management of fungal canker diseases of sweet cherry in California.
Florent Trouillas (*Plant Pathology - CAES, University of California, USA*)
- 19.10-19.30 **SE11 C03** Fungal pathogens causing trunk diseases in Northern Italy, species diversity and temperature interaction.
Vladimiro Guarnaccia (*University of Torino, Italy*)
- 19.30-19.50 **SE11 C04** Fungal trunk and canker diseases of fruit, nut and vine crops in Spain: causes and solutions.
Josep Armengol (*Instituto Agroforestal Mediterráneo, Universitat Politècnica de València, Spain*)
- 19.50-20.05 **SE11 C05** Status of citrus canker disease in Sicily.
Giorgio Gusella (*Dipartimento di Agricoltura, Alimentazione e Ambiente, University of Catania, Italy*)
- 20.05-20.20 **SE11 C06** From branch canker to “escudete” olive diseases caused by *Botryosphaeriaceae*.
Maria Isabel Márquez Pérez (*Agronomy, University of Córdoba, Spain*)
- 20.20-20.35 **SE11 C07** Canker diseases in olive and tree nuts in Southern Spain.
Carlos Agusti Brisach (*Universidad de Córdoba, Spain*)
- 20.35-20.50 **SE11 C08** *Botryosphaeriaceae* dieback agents: understanding of their aggressiveness and recent advances in management.
Florence Fontaine (*Université de Reims Champagne Ardenne, France*)



SKALKOTAS

18.30-21.00 Concurrent Session 70

Understanding Pathogen-Vector-Host Interactions in Globally Important Pathosystems

Chair: Shaonpius Mondal (*University of Nebraska - Lincoln, USA*)

Elizabeth Jeannette Cieniewicz (*Clemson University, USA*)

18.30-18.55 SE07 001 Unlocking the secrets of rose rosette disease: decoding virus dynamics and vector competence in eriophyoid mites.

Ioannis Tzanetakis (*University of Arkansas System Division of Agriculture, USA*)

18.55-19.15 SE07 002 Impact of low-susceptible wheat genotypes on the epidemiology of wheat dwarf disease

by monitoring plant / virus / vector interactions.

Thomas Armand (*INRAE, France*)

19.15-19.35 SE07 003 Endoplasmic Reticulum (ER)- associated interactions of *Liberibacter solanacearum* with its carrot psyllid vector.

Ola Jassar (*Department of Agroecology and Plant Health, The Hebrew University of Jerusalem, Israel*)

19.35-19.55 SE07 004 Cereal virus diversity and epidemiology in South-Eastern Australia.

Piotr Trebicki (*Macquarie University, Australia*)

19.55-20.15 SE07 005 Mode of action of oligonucleotide insecticides (DNA containment mechanism).

Vol Oberemok (*Molecular Genetics And Biotechnologies, V.I. Vernadsky Crimean Federal University, Russia*)



Scientific Program **Tuesday, 2 July**

MC2

18.30-21.00 **Concurrent Session 10B**

Impact and Control of Transboundary / Invasive Pests

Chair: Moriyama Hiromitsu (*Tokyo University of Agriculture and Technology, Japan*)

Arie Tsutomu (*Tokyo University of Agriculture and Technology, Japan*)

- 18.30-18.45 **SE10 C05** The role of weed seed contamination in grain commodities as propagule pressure.
Yoshihiko Shimono (*Graduate School of Agriculture, Kyoto University, Japan*)
- 18.45-19.00 **SE10 C06** Challenge to Fusarium wilt of banana and pod rot of cacao in the Philippines.
Kyoko Watanabe (*Tamagawa University, Japan*)
- 19.00-19.15 **SE10 C07** Diseases occurring in banana cultivation in Peru and their control.
Liliana Maria Aragon (*Institute of Agriculture, Universidad Nacional Agraria la Molina, Peru*)
- 19.15-19.30 **SE10 C08** Important bacterial diseases on rice, vegetables and fruits in Southern Vietnam and their management.
Nga Nguyen Thi Thu (*Plant Protection, College of Agriculture, Can Tho University, Vietnam*)
- 19.30-19.45 **SE10 C09** Sex pheromones: an effective tool for sustainable management of agricultural harmful pests in the Mekong Delta of Vietnam.
Le Van Vang (*College of Agriculture, Can Tho University, Vietnam*)
- 19.45-19.55 **SE10 C10** Status of banana and cacao industry in the Philippines.
Dionisio Alvindia (*Philippine Center for Postharvest Development and Mechanization, Department of Agriculture, Philippines*)
- 19.55-20.05 **SE10 C11** A mycovirus induces systemic resistance in oilseed rape against Phoma stem canker.
Loly Kotta-Loizou (*School of Life and Medical Sciences / Faculty of Natural Sciences, University of Hertfordshire, UK*)
- 20.05-20.15 **SE10 C12** Exploring allelochemicals in rice varieties for eco-friendly weed management: a metabolomics approach.
Ho Le Thi (*Plant Protection Faculty / College of Agriculture / Can Tho University, Vietnam*)
- 20.15-20.25 **SE10 001** Establishment and application of EDNA-based molecular identification methods for three important fruit-boring moths.
Lijun Li (*China Agricultural University, China*)
- 20.25-20.35 **SE10 002** The effect of insecticide spray regimes on fall armyworm damage and maize grain yield.
Michael Otim (*National Agricultural Research Organization, Uganda*)
- 20.35-20.45 **SE10 003** The interplay between climate change and pesticide resistance: the case study of the two-spotted spider mite.
Adi Kliot (*Volcani Institute Aro, Israel*)



MC3

18.30-21.00 Concurrent Session 12

Global perspectives in herbicide-resistance and new integrated weed management approaches”

Chair: Baruch Rubin (*Hebrew University of Jerusalem, Israel*)

Ilias Travlos (*Agricultural University of Athens, Greece*)

- 18.30-18.50 SE12 C01** Herbicide-resistant weeds: a challenge to the sustainability of agriculture.
Baruch Rubin (*Hebrew University of Jerusalem, Israel*)
- 18.50-19.10 SE12 C02** Herbicide resistance in Europe: current status, future trends and management.
Vaya Kati (*Benaki Phytopathological Institute, Greece*)
- 19.10-19.30 SE12 C03** The GOOD Project for Agroecological Weed Management: Concept and Living Labs in Greece.
Ilias Travlos (*Agricultural University of Athens, Greece*)
- 19.30-19.50 SE12 C04** Cultural practices for weed management in kenaf crop (*Hibiscus cannabinus* L.).
Ioannis Gazoulis (*Agriculture University of Athens, Greece*)
- 19.50-20.10 SE12 C05** The potential of cover crop (CC) mixtures to suppress winter and summer weeds in citrus orchards.
Ilias Travlos (*Agricultural University of Athens, Greece*)
- 20.10-20.30 SE12 C06** Long-term studies on IWM effectiveness in maize.
Milena Simic (*Maize Research Institute Zemun Polje, Serbia*)
- 20.30-20.45 SE12 001** Herbicidal control of weeds in maize hybrids in Northwest region of Pakistan.
Rahamdad Khan (*Department of Agriculture, Bacha Khan University, Charsadda Pakistan*)
- 20.45-21.00 SE12 002** Luximo®: confirmation of fat as site of action and its impact on the control of resistant weeds in winter wheat.
Johnen Philip (*BASF SE, Germany*)



Scientific Program **Tuesday, 2 July**

CONFERENCE I

18.30-21.00 **Concurrent Session 18**

Incorporating Indigenous Knowledge into Plant Protection Science

Chair: Federico Tomasetto (*Agresearch, New Zealand*)

Nick Roskrige (*School of Agriculture and Environment, Massey University, New Zealand*)

Trevor Jackson (*Agresearch, New Zealand*)

18.30-18.55 **SE13 C01** A duopoly transdisciplinary approach between modern science and indigenous knowledge is a powerful tool for plant protection strategies.

Federico Tomasetto (*Agresearch, New Zealand*)

18.55-19.20 **SE13 C02** Plant protection in the South Pacific.

Nick Roskrige (*School of Agriculture and Environment, Massey University, New Zealand*)

19.20-19.40 **SE13 C03** Cultural characterisation through 'knowledge integration' as a tool in promoting, protecting, and conserving traditional crops in Aotearoa (New Zealand).

Simon Apang Semese (*Bioprotection Aotearoa, Lincoln University, Canterbury, New Zealand*)

19.40-20.00 **SE13 C04** The Pacific response to invasion of the coconut rhinoceros beetle (CRB) (*Oryctes rhinoceros*) in the Western Pacific Islands.

Trevor Jackson (*Agresearch, New Zealand*)



BANQUET

08.30-11.00 Concurrent Session 14

Microbiomes and their Role in Plant Pathology

Chair: Corné Pieterse (*Plant-Microbe Interactions Group, Utrecht University, The Netherlands*)
Ioannis Stringlis (*Agricultural University of Athens, Greece*)

08.30-08.50 SE14 C01 The root microbiome and plant health.

Corné Pieterse (*Plant-Microbe Interactions Group, Utrecht University, The Netherlands*)

08.50-09.10 SE14 C02 Plant-microbiome communication in the rhizosphere.

Ioannis Stringlis (*Agricultural University of Athens, Greece*)

09.10-09.30 SE14 C03 The roles of fungal effectors in microbiota manipulation.

Hanna Roeverich (*University Of Cologne, Germany*)

09.30-09.50 SE14 C04 Finding balance in the plant microbiome.

Omri Finkel (*Plant and Environmental Sciences, The Hebrew University of Jerusalem, Israel*)

09.50-10.10 SE14 C05 Plant microbiomes: from molecular mechanisms to addressing phytopathological issues in agriculture.

Kalliopi Papadopoulou (*University of Thessaly, Greece*)

10.10-10.20 SE14 C06 From suppressive compost to targeted inoculants: synthetic microbial communities promote tomato growth and disease control.

Iakovos Pantelidis (*Department of Agricultural Sciences, Biotechnology and Food Science, Cyprus University of Technology, Cyprus*)

10.20-10.30 SE14 001 Interplay between Amaryllidaceae alkaloids, the bacteriome and phytopathogens of *Lycoris radiata*.

Jiayu Zhou (*Institute of Botany, Jiangsu Province and Chinese Academy of Sciences, China*)

10.30-10.40 SE14 002 The soil bacterial community regulates germination of *Plasmodiophora brassicae* resting spores rather than root exudates.

Andreas Von Tiedemann (*Plant Pathology and Crop Protection, University Goettingen, Germany*)

10.40-10.50 SE14 003 Deciphering the effects of agronomical practices on aspergillus incidence and carposphere's microbial communities of grapevine.

Stefanos Testempasis (*Aristotle University of Thessaloniki, Greece*)

10.50-11.00 SE14 004 Microbiome signature of endophytes in wheat seed response to wheat dwarf bunt caused by *Tilletia controversa* Kühn.

Gao Li (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)



Scientific Program **Wednesday, 3 July**

SKALKOTAS

08.30-11.00 **Concurrent Session 15**

Components of IRM Programs in an IPM Framework

Chair: Silvana Paula-Moraes (*University of Florida, USA*)

08.30-08.55 **SE15 C01** Beyond pest control: topics for the improvement of IPM and IRM of Lepidopteran pests associated with row crops.

Silvana Paula-Moraes (*University of Florida, USA*)

08.55-09.20 **SE15 C02** Resistance evolution to BT maize in the Southern United States: the case of the ubiquitous *Helicoverpa zea*.

Francis Peter Fortnum Reay-Jones (*Plant and Environmental Sciences, Clemson University, USA*)

09.20-09.40 **SE15 C03** Managing the changing lepidoptera maize pest complex in Africa: short- and long-term strategies.

Johnnie Van Den Berg (*North-West University, South Africa*)

09.40-10.00 **SE15 C04** Extension as an IPM tool: the land grant university program and its role in pest management.

Katelyn A. Kesheimer (*Bayer, USA*)

10.00-10.20 **SE15 C05** Farmers' perspectives on information sources and IRM practices.

Dominic Reisig (*North Carolina State University, USA*)

10.20-10.40 **SE15 C06** Supporting IPM/IRM for cost effective and environmentally acceptable practices in U.S. cotton production.

Sally Taylor (*Agricultural and Environmental Research, Cotton Incorporated, USA*)

10.40-11.00 Discussion



MC2

08.30-11.00 Concurrent Session 16

Diseases in Tree Crops and Forests

Chair: Georgios Vidalakis (*Microbiology & Plant Pathology, University of California Riverside, USA*)

Evangelos Vellios (*University of Thessaly, Greece*)

- 08.30-08.50 Citrus viroids: friends or foes?
Georgios Vidalakis (*Microbiology & Plant Pathology, University of California Riverside, USA*)
- 08.50-09.10 **SE16 001** Protecting vegetation against ozone pollution.
Eugenios Agathokleous (*School of Ecology and Applied Meteorology, Nanjing University of Information Science & Technology, China*)
- 09.10-09.30 **SE16 002** Mycoviruses infecting the red-band needle blight fungus of pine trees and conifers
Ioly Kotta-Loizou (*School of Life and Medical Sciences / Faculty of Natural Sciences, University of Hertfordshire, UK*)
- 09.30-09.45 **SE16 003** From *Xylella fastidiosa* to Enterobacteriaceae: investigating new bacterial threats in southern Italy.
Giambattista Carluccio (*University of Salento, Italy*)
- 09.45-10.00 **SE16 004** Identification, pathogenicity and chemical control of Chrysoporthe stem canker disease of *Eucalyptus* spp in Malaysia.
Annya Ambrose (*Industrial Forest Research Centre, Restoration and Industrial Forest Division, Forest Department Sarawak, Malaysia / University Putra Malaysia*)
- 10.00-10.15 **SE16 005** Diverse organisms cause leaf and stem diseases in macadamia nursery plants.
Jahangir Khan (*The University of Queensland, Australia*)
- 10.15-10.30 **SE16 006** Effect of rainfall on the dispersal of spores of *Venturia oleaginea*, the causal agent of olive scab.
Francisco Abel Guerrero Páez (*Agronomy, University of Córdoba, Spain*)
- 10.30-10.45 **SE16 007** Molecular biology of *Phytophthora* in forest disease management.
Jochem Vink (*School Of Biological Sciences, Victoria University Of Wellington, New Zealand*)
- 10.45-11.00 **SE16 008** Twig canker and shoot blight disease of almond: understanding the biology of *Diaporthe amygdali*.
Carolina Francia (*Instituto Agroforestal Mediterráneo, Universitat Politècnica de València, Spain*)
- 11.00-11.15 **SE16 009** Diversity and control of *Phytophthora* species associated with widespread dieback and mortality of wild olive trees in Sardinia, Italy.
Antonio Deidda (*Department of Agricultural Sciences, University of Sassari, Italy*)

Scientific Program **Wednesday, 3 July**

MC3

08.30-11.00 **Concurrent Session 17**

NLR Guided Strategies for Durable Disease Resistance in Crop Plants

Chair: Jiorgos Kourelis (*Department of Life Sciences, Imperial College London, UK*)

Lida Derevnina (*University of Cambridge, UK*)

08.30-08.50 **SE17 C01** Pikobodies: what does it take to bioengineer NLR immune receptor-nanobody fusions.

Jiorgos Kourelis (*Department of Life Sciences, Imperial College London, UK*)

08.50-09.10 **SE17 C02** Cyst nematodes counteract immunity by inhibiting activation of central nodes of a Solanaceae immune receptor network.

Lida Derevnina (*University of Cambridge, UK*)

09.10-09.30 **SE17 C03** Evolution in overdrive: NLR diversity generation and maintenance.

Ksenia Krasileva (*Plant And Microbial Biology, UC Berkeley, USA*)

09.30-09.50 **SE17 C04** Leveraging dangerous mix autoimmunity in plants to investigate host-microbe interactions.

Eunyoung Chae (*Biological Sciences, National University of Singapore, Singapore*)

09.50-10.10 **SE17 C05** NRG1C antagonizes NRG1A-mediated immunity by competitively binding to EDS1/SAG101.

Junli Wang (*Plant Microbes Interactions, Max Planck Institute for Plant Breeding Research, Germany*)

10.10-10.30 **SE17 C06** NLRseek: high-throughput discovery pipeline for functional resistance genes.

Helen Brabham (*2Blades, UK*)

10.30-10.50 **SE17 C07** Receptor structures at the plant-microbe interface for crop improvement.

Alexander Foerderer (*Root Biology and Symbiosis, Max-Planck-Institute of Molecular Plant Physiology, Germany*)



CONFERENCE I

08.30-11.00 Concurrent Session 18A

Fungicide Resistance: Diagnosis, Risk Assessment and Management, Integrated Pest Management

Chair: George Karaoglanidis (Aristotle University, Greece)

Dolores Fernandez Ortuno (University of Málaga, Spain)

- 08.30-08.50 **SE18 001** The sensitivity of *Exserohilum turcicum*, the causal pathogen of northern leaf blight, to demethylation inhibitor fungicides in South Africa.
Marné Van Butzelaar (University of Pretoria, South Africa)
- 08.50-09.10 **SE18 C01** Evolution of resistance in *Fusarium fujikuroi* to fungicides.
Chuanqing Zhang (Zhejiang Agriculture and Forest University, China)
- 09.10-09.30 **SE18 002** Biological activity of difenoconazole against *Exserohilum turcicum*, the causal pathogen of northern leaf blight of maize and fungal baseline sensitivity.
David Livingstone Nsibo (Plant and Soil Sciences, University of Pretoria, South Africa)
- 09.30-09.50 **SE18 003** Metabolomics reveals insights into the pathogenicity and resistance of *Colletotrichum acutatum* species complex to fungicides.
Sotirios Giannakaris (Agricultural University of Athens, Greece)
- 09.50-10.10 **SE18 C02** Fungicide sensitivity in *Pyrenophora teres* f. *teres* Estonian population.
Andres Mäe (Department of Plant Protection, METK, Estonia)
- 10.10-10.30 **SE18 C03** Monitoring and molecular mechanisms of fungicide resistance of *Botrytis cinerea* strains isolated from strawberries in Korea.
Hyunkyu Sang (Chonnam National University, South Korea)
- 10.30-10.50 **SE18 C04** Prevalence, mechanisms of resistance, and management of DMI and MBC fungicide resistance in *Monilinia fructicola* from Southeastern US peach orchards.
Guido Schnabel (Plant and Environmental Sciences, Clemson University, USA)
- 10.50-11.10 **SE18 C05** Selection for fenhexamid resistance in *Botrytis cinerea* relating to spray dosage, timing, and mixture.
Mengjun Hu (AGNR - Plant Science and Landscape Architecture (PSLA), University of Maryland College Park, USA)

11.00-11.30 Coffee Break - POSTER SESSION



Scientific Program Wednesday, 3 July

BANQUET

11.30-14.00 Concurrent Session 19

Plant Health Research Coordination: An International Endeavor

Chair: **Giovani Baldissera** (*Euphresco, France*)

11.30-11.45 **SE19 C01** Plant health research coordination: an international endeavour.

Giovani Baldissera (*Euphresco, France*)

11.45-12.00 **SE19 C02** Plant health research priorities for the Mediterranean region.

Anna Maria D'Onghia (*Plant Protection, Ciheam Bari, Italy*)

12.00-12.15 **SE19 C03** Tools and structures for early warning and better prediction of risks.

Monica Carvajal Yepes (*International Center for Tropical Agriculture CIAT, Colombia*)

12.15-12.25 **SE19 C04** In situ detection and identification of pests as an opportunity to link field and laboratory activities.

Nicola La Porta (*Research and Innovation Centre, Fondazione Edmund Mach, Italy*)

12.25-12.40 **SE19 C05** Modern tools and approaches to tackle pests in the Mediterranean crop production systems.

Nikos Papadopoulos (*University of Thessaly, Greece*)

12.40-12.55 **SE19 C06** How research can support policy-making: future perspectives.

Mariangela Ciampitti (*Plant Protection Service, Regione Lombardia, Italy*)

12.55-13.10 **SE19 C07** Future Challenges.

Laura Mugnai (*Dagri, University of Florence, Italy*)

13.10-13.20 **SE19 C08** How to protect plant health in the next 20 years.

Dimitris Tsitsigiannis (*Agricultural University of Athens, Greece*)

13.20-13.30 **SE19 C09** Research to address future challenges and to strengthen plant protection.

Anna Maria D'Onghia (*Plant Protection, Ciheam Bari, Italy*)

13.30-13.40 **SE19 C10** From research to reality: CPN bridges the gap in plant health solutions.

Daren Mueller (*Iowa State University, USA*)

13.40-13.50 **SE19 C11** The role of the Arab society of plant protection in enhancing plant health research coordination in the Arab region.

Safaa Kumari (*ICARDA, Lebanon*)

13.50-14.00 **SE19 C12** International association for the plant protection sciences.

Geoff Norton (*University of Queensland, Australia*)



SKALKOTAS

11.30-14.00 Concurrent Session **20A**

Biopesticides and Biofertilizers

Chair: Sotiris Tjamos (*Agricultural University of Athens, Greece*)

11.30-11.50 **SE20 C01** *Bacillus velezensis* K165: a multitask biocontrol agent.

Sotiris Tjamos (*Agricultural University of Athens, Greece*)

11.50-12.10 **SE20 C02** How to combine *Trichoderma* spp. with sustainable peat alternatives.

Jane Debode (*EV-ILVO Plant, Belgium*)

12.10-12.30 **SE20 C03** Microbe-microbe interactions in the rhizosphere influence biocontrol activity of *Lysobacter capsici* AZ78 by modulating its metabolome and transcriptome.

Gerardo Puopolo (*University of Trento, Italy*)

12.30-12.50 **SE20 C04** Tomato-beneficial fungus-biotic stressor interaction: untagling the complex network of molecular mechanisms by -omics studies.

Silvia Proietti (*University of Tuscia, Italy*)

12.50-13.10 **SE20 C05** Synergism between biorationals and strategic low doses of DMI fungicides against important fruit crop diseases.

Guido Schnabel (*Plant and Environmental Sciences, Clemson University, USA*)

13.10-13.30 **SE20 C06** Biologicals in modern agricultural practices.

Stefan Tresch (*BASF SE, Germany*)

13.30-13.50 **SE20 C07** Enhancing legume and vegetable growth and health: harnessing microbial biostimulants.

Anastasia Tampakaki (*Department of Agriculture, School of Agricultural Sciences, Hellenic Mediterranean University, Greece*)



Scientific Program **Wednesday, 3 July**

MC2

11.30-14.00 **Concurrent Session 21**

Selected Highlights in Plant Protection

Chair: Maria Lodovica Gullino (*Coltivato, Italy*)

11.30-12.00 **SE21 C01** Advances in biological control.

Monica Hofte (*Plants And Crops, Ghent University, Belgium*)

12.00-12.30 **SE21 C02** Advances in pest management or ecosystem services.

Ramon Albajes (*Agrotecnio University of Lleida, Spain*)

12.30-13.00 **SE21 C03** Biosecurity issues, with special emphasis in the entomological sector.

Mariangela Ciampitti (*Plant Protection Service, Regione Lombardia, Italy*)

13.00-13.30 **SE21 C04** Career on both sides of the atlantic: memoirs of a molecular plant pathologist.

Nick Panopoulos (*University of Crete , Greece*)

13.30-14.00 **SE21 C05** Effect of climate change on plant diseases and their management.

Maria Lodovica Gullino (*Coltivato, Italy*) and **Massimo Pugliese** (*University of Torino, Italy*)



MC3

11.30-14.00 Concurrent Session 22

Management of Biological Invasions in a Changing World

Chair: Nikos T. Papadopoulos (*University of Thessaly, Greece*)

11.30-11.45 SE22 C01 Introduction to management of biological invasion.

Nikos T. Papadopoulos (*University of Thessaly, Greece*)

11.45-12.00 SE22 C02 Area wide management of fruit flies using the sterile insect technique to respond to invasive species.

Rui Pereira (*FAO/IAEA, Austria*)

12.00-12.15 SE22 C03 The invasion of the fall armyworm *Spodoptera frugiperda* (Lepidoptera: Noctuidae) in Europe: the situation in Greece.

Spyridon Antonatos (*Benaki Phytopathological Institute, Greece*)

12.15-12.30 SE22 C04 The ozone solution: tackling the invasive box tree moth.

Darija Lemic (*Department of Agricultural Zoology, University of Zagreb, Faculty of Agriculture, Croatia*)

12.30-12.45 SE22 C05 Post-harvest treatments to address invasive pests of fresh fruit commodities.

Lisa Neven (*USDA-ARS, USA*)

12.45-13.00 SE22 C06 The return of the khapra beetle: enemy at the gates.

Christos Athanassiou (*University of Thessaly, Greece*)

13.00-13.15 SE22 C07 A holistic approach in managing biological invasions in Europe: the fruit fly paradigm.

Nikos T. Papadopoulos (*University of Thessaly, Greece*)

13.15-13.30 SE22 C08 Invasive medfly propagules in mosaic landscapes: behavior, development, establishment and detection.

Slawomir Lux (*Insilico-IMP, UK*)

13.30-13.45 SE22 C09 Recent advance in biocontrol of key invasive horticultural and field crop pests in sub-saharan Africa: a vital tactic for their agroecological management under changing climate.

Samira Mohamed (*ICRPE, Kenya*)

13.45-14.00 SE22 001 Combined metabolome and transcriptome analysis reveal the mechanism of high temperature tolerance on *Spodoptera frugiperda* under global climate change.

Xiaorui Yan (*China Agricultural University, China*)

14.00-14.15 SE22 002 Fighting a good fight against an invasive pathogen through the boxwood blight insight group.

Chuanxue Hong (*Hampton Roads Agricultural Research and Extension Center, Virginia Tech, USA*)



Scientific Program Wednesday, 3 July

CONFERENCE I

11.30-14.00 Concurrent Session **18B**

Fungicide Resistance: Diagnosis, Risk Assessment and Management, Integrated Pest Management

Chair: **George Karaoglanidis** (*Aristotle University, Greece*)

Dolores Fernandez Ortuno (*University of Málaga, Spain*)

11.30-11.50 **SE18 C06** Use of bacillus amyloliquefaciens QST713 and Clonostachys rosea IK726 as biocontrol agents to control multidrug resistant strains of Botrytis cinerea.
George Karaoglanidis (*Aristotle University, Greece*)

11.50-12.10 **SE18 C07** Overview of the fungicide sensitivity status of barley pathogens in Europe.
Gerd Stammler (*BASF SE, Germany*)

12.10-12.30 **SE18 C08** Status of resistance development of important potato pathogens in Europe.
Juergen Derpmann (*Bayer AG, CropScience Division, Germany*)

12.30-12.50 **SE18 C09** Unraveling the molecular basis of DMI resistance in Cercospora beticola.
Melvin Bolton (*USDA - ARS, USA*)

12.50-13.10 **SE18 C10** RNA interference, a novel strategy to be incorporated into integrated pest management programs for the cucurbit powdery mildew control.
Dolores Fernandez Ortuno (*University of Málaga, Spain*)

13.10-13.25 **SE18 C11** Characterization of a novel MFS transporter in Botrytis cinerea that confers partial resistance to boscalid and fluopyram.
George Sofianos (*School of Agriculture, Aristotle University of Thessaloniki, Greece*)

13.25-13.40 **SE18 C12** Toward understanding mechanisms of fungicide resistance in dollar spot (causal fungus: Clarireedia jacksonii, formerly Sclerotinia homoeocarpa) on golf course.
Geunhwa Jung (*University of Massachusetts, USA*)

13.40-14.00 **SE18 C13** Four point mutations in vacuolar H⁺-ATPase subunit A confer fluopicolide resistance in Phytophthora capsici.
Xili Liu (*College of Plant Protection, China Agriculture University, China*)

14.00-15.00 Light Lunch - POSTER SESSION



BANQUET

Chair: **Sunday Ekesi** (*ICIPE, Kenya*)
Dimitris Tsitsigiannis (*Agricultural University of Athens, Greece*)

15.00-15.30 Plenary Lecture

K06 Molecular diagnostics for rational use of pesticides and resistance management of agricultural pests

John Vontas (*Agricultural University of Athens, Greece*)

15.30-16.00 Plenary Lecture

K07 Microbial pesticides: discovery, piloting and scaling up in Africa

Sunday Ekesi (*ICIPE, Kenya*)

16.00-16.30 Plenary Lecture

K08 Cross-kingdom RNA trafficking between plants and fungal pathogens

Hailing Jin (*University of California Riverside, USA*)

16.30-17.30 Satellite Symposium

BASF Axalion® active: redefining modern sustainable Piercing® sucking insect control

Chair: Agnieszka Sylwia Baker (*BASF, European Senior Specialist Brand Management & Internal Communication*)

Axalion® Active: redefining modern sustainable piercing & sucking insect control

Desirée Hodges (*Senior Research Scientist - BASF*)

Efficacy of the insecticide dimpropyridaz (Axalion®) against the transmission of plant viruses by insect vectors

Prof. Alberto Ferreres (*Department of Crop Protection-CSIC, Spain*)

Impacts of insecticides on the corn leafhopper and transmission of corn stunt spiroplasma

Prof. João Roberto Spotti Lopes (*Department of Entomology and Acarology, ESALQ, Brazil*)

Questions & answers



17.30-18.00 Coffee Break - POSTER SESSION



Scientific Program **Wednesday, 3 July**

BANQUET

18.00-20.30 **Concurrent Session 23**

Plant health phytiatry

Chair: Eris Tjamos (*Hellenic Society of Phytiatry, Greece*)

Amanda Hodges (*Entomology and Nematology Department, University of Florida, USA*)

Jeffrey Bradshaw (*Entomology / Doctor of Plant Health, University of Nebraska, USA*)

18.00-18.20 **SE23 C01** Seeding the future: education of practitioners in plant health.

Jeffrey Bradshaw (*Entomology / Doctor of Plant Health, University of Nebraska, USA*)

18.20-18.40 **SE23 C02** DPM-interns and opportunities for interdisciplinary plant health solutions.

Amanda Hodges (*Entomology and Nematology Department, University of Florida, USA*)

18.40-19.00 **SE23 C03** Plant doctor: an expert of agroenvironmental systems needed for one health.

Dimitris Tsaltas (*University of Technology, Cyprus*)

19.00-19.20 **SE23 C04** One Health: a new perspective to highlight the successes of plant health and the need for a new qualification in this field.

Ramon Albajes (*Agrotecnio University of Lleida, Spain*)

19.20-19.40 **SE23 C05** Phytiatrics and environment as a master of science: a vanguard in crop protection.

Christos Athanassiou (*University of Thessaly, Greece*)

19.40-19.55 **SE23 C06** Plant health erasmus mundus joint master degree at six universities in Europe international, applied, system-and research oriented.

Susanne Weigand (*Plant Pathology and Protection, Georg - August University Göttingen, Germany*)



SKALKOTAS

18.00-20.50 Concurrent Session 20B

Biopesticides and Biofertilizers

Chair: Sotiris Tjamos (*Agricultural University of Athens, Greece*)

- 18.00-18.15 SE20 001** Development of RNA-based fungicides against Fusarium diseases of cereals.
Pratyush Ravichander (*The University of Queensland, Australia*)
- 18.15-18.30 SE20 002** *Burkholderia* spp. SSG - a safe and powerful broad-spectrum biocontrol agent and biofertilizer.
Ping Kong (*Hampton Roads Agricultural Research and Extension Center, Virginia Tech, USA*)
- 18.30-18.45 SE20 003** Oligonucleotide Insecticides: Low-Cost Innovation for Eco-Friendly Aphid Control and an Asymptote for Current Chemical Insecticides.
Vol Oberemok (*Molecular Genetics and Biotechnologies, V.I. Vernadsky Crimean Federal University, Russia*)
- 18.45-19.00 SE20 004** Potential effects of an organic biostimulant on ZYMV transmission and infection in *Cucurbita pepo* L.
Carla Libia Corrado (*Council for Agricultural Research and Economics, Research Centre for Plant Protection and Certification, Italy*)
- 19.00-19.15 SE20 005** *Fusarium oxysporum* FO 12 stimulates dicot plants grown on calcareous and non-calcareous soils.
Jesús Sevillano-Caño (*Department of Agronomy, University of Córdoba, Spain*)
- 19.15-19.30 SE20 006** Contrasting effects of seed treatment with fungal cell walls on tomato and Arabidopsis.
Robin Cowper (*Utrecht University, The Netherlands*)
- 19.30-19.45 SE20 007** Biocontrol with phages.
Christos Zamioudis (*Democritus University of Thrace, Greece*)
- 19.45-20.00 SE20 008** Exploring the mechanisms underlying the action of trimesan, an exopolysaccharide from *Trametes versicolor*, as plant resistance inducer in *Arabidopsis thaliana*.
Giovanna Gramegna (*Environmental Biology Department, Sapienza Università di Roma, Italy*)
- 20.00-20.10 SE20 009** Metabolomics: the tool of choice for the discovery of the mechanism(s) of action of biostimulants and biopesticides.
Maria Lappa (*Agricultural University of Athens, Greece*)
- 20.10-20.20 SE20 010** Antagonistic microorganisms and biostimulants for managing Fusarium wilt of tomato under greenhouse.
Paolo Valfrè (*University of Turin, Italy*)
- 20.20-20.30 SE20 011** Efficacy of novel biofungicides in controlling powdery mildew in vineyards.
Panagiota Karantoni (*Department of Crop Science, Laboratory of Plant Pathology, Agricultural University of Athens, Greece*)
- 20.30-20.40 SE20 012** Adoption of use of biological nematicides.
Becky Westerdahl (*University of California, Davis, Greece*)
- 20.40-20.50 SE20 013** Coming of age: biostimulants and biocontrols in agriculture to combat the climate crisis and secure food supply, an R&D perspective
Konstantinos Aliferis (*Agricultural University of Athens, Greece*)



Scientific Program **Wednesday, 3 July**

MC2

18.00-20.30 **Concurrent Session 24**

Emergent Forest Diseases in a Changing and Interconnected World

Chair: Matteo Garbelotto (*Department of ESPM, UC Berkeley, USA*)

18.00-18.20 **SE24 C01** Novel, large-scale tree mortality in California is caused by latent pathogens triggered by climate change.

Matteo Garbelotto (*Department of ESPM, UC Berkeley, USA*)

18.20-18.40 **SE24 C02** Thousand cankers disease threatens juglans species across Europe: monitoring and control efforts for protecting EU uncontaminated areas.

Salvatore Moricca (*Dagri - Department of Agricultural, Food, Environmental and Forest Sciences and Technologies, University of Florence, Italy*)

18.40-19.00 **SE24 C03** Disease management in *Pinus radiata* plantations in Chile.

Rodrigo Ahumada (*Forest Management, ARAUCO-BIOFOREST, Chile*)

19.00-19.20 **SE24 C04** The panglobal plant pathogen *Phytophthora cinnamomi* threatens Mediterranean forest ecosystems.

Bruno Scanu (*Department of Agricultural Sciences, University of Sassari, Italy*)

19.20-19.40 **SE24 C05** Early detection, monitoring, and ecological modeling of forest pathogens support development of proactive forest health management strategies.

Patrick Bennett (*USDA Forest Service, USA*)

19.40-20.15 Round Table

**Baldissera Giovani, Salvatore Moricca, Rodrigo Ahumada,
Bruno Scanu, Patrick Bennett**



MC3

18.00-20.30 Concurrent Session 25

Emerging Pests with Relation Plant Biosecurity and Food Safety

Chair: Abraham Gamliel (*Aro Volcani Institute, Israel*)

James P. Stack (*Kansas State University, USA*)

18.00-18.20 SE25 C01 Plant health in the evolving One Health concept.

James Stack (*Kansas State University, USA*)

18.20-18.40 SE25 C02 Risk assessment, pest alerts and emergence: what determines the timelines?

Michael Jeger (*Imperial College London, UK*)

18.40-18.55 SE25 C03 A risk management framework for plant biosecurity.

Abraham Gamliel (*Aro Volcani Institute, Israel*)

18.55-19.10 SE25 C04 Developing an effective biosecurity system to address introduction of emerging pests.

Simon Mckirdy (*Murdoch University, Australia*)

19.10-19.25 SE25 C05 A plant disease complex: a plant parasitic nematode, free living nematodes and a fungus - reevaluating *Pratylenchus* disease etiology.

Sigal Braun Miyara (*Department of Entomology, Nematology and Chemistry Units, Agricultural Research Organization; Volcani, Center, Israel*)

19.25-19.40 SE25 C06 Emerging strains and their multi-trophic interactions threatening food safety and biosecurity.

Mohammad Arif (*University of Hawaii at Manoa, USA*)

19.40-19.50 SE25 001 The indispensable role of science in the Canadian food inspection agency's plant protection program.

David Nanang (*Science Branch, Canadian Food Inspection Agency, Canada*)

19.50-20.00 SE25 002 Population dynamics of the pathogen causing late blight of potato and tomato in Canada: historical perspectives and current trends.

Richard Peters (*Agriculture and Agri-Food Canada, Canada*)

20.00-20.10 SE25 003 Addressing biohazards of primary production in agriculture.

Anders Kvarnheden (*Department of Plant Biology, Swedish University of Agricultural Sciences, Sweden*)

20.10-20.20 SE25 004 Bean blossom thrip *Megalurothrips usitatus* directly causes the black-heads & -tail symptoms of cowpea along with producing insect-resistance flavonoids.

Zeng-Rong Zhu (*Institute of Insect Sciences, Zhejiang University, China*)

20.20-20.30 SE25 005 Status / shifting of pod borer, *Helicoverpa armigera* population trend in major legumes and other crops in India.

Jagdish Jaba (*Entomology, ICRISAT, India*)



Scientific Program **Wednesday, 3 July**

CONFERENCE I

18.00-20.30 **Concurrent Session 26**

Environmental Fate, Ecotoxicology, Risk Assessment, and Remediation of Pesticide Residues

Chair: Zisis Vryzas (*School of Agriculture, Aristotle University of Thessaloniki, Greece*)

- 18.00-18.20 **SE26 C01** Novel approaches in remediation of pesticide residues by biological systems.
Zisis Vryzas (*School of Agriculture, Aristotle University of Thessaloniki, Greece*)
- 18.20-18.40 **SE26 C02** Green approaches for pesticides control in agroindustrial effluents.
Carme Sans (*Chemical Engineering and Analytical Chemistry Department Universitat de Barcelona, Spain*)
- 18.40-19.00 **SE26 C03** Strategies to reduce fungicide residues and mycotoxins in winter cereals.
Lucía Pareja (*Cenur Litoral Norte, Universidad de la República, Uruguay*)
- 19.00-19.20 **SE26 C04** Tracking herbicide fate and behavior - a crucial puzzle piece for optimal horticulture production in sandy soils.
Ramdas Kanissery (*University of Florida, USA*)
- 19.20-19.40 **SE26 C05** Case of study: fungicide residues in barley grains and their relationship with physico-chemical properties and weather conditions
Maria Palladino (*Pdu. Estudios de Impactos del uso de agroquímicos, Uruguay*)



BANQUET

08.30-11.00 Concurrent Session 27A

Biological Control of Insect Crop Pests

Chair: Perdikis Dionisis (*Agricultural University of Athens, Greece*)

Michele Ricupero (*Agriculture, Food and Environmental Science, University of Catania, Italy*)

- 08.30-09.00 SE27 C01** Biological control of crop insects in the Mediterranean area: applications and perspectives.
Luciana Tavella (*Department of Agricultural, Forest and Food Sciences, Università degli Studi di Torino, Dipartimento di Scienze Agrarie e Alimentari, Italy*)
- 09.00-09.15 SE27 C02** Enhancing biological control of invasive stink bug, *Halyomorpha halys* by two exotic egg parasitoids.
Alberto Pozzebon (*Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padua, Italy*)
- 09.15-09.30 SE27 C03** Insecticide exposure affects foraging behaviour of the egg parasitoid *Trissolcus japonicus*.
Gabriele Rondoni (*Department of Agricultural, Food and Environmental Sciences, University of Perugia, Italy*)
- 09.30-09.45 SE27 C04** Learning in parasitoid wasps: what implications for biological control?
Giulia Giunti (*University of Salerno, Italy*)
- 09.45-10.00 SE27 C05** Parasitoids of major pests in field conditions: do we really know what they feed on?
Ainara Peñalver - Cruz (*Sustainable Plant Protection, IRTA, Spain*)
- 10.00-10.15 SE27 C06** Biological control and biotechnological approaches for controlling insect pests: a focus on olive tree protection.
Paula Baptista and José Alberto Pereira (*Instituto Politécnico de Bragança, Portugal*)
- 10.15-10.30 SE27 C07** Predation of *Macrolophus pygmaeus* and *Nesidiocoris tenuis* under different *Tuta absoluta* egg densities and distribution patterns in dishes and plants.
Perdikis Dionisis (*Agricultural University of Athens, Greece*)
- 10.30-10.45 SE27 C08** How can we exploit plant essential oils and natural enemies for greenhouse pest control?
Michele Ricupero (*Agriculture, Food and Environmental Science, University of Catania, Italy*)
- 10.45-11.00 SE27 001** Effect of nanoparticles loaded by hexythiazox and diafenthiuron on the control of two-spotted spider mite (*Tetranychus urticae* Koch)
Alizadeh Ali (*Rafsanjan University of Vali-e-As, Iran*)



Scientific Program Thursday, 4 July

SKALKOTAS

08.30-11.00 Concurrent Session 28

Sustainable Mycotoxin Management in a Climate Change Future

Chair: Dimitris Tsitsigiannis (*Agricultural University of Athens, Greece*)

Paola Battilani (*Università Cattolica del Sacro Cuore, Department of Sustainable Crop Production, Italy*)

- 08.30-09.00 **SE28 C01** Predictive modeling for a sustainable mycotoxin management in a changing climate.
Marco Camardo Leggieri, Paola Batilani and Dimitris Tsitsigiannis (*Faculty of Agriculture, Food and Environmental Sciences, Department of Sustainable Crop Production (DI.PRO.VE.S.), Università Cattolica del Sacro Cuore, Italy*)
- 09.00-09.25 **SE28 C02** Public private collaborative solutions for scaling aflatoxin biocontrol to address climate-aggravated aflatoxin challenges.
Alejandro Ortega-Beltran (*IITA, Nigeria*)
- 09.25-09.50 **SE28 C03** Population genomics unveils the evolution of adaptation in *Fusarium* head blight pathogens in response to agricultural practices and human migration.
Liu Taiguo (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)
- 09.50-10.10 **SE28 001** Conventional vs. organic farming system: black *Aspergilli* population structure, mycotoxigenic capacity and mycotoxin contamination assessment in greek wines.
Stefanos Testempasis (*Aristotle University of Thessaloniki, Greece*)
- 10.10-10.30 **SE28 002** Application of mushroom' metabolites against mycotoxin production by *Fusarium* spp.
Marzia Beccaccioli (*Sapienza University of Rome, Italy*)



MC2

08.30-11.00 Concurrent Session 29A

Improving Resistance - Key to Meet Future Challenges - Plant Breeding

Chair: Frank Ordon (*Julius Kühn Institute, Germany*)

08.30-08.50 SE29 C01 Genetic improvement of the resistance of cereal cultivars in relation to the population dynamics of the fungal pathogens.

Thomas Miedaner (*State Plant Breeding Institute, University of Hohenheim, Germany*)

08.50-09.10 SE29 C02 Dissecting wheat-Septoria interactions.

Kostya Kanyuka (*Plant Pathology, National Institute of Agricultural Botany (NIAB), UK*)

09.10-09.30 SE29 C03 Identification of new sources of resistance in asparagus (*Asparagus officinalis*) and pea (*Pisum sativum*) and what is important for successful resistance breeding.

Janine König (*Institute for Breeding Research on Horticultural Crops, Julius Kühn-institute, Germany*)

09.30-09.50 SE29 C04 Phomopsis seed decay of soybean: pathogen characterization, germplasm evaluation, and development of improved soybean lines with resistance.

Shuxian Li (*Crop Genetics Research Unit, USDA, ARS, USA*)

09.50-10.10 SE29 C05 Status, difficulties and prospects for improving resistance in apple from a german perspective.

Henryk Flachowsky (*Julius Kühn-Institute (JKI) - Federal Research Centre for Cultivated Plants, Germany*)

10.10-10.30 SE29 C06 New disease-resistant grapevine varieties for a more sustainable viticulture.

Oliver Trapp (*Institute for Grapevine Breeding, Julius Kuehn Institute, Germany*)



Scientific Program **Thursday, 4 July**

MC3

08.30-11.00 **Concurrent Session 30**

Microbial Interactions in Ecosystems: Negative or Positive Consequences on Plant Health

Chair: Rey Patrice (*Institute of Analytical Sciences and Physico-Chemistry for Environment and Materials (CNRS-UPPA) / University of Pau, France*)

Stéphane Compant (*AIT Austrian Institute of Technology, Austria*)

- 08.30-08.50 **SE30 C01** Bacteria-fungi interactions and impacts on plant growth and health.
Stéphane Compant (*Ait Austrian Institute of Technology, Austria*)
- 08.50-09.10 **SE30 C02** Bacteria associated with wood tissues in grapevines: functional diversity and synergy with *Fomitiporia mediterranea* to degrade wood components.
Rana Haidar (*IPREM, France*)
- 09.10-09.30 **SE30 C03** Antagonistic modes of action of grapevine bacteria to control the fungal pathogen *Fomitiporia mediterranea*.
Ouiza Mesguida (*IPREM and GreenCell, France*)
- 09.30-09.45 **SE30 001** Cultural management of Armillaria root rot in peach orchards.
Guido Schnabel (*Plant and Environmental Sciences, Clemson University, USA*)
- 09.45-10.00 **SE30 002** Impact of cropping practices on the incidence and severity of potato common scab.
Richard Peters (*Agriculture and Agri-Food Canada*)
- 10.00-10.15 **SE30 003** Rest material from the potato industry: inactivation of the resting spores of *Synchytrium endobioticum*, causal agent of potato wart.
Gerard Van Leeuwen (*Nivip, Netherlands Plant Protection Org, The Netherlands*)
- 10.15-10.30 **SE30 004** Cylindrocarpon-like fungi causing ginseng root diseases in Northeast China.
Lu Xiaohong (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)
- 10.30-10.45 **SE30 005** The impact of glufosinate ammonium and glyphosate application to the soil fungal diversity and population dynamics.
Mohamed Maizatul-Suriza (*Malaysian Palm Oil Board, Malaysia*)
- 10.45-11.00 **SE30 006** State of the art on the kwifruit vine decline syndrome in Italy.
Davide Spadaro (*University of Turin, Italy*)



CONFERENCE I

08.30-11.00 **14th IVS 1**

Recent Advances in Verticillium Biology through Genomics

Chair: Krishna Subbarao (*Plant Pathology, University of California, Davis, USA*)

- 08.30-08.55 **SE01-14th IVS C01** Mechanism of cotton leaf defoliation caused by *Verticillium dahliae* defoliating strain.
Xiaoping Hu (*Plant Pathology, Northwest A&F University, China*)
- 08.55-09.20 **SE01-14th IVS C02** Molecular insights into the *Verticillium dahliae* - smoke tree interactions.
Chen Tang (*Forestry College, Beijing Forestry University, China*)
- 09.20-09.45 **SE01-14th IVS C03** Secretome: the miraculous arsenal of *Verticillium dahliae* during host infection.
Dandan Zhang (*Institute of Plant Protection, Chinese Academy of Agriculture Science, China*)
- 09.45-10.10 **SE01-14th IVS C04** Comparative genomics distinguishes microsclerotia-producing and non-microsclerotia-producing *Verticillium* species.
Steve Klosterman (*USDA ARS, USA*)
- 10.10-10.30 **SE01-14th IVS 001** The KSS1 of *Verticillium dahliae* regulates virulence, microsclerotia formation, and nitrogen metabolism.
Wenwen Li (*Beijing Forestry University, China*)
- 10.30-10.50 **SE01-14th IVS 002** Unraveling the role of mitochondrial EF-TU in the pathogenesis and heat stress adaptation of the vascular pathogen *Verticillium dahliae*.
George Patsis (*Agricultural University of Athens, Greece*)

11.00-11.30 **Coffee Break - POSTER SESSION**



Scientific Program **Thursday, 4 July**

BANQUET

11.30-14.00 **Concurrent Session 27B**

Biological Control of Insect Crop Pests

Chair: Perdikis Dionisis (*Agricultural University of Athens, Greece*)

Michele Ricupero (*Agriculture, Food and Environmental Science, University of Catania, Italy*)

11.30-11.45 **SE27 002** Taxonomic study of aphids (Aphididea: Homoptera) from Punjab, Pakistan.

Muhammad Tayyib (*University of Agriculture, Faisalabad, Pakistan*)

11.45-12.00 **SE27 003** International plant protection congress: healthy plant support human welfare

John Egbe Egbede (*College Of Education, Nigeria*)

12.00-12.15 **SE27 C09** Estimating predation rates for arthropod predators using molecular gut content data.

David Andow (*Applied Ecology, NCSU, USA*)

12.15-12.30 **SE27 C10** Assessing the benefits and risks of non-indigenous biological control agents for the EPPO region.

Rob Tanner (*EPPO, France*)

12.30-12.45 **SE27 004** Spread of an invasive aphid species on apricots in Europe and its control.

Urban Spitaler (*Laimburg Research Centre, Italy*)

12.45-13.00 **SE27 005** Biodegradable biopolymeric containing nano-clay for encapsulation of entomopathogenic fungi via drying process.

Barud Hernane (*UNIARA, Brazil*)



SKALKOTAS

11.30-14.00 Concurrent Session 31

Tropical Pest Management - Challenges in the Post-Covid World

Chair: Trevor Jackson (*AgResearch, Lincoln Research Centre, New Zealand*)

Sulav Paudel (*AgResearch, Lincoln Research Centre, New Zealand*)

Souleymane Nacro (*INERA, France*)

- 11.30-11.45 **SE31 C01** Tropical pest management - challenges in the post-covid world.
Sulav Paudel and Trevor Jackson (*AgResearch, Lincoln Research Centre, New Zealand*)
- 11.45-12.00 **SE31 C02** Rethinking IPM - challenges and opportunities for implementation and scaling in Africa.
Thomas Dubois (*International Centre of Insect Physiology and Ecology (ICIPE), France*)
- 12.00-12.15 **SE31 C03** Challenges in managing sporadic subtropical pests - a case of desert locusts in Eastern Africa.
Alexandre Latchininsky (*Plant Production and Protection Division, Food and Agriculture Organization of The United Nations, Italy*)
- 12.15-12.30 **SE31 C04** Farmer-oriented and science-driven plant health management for West Africa.
Manuele Tamò (*IITA, Benin*)
- 12.30-12.45 **SE31 C05** Improving biodiversity for resilient rice-based ecosystems: sustainable strategies for plant health and climate adaptation in Cambodia.
Nurmi Pangesti (*International Rice Research Institute (IRRI), Cambodia*)
- 12.45-13.00 **SE31 C06** Challenges and opportunities in implementing vegetable IPM in Africa.
Srinivasan Ramasamy (*Safe and Sustainable Value Chains, World Vegetable Center, Taiwan*)
- 13.00-13.15 **SE31 C07** Navigating challenges in biopesticide utilization for tropical pest management: lessons from the Americas and beyond.
Laura Villamizar (*Microbial Solutions, AgResearch Ltd., New Zealand*)
- 13.15-13.30 **SE31 001** Integrating late blight management strategies in potato production for enhanced efficacy and sustainability.
Kalpana Sharma (*Potato Agrifood System, International Potato Center, Kenya*)
- 13.30-13.45 **SE31 002** Population dynamics of fall armyworm (Lepidoptera: Noctuidae) on maize fields in Uganda.
Angella Lowra Ajam (*National Agricultural Research Organisation, Uganda*)
- 13.45-14.00 **SE31 003** Effectiveness of various systemic and biological fungicides against coffee leaf rust in Hawaii.
Zhiqiang Cheng (*Plant and Environmental Protection Sciences, University of Hawaii at Manoa, USA*)
- 14.00-14.15 **SE31 004** The population biology, predation and competitiveness of two predatory mirids in rice ecosystems were asymmetrically effected by elevated temperature.
Zeng-Rong Zhu (*Institute of Insect Sciences, Zhejiang University, China*)

Scientific Program Thursday, 4 July

MC2

11.30-14.00 Concurrent Session **29B**

Improving Resistance - Key to Meet Future Challenges - Plant Breeding

Chair: Frank Ordon (*Julius Kühn Institute, Germany*)

- 11.30-11.50 **SE29 C07** Improving resistance level to important phytopathogenic fungi in winter wheat - what we can learn for the future from 50 years of breeding history?
Andreas Stahl (*Institute for Resistance Research and Stress Tolerance, Julius Kühn-institut, Germany*)
- 11.50-12.10 **SE29 001** Consequences of management practices on distribution of russian wheat aphid, *Diuraphis noxia*, in wheat production areas of South Africa.
Astrid Jankielsohn (*ARC-Small Grain, South Africa*)
- 12.10-12.30 **SE29 002** Virulence diversity of *Puccinia triticina* in South Africa and the response of wheat cultivars and breeding lines to new races.
Tarekegn Terefe (*Agricultural Research Council-Small Grains, South Africa*)
- 12.30-12.50 **SE29 003** Studies on the identification of resistance to *Fusarium oxysporum* in different genetic backgrounds of *Asparagus officinalis* and its defense responds.
Julia Jacobi (*Institute for Breeding Research on Horticultural Crops, Julius Kühn-Institut, Germany*)
- 12.50-13.10 **SE29 004** Comparative transcriptome analysis of *Synchytrium endobioticum*, pathotype 18(T1), to understand pathogenicity behavior on resistant, tolerant and susceptible potato varieties.
Theoni Margaritopoulou (*Benaki Phytopathological Institute, Greece*)
- 13.10-13.30 **SE29 005** Managing oil palm basal stem rot disease through selection of oil palm resistant materials as part of integrated Ganoderma management.
Mohd Hefni Rusli (*Malaysian Palm Oil Board, Greece*)
- 13.30-13.50 **SE29 006** The strawberry - *Botrytis cinerea* interaction: from flower to fruit.
Barbara de Coninck (*Ku Leuven, Belgium*)



MC3

11.30-14.00 Concurrent Session 32

Eco-Epidemiological and Pathobiome Perspectives on Diseases Caused by Mycotoxigenic Fungi

Chair: Antonio Moretti (*Institute of Sciences of Food Production of Research National Council, CNR-ISPA, Italy*)

Slavica Stojkov (*Maize Research Institute of Belgrade, Serbia*)

- 11.30-11.50 SE32 C01** Pathogenicity, mycotoxin profile and genetics, of phytopathological and toxicological *Alternaria* species, a "farm to fork" global concern.
Mario Masiello (*Institute of Sciences of Food Production - National Research Council, Italy*)
- 11.50-12.10 SE32 C02** Characterization of mycotoxigenic *Fusarium fujikuroi* species complex pathogens on small grain in Serbia.
Iva Savic (*University of Agriculture Belgrade, Serbia*)
- 12.10-12.30 SE32 C03** Uncovering the antifungal and antimycotoxin mechanisms of stilbenoids against *Fusarium graminearum* via comprehensive omics integration.
Tran Minh Trang (*Ghent University, Belgium*)
- 12.30-12.50 SE32 001** Pistachio fruit contamination with aflatoxins in California: sensitivity analysis and verification.
M.Teresa Garcia-Lopez (*Agronomy, CSIC, Spain*)
- 12.50-13.10 SE32 002** Exploring biocontrol potential of greek non-aflatoxigenic *Aspergillus flavus* isolates in aflatoxins mitigation: insights into population dynamics.
Maria Varveri (*Agricultural University of Athens, Greece*)



Scientific Program Thursday, 4 July

CONFERENCE I

11.30-14.00 **14th IVS 2**

Recent Advances in Verticillium Wilt Management

Chair: **Krishna Subbarao** (*Plant Pathology, University of California, Davis, USA*)

Franco Nigro (*Soil, Plant and Food Sciences, University of Bari Aldo Moro, Italy*)

- 11.30-11.50 **SE02-14th IVS C01** Integrated management of the smoke tree wilt.
Yonglin Wang (*Beijing Forestry University, China*)
- 11.50-12.10 **SE02-14th IVS C02** Nitrogen dioxide fumigation reduces the viability of *Verticillium dahliae* and *Peronospora effusa* in spinach seeds.
Steve Klosterman (*USDA ARS, USA*)
- 12.10-12.30 **SE02-14th IVS C03** Do we define races on the basis of single Avr genes or on their phylogenetic lineage?
Krishna Subbarao (*Plant Pathology, University of California, Davis, USA*)
- 12.30-12.50 **SE02-14th IVS C04** Response to *Verticillium dahliae* infection in a genetically related set of olive cultivars : preliminary results.
Franco Nigro (*Soil, Plant and Food Sciences, University of Bari Aldo Moro, Italy*)
- 12.50-13.10 **SE02-14th IVS C05** Essential oils as a new approach to manage Verticillium wilt of tomato, eggplant, and olive under controlled conditions.
Franco Nigro (*Soil, Plant and Food Sciences, University of Bari Aldo Moro, Italy*)
- 13.10-13.30 **SE02-14th IVS C06** Root exudates and soil bacteria are antagonistic regulators of dormancy and germination in *Verticillium longisporum* microsclerotia.
Sarenqimuge Sarenqimuge (*Plant Pathology and Crop Protection, University Goettingen, Germany*)
- 13.30-13.50 **SE02-14th IVS 001** Biological control of *Verticillium dahliae* using endophytic rhizobacteria from olive roots.
Loukas Dumanis (*Agricultural University of Athens, Greece*)

14.00-15.00 **Light Lunch - POSTER SESSION**



Scientific Program **Thursday, 4 July**

BANQUET

Chair **Emmanuel Tamo** (*IITA Benin*)
Trevor Jackson (*Agresearch, New Zealand*)

15.00-15.30 Plenary Lecture

K09 Food security in Africa needs policy support for sustainable plant health management

Christian Borgemeister (*University of Bonn, Germany*)

15.30-16.00 Plenary Lecture

K10 Weed management challenges and opportunities to close yield and profitability gaps in smallholder rice production in Asia

Virender Kumar (*IRRI, Philippines*)

16.00-16.30 Plenary Lecture

K11 Coordinated approach for transboundary plant pest and disease management

Fazil Dusunceli (*FAO, Turkiye*)

16.30-17.00 Satellite Lecture

How biologicals can support the transition to regenerative agriculture systems

Chair: **Kostas Ikonomidis** (*CP Marketing & Technical Head Mediterranean, Syngenta*)

Fotis Andrinopoulos (*Business Sustainability & Stewardship Lead Mediterranean, Syngenta*)

Speaker: **Marco Piscicelli** (*Biostimulants Technical Expert*)



17.00-17.30 Satellite Lecture

Reklemel active: a novel tool for integrated nematode management - key learnings from a global nematicide development project

Chair: **Emmanuel Tzortzakakis** (*ELGO -DIMITRA, Greece*)

Speaker: **Yiannis Stamatias** (*Zonal Biology Program Leader, EMEA Field Sciences R&D*)



17.30-18.00 Coffee Break - POSTER SESSION

Scientific Program **Thursday, 4 July**

BANQUET

18.00-20.30 Concurrent Session 33

Unveiling Nature's Arsenal: The Role of Volatile Compounds in Plant Protection

Chair: Nutan Kaushik (*Food and Agriculture Foundation, Amity University, India*)

Vicente González (*4Centro de Investigación y Tecnología Agroalimentar, Spain*)

Naceur Djebali (*Centre de Biotechnologie, Technopole Borj Cédria, Tunisia*)

18.00-18.20 SE33 C01 Volatile compounds in post-harvest preservation.

Nutan Kaushik (*Food and Agriculture Foundation, Amity University, India*)

18.20-18.40 SE33 C02 Harnessing endophytic bacteria as a source of volatile antifungal compounds for post harvest disease control.

Naceur Djebali (*Centre de Biotechnologie, Technopole Borj Cédria, Tunisia*)

18.40-18.55 SE33 C03 Role of push-push companion plant volatiles in the management of the invasive fall armworm (*Spodoptera frugiperda*) pest.

Tamiru Amanuel (*ICIPE, Kenya*)

18.55-19.10 SE33 C04 Potential of selected essential oils for the control of the European truffle beetle (*Leiodes cinnamomeus*).

Vicente González (*4Centro de Investigación y Tecnología Agroalimentar, Spain*)

19.10-19.25 SE33 C05 Metabolomic and agronomic clustering of bioactive essential oils from cultivated Spanish aromatic plants.

Juliana Navarro-Rocha (*Agri-Food Research and Technology Centre of Aragon (cita), Spain*)

19.10-19.25 SE33 C06 Comparison of extraction methods for the determination of essential oil content, composition and antifungal activity of different plant species.

Juliana Navarro - Rocha (*Agri-Food Research and Technology Centre of Aragon (cita), Spain*)

19.40-19.55 SE33 C07 Volatile compounds of *Bacillus siamensis* NKIT9 inhibits the mycelia growth of *Rhizoctonia solani*.

Ayushi Sharma (*Amity University, India*)



SKALKOTAS

18.00-20.30 Concurrent Session 34

Advances in Biosecurity Measures for Emerging and Invasive Pests

Chair: Rajan Sharma (*ICRISAT, India*)

Lava Kumar (*IITA, Ibadan, Nigeria*)

18.00-18.20 SE34 C01 Biosecurity for food security: safeguarding crop genetic resources from invasive biological threats.

Rajan Sharma (*ICRISAT, India*)

18.20-18.40 SE34 C02 Remote sensing and AI tools for enhancing biosecurity measures: the case of banana mapping and BBTV surveillance in sub-saharan Africa.

Lava Kumar (*IITA, Ibadan, Nigeria*)

18.40-18.50 SE34 C03 Role of research laboratory accredited with ISO / IEC 17025: 2017 to foster biosecurity and biosafety: case study in Northern Italy.

Monica Mezzalama (*University of Turin, Italy*)

18.50-19.00 SE34 C04 The International Potato Center (CIP) - Germplasm Health Unit (GHU) safeguarding genetic resources from emerging pests for the future.

Giovanna Muller (*Research Support Unit, International Potato Center, Peru*)

19.00-19.10 SE34 C05 Management of emerging and invasive pests of food legumes and cereals germplasm in cwana region.

Saffa Kumari (*ICARDA, Lebanon*)

19.10-19.20 SE34 001 Revisit a case of fresh tablestock intercepted in CFIA regulatory action.

Li Xiang (*Canadian Food Inspection Agency, Canada*)

19.20-19.30 SE34 002 Using pheromone and smart traps to control *Lymantria dispar* in European countries.

Paraskevi Agrafioti (*University of Thessaly, Greece*)



Scientific Program **Thursday, 4 July**

MC2

18.00-20.30 **Concurrent Session 35**

Chemical Ecology and Biological Control

Chair: Antonino Cusumano (*University of Palermo, Italy*)

Panos Milonas (*Benaki Phytopathological Institute, Greece*)

- 18.00-18.15** **SE35 C01** Plant-plant communication via volatiles. Unexplored phenomenon of plant resistance to pests.
Velemir Ninkovic (*Ecology, Swedish University of Agricultural Sciences, Sweden*)
- 18.15-18.30** **SE35 C02** Friends or foes? Use of host and host plant-derived volatiles by an olive fruit fly parasitoid.
Giannoula (Anni) Bogka (*Laboratory of Genetics, Wageningen University & Research, The Netherlands*)
- 18.30-18.45** **SE35 C03** Effects of nectar-inhabiting bacteria on parasitoids' longevity.
Evgenia Sarakatsani (*Department of Agricultural, Food and Forest Sciences, Università degli Studi di Palermo, Italy*)
- 18.45-19.00** **SE35 C04** Using chemical diversity approaches to control pollen beetle (*Brassicogethes aeneus*) and Colorado potato beetle (*Leptinotarsa decemlineata*).
Torsten Meiners (*Julius Kuehn Institute (JKI), Federal Research Centre for Cultivated Plants, Germany*)
- 19.00-19.15** **SE35 C05** Oviposition induced plant volatiles prime *Brassica napus* defence responses.
Foteini Paschalidou (*INRAE, UMR Agronomie, France*)
- 19.15-19.30** **SE35 C06** What makes larval oral secretion of the Mediterranean corn borer so attractive to its parasitoid?
Taiadjana Marques Fortuna (*IRD, Lab EGCE, France*)
- 19.30-19.45** **SE35 C07** Regulation of sorghum defenses to insect pests.
Joe Louis (*Department of Entomology & Department of Biochemistry, University of Nebraska-Lincoln, USA*)
- 19.45-20.00** **SE35 001** Potential of selected wild plants for use in conservation biological control of tomato insect pests.
Myrto Barda (*Benaki Phytopathological Institute, Greece*)
- 20.00-20.10** **SE35 002** Abelia × Grandiflora as potential functional banker plant for conserving biocontrol in rice ecosystem.
Zeng-Rong Zhu (*Institute of Insect Sciences, Zhejiang University, China*)



MC3

18.00-20.30 Concurrent Session 36

Challenges in Sustainable Plant Disease Management in a Changing Climate

Chair: Jay Ram Lamichhane (*INRAE, France*)

Emilia Markellou (*Benaki Phytopathological Institute, Greece*)

18.00-18.15 SE36 C01 Influence of climate change on Fusarium head blight and associated mycotoxins.

Stephen Wegulo (*Plant Pathology, University of Nebraska, USA*)

18.15-18.30 SE36 C02 Can mathematical models support grapevine disease management under climate change?

Vittorio Rossi and Giorgia Fedele (*Università Cattolica del Sacro Cuore, Italy*)

18.30-18.45 SE36 C03 Managing soilborne disease complexes of annual forage legumes in a changing climate.

Martin J. Barbetti (*School of Agriculture and Environment and the UWA Institute of Agriculture, University of Western Australia, Australia*)

18.45-19.00 SE36 C04 NEM-EMERGE: tackling the emergence of tropical root knot nematodes in Europe.

Daniel Bebber (*Department of Biosciences, University of Exeter, UK*)

19.00-19.15 SE36 001 Challenges facing U.S. cotton production: a focus on pathogens and nematodes.

Kaitlyn Bissonnette (*Cotton Incorporated, USA*)

19.15-19.30 SE36 002 Trichoderma ear rot - effect of temperature and precipitation on a new emerging disease of maize in Europe.

Annette Pfordt (*Georg-August Universität Göttingen, Germany*)

19.30-19.40 SE36 003 Key infection stages defending heat stress in high temperature resistant *Blumeria graminis* f. sp. *tritici*.

Fan Jieru (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)

19.40-19.50 SE36 004 Investigating *Colletotrichum* spp. from Greece for growth under different temperatures and their virulence on flowers and fruits of olive cultivars.

Aliki Tzima (*Agricultural University of Athens, Greece*)

19.50-20.00 SE36 005 Genetic structure and exchange of *Blumeria graminis* f. sp. *tritici* populations in China.

Liu Wei (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)

20.00-20.10 SE36 006 Identification of wheat stripe rust transport pathways and source apportionment for initial re-colonization on winter-wheat in Southern Henan of China.

Zhou Yilin (*Department of Plant Pathology, Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)



Scientific Program Thursday, 4 July

CONFERENCE I

18.00-20.30 **14th IVS 3**

Recent Advances in Verticillium Biology - Plant Interaction

Chair: Epaminondas Paplomatas (*Agricultural University of Athens, Greece*)

Aliki Tzima (*Agricultural University of Athens, Greece*)

- 18.00-18.20 **SE03-14th IVS 001** NLP Protein Family Member Overexpression Increases Virulence in *Verticillium dahliae*.
Epaminondas Paplomatas (*Agricultural University of Athens, Greece*)
- 18.20-18.40 **SE03-14th IVS 002** The role of 1-Aminocyclopropane-1-Carboxylic Acid (ACC) biosynthesis and degradation in the *Verticillium dahliae* - pepper interaction.
Bex Roos (*Department of Plants and Crops, Ghent University, Belgium*)
- 18.40-19.00 **SE03-14th IVS 003** Enhancing plant defense mechanisms: immunization effects of autoclaved *Verticillium dahliae* spores.
Maria Frantzeska Triviza (*Benaki Phytopathological Institute, Greece*)
- 19.00-19.15 **SE03-14th IVS 004** Examining the function of an F-box protein in *Verticillium dahliae* pathogenic behavior.
Aliki Tzima (*Agricultural University of Athens, Greece*)
- 19.15-19.30 **SE03-14th IVS 005** The VDSNF1 gene regulates virulence and metabolome of the wilt fungus *Verticillium dahliae* affecting its perception by the host plant.
Tragousti M. (*Agricultural University of Athens, Greece*)
- 19.30-19.45 **SE03-14th IVS 006** Plant xylem metabolite and starch dynamics in the *Verticillium dahliae* - pepper interaction.
Shirley Marcou (*Plants And Crops, Ghent University, Belgium*)
- 19.45-20.00 **SE03-14th IVS 007** Survival, persistence and infection efficiency of *Verticillium dahliae* passed through the digestive system of sheep.
Manolis Markakis (*Hellenic Mediterranean University, Greece*)



BANQUET

08.30-11.00 Concurrent Session 37A

Recent Advances in Plant Virology

Chair: Xueping Zhou (*Institute Of Plant Protection, Chinese Academy Of Agricultural Sciences, China*)

- 08.30-08.50 SE37 C01** Knock-out of the virus replication-related genes UBEF1B and CCR4/NOT3 by CRISPR/Cas9 confers high-efficiency and broad-spectrum resistance to geminiviruses.
Xueping Zhou (*Institute Of Plant Protection, Chinese Academy Of Agricultural Sciences, China*)
- 08.50-09.10 SE37 C02** Unravelling the plant manipulation by geminiviruses.
Rosa Lozano-Durán (*Center for Molecular Plant Biology (ZMBP), University of Tübingen, Germany*)
- 09.10-09.30 SE37 C03** Protein, lipid, and membrane interactions in positive-strand RNA virus genome replication.
Xiaofeng Wang (*School of Plant And Environmental Sciences, Virginia Tech, USA*)
- 09.30-09.50 SE37 C04** Occurrence, prevention and control of pepper virus diseases in China.
Fei Yan (*Institute of Plant Virology in Ningbo University, China*)
- 09.50-10.10 SE37 C05** Strength in division: the costs and benefits of a multipartite genome organization in plant viruses.
Mark Zwart (*Netherlands Institute of Ecology, The Netherlands*)
- 10.10-10.30 SE37 C06** dsRNA-mediated resistance against plant viruses.
Andreas Voloudakis (*Agricultural University of Athens, Greece*)
- 10.30-10.50 SE37 001** Investigating plant persistent viruses in chilli pepper.
Satish Bharathwaj Viswanathan (*Department of Plant Sciences, University of Cambridge, UK*)



Scientific Program Friday, 5 July

SKALKOTAS

08.30-11.00 Concurrent Session **38**

Precision Agriculture and Remote Sensing for Future Plant Disease Management

Chair: Spyros Fountas (*Agricultural University of Athens, Greece*)

- 08.30-08.50 SE38 C01** AI-driven prescription spraying maps: pioneering herbicide reduction in precision agriculture.
Spyros Fountas (*Agricultural University of Athens, Greece*)
- 08.50-09.05 SE38 C02** Optimizing crop protection: a comprehensive study of spraying drones in vineyards.
Vasilis Psiroukis (*Agricultural University of Athens, Greece*)
- 09.05-09.25 SE38 C03** Can spray application technological improvements contribute to pesticide use and risk-related reduction?
Marco Grella (*University of Turin, Italy*)
- 09.25-09.40 SE38 C04** Digital technologies for plant health, early detection, territory surveillance and phytosanitary measures.
Dimitris Tsitsigiannis (*Agricultural University of Athens, Greece*)
- 09.40-09.50 SE38 001** Synthetic data generation for enhanced weed and crop species detection.
Itziar Egusquiza (*Tecnalia, Basque Research and Technology Alliance, Spain*)
- 09.50-10.00 SE38 002** Precision weed management and crop cover analysis and weed identification in agriculture: using CNNs for enhanced practises.
Ioannis Glykos (*Agricultural University of Athens, Greece*)
- 10.00-10.10 SE38 003** Air-seq: a new tool for detecting airborne pathogens.
Mia Berelson (*Earlham Institute, UK*)
- 10.10-10.20 SE38 004** Early detection of Verticillium wilt of olive: analyzing the intact leaf spectra from the visible-near infrared range in the field.
María Teresa García-López (*Agronomy, CSIC, Spain*)
- 10.20-10.30 SE38 005** Testing innovative spraying systems for mitigating the impacts of *Lobesia botrana* (Denis & Schiff.).
Giorgio Sperandio (*Dipartimento di Scienze Agrarie, Alimentari e Ambientali, Department of Agricultural, Food and Environmental Sciences, Marche Polytechnic University, Italy*)
- 10.30-10.40 SE38 006** Hyperspectral detection of singular / interactive effects of simulated tree shading and *Alternaria alternata* infection on *Sorghum bicolor* under field conditions.
Lorenzo Pippi (*University of Pisa, IUSS Pavia, Italy*)
- 10.40-10.50 SE38 007** Machine learning techniques using airborne multispectral data for detection of infestation detection by *Xylotrechus chinensis* (Chevrolat) (Coleoptera: Cerambycidae) in Mulberries.
Antonis Tsagkarakis (*Agricultural University of Athens, Greece*)



MC2

08.30-11.00 Concurrent Session 39

Prevention and Sustainable Management of Transboundary Plant Pests

Chair: Fazil Dusunceli (*Food and Agriculture Organization, Turkey*)

- 08.30-08.50 SE39 C01** The Africa phytosanitary program: an IPPC experience in implementing standards to mitigate the spread of plant pests of regulatory significance.
Osama Elissy (*FAO, USA*)
- 08.50-09.10 SE39 C02** Regional approach to managing wheat rust diseases in central Asia and Caucasus through the FAO-Turkiye partnership programme.
Fazil Dusunceli (*Food and Agriculture Organization, Turkiye*)
- 09.10-09.30 SE39 C03** Approaches for rapid response to contain transboundary pest outbreaks: the case for banana bunchy top disease in Africa.
Lava Kumar (*IITA, Ibadan, Nigeria*)
- 09.30-09.50 SE39 C04** Key role of monitoring and early warning in prevention of transboundary plant pests: experiences in locust monitoring systems.
Alexandre Latchinsky (*Food And Agriculture Organization Of The United Nations, Italy*)
- 09.50-10.10 SE39 C05** FAO-SADC-EU collaborative efforts to deal with transboundary plant pests in the southern Africa region.
Mathew Abang (*FAO, Zimbabwe*)
- 10.10-10.30 SE39 C06** Addressing transboundary plant pest and disease challenges in Turkiye.
Suat Kaymak and Ayse Uysal Morca (*Department of Plant Health Research, General Directorate of Agricultural Research, Ministry of Agriculture and Forestry, Turkey*)
- 10.30-10.45 SE39 001** The potential of intercrops against fall armyworm, *Spodoptera frugiperda* (J.E. Smith) on maize under field conditions in India.
P. Lakshmi Soujanya (*Agricultural Entomology, ICAR Indian Institute of maize research., India*)



Scientific Program Friday, 5 July

MC3

08.30-11.00 Concurrent Session **40A**

Recent Advances in Vegetable IPM

Chair: **Ricardo Oliva** (*World Vegetable center, Taiwan*)

08.30-08.50 **SE40 001** Efficacy of soil biodisinfection with brassicaceae species for controlling *Fusarium oxysporum* f. sp. *lactucae* in lettuce crops.

Daniel Palmero (*Universidad Politécnica de Madrid, Spain*)

08.50-09.10 **SE40 C01** Challenges and prospects for implementing vegetable ipm in asia.

Srinivasan Ramasamy (*World Vegetable Center, Shanhua, Tainan, Taiwan*)

09.10-09.30 **SE40 C02** Vegetable grating, a potential IPM component for the management of soil-borne diseases of tomato in Ethiopia.

Wubetu B. Legesse (*World Vegetable Center, Ethiopia*)

09.30-09.50 **SE40 C03** Tracking soil-borne pathogens in the vegetable agroecosystem.

Ricardo Oliva (*World Vegetable Center, Taiwan*)

09.50-10.10 **SE40 C04** Enhancing plant defense mechanisms: integrating resistant varieties, biocontrol agents, and plant activators for sustainable southern blight management.

Lourena Maxwell (*World Vegetable Center, Taiwan*)



CONFERENCE I

08.30-11.00 14th IVS 4

Biological Control of Verticillium Wilt Pathogens

Chair: Ioannis Stringlis and Sotiris Tjamos (Agricultural University of Athens, Greece)

08.30-08.55 **SE04-14th IVS 001** Unveiling the efficacy: *Bacillus velezensis* K165 volatile organic compounds in Verticillium wilt biocontrol.

Eirini Poulaki (Agricultural University of Athens, Greece)

08.55-09.20 **SE04-14th IVS 002** Impact of *Fusarium oxysporum* FO12 on Fe acquisition and systemic resistance gene expression against *Verticillium dahliae*.

Jesús Sevillano-Caño (Department of Agronomy, University of Córdoba, Spain)

09.20-09.45 **SE04-14th IVS 003** Biological control of highly invasive *Ailanthus altissima* using *Verticillium nonalfalfae* isolate VERT56.

Benjamin Dauth (Boku University, Institute of Forest Entomology, Forest Pathology and Forest Protection, Austria)

09.45-10.10 **SE04-14th IVS 004** The tale of discovering a biocontrol agent against Verticillium wilt.

Vasilis Dimitrakas (Agricultural University of Athens, Greece)

10.10-10.35 **SE04-14th IVS 005** Assessment of rocket extract and rhizospheric microorganisms for managing Verticillium wilt in eggplants: insights into systemic resistance and biosynthetic profiling.

Sotiris Tjamos (Agricultural University of Athens, Greece)

11.00-11.30 Coffee Break - POSTER SESSION



Scientific Program Friday, 5 July

BANQUET

11.30-14.00 Concurrent Session **37B**

Recent Advances in Plant Virology

Chair: Xueping Zhou (*Institute Of Plant Protection, Chinese Academy Of Agricultural Sciences, China*)

- 11.30-11.50 **SE37 002** The -RNA of tobamo viruses encoded additional viral proteins.
Fangfang Li (*Institute of Plant Protection, China Academy of Agricultural Sciences, China*)
- 11.50-12.10 **SE37 003** RNA polymerase of potyvirids inhibit plant RNA quality control.
Fangfang Li (*Institute of Plant Protection, China Academy of Agricultural Sciences, China*)
- 12.10-12.30 **SE37 004** Wisteria vein mosaic virus: an evolutionary-based case study approach to trace the emergence of new virus threats.
Massimiliano Morelli (*CNR Istituto per la Protezione Sostenibile delle Piante, Italy*)
- 12.30-12.50 **SE37 005** Development of pathogen-mimicking artificial positive controls (pamapcs) and their application in diagnostics.
Ioannis Tzanetakis (*University of Arkansas System Division of Agriculture, USA*)
- 12.50-13.10 **SE37 006** Emerging viruses infecting pepper in Oklahoma.
Akhtar Ali (*The University of Tulsa, USA*)
- 13.10-13.30 **SE37 007** Plant viruses of the family potyviridae encode Viroporin.
Cheng Xiaofei (*College of Plant Protection, Northeast Agricultural University, China*)
- 13.30-13.50 **SE37 008** Evaluation of summer squash (*Cucurbita pepo* L.) for resistance against emerging criniviruses.
Bag Sudeep (*Plant Pathology, University of Georgia, USA*)



SKALKOTAS

11.30-14.00 Concurrent Session 41

Advances in Nematode Research and Plant Protection

Chair: Thomais Duarte (*South East Technological University, Ireland*)

Alexandros Dritsoulas (*Agricultural University of Athens, Greece*)

Giannis Giannakou (*Agricultural University of Athens, Greece*)

11.30-11.55 SE41 C01 An Investigation on the development of a combined plant health bio-agent using calcium alginate formulation.

Thomais Duarte (*South East Technological University, Ireland*)

11.55-12.15 SE41 C02 Metabarcoding survey supports specificity of EPN-*Paenibacillus* sp. association and identifies potential bacterial antagonists of diaprepes root weevil in a Florida citrus orchard.

Alexandros Dritsoulas (*Agricultural University of Athens, Greece*)

12.15-12.35 SE41 C03 New advancements in root-knot nematodes management using plant growth promoting rhizobacteria.

Giannis Giannakou (*Agricultural University of Athens, Greece*)

12.35-12.55 SE41 C04 Investigation of fluazaindolizine as a potential novel tool to manage *Xiphinema index*.

Emmanuel Tzortakakis (*ELGO-DIMITRA, Greece*)

Tim Thoden

12.55-13.15 SE41 001 Potential of biocides in the management of *Meloidogyne incognita* parasitizing beetroots.

Oluwatoyin Fabiyi (*University of Ilorin, Nigeria*)

13.30-13.45 SE41 002 Root-gall nematode management strategy on okra (*Abelmoschus esculentus*) with physicnut [*Jatropha Curcas* [L.] tannins.

Vincent Ogwudire (*Federal University of Technology Owerri, Imo, Nigeria*)



Scientific Program Friday, 5 July

MC2

11.30-14.00 Concurrent Session 42

Biological Plant Protection

Chair: Massimo Pugliese (*University of Torino, Italy*)

Danai Gkizi (*University of West Attica, Greece*)

- 11.30-11.45 **SE42 001** Integrated disease management of powdery and downy mildews on grape: recent results in Italy.
Massimo Pugliese (*University of Torino, Italy*)
- 11.45-12.00 **SE42 002** Biological control of *Botrytis cinerea* using commercial wine yeasts.
Danai Gkizi (*University of West Attica, Greece*)
- 12.00-12.15 **SE42 003** Prospectives of *Catenaria anguillulae* sorokin for biological control of plant parasitic nematodes.
Shyam Saran Vaish (*Banaras Hindu University, India*)
- 12.15-12.30 **SE42 004** Exploring the termicidal properties of clove (*Syzygium aromaticum*) and garlic (*Allium sativum*) against the subterranean termite, *Heterotermes indicola* (Isoptera: Rhinotermitidae).
Fazal Said (*Department of Entomology, Abdul Wali Khan University, Pakistan*)
- 12.30-12.40 **SE42 005** Use of entomopathogens and nano-particles for the sustainable management of red flour beetle, *Tribolium castaneum* (Tenebrionidae: Coleoptera).
Shahbaz Ahmad (*University of the Punjab, Pakistan*)
- 12.40-12.50 **SE42 006** Elicitor application in strawberry IPM results in long-term increase of plant resilience without yield loss.
Kirsten Leiss (*Wageningen University and Research, The Netherlands*)
- 12.50-13.00 **SE42 007** Successful cases of organic crop protection interventions demonstrated through farm science centers in Southern India.
Jv Prasad (*Icar-atari, Hyderabad, India*)
- 13.00-13.10 **SE42 008** *Trichoderma afroharzianum*: from biocontrol champion to emerging maize pathogen in Europe.
Annette Pfordt (*Georg-August Universität Göttingen, Germany*)
- 13.10-13.20 **SE42 009** Taxonomic study of assassin bugs (Reduviidae: Hemiptera) from Punjab, Pakistan.
Muhammad Tayyib (*University of Agriculture, Faisalabad, Pakistan*)
- 13.20-13.30 **SE42 010** Ozonated water application as promising tool for sustainable plant pathogens management in (edible) flower production.
Claudia Pisutzu (*Università di Pisa, Italy*)
- 13.30-13.40 **SE42 011** Characterization and management of root diseases of greenhouse cucumbers using cultural and biological methods.
Abdullah Al-Sadi (*Sultan Qaboos University, Oman*)
- 13.40-13.50 **SE42 012** The impact and dissipation of biocontrol products in soil microcosms using an untargeted metabolomic approach.
Christian Espinoza (*Sas. Akinao, France*)
- 13.50-14.00 **SE42 013** Incorporating omics and artificial intelligence to explore agricultural potential of *Lactococcus lactis* as biocontrol agent for sustainable rice farming.
Amalia Mohd Hashim (*Universiti Putra Malaysia, Malaysia*)



MC3

11.30-14.00 Concurrent Session 40B

Recent Advances in Vegetable IPM

Chair: Ricardo Oliva (*World Vegetable Center, Taiwan*)

11.30-11.50 SE40 C04 The potential of trap crops against leafhopper (*Amrasca devastans*) and whitefly (*Bemisia tabaci*) on eggplant under field condition in Thailand.

Sopana Yule (*World Vegetable Center, Thailand*)

12.25-12.40 SE40 002 Pest and pesticide management in tomato under mountain region of India.

Shiva Shantanu Singh (*GB Pant University of Agriculture & Technology, Pantnagar, India*)

12.40-12.55 SE40 003 Nutritional management and prediction of tomato leaf curl virus disease.

Muhammad Ahmad Zeshan (*University Of Sargodha, Pakistan*)

12.55-13.10 SE40 004 Integrated pest management of *Bemisia tabaci* on tomato in cultivation facilities in Taiwan.

Feng-Chyi Lin (*Taiwan Agricultural Research Institute, Taiwan*)

13.10-13.25 SE40 005 *Nicotiana benthamiana* as dead-end trap plant for whitefly control.

Yin-Quan Liu (*Zhejiang University, China*)

13.25-13.40 SE40 006 Development and validation of a plant disease model for *Venturia oleicola* in the framework of integrated pest management.

Sara Legler (*Horta Srl, Italy*)

13.40-13.55 SE40 007 The spring wheat in qinghai serves as an important over-summering location for the stripe rust in China.

Chen Wanquan (*Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*)



Scientific Program Friday, 5 July

CONFERENCE I

11.30-14.00 Concurrent Session **43**

Approach to Integrated Soil and Plant Health Assessments in IPM Systems

Chair: **Dima Alnajar** (*Syngenta Group, Switzerland*)

11.55-12.20 **SE43 001** On-farm evaluation of crop diversification on pest management and soil fertility in maize-based farming system.

Tadele Tefera (*International Centre of Insect Physiology And Ecology (ICIPE), Ethiopia*)

12.20-12.45 **SE43 002** Syngenta Cropwise® protector disease risk assessment model for cereal crops.

Dima Alnajar (*Syngenta Group, Switzerland*)

12.45-13.10 **SE43 003** Analysis of utilization of crop rotation in maize and beans for healthy plants among farmers in North Central Nigeria.

Oche Emmanuel Ogwuche (*College Of Education, Oju, Benue State, Nigeria*)

14.00-15.00 Light Lunch - POSTER SESSION



BANQUET

15.00-17.30 Concurrent Session 44

Plant Protection Products

Chair: Richard Peters (*Agriculture and Agri - Food Canada*)

Giulia Scimone (*Department of Agriculture, Food and Environment, University of Pisa, Italy*)

- 15.00-15.15 SE44 001** A new yeast-derived product in plant protection trade: boosting grapevine eco-friendly weapons against *Botrytis cinerea* and *Plasmopara viticola* infection.
Giulia Scimone (*Department of Agriculture, Food and Environment, University of Pisa, Italy*)
- 15.15-15.30 SE44 002** *Tanymecus dilaticollis*, a major pest of the maize crops in Romania.
Georgescu Emil (*National Agricultural Research and Development Institute Fundulea, Romania*)
- 15.30-15.45 SE44 003** Management of white mold of potato with foliar fungicides.
Richard Peters (*Agriculture and Agri-Food Canada, Canada*)
- 15.45-16.00 SE44 004** Effect of pest control strategies on european arthropod pests of apple: a meta-analysis.
Ingrid Aline Bapfubusa Niyibizi (*Department of Ecology, Brandenburg University of Technology Cottbus-Senftenberg, Germany*)
- 16.00-16.15 SE44 005** RNA interference technology: a new path for the research and management of the obligate biotrophic phytopathogenic fungus *Podosphaera xanthii*.
Nisrine Bakhat (*Universidad de Málaga, Spain*)
- 16.15-16.30 SE44 006** Contact unmodified antisense DNA (cuad) biotechnology: oligonucleotide insecticides as the next-generation plant protection product for green agriculture.
Vol Oberemok (*Molecular Genetics And Biotechnologies, V.I. Vernadsky Crimean Federal University, Russia*)
- 16.30-16.45 SE44 007** Studies on the pathogenicity of fungal based bio-pesticide *Metarhizium anisopliae* var. *acridum* against desert locust, *Schistocerca gregaria*.
Hazrat Said (*Agriculture Research Institute Peshawar Pakistan*)



Scientific Program Friday, 5 July

MC2

15.00-17.30 Concurrent Session 45

Xylella Fastidiosa

Chair: Anna Maria D'Onghia (*Plant Protection, Ciheam Bari, Italy*)

Maria Holeva (*Benaki Phytopathological Institute, Greece*)

- 15.00-15.15 **SE45 C01** Precision systems for monitoring *Xylella fastidiosa* in olive groves.
Anna Maria D'Onghia (*Plant Protection, Ciheam Bari, Italy*)
- 15.15-15.30 **SE45 C02** Ten years of implementation of laboratory testing to prevent entry of *Xylella fastidiosa* in Greece - results of current diagnostic efforts.
Maria Holeva (*Benaki Phytopathological Institute, Greece*)
- 15.15-15.30 **SE45 C03** The current status of *Xylella fastidiosa* in the euro-mediterranean region.
Maria Saponari (*IPSP, CNR, Italy*)
- 15.45-16.00 **SE45 C04** Philaenus spumarius: the most polyphagous insect herbivore has become an unforeseen vector of *Xylella fastidiosa* in Europe.
Alberto Ferreres (*Department of Crop Protection-CSIC, Spain*)
- 16.00-16.15 **SE45 C05** Insights into the molecular mechanisms of resistance to *Xylella fastidiosa* in olives and advances in the breeding programs.
Maria Saponari (*IPSP, CNR, Italy*)
- 16.15-16.30 **SE45 C06** Capacity building and collaboration on *Xylella fastidiosa* through Euphresco.
Giovani Baldissera (*Euphresco, France*)
- 16.30-16.45 **SE45 C07** Capacity building and networking for *Xylella fastidiosa* containment in Europe and in third countries: the impact of MSCA H2020 Cure-XF Project.
Maroun El Moujabber (*Ciheam Bari, Italy*)
- 16.45-17.00 **SE45 C08** ANCoSIX italian project: advancing sustainable and innovative control of *Xylella fastidiosa*.
Franco Valentini (*Integrated Pest Management, Ciheam Bari, Italy*)
- 17.00-17.15 **SE45 C09** Defense priming and grapevine immune responses to the xylem-limited bacterium, *Xylella fastidiosa*.
M. Caroline Roper (*Microbiology and Plant Pathology, University of California, Riverside, USA*)
- 17.15-17.30 **SE45 001** Potential vectors of *Xylella fastidiosa* in Australia.
Piotr Trebicki (*Macquarie University, Australia*)



MC3

15.00-17.30 Concurrent Session 46

Post-Harvest Pest and Disease Management

Chair: Christos Athanassiou (*University of Thessaly, Greece*)

15.00-15.20 SE46 C01 Grain protectants: challenges and opportunities.

Christos Athanassiou (*University of Thessaly, Greece*)

15.20-15.40 SE46 C02 Using behavior and microbial ecology to help improve surveillance and management programs for stored product insects in a warming world.

William R. Morrison III (*Center for Grain and Animal Health, USDA-ARS, USA*)

15.40-16.00 SE46 C03 Post Harvest disease management of fresh produced with innovative and eco-friendly solutions.

Davide Spadaro (*Disafa, University of Turin, Italy*)

16.00-16.10 SE46 001 Eucalyptus globulus essential oil-based control-release nanoformulations against *Sitophilus oryzae* (L.): promising novel nano-delivery systems for sustainable grain protection.

Anitha Santhanakrishnan (*Annamalai University, India*)

16.10-16.20 SE46 002 Attractiveness of male and female adults of *Cryptolestes ferrugineus* (Coleoptera: Laemophloeidae) in grain.

Fuji Jian (*University of Manitoba, Canada*)

16.20-16.30 SE46 003 Studies on biology at different temperature regimes and screening of indigenous stored rice cultivars against rice weevil, *Sitophilus oryzae* (L.).

Abhipsa Subhadarsini (*Central Agricultural University, India*)

16.30-16.40 SE46 004 The use of sigs (spray-induced gene silencing) strategy in the control of *Botrytis cinerea* in horticultural crops.

Alba López-Laguna (*University of Málaga, Spain*)

16.40-16.50 SE46 005 Seed storage fungi and aflatoxin contamination in sesame in Benue State, north central Nigeria.

Matthew Elaigwu (*Integrated Science Department, College of Education, Oju, Benue State, Nigeria*)

16.50-17.00 SE46 006 Integrated pre- and postharvest practices for managing brown rot of citrus fruit to meet quarantines for *Phytophthora* species.

James Adaskaveg (*Microbiology and Plant Pathology, University of California, USA*)

17.00-17.10 SE46 007 Efficacy of extreme temperatures on all life stages of *Oryzaephilus surinamensis* (L.) and *Ephestia kuehniella* Zeller.

Marina Gourgouta (*University of Thessaly, Greece*)

17.10-17.20 SE46 008 Diatomaceous earths are promising alternatives for the control of stored product insects.

Philippos Ioannidis (*ELVIZ, Greece*)



Scientific Program Friday, 5 July

CONFERENCE I

15.00-17.30 Concurrent Session **47**

Molecular Plant Microbe Interactions

Chair: Nikolaos Mastrodimos (*School of Agriculture and Food Science, University College Dublin, Ireland*)

Anastasia Venieraki (*Agricultural University of Athens, Greece*)

- 15.00-15.15 SE47 001** Characterising a small, secreted, protein from the wheat pathogen *Zymoseptoria tritici* by ectopic expression in Arabidopsis.
Nikolaos Mastrodimos (*School of Agriculture and Food Science, University College Dublin, Ireland*)
- 15.15-15.30 SE47 002** Diversity of *Bacillus amyloliquefaciens* group species secondary metabolites biosynthetic gene clusters involved in plant protection - an evolutionary perspective.
Anastasia Venieraki (*Agricultural University of Athens, Greece*)
- 15.30-15.45 SE47 003** All pathways lead to degradation: the ubiquitinated relationship of host-pathogen interaction and induced resistance.
Theoni Margaritopoulou (*Benaki Phytopathological Institute, Greece*)
- 15.45-16.00 SE47 004** *Phytophthora sojae* boosts host trehalose accumulation to acquire carbon and initiate infection.
Yongli Qiao (*Shanghai Normal University, China*)
- 16.00-16.15 SE47 005** Velvet family protein FPVELB affects virulence in association with secondary metabolism in *Fusarium pseudograminearum*.
Yuxing Wu (*Institute of Plant Protection, Hebei Academy of Agricultural and Forestry Sciences, China*)
- 16.15-16.30 SE47 006** XOPG2 effector of *Xanthomonas campestris* pv. *campestris* is a major race 5 determinant.
Najeeb Ullah (*School of Life Sciences, University of Warwick, UK*)
- 16.30-16.45 SE47 007** Beneficial *Pseudomonas* hijacks plant-wide transcription to induce coumarin-dependent systemic resistance.
Hsu Shu-hua (*Plant-Microbe Interactions, Utrecht University, The Netherlands*)
- 16.45-17.00 SE47 008** Investigating the early response of pepper against potato virus Y.
Venetia Psarra (*Benaki Phytopathological Institute, Greece*)
- 17.00-17.10 SE47 009** Mining the effect of biostimulants and Plant Protection Products (PPPS) on cannabis (*Cannabis sativa*) metabolism applying metabolomics.
Christos Kerezoudis (*Agricultural University of Athens, Greece*)
- 17.10-17.20 SE47 010** In planta investigation of the mechanism of action of a *Bacillus* sp. endophyte applying metabolomics.
Evgenia-Anna Papadopoulou (*Agricultural University of Athens, Greece*)

17.30-18.00 Coffee Break - POSTER SESSION



BANQUET

18.00-20.30 Concurrent Session 48

Phytoplasmas and Viroids in World Agriculture

Chair: Assunta Bertaccini (*Alma Mater Studiorum University of Bologna, Italy*)

18.00-18.30 SE48 C01 Citrus viroids: friends or foes?

Georgios Vidalakis (*Microbiology & Plant Pathology, University of California Riverside, USA*)

18.30-19.00 SE48 C02 Phytoplasma associated diseases: the tip or the bottom of plant pathology iceberg?

Assunta Bertaccini (*Alma Mater Studiorum University of Bologna, Italy*)

19.00-19.30 SE48 C03 Deciphering the interactions between pospiviroids and their hosts.

Kriton Kalantidis (*Department of Biology, University of Crete, Greece*)

19.30-20.00 SE48 001 Phytoplasma-induced witches' broom disease of lime: characterization and management.

Abdullah Al-Sadi (*Sultan Qaboos University, Oman*)

20.30-21.00 Closing ceremony



Scientific Program Friday, 5 July

SKALKOTAS

18.00-20.30 Concurrent Session 49

Endophytes as Bioinsecticides

Chair: Spiridon Mantzoukas (*Department of Agriculture, University of Ioannina, Greece*)

18.00-18.20 **SE49 C01** Endophytic entomopathogenic fungi: past, present and future prospects.

Spiridon Mantzoukas (*Department of Agriculture, University of Ioannina, Greece*)

18.20-18.40 **SE49 C02** Search of endophytic entomopathogenic fungi from suburban green spaces in Achaia.

Ioannis Lagogiannis (*Department of Pharmacy, University of Patras, Greece*)

19.40-19.00 **SE49 C03** Entomopathogenic fungal endophytes. Their diversity in Greece.

Z. Gonou-Zagou (*Department of Biology, National & Kapodistrian University of Athens, Greece*)

19.00-19.20 **SE49 C04** Effects of the entomopathogenic endophyte *Beauveria bassiana* on growth and photosynthetic performance of three *Brassica oleracea* varieties.

Foteini Kitsiou (*Department of Biology, University of Patras, Greece*)

19.20-19.40 **SE49 C05** Endophytes: entomopathogenic fungi as an emerging biological control agents of forest and agricultural plant.

Panos V. Petrakis

19.40-20.00 **SE49 C06** Endophytic endomopathogenic fungi: what comparative genomics of *Metarhizium brunneum* reveal.

Vassilis Kouvelis (*National and Kapodistrian University of Athens, Greece*)



XX International Plant Protection Congress Healthy Plants Support Human Welfare

Scientific Program Friday, 5 July

MC2

18.00-20.30 Concurrent Session **50**

This session is combined with session 31



Scientific Program **Friday, 5 July**

MC3

18.00-20.30 **Concurrent Session 51**

Interactions between Plant Protection and Pollinators

Chair: Fani Hatjina (*Department of Apiculture, ELGO DIMITRA, Greece*)

Antonios Tsagkarakis (*Agricultural University of Athens, Greece*)

18.00-18.25 **SE51 C01** Chronic exposure effects of sufloxafur and imidacloprid under laboratory and field conditions.

Fani Hatjina (*Department of Apiculture, ELGO DIMITRA, Greece*)

18.25-18.50 **SE51 C02** Honeybees as multirole agents in orange tree orchards.

Antonios Tsagkarakis (*Agricultural University of Athens, Greece*)

18.50-19.10 **SE51 C03** Exploring pollination services through a supply-demand approach.

Giorgio Sperandio (*Dipartimento di Scienze Agrarie, Alimentari e Ambientali, Department of Agricultural, Food and Environmental Sciences, Marche Polytechnic University, Italy*)

19.10-19.30 **SE51 C04** A modelling tool supporting sustainable beekeeping management practices.

Andrea de Francesco (*University of Brescia, Italy*)

19.30-19.50 **SE51 C05** The health status index: a holistic tool for the sustainable beekeeping.

Anna Simonetto (*Department of Civil, Environmental, Architectural Engineering and Mathematics E Di Matematica, University of Brescia, Italy*)



CONFERENCE I

18.00-20.30 Concurrent Session **52**

Frost Damage Mitigation Strategies for Crops, Organized by Project LIFE-FROSTDEFEND

Chair: Dimitris Georgakopoulos (*Department of Crop Science Laboratory of General and Agricultural Microbiology, Agricultural University of Athens, Greece*)

18.00-18.25 **SE52 C01** Another way to reduce the risk of frost by monitoring and maintaining moist soils close to field capacity.

Jean-François Berthoumieu (*ACMG, France*)

18.25-18.50 **SE52 C02** The life-frostdefend project: creation of a forecasting tool for frost damage risk and mitigation actions for tree crops.

Dimitrios Georgakopoulos (*Department of Crop Science Laboratory of General and Agricultural Microbiology, Agricultural University of Athens, Greece*)

18.50-19.15 **SE52 C03** Developing frost risks indicators for apricot trees.

Lia Lamacque (*INRAE, France*)

19.15-19.40 **SE52 C04** Strategies and factors facilitating the reduction of bacterial ice nuclei on plants for the control of frost injury to sensitive plants.

Steven E. Lindow (*University of California, Berkeley, USA*)

19.40-20.05 **SE52 C05** Epiphytic and aerial ice nucleation active bacteria in lemon tree orchards.

Khalil Geballa Koukoulas (*Agricultural University of Athens, Greece*)

20.05-20.30 **SE52 C06** Understanding frost vulnerability in citrus crops: exploring the interplay of plant susceptibility and ice-nucleating bacteria.

Nicolas Dusart (*INRAE, France*)



POSTERS

**Posters**

- P001 COLLETOTRICHUM EPIDEMIOLOGY IN OLIVE ORCHARDS FROM THE REGION OF PREVEZA, GREECE AND EFFECT OF FUNGICIDE APPLICATION ON PATHOGEN SURVIVAL**
Patsis G., Verdos G., Tsitsigianni A., Tzima A., Paplomatas E.
Plant Pathology Laboratory, Department of Crop Science, Agricultural University of Athens
- P002 THE LANDSCAPE AS AN ESSENTIAL FRAMEWORK FOR A MORE EFFECTIVE IPM: TWO EXAMPLES IN FIELD AND PROTECTED CROPS**
Albajes R., Clemente G., Ardanuy A., Lee M.
Agrotecnio University Of Lleida
- P003 THE EFFECT OF CHITOSAN ON THE INFECTION AND DISEASE OF ZUCCHINI PLANTS CAUSED BY CUCUMBER MOSAIC VIRUS**
Christofi A.¹, Stylianidis G.^{2,3}, Strepkou N.², Papadopoulos G.⁴, Bouranis D.^{2,5}, Winter S.⁶, Chatzivassiliou E.¹
1. Plant Pathology Laboratory, Department of Crop Science, Agricultural University of Athens, 2. Plant Physiology & Morphology Laboratory, Department of Crop Science, Agricultural University of Athens, 3. Karvelas AVEE, 4. Institute for Design and Analysis of Experiments, University Research Center, Agricultural University of Athens, 5. PlanTerra Institute for Plant Nutrition & Soil Quality, Agricultural University of Athens, 6. Plant Virus Department, Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures
- P004 SOIL SOLARIZATION EFFICIENTLY REDUCES FUNGAL SOILBORNE PATHOGENS' POPULATION, PROMOTES LETTUCE PLANT GROWTH AND AFFECTS THE SOIL BACTERIAL COMMUNITY**
Tziros G., Samaras A., Karaoglanidis G.
Aristotle University
- P005 DEEP LEARNING-BASED DIAGNOSIS OF LEAF WITH PEST DAMAGE DURING VEGETABLE SEEDLING PRODUCTION**
Yu G., Kwon D.
Major in Vegetable Crops, Division of Horticulture, Korea National University of Agriculture and Fisheries
- P006 EVALUATION OF LINALOOL AND EUGENOL AGAINST TUTA ABSOLUTA AND OTHER PESTS**
Misailidou C., Dervisoglou S., Perdikis D.
Agricultural University of Athens
- P007 EFFECT OF MICROORGANISMS AND RESISTANCE INDUCERS AGAINST RACE 1 OF FUSARIUM OXYSPORUM F. SP. LACTUCAE IN A CLOSED SOILLESS SYSTEM**
Gilardi G.¹, Garibaldi A.¹, Gullino M.²
1. University of Torino - Agroinnova, 2. International Agricultural Festival Coltivato and AgriNewTech
- P008 SEQUENTIAL APPLICATION OF DIMPROPYRIDAZ (AXALION®) AND BEAUVERIA BASSIANA PPRI 5339 (VELIFER®) FOR EFFECTIVE CONTROL OF BEMISIA TABACI IN TOMATO CROPS**
Rivera-Alonso E., González-Zamora J., Avilla C., Sanz-Gomez J.
Basf Española S.l.
- P009 ESSENTIAL OILS ON THE CONTROL OF SWISS CHARD AND SPINACH LEAF MINING FLIES**
Sperandio G.¹, Battistelli M.¹, Abulebda A.¹, Corsi L.¹, Meacci S.¹, Ruschioni S.¹, Fraternali D.², Semprucci F.², Guidi L.², Grassi E.², Riolo P.¹
1. Department of Agricultural, Food and Environmental Sciences, Marche Polytechnic University, 2. Department of Biomolecular Sciences, University of Urbino Carlo Bo
- P010 MAKING A PREDATOR BETTER SUITED TO AGROSYSTEMS: PESTICIDE RESISTANCE OF NESIDIOCORIS TENUIS REUTER (HETEROPTERA: MIRIDAE)**
Paspati A., Karakosta E., Malliaraki S., Ilias A., Tsagkarakou A.
Hellenic Agricultural Organization-DIMITRA

Posters

- PO11 A MICROBIOME STUDY ON HEALTHY AND PHYTOPHTHORA CRYPTOGEA-INOCULATED LETTUCE**
Vlasselaer L., Crauwels S., Lievens B., De Coninck B.
KU Leuven
- PO12 NEW METHODS FOR EVALUATING E-PROBE DETECTION PERFORMANCE IN MICROBIOME DATA: A CASE STUDY OF NITROBACTER HAMBURGENSIS IN WINTER WHEAT SOIL**
Ramos Lopez D., Espindola A.
Oklahoma State University
- PO13 MICROBIAL INDUCTION OF PLANT RESILIENCE TO DROUGHT STRESS (MICRORES)**
Nuijten P.^{1,2,3,4}, Rodriguez Gonzalez M.^{1,2,3,4}, Guerrero-Egido G.^{1,2,3,4}, Balazadeh S.¹, Raaijmakers J.², Carrion Bravo V.^{1,2,3,4}
1. Institute of Biology, Leiden University, 2. Department of Microbial Ecology, Netherlands Institute of Ecology (NIOO-KNAW), 3. Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga, 4. Departamento de Protección de Cultivos, Instituto de Hortofruticultura Subtropical y Mediterránea "La Mayora"
- PO14 DIFFERENTIAL RESPONSES OF TOMATO MONEYMAKER AND WILD RELATIVES TO THE SOILBORNE PATHOGEN VERTICILLIUM DAHLIAE**
Paraskevopoulou D.¹, Dalas S.², Massas I.², Stringlis I.¹
1. Laboratory of Plant Pathology, Agricultural University of Athens, Greece, 2. Laboratory of Soil Science and Agricultural Chemistry, Agricultural University of Athens, Greece
- PO15 EVALUATING GENERAL SUPPRESSIVENESS OF BIOCHAR WITH ORGANIC AMENDMENTS IN CONJUNCTION WITH SOIL MICROBES AGAINST BACTERIAL WILT OF TOMATO**
Sasada Y.¹, Nishida R.², Sano T.², Xu H.², Fujiwara K.¹
1. Meijo University, 2. TOWING Co., Ltd.
- PO16 REDUCTION OF WATERCORE OCCURRENCE IN APPLE BY APPLICATION OF CALCIUM AND BORON COMPOUNDS**
Chang T.
Kyungpook National University
- PO17 STRATEGIES FOR SELECTING POTENTIALLY EFFECTIVE BIOFUMIGANT SPECIES FOR OPTIMAL BIOFUMIGATION OUTCOMES**
Arroyo J., Soler J., Palmero D.
Universidad Politécnica De Madrid
- PO18 SPECTRAL ANALYSIS FOR CEREAL LEAF BEETLE DETECTION IN WINTER WHEAT: TOWARDS PRECISION PEST MANAGEMENT**
Skendzic S.¹, Novak H.², Zovko M.¹, Pajač Živković I.¹, Lešić V.², Maričević M.³, Lemić D.¹
1. University of Zagreb Faculty of Agriculture, 2. University of Zagreb Faculty of Electrical Engineering and Computing, 3. BC Institute, D.D.
- PO19 BARBERRY DECREASE EMERGENCE OF NEW RACES AND POPULATION GENETIC DIVERSITY OF THE WHEAT STRIPE RUST PATHOGEN AFTER FUNGICIDE TREATMENT**
Li Z., Chen X., Xu J., Liu F., Bian Y., Du Z., Zhao Y., Kang* Z., Zhao* J.
State Key Laboratory for Crop Stress Resistance and High-Efficiency Production, College of Plant Protection, Northwest A&F University
- PO20 USE OF SALICYLIC ACID-LOADED CHITOSAN NANOPARTICLES FOR THE MANAGEMENT OF CUCURBIT POWDERY MILDEW**
Akrivou A.^{1,2}, Madesis P.¹, Beris D.², Tsiriva D.³, Anagnostopoulos C.², Markellou E.²
1. Department of Agriculture Crop Production and Rural Environment, University of Thessaly, 2. Benaki Phytopathological Institute, 3. Phytorgan SA
- PO21 EFFICACY SCREENING OF DIFFERENT FORMULATES BASED ON ESSENTIAL OILS AGAINST GRAPEWINE DOWNY MILDEW**
Fittipaldi Broussard M., Furiosi M., Caffi T.
Università Cattolica Del Sacro Cuore



Posters

- P022** **HARNESSING NATIVE BIOAGENTS FOR SUSTAINABLE MANAGEMENT OF FALL ARMYWORM**
Frimpong-Anin K., Amoabeng W. B., Danso Y., Asamoah F. J., Agyekum A., Agodzo Asabea B., Abban D., Mochiah B. M.
CSIR-Crops Research Institute
- P023** **MIXED INSECT PEST POPULATIONS OF DIASPIDIDAE SPECIES UNDER CONTROL OF OLIGONUCLEOTIDE INSECTICIDES**
Gal'chinsky N.¹, Yatskova E.², Novikov I.¹, Useinov R.¹, Sharmagiy A.², Laikova Y.¹, Plugatar Y.², Oberemok V.¹
1. V.I. Vernadsky, 2. Nikita Botanical Gardens
- P024** **PREVENTIVE POTENTIAL OF COLORED-FLESHED POTATO EXTRACTS AGAINST THE PATHOGEN RHIZOCTONIA SOLANI IN POTATO CROPS**
Gómez F.^{1,2}, Valencia S.¹, Rivas S.^{1,2}, Gonzáles F.^{1,3}, Contreras B.⁴, Santos C.¹, Ruiz A.¹
1. Departamento de Ciencias Químicas y Recursos Naturales, Scientific and Technological Bioresource Nucleus BIOREN-UFRO, Universidad de La Frontera, 2. Doctorado en Ciencias de Recursos Naturales, Universidad de La Frontera, 3. Doctorado en Ciencias Mención Biología Celular y Molecular Aplicada, Universidad de La Frontera, 4. Novaseed Ltd.a. and Papas Arcoiris Ltd.a., Loteo Pozo de Ripio s/n, Parque Ivian II
- P025** **GENERATION OF A HIGHLY EFFECTIVE BIOFUNGICIDE, BASED ON GRAPEVINE BY-PRODUCT RESIDUES, FOR THE CONTROL OF RHIZOCTONIA SOLANI IN POTATO CROPS**
Gómez F.^{1,2}, Bravo C.¹, Vera E.³, Sepulveda M.^{1,2}, Contreras B.⁴, Santos C.¹, Ruiz A.¹
1. Departamento de Ciencias Químicas y Recursos Naturales, Scientific and Technological Bioresource Nucleus BIOREN-UFRO, Universidad de La Frontera, 2. Doctorado en Ciencias de Recursos Naturales, Universidad de La Frontera, 3. Carrera de Química y Farmacia, Facultad de Medicina, Universidad de La Frontera, 4. Novaseed Ltd.a. and Papas Arcoiris Ltd.a., Loteo Pozo de Ripio s/n, Parque Ivian II
- P026** **PHYTOPHTHORA CINNAMOMI INHIBITION BY PHENYLACETIC ACID: MECHANISM OF ACTION AND ITS ISOLATION FROM TRICHOMONASCUS VANLEENENIUS CULTURES.**
Fernández-Calleja L., Villar C, Lombó F.
University Of Oviedo
- P027** **ALTERNATIVE PLANT PROTECTION STRATEGY FOR STRAWBERRY DISEASE CONTROL**
Rasiukeviciute N., Lanauskas J., Mazeikiene I., Valiuskaite A.
LAMMC Institute of Horticulture
- P028** **FIELD TRIALS TO TEST EFFICACY AND SIDE EFFECTS OF NOVEL BIOINSECTICIDES ON BEMISIA TABACI**
Sabarit B., Gilarte P., Sánchez-Barranco C., López G., Martínez-Gaitán C.
Fundación Tecnova, Parque Tecnológico (PITA), Avda. De la Innovación 23
- P029** **PROFILING RICE FARMS FOR THE OCCURRENCE OF MAJOR DISEASES AT DIFFERENT GROWTH STAGES IN THE ASHANTI REGION OF GHANA**
Aidoo A., Frimpong-Anin K., Mochiah M., Asamoah J., Arthur S., Kota W., Appiah-Kubi Z., Amoabeng B., Awarikabey E., Dawood A., Kaba C., Ohene-Mensah G., Kwodane M.
CSIR-Crops Research Institute
- P030** **CORRELATION BETWEEN TETRALINIPROLE RESISTANCE AND RYANODINE RECEPTOR MUTATIONS IN LABORATORY-SELECTED STRAIN AND FIELD POPULATIONS OF PLUTELLA XYLOSTELLA IN TAIWAN**
Dai S., Pudasaini R., Chang C.
National Chung Hsing University
- P031** **INSECT PEST POPULATION DYNAMICS IN RICE: A CASE IN ASHANTI REGION OF GHANA**
Frimpong-Anin K., Amoabeng W.B., Awarekabey N.E., Aidoo snr. A., Asamoah F.J., Kota L.W., Arthur S., Obeng P., Gyamfi M., Agyekum A., Mochiah B.M.
CSIR-Crops Research Institute



Posters

- P032 EVIDENCE FOR THE PARTICIPATION OF CHEMOSENSORY PROTEINS IN RESPONSE TO INSECTICIDE CHALLENGE IN CONOPOMORPHA SINENSIS**
Yao Q., Duan S., Li W., Dong Y., Xu S., Chen B.
Plant Protection Research Institute, Guangdong Academy of Agricultural Sciences
- P033 RISKS FOR MICRONUTRIENT LOSSES DUE TO VECTOR-BORNE PLANT VIRUSES OF NUTRITIOUS CROPS IN SUB-SAHARAN AFRICA**
Ockendon-Powell N.¹, Papadaki A., Bernie D.
University of Bristol
- P034 RESISTANCE MECHANISMS TO GLYPHOSATE AND GLUFOSINATE IN ELEUSINE INDICA**
Zhang C.¹, Tian X.¹, Han H.², Patterson E.³, Yu Q.²
1. Institute Of Plant Protection, Guangdong Academy Of Agricultural Sciences, 2. Australian Herbicide Resistance Initiative (AHRI), University of Western Australia, 3. Michigan State University, USA
- P035 TOMATO LEAF CURL NEW DELHI VIRUS AS AN EMERGING PATHOGEN OF GREEK CUCURBITS**
Chatzivassiliou E.¹, Christofi A.¹, Kosenaki S.¹, Kontosfyri M.¹, Winter S.²
1. Plant Pathology Laboratory, Department of Crop Science, Agricultural University of Athens, 2. Plant Virus Department, Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures
- P036 GENETIC DIVERSITY OF 'CANDIDATUS PHYTOPLASMA SOLANI' AFFECTING GRAPEVINE IN GREECE**
Dervisi I., Glynos P., Karafila C., Reppa C., Kolliopoulou G., Siderea E., Togias A., Perivolaris D., Holeva M.
Benaki Phytopathological Institute
- P037 OCCURRENCE OF CUCUMBER MOSAIC VIRUS AND WATERMELON MOSAIC VIRUS IN GREEK CUCURBITS AND THEIR INTERACTIONS WHEN TRANSMITTED BY APHIS GOSSYPII**
Katsimiga I.¹, Winter S.², Chatzivassiliou E.¹
1. Plant Pathology Laboratory, Faculty of Crop Science, Agricultural University of Athens, 2. Plant Virus Department, Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures
- P038 PATHOGENIC SEED HEALTH SCREENING AND FUSARIUM MYCOTOXINS IN WHEAT SEED LOTS PRODUCED IN URUGUAY**
Palladino M.¹, Richard L.², Stelda C.², Pareja L.³, Silvera E.²
1. Pdu. Estudios de Impactos del uso de agroquímicos, 2. Departamento de Protección Vegetal, Facultad de Agronomía, Universidad de la República, 3. Departamento de Química del Litoral, Cenur Litoral Norte, Universidad de la República
- P039 ENTEROBACTER CLOACAE COMPLEX A NOVEL PLANT PATHOGEN GROUP AFFECTING SUGARCANE LEAVES**
Pereyda-Hernandez R., Silva-Rojas H., Valdez-Balero A., Aguirre-Rayó P.
Postgraduates College
- P040 RELATIONSHIP OF CLIMATE WITH LATE BLIGHT (PHYTOPHTHORA INFESTANS (MONT.) DE BARY) ON POTATO (SOLANUM TUBEROSUM L.) CROP**
Wilches Ortiz W., Vargas Diaz R., Espitia Malagon E.
Agrosavia
- P041 ENHANCING GERMPLASMS ACCESS: CASE STUDY TO IDENTIFY GENETIC VARIANTS FOR CASSAVA BROWN STREAK DISEASE RESISTANCE IN AN INTERNATIONAL GENE BANK COLLECTION**
Ospina J.¹, Lopez D.², Wenzl P.¹, Carvajal-Yepes M.¹
1. The Alliance Bioversity Int. and the International Center of Tropical Agriculture (CIAT), 2. Universidad Nacional de Colombia



Posters

- P042** **IS EUROPEAN WHEAT PRODUCTION READY FOR THE RE-EMERGENCE OF STEM RUST?**
Flath K.¹, Schulz P.¹, Schmitt A.^{1,2}, Klocke B.², Miedaner T.³, Gruner P.^{3,4}, Patpour M.⁵, Rodriguez-Algaba J.⁵, Hovmøller M.⁵
1. Julius Kühn-Institut, Federal Research Centre for Cultivated Plants, Institute for Plant Protection in Field Crops and Grassland, 2. Julius Kühn-Institut, Federal Research Centre for Cultivated Plants, Institute for Strategies and Technology Assessment, 3. University of Hohenheim, State Plant Breeding Institute, 4. Sativa Rheinau AG, 5. University of Aarhus, Global Rust Reference Center
- P043** **DYNAMIC TRANSCRIPTIONAL REPROGRAMMING ACTIVATED BY WHEAT TANDEM KINASE 1 LEADS TO ENHANCE RESISTANCE TO YELLOW RUST DISEASE**
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1. Institute of Evolution, University of Haifa, 2. Department of Evolutionary and Environmental Biology, University of Haifa, 3. Department of Plant Pathology, University of California
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1. State Key Laboratory of Crop Stress Resistance and High-Efficiency Production, Key Laboratory of Plant Protection Resources and Pest Integrated Management of Ministry of Education, Key Laboratory of Integrated Pest Management on Crops in Northwestern Loess Plateau of Ministry of Agriculture and Rural Affairs, and College of Plant Protection, Northwest A&F University, 2. Agricultural Research Service, United States Department of Agriculture and Department of Plant Pathology, Washington State University
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1. Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, 2. Department of Biochemistry, Purdue University, 3. Institute of Evolution, University of Haifa
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1. University of Córdoba, 2. Università Politecnica Delle Marche, 3. BALAM Agriculture
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1. Inia Uruguay, 2. Facultad de Ciencias Universidad de la República
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 1. Enzyme and Microbial Biotechnology Unit, Faculty of Biology, National and Kapodistrian University of Athens, 2. Laboratory of Pesticides Toxicology, Benaki Phytopathological Institute, 3. BASF Hellas S.A., 4. Department of Medicine, Keck School of Medicine, University of Southern California
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 1. Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy, Università degli Studi di Milano, Milan, Italy, 2. Institute of Sciences of Food Production, Italian National Research Council, Milan, Italy
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 1. School of Science, Monash University Malaysia, 2. Advanced Agriecological Research Sdn Bhd, 3. Monash University Malaysia Genomics Facility
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 1. 4Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA), 2. 1Instituto de Ciencias Agrarias, CSIC, 3. Departamento de Biotecnología Biología Vegetal, Escuela Técnica Superior de Ingeniería Agronómica, Alimentaria y de Biosistemas (ETSIAAB), Universidad Politécnica de Madrid, 4. 3Instituto de Productos Naturales y Agrobiología, CSIC
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 1. Seoul National University, 2. LFF Co. Ltd, 3. Yongin City Agricultural Technology Center, 4. Gyeongsangbuk-do Agricultural Research Extension Services



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1. University of Tehran, 2. Department of Agriculture, Iranian Research Organization for Science and Technology (IROST)
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1. Departamento de Microbiología, Facultad de Ciencias, Campus Universitario de Teatinos s/n, Universidad de Málaga, 2. Departamento de Protección de Cultivos, Instituto de Hortofruticultura Subtropical y Mediterránea “La Mayora”, Campus Universitario de Teatinos, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), 3. Institute of Biology, Leiden University, 4. Department of Microbial Ecology, Netherlands Institute of Ecology (NIOO-KNAW)
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1. Agricultural University of Athens, 2. BASF Hellas ABEE, Single Person SA
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1. Laboratory of Phytopathology, Department of Plants and Crops, Faculty of Bioscience Engineering, Ghent University, 2. Plant Health and Protection Laboratory, Division of Crop Biotechnics, Department of Biosystems, KU Leuven, 3. KU Leuven Plant Institute
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1. Laboratory of Plant Pathology, Department of Crop Science, School of Plant Sciences, Agricultural University of Athens, 2. Ikorganic
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1. Scientific Directorate of Phytopathology, Benaki Phytopathological Institute, 2. University of Peloponnese, 3. Laboratory of Plant Pathology, Agricultural University of Athens
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1. Laboratory of Plant Pathology, Agricultural University of Athens, 2. University of Peloponnese

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1. University of Thessaly, 2. Department of Agronomy, Biotechnical Faculty, 3. PROBODELT, Pest Control Company, 4. Department of Crop and Forest Sciences, Agrotecnio Centre, Universitat de Lleida, 5. Laboratory of Agricultural Zoology and Entomology, Department of Crop Science, Agricultural University of Athens, 6. Laboratory of Forest Protection, Department of Forestry and Management of the Environment and Natural Resources, School of Agricultural and Forestry Sciences, Democritus University of Thrace, 7. Faculty of Agrobiotechnical Sciences Osijek, Josip Juraj Strossmayer, University of Osijek, 8. Hungarian University of Agriculture and Life Sciences, Institute for Plant Protection, Budapest, 9. AIMPLAS, Plastics Technology Centre, València Parc Tecnològic, Valencia
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1. Université de La Réunion, 2. CIRAD, UMR PVBMT, 3. Laboratoire de Phytopathologie et Biotechnologies Végétales, Institut Facultaire des Sciences Agronomiques de Yangambi, 4. Central and West African Virus Epidemiology (WAVE) for Food Security Program, Institut Facultaire des Sciences Agronomiques de Yangambi, 5. Tanzania Agricultural Research Institute (TARI), 6. CSIRO Health and Biosecurity, 7. School of Biological Sciences, The University of Queensland
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1. Plant Protection Research Institute, Guangxi Academy of Agricultural Science, 2. Key Laboratory of Green Prevention and Control on Fruits and Vegetables in South China Ministry of Agriculture and Rural Affairs, 3. Guangxi Key Laboratory of Biology for Crop Diseases and Insect Pests



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1. College of Horticulture and Landscape Architecture, Tianjin Agricultural University, 2. State Key Laboratory for Biology of Plant Diseases and Insect Pests, Institute of Plant Protection, Chinese Academy of Agricultural Sciences, 3. Departamento de Genética Molecular de Plantas, Centro Nacional de Biotecnología (CNB-CSIC), 4. State Key Laboratory of Rice Biology, Institute of Biotechnology, Zhejiang University
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1. Department of Integrative Biotechnology, Sungkyunkwan University, 2. Institute for Sustainable Plant Protection of the National Research Council (IPSP-CNR), 3. Department of Plant Medicals, Andong National University
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1. Hungarian University of Agriculture and Life Sciences, Institute of Plant Protection, Department of Entomology, 2. GreenUnit Ltd., 3. Hungarian University of Agriculture and Life Sciences, Institute of Food Science and Technology, Department of Food Chemistry and Analytics
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1. Instituto Canario de Investigaciones Agrarias, 2. Consejería de Agricultura, Ganadería y Pesca del Gobierno de Canarias
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1. ILVO (Flanders Research Institute for Agriculture, Fisheries and Food), 2. CRA-W (Walloon Agricultural Research Centre), 3. Arvalis, 4. UGent (Ghent University), 5. Inagro
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1. Benaki Phytopathological Institute, 2. Hellenic Pasteur Institute
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1. Ghent University, Faculty of Bioscience Engineering, Department of Plants and Crops, Lab of Phytopathology, 2. Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Plant Sciences Unit, 3. Research Station for Vegetable Production (PSKW), 4. Vegetable Research Centre (PCG), 5. Inagro



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1. Biotechnical Faculty, University of Ljubljana, 2. Plant Protection Department, Slovenian Institute of Hop Research and Brewing
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1. Department of Agriculture, Food and Environment, University of Pisa, 2. CIRSEC, Centre for Climatic Change Impact, University of Pisa
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Štajner N.¹, Kunej U.¹, Radišek S.², Jakše J.¹
1. University of Ljubljana, Biotechnical Faculty, 2. Slovenian Institute of Hop Research and Brewing, Plant Protection Department
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1. Department of Entomology, 2. Institute of Genomics and Bioinformatics
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1. Instituto Agroforestal Mediterráneo. Universitat Politècnica de València, 2. Department of Sustainable Crop Production (DIPROVES), Facoltà di Scienze Agrarie, Alimentari e Ambientali, Università Cattolica del Sacro Cuore, 3. Horta srl.
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1. Department of Agriculture, Food and Environment, University of Pisa, 2. University School for Advanced Studies IUSS Pavia
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1. CREA-DC Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria - Centro di Ricerca Difesa e Certifica, 2. Council for Agricultural Research and Economics, Research Centre for Engineering and Agro-Food Processing
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 1. Departamento de Agronomía (Unit of Excellence 'María de Maeztu' 2020-2024), ETSIAM, Universidad de Córdoba, 2. Departamento de Fruticultura Mediterránea, IFAPA, Alameda del Obispo
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1. Laboratory of Plant Pathology, Department of Agricultural Development, Democritus University of Thrace, 2. Laboratory of Microbiology, Biotechnology & Hygiene, Department of Agricultural Development, Democritus University of Thrace, 3. Department of Evolutionary Biology and Environmental Studies, University of Zurich, 4. Plant-Soil Interactions, Agroscope
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1. DOMCA, 2. DMC Research Center, 3. DCOOP Sociedad Cooperativa Andaluza, 4. Department of Plant Physiology, University of Granada

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1. Faculty of Agriculture, University of Zagreb, 2. CSIRO Health & Biosecurity, 3. Department of Geography, Maynooth University, 4. Department of Agriculture, Crop Production and Rural Environment, University of Thessaly, 5. Benaki Phytopathological Institute, 6. Cervantes Agritech
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1. Postgraduate College, 2. SENASICA
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1. Council for Agricultural Research and Economics, Research Centre for Plant Protection and Certification, 2. Department of Environmental Biology, Sapienza University of Rome, 3. Department of Agraria, University Mediterranea of Reggio Calabria
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1. Department of Biochemistry and Molecular Biology, University of Cordoba, Edificio Severo Ochoa, Campus de Rabanales, 2. Agronomy Department, University of Córdoba. Edificio C4 Celestino Mutis, Campus de Rabanales, 3. Instituto de Hortofruticultura Subtropical y Mediterránea 'La Mayora' (IHSM-UMA-CSIC), Departamento de Botánica y Fisiología Vegetal, Universidad de Málaga
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1. International Institute of Tropical Agriculture (IITA), 2. ARS Research Participation Program through the Oak Ridge Institute for Science and Education, 3. United States Department of Agriculture, Foreign Disease-Weed Science Research Unit, 4. United States Department of Agriculture (USDA), 5. University of Illinois at Urbana-Champaign, Crop Sciences



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1. Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), 2. Universidad ICESI
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1. Department of Agriculture, Food and Environment, University of Pisa, 2. University of Reims Champagne-Ardenne, Unit Resistance Induction and Bioprotection of Plants, 3. Kwizda Agro GmbH
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1. Biotechnical Faculty University of Montenegro, 2. Laboratory of Plant Pathology, Department of Crop Science, School of Plant Sciences, Agricultural University of Athens
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1. Laboratory of Plant Pathology, Department of Crop Science, Agricultural University of Athens, 2. Institute of Plant Breeding and Genetic Resources, ELGO-DEMETER, 3. Universitat Politècnica de Catalunya, Department of Agro-Food Engineering and Biotechnology
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1. Domca, 2. DMC Research Center, 3. Institute for Sustainable Plant Protection, National Research Council (CNR), 4. Department of Plant Physiology, University of Granada
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1. Department of Soil, Plant, and Food Sciences, University of Bari Aldo Moro, 2. Department of Agricultural Sciences, University of Naples Federico II, 3. Department of Biosciences, Biotechnology and Environment, University of Bari Aldo Moro, 4. CNR-IBBR Institute of Bioscience and BioResources, 5. Spin-Off Sinagri, University of Bari Aldo Moro
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1. CONIDIA CONIPHY, 2. Epilogic GmbH
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1. Institute of Pesticides and Environmental Protection, 2. Faculty of Agriculture - University of Belgrade
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1. Faculty of Agriculture - University of Belgrade, 2. Faculty of Agriculture - University of Nis
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1. USDA APHIS, Plant Protection and Quarantine, Pest Exclusion and Import Programs, 2. USDA ARS, Horticultural Crops Disease and Pest Management Unit, 3. USDA ARS, Molecular and Plant Pathology Laboratory, 4. Department of Plant Pathology, Oregon State University, 5. Institute for Genomics, Biocomputing and Biotechnology, Mississippi State University, 6. Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State University, 7. USDA ARS, Southern Horticultural Research, 8. Department of Plant and Environmental Sciences, Clemson University, 9. Department of Entomology and Plant Pathology, University of Arkansas
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1. Researcher, Agricultural Chemicals Research Institute, Ministry of Agriculture, Taiwan (R.O.C.), 2. Research Assistant, Agricultural Chemicals Research Institute, Ministry of Agriculture, Taiwan (R.O.C.), 3. Intern Plant Doctor, Neimen Farmer's Association, Kaohsiung City, Taiwan (R.O.C.), 4. Intern Plant Doctor, Agricultural Chemicals Research Institute, Ministry of Agriculture, Taiwan (R.O.C.), 5. Intern Plant Doctor, Agricultural Chemicals Research Institute, Ministry of Agriculture, Taiwan (R.O.C.), 6. Former Director General, Agricultural Chemicals Research Institute, Ministry of Agriculture, Taiwan (R.O.C.)
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1. Wild Cereal Gene Bank, Institute of Evolution, University of Haifa, 2. Dep. of Evolutionary and Environmental Biology, 3. Crop Development Centre and Department of Plant Sciences, University of Saskatchewan, 4. Department of Plant Sciences, University of California
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1. Departamento de Microbiología, Facultad de Ciencias, Campus Universitario de Teatinos s/n, Universidad de Málaga, 2. Departamento de Protección de Cultivos, Instituto de Hortofruticultura Subtropical y Mediterránea "La Mayora", Campus Universitario de Teatinos, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), 3. Institute of Biology, Leiden University, 4. Department of Microbial Ecology, Netherlands Institute of Ecology (NIOO-KNAW)
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1. Council for Agricultural Research and Economics, Research Centre for Plant Protection and Certification, 2. Council for Agricultural Research and Economics, Research Centre for Animal Production and Aquaculture, 3. Council for Agricultural Research and Economics, Research Centre for Vegetal and Ornamental Crops, 4. Department of Agricultural Science - University of Napoli Federico II, 5. Department of Environmental Biology, Sapienza University of Rome
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1. Department of Agronomy (DAUCO, Unit of Excellence María de Maeztu 2020-2024), Campus of Agri-Food International Excellence at Rabanales (ceiA3), University of Córdoba, 2. Department of Botany, Ecology, and Plant Physiology, Campus of Agri-Food International Excellence at Rabanales (ceiA3), University of Córdoba, 3. Department of Agricultural Chemistry, Soil Science, and Microbiology, Campus of Agri-Food International Excellence at Rabanales (ceiA3), University of Córdoba
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1. Laboratory of Plant Pathology, Department of Crop Science, Agricultural University of Athens, 2. Department of Agriculture, University of Peloponnese

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 1. Departamento de Microbiología, Facultad de Ciencias, Campus Universitario de Teatinos s/n, Universidad de Málaga, Spain, 2. Departamento de Protección de Cultivos, Instituto de Hortofruticultura Subtropical y Mediterránea "La Mayora", Campus Universitario de Teatinos, Universidad de Málaga- Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), Spain, 3. Institute of Biology, Leiden University, The Netherlands, 4. Department of Microbial Ecology, Netherlands Institute of Ecology (NIOO-KNAW), The Netherlands, 5. Bioinformatics Group, Wageningen University, The Netherlands



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1. Leiden University, 2. Department of Microbial Ecology, Netherlands Institute of Ecology (NIOO-KNAW), 3. Departamento de Microbiología, Facultad de Ciencias, Campus Universitario de Teatinos s/n, Universidad de Málaga, 4. Departamento de Protección de Cultivos, Instituto de Hortofruticultura Subtropical y Mediterránea "La Mayora", Campus Universitario de Teatinos, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), 5. Department of Data Sciences, N-Power Medicine, 6. Área de Genética, Facultad de Ciencias, Campus Universitario de Teatinos s/n, Universidad de Málaga, 7. Bioinformatics Group, Wageningen University
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1. Department of Agronomy (Maria de Maeztu Excellence Unit), University of Cordoba, Campus de Rabanales, 2. AgroPhenoLab, Institute for Sustainable Agriculture, Spanish National Research Council (IAS-CSIC), 3. Department of Agricultural, Food and Environmental Sciences, Marche Polytechnic University
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1. Departamento de Agronomía (Unit of Excellence 'María de Maeztu' 2024-2020), ETSIAM, Universidad de Córdoba, 2. Centro de Bioactivos Químicos (CBQ), Universidad Central 'Marta Abreu' de Las Villas (UCLV), 3. Departamento de Química Orgánica, Instituto Químico para la Energía y el Medioambiente (IQUEMA), Facultad de Ciencias, Universidad de Córdoba
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1. Departamento de Agronomía (Unit of Excellence 'María de Maeztu' 2024-2020), ETSIAM, Universidad de Córdoba, Campus de Rabanales, 2. Departamento de Fruticultura Mediterránea, IFAPA, Alameda del Obispo
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1. Plant Protection Institute, Hebei Academy of Agricultural and Forestry Sciences, 2. Key Laboratory of IPM on Crops in Northern Region of North China, MARA / IPM Innovation Center of Hebei Province / International Science and Technology Joint Research Center on IPM of Hebei Province
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1. Plant Protection Institute, Hebei Academy of Agricultural and Forestry Sciences, 2. Key Laboratory of IPM on Crops in Northern Region of North China, MARA / IPM Innovation Center of Hebei Province / International Science and Technology Joint Research Center on IPM of Hebei Province
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1. Plant Protection Institute, Hebei Academy of Agricultural and Forestry Sciences, 2. Key Laboratory of IPM on Crops in Northern Region of North China, MARA / IPM Innovation Center of Hebei Province / International Science and Technology Joint Research Center on IPM of Hebei Province
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1. Centre International de Hautes Etudes Agronomiques Méditerranéennes Bari (CIHEAM Bari), Via Ceglie 70010, 9 Valenzano, Bari, Italy, 2. Department of Soil, Plant, and Food Sciences (Di.S.S.P.A.), University of Bari - Aldo Moro 70126, Bari, Italy



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Axalion® Active

Insecticide

Please join BASF Agriculture Solutions for an informative Satellite Symposium on Axalion® Active, a new insecticide active ingredient with a novel mode of action.

Redefining Modern Sustainable Piercing and Sucking Insect Control

Wednesday, 3 July, 16:30 - 17:30

Location: Banquet



axalion.basf.com



Presentations and Speakers:

Axalion Active: Redefining modern sustainable piercing and sucking insect control

Desirée Hodges,

*Senior Research Scientist, Advanced Insecticide Biology,
BASF Agricultural Solutions*

Efficacy of the insecticide Dimpropyridaz (Axalion) against the transmission of plant viruses by insect vectors

Professor Alberto Fereres, PhD,

*Spanish National Research Council/CSIC,
and Department of Crop Protection/ICA, Spain*

Impacts of insecticides on the corn leafhopper and transmission of corn stunt spiroplasma

Professor João Roberto Spotti Lopes, PhD,

University of São Paulo Entomology and Acarology/ESALQ Brazil



→ The first 500 attendees will receive a **smartphone microscope!**

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PRODUCTION OF FERTILIZERS AND ANIMAL FEED



AGROCHEMICAL PRODUCTS

(PESTICIDES, HERBICIDES, FUNGICIDES)



PLANT NURSERIES

(KIWI & STONE FRUIT)



RESEARCH AND DEVELOPMENT

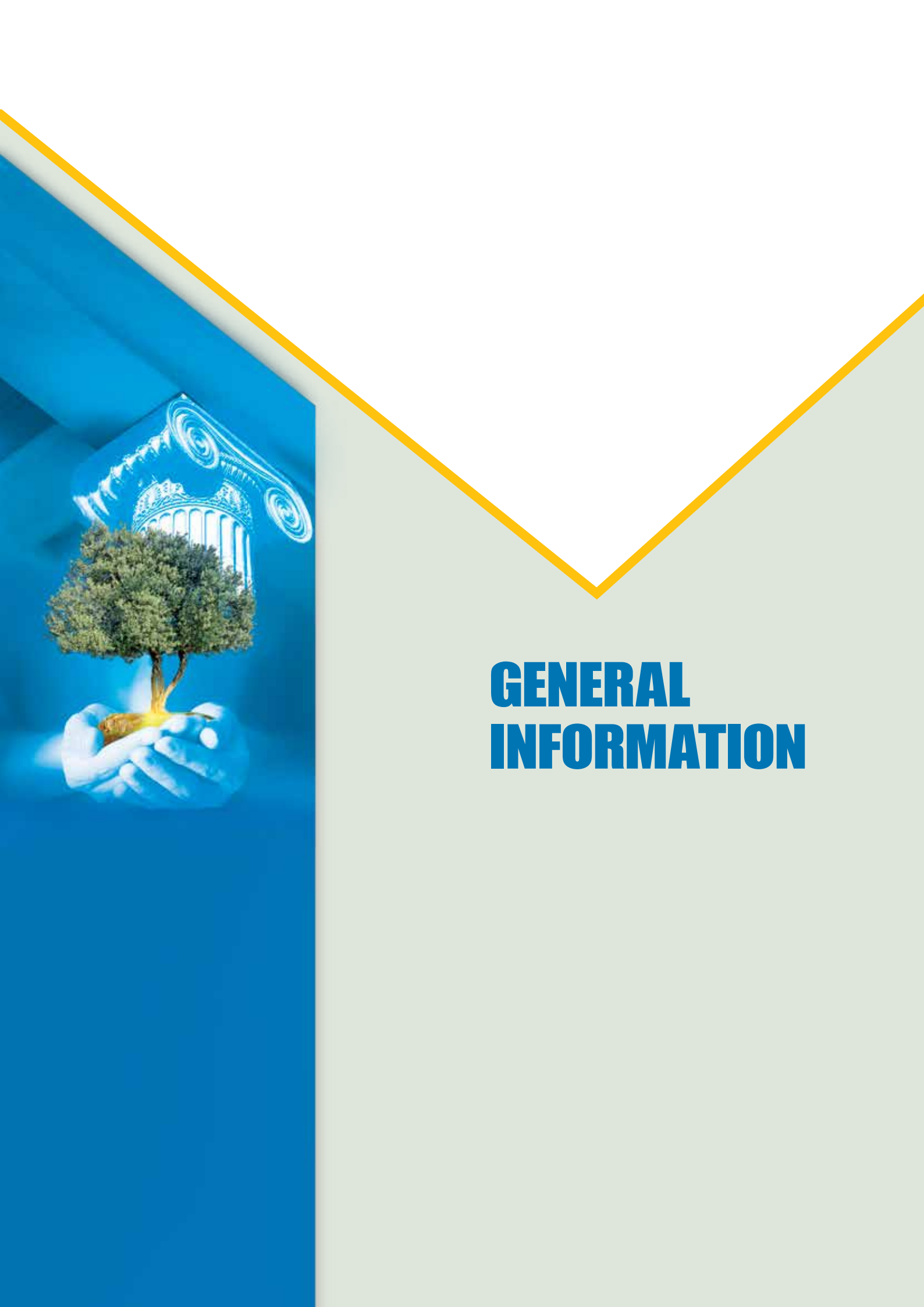
(GENETIC MATERIAL – COTTON)



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15th km O.N.R. Thessalonikis-Verias, 57011, +302310710004, info@agrohellas.com

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GENERAL INFORMATION



General Information

Date & venue

July 1st - 5th, 2024

Megaron Athens Concert Hall International Conference Centre

Vas. Sofias & Kokkali 115 21 Athens

Tel: +30 210 7282000

Website: <https://www.megaron.gr/en/international-conference-centre/>

Website

www.lppcathens2024.gr

Official language

English will be the official language of the meeting.

Congress badge

It is mandatory for the delegates to show their meeting's badge at the entrance of the congress hall.

Meeting's hall presentations

Available audiovisual equipment for all presentations will be through power point presentation. Presentations must be delivered to the technical secretariat at least 45 minutes before the beginning of the session. The use of personal computers will not be feasible.

Exhibition

Within the Congress area there will be an exhibition of companies.

Congress secretariat



Thessaloniki

50 A Stadiou Str., 55534, Pylaia, Thessaloniki, Tel.: 23 10 247734-43

E-mail: info@globalevents.gr

Athens

2 Valestra str. & 168 A. Syngrou Av., 17671, Athens, Tel.: 210 3250260

E-mail: athens@globalevents.gr

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