

BiOCNTROL¹⁹

2019 JULY, 9-11 VITERBO (Italy)



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS



ministero delle politiche agricole
alimentari, forestali e del turismo



Società Italiana di Patologia vegetale



Società Italiana di Patologia vegetale



MPU

Mediterranean Phytopathological Union



International
Society
for Plant
Pathology

International Society for Plant Pathology



International Plant Protection Convention



INTERNATIONAL YEAR OF
PLANT HEALTH
2020



FEDERAZIONE ITALIANA AGRICOLTURA BIOLOGICA E BIODINAMICA



ASSOCIAZIONE ITALIANA AGRICOLTURA BIOLOGICA



Associazione Nazionale delle Imprese
di Trasformazione e Distribuzione
di Prodotti Biologici



Fondazione
Italiana
per la Ricerca
in Agricoltura
Biologica e
Biodinamica



CONSIGLIO
DELL'ORDINE NAZIONALE
DEI DOTTORI AGRONOMI
E DEI DOTTORI FORESTALI



Ministero della Giustizia



Ministero della Giustizia
COLLEGIO NAZIONALE
PERITI AGRARI E PERITI AGRARI LAUREATI



Accademia Nazionale dell'Olio e dell'Olio



AGRICOLTORI ITALIANI



COLDIRETTI
VITERBO



Comune di Viterbo



Phy.Dia. srl

Sede Legale: Via S. Camillo de Lellis, snc 01100 Viterbo

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Phy.Dia., participated spin-off of University of Tuscia, was born thanks to Filas co-funding by means of the call "Support to research spin-off" to give you these responses: one associate professor and two 2 young researchers make available the expertise, experience and passion necessary to ensure your plants health.

The core activities are:

Identification Analysis of Plant Parasites The main activity of Phy.Dia. is the recognition and diagnosis of phytoparasites of any type; our test reports are certified and valid within the EU borders.

Microbiological and Chemical Analysis in Agrifood Sector Aiming to food security, water or agricultural productivity, Phy.Dia. offers you the right solution: discover the wide range of analysis on food, water and soil all certified ACCREDIA.

Assistance in Registration of Pesticides From laboratory analysis to open field tests, Phy.Dia. works closely and actively with Testing Centres recognized to support all the stages for registration of new crop protection products.

Training Courses Phy.Dia. offers training and refresher courses about several subjects for professional figures linked to agri-food sector and not only.



MICOSAT F® is a trademark owned by CENTRO COLTURE SPERIMENTALI (C.C.S.). The company is a centre for research, experimentation and production of biotechnologies with a specific field of application for agriculture, whose research group was founded in 1995.

C.C.S. is an Italian company based in Valle d'Aosta (Quart)

The **MICOSAT F®** formulations are composed of bio-fertilizers composed of a selected microbiota (community of microorganisms) which restores the biodiversity of the soil, now destroyed in its fundamental microbial component. The decrease in the soil and consequently in the rhizosphere of useful micro-organisms leads more and more to the so-called "plant vigour mediated disease".

MICOSAT F® in its different formulations, increases the plant's performance in terms of nutrient absorption and higher yields, establishing synergistic interactions with rhizosphere or antagonism microorganisms for space and nutrients towards pathogens.

MICOSAT F® promotes plant growth and helps plants towards biotic and abiotic stresses such as:

- Drought,
- excess salinity in the soil,
- high and low temperatures,
- unsuitable mineral content in the soil,
- pollution

the C.C.S. has made numerous experiences on extremely different cultures and always with positive results, for example: on the induction of resistance to phytoplasmas of Flavescenza Dorata in Barbera del Monferrato; induction of resistance to coffee rust in a field test conducted in Peru; or also the induction of resistance obtained in plum trees (drupaceous plants) in Emilia Romagna attacked by the yellowish phytoplasma in an experiment conducted by the test centre of the Consorzio di Ravenna (I).



The Cia - Italian Farmers is one of the largest agricultural organizations in Europe and in Italy. Its origin is linked to the National Farmers' Alliance constitution in 1955. Established in December 1977 as Confederazione Italiana Coltivatori (CIC), in 1992 it took the denomination of Confederazione Italiana Agricoltori (Cia) to sanction and promote the modern role of the farmer and his business. Cia represents more than 900,000 full members; farmers and agricultural business owners. Its national headquarters are in Rome and it boasts a strong presence throughout the country in around 5000 communes, with regional, provincial and area branches.

Cia is an autonomous, democratic and independent association which strongly believes in the central role of individual and associated agricultural holdings and promotes cultural, moral, civic and economic growth among farmers and all those working in the rural world.

The organisation works to achieve equal opportunities between women and men in society and the economy, and promotes the inclusion of young people and generational renewal in agricultural businesses and systems.

Cia's aims include: protecting and developing agricultural businesses, farmers and operators in the rural world and agriculture more generally; protecting farm income as well as farmer's civic rights, dignity and right to run a business; strengthening the role of agriculture in the Italian economy, not only as a production sector, but as heritage for our land, environmental and cultural resources and landscape; improving the competitiveness of agricultural businesses on both European and international internal markets; developing and promoting the rural world; and convincing society of the cultural value of land, seeing it as a limited and non-renewable public good.

Cia carries out activities and initiatives in the fields of food quality, safety and education, environmental protection and promotion, agri-tourism, forestry, organic farming, alternative energy sources, and agricultural legislative publishing and information.

Cia signs collective labour agreements and is represented in major institutional bodies at national, regional and provincial level.

It promotes the direct participation of agricultural organisations in international agricultural development policies with the aim of placing farmers at the heart of the agri-food system both locally and globally. With its NGO, AseS, Cia also carries out agricultural development projects in Latin America and Africa.

At international and European level, Cia is a member of COPA (Committee of Professional Agricultural Organisations in the EU) and the WFO (World Farmers Organisation).



Dear All,

it is our worm pleasure to host You to the **4th International Symposium on Biological Control of Bacterial Plant Diseases**, here in **Viterbo, (I) from 9th - 11th July 2019**.

Following the aims started from the 1st edition in Darmstadt, Germany 2005, then in Orlando, Florida USA 2008, until the last ones in Belgrade, Serbia 2016 now, a new stimulating opportunity to meet and discuss the latest research results and developments in the biocontrol of bacterial plant diseases, has become a reality.

BIOCONTROL 2019 is organized by the Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università della Tuscia in collaboration with **FAO**

BIOCONTROL 2019 will focus on the main scientific, technical and political aspects related to the management of the most serious bacterial plant diseases occurring worldwide.

The Symposium was developed into **9 core sections**, taking into proper account the most relevant topics, such as:

- 1) Interactions between plants and microbiomes
- 2) Genetics and Genomics: Basis for innovative control strategies
- 3) Epidemiology and forecasting models
- 4) Biocontrol of bacterial diseases
- 5) Fire blight control: innovation from science to field applications
- 6) Improvements in Bacterial Wilt biocontrol
- 7) Sustainable strategies for the control of fastidious bacteria and their insect vectors
- 8) Production, Safety and Regulation of Biocontrol Agents
- 9) Science and Politics meet Industry

The Symposium will be also an excellent platform to clarify how politics may implement the current legislation to support the industrial development of effective and safe bioproducts, to be used for the sustainable management of bacterial diseases.

BIOCONTROL 2019 programme will also include **2 meetings** related to relevant EU projects concerning several aspects of bacterial plant diseases (**WG4 meeting COST Action CA16107 EuroXanth, PONTE and XFactors**).

The Symposium provides researchers, students and professionals a great opportunity to meet and exchange ideas and develop common activities in a warm and friendly environment. Besides a strong scientific approach, the aim of the event is to generate a positive impact not only for the scientific community, but also for the industry sector, such as companies involved in developing, formulating and distributing bioproducts (e.g.: elicitors, natural active ingredients, biocontrol agents, biostimulants, included tools and methods to control vectors of phytopathogenic bacteria).

Confident in a fruitful opportunity to increase our scientific knowledge, as well as to implement sustainable strategies to contrast bacterial plant disease,

Welcome

Sincerely yours,

Prof. Giorgio M. Balestra, Symposium Chair

University of Tuscia, Dipartimento di Scienze Agrarie e Forestali (DAFNE),

Via S. Camillo de Lellis snc. 01100 Viterbo (Italy)



8.7.19

🕒 17:30-19:30

Registration BIOCONTROL2019

9.7.19

🕒 8:15-9:00

Registration BIOCONTROL2019

🕒 9:00-9:30

Opening BIOCONTROL2019

🕒 9:30-11:00

Session I Interactions between Plants and Microbiomes (Chair, Lindow S.E.)

🕒 9:30-10:00

KINKELL L. (KEYNOTE SPEAKER) SPECIES INTERACTIONS WITHIN THE MICROBIOME
MEDIATE POTENTIAL FOR DISEASE SUPPRESSION

🕒 10:00-10:15

LORITO M. PLANTS ATTRACT BIOCONTROL AGENTS AND CONSEQUENTLY MODIFY
THEIR METABOLISM

🕒 10:15-10:30

HOPKINS D.L., YUVAL BENYAMINI Y. SUSTAINABLE CONTROL OF PIERCE'S
DISEASE OF GRAPEVINE AND CITRUS GREENING WITH A BENIGN STRAIN OF
XYLELLA FASTIDIOSA

🕒 10:30-10:45

SCHAAD N.W. ROLE OF CRUCIFEROUS WEEDS IN THE EPIDEMIOLOGY AND
BIOLOGICAL CONTROL OF SEEDBORNE XANTHOMONAS CAMPESTRIS

🕒 10:45-11:00

LAMORTE D., CIARFAGLIA A.M., LO CANTORE P., ERCOLINI D., IACOBELLIS N.S.
INFLUENCE OF AGRICULTURAL PRACTICES AND PLANT PHENOLOGICAL PHASES
ON STRAWBERRY BACTERIAL MICROBIOME AND EFFECTS OF SELECTED
BACTERIA ON STRAWBERRY GROWTH AND THE STRAWBERRY-XANTHOMONAS
FRAGARIAE INTERACTION

🕒 11:00-11:30 **Coffee break**

🕒 11:30-13:15

Session II Genetics and Genomics: Basis for Innovative Control Strategies (Chair, Mazzaglia A.)

🕒 11:30-12:00

**MECHAN-LLONTOP M.E., TIAN L., BERNAL-GALEANO L., YODER K., VINATZER
B.A. (KEYNOTE SPEAKER)** EXPLORING RAIN-ISOLATED BACTERIA AS POTENTIAL
BIOPESTICIDES TO CONTROL FIRE BLIGHT

🕒 12:00-12:15

FAN S., TIAN F., FANG L., YANG C.H., HE C. TRANSCRIPTIONAL RESPONSES OF
XANTHOMONAS ORYZAE PV. ORYZAE TO TYPE III SECRETION SYSTEM INHIBITOR
ORTHO-COUMARIC ACID

🕒 12:15-12:30

FAINO L., GROTTOLO A., SCALA V., PUCCI N., MODESTI V., L'AURORA A., REVERBERI M., LORETI S. PRELIMINARY RESULTS OF NANOPORE SEQUENCING FOR THE DETECTION AND THE IDENTIFICATION OF XYLELLA FASTIDIOSA SUBSPECIES AND SEQUENCE TYPES FROM NATURALLY INFECTED PLANT MATERIAL

🕒 12:30-12:45

NUNES DA SILVA M., VASCONCELOS M.W., MAZZAGLIA A., GOMEZ-CADENA A., BALESTRA G.M., CARVALHO S.M.P. MECHANISMS UNDERLYING A. CHINENSIS VAR. DELICIOSA DEFENSE RESPONSES AGAINST PSEUDOMONAS SYRINGAE PV. ACTINIDIAE AFTER METHYL JASMONATE AND SALICYLIC ACID APPLICATION

🕒 12:45-13:00

DARANAS N., BADOSA E., FRANCÉS J., MONTESINOS E., BONATERRA A. SPECIFIC QUANTITATIVE VIABLE CELL MONITORING OF THE BIOLOGICAL CONTROL AGENT LACTOBACILLUS PLANTARUM PM411

🕒 13:00-13:15

CATARA V., BIOCONTROL TRAITS IN THE PSEUDOMONAS CORRUGATA SUBGROUPS: A REVIEW

🕒 13:15-14:15 Lunch

🕒 14:15-15:45

Session III Epidemiology and Forecasting Models (Chair, Rossi V.)

🕒 14:15-14:45

MONTESINOS E. (KEYNOTE SPEAKER) EPIDEMIOLOGY AND FORECASTING MODELS IN BIOLOGICAL CONTROL OF DISEASES CAUSED BY PLANT PATHOGENIC BACTERIA

🕒 14:45-15:00

DONOSO E., CABALLERO J., BRATTI J., Y GARCIA C. WINTER POPULATION DYNAMICS, OF PSEUDOMONAS SYRINGAE PV. SYRINGAE ON CHERRY BUDS

🕒 15:00-15:15

FEDELE G., GONZÁLEZ-DOMÍNGUEZ E., ROSSI V. THE INTERACTIONS AMONG BIOCONTROL AGENTS, PATHOGENS AND THE ENVIRONMENT: THE CONCEPT OF ENVIRONMENTAL NICHES

🕒 15:15-15:30

LLORENTE I., BUGIANI R., MORALES G., MONTESINOS E., MORAGREGA C. FIELD EVALUATION OF XAPCAST, A FORECASTING SYSTEM FOR BACTERIAL SPOT DISEASE OF STONE FRUITS CAUSED BY XANTHOMONAS ARBORICOLA PV. PRUNI

🕒 15:30-16:00 Coffee break

🕒 16:00-18:00

Poster session

🕒 18:00-24:00

Visit of "S. Pellegrino" Medieval neighbourhood and Social Dinner

10.7.19

🕒 8:30-11:30

Session IV Biocontrol of Bacterial Diseases (Chair, Jones J.B.)

🕒 8:30-9:00

OBRADOVIC A. (KEYNOTE SPEAKER) BIOCONTROL OF PLANT BACTERIAL DISEASES - RECENT APPROACHES

🕒 9:00-9:15

CANZONIERE P., FRANCESCONI S., BISCHETTI G., BALESTRA G.M. EVALUATION OF TANNINS RESPECT TO THEIR BIOSTIMULANT AND ANTIBACTERIAL ACTIVITY ON TOMATO PLANTS

🕒 9:15-9:30

PAJČIN I., GRAHOVAC J., DODIĆ J., VLAJKOV V., DODIĆ S., JOKIĆ A., GRAHOVAC M. BIOCONTROL OF BLACK ROT AND BACTERIAL SPOT CAUSERS BY BACILLUS VELEZENSIS CULTIVATED ON COMMERCIAL AND RAW GLYCEROL

🕒 9:30-9:45

ORYNBAEV A.T., DZHALILOV F.S.U., NGOC HA V.T., IGNATOV A.N. BIOCONTROL OF BLACK ROT PATHOGEN CLONAL GROUP PREDOMINANT IN RUSSIA

🕒 9:45-10:00

KASEM S. AND HOMKRUN P. BIOCONTROL ACTIVITIES OF BACILLUS AMYLOLIQUEFACIENS S20A1 AND OPTIMUM CONDITIONS FOR SECONDARY METABOLITES PRODUCTION AND CONTROL EFFICACY ON BACTERIAL BLIGHT DISEASE OF RICE IN THAILAND

🕒 10:00-10:15

CARACCILO R., PANNUCCI E., BERNINI R., VARVARO L., SANTI L. ANTIBACTERIAL ACTIVITY OF HYDROXYTYROSOL-ENRICHED EXTRACTS OBTAINED FROM OLIVE MILL WASTE WATERS BY MEMBRANE TECHNOLOGIES AGAINST OLIVE TREE PATHOGENS

🕒 10:15-10:30

THI THU NGÀ N., NGOC TRANT.T., TRUONG PHUC HAO. N., THI KIM NGAN N., THI KIEU TIEN D., KHANH NGUYEN HUAN P., KAMEI K., JONES J.B. THE EFFICACY OF BACTERIOPHAGES FOR CONTROLLING BACTERIAL LEAF BLIGHT ON WELSH ONION CAUSED BY XANTHOMONAS AXONOPODIS PV. ALLI

🕒 10:30-10:45

OZAKTAN G.E.H. EVALUATION OF BIOLOGICAL CONTROL OF BACTERIAL SPOT DISEASE (XANTHOMONAS EUVESICATORIA) IN TOMATO PLANTS STIMULATED BY RHIZOBACTERIA

🕒 10:45-11:00

MESSGO-MOUMENE S. INTEGRATED MANAGEMENT OF PHYTOBACTERIAL DISEASES THROUGH THE CULTIVATION OF MEDICINAL AND AROMATIC PLANTS AND THE USE OF ALGERIAN ISOLATES OF TRICHODERMA ASPERELLUM

🕒 11:00-11:15

LINDOW S. AND BACCARI C. BIOLOGICAL CONTROL OF PIERCE'S DISEASE OF GRAPE BY AN ENDOPHYTIC BACTERIUM

🕒 11:15-11:45 **Coffee break**

🕒 11:45-13:15

Session V Fire Blight Control: Innovation from Science to Field Applications
(Chair, Catara V.)

🕒 11:45-12:15

SVIRCEV A. (KEYNOTE SPEAKER), ANANY H., WANG Q., CASTLE A.J. SUCCESSFUL CONTROL OF FIRE BLIGHT: CAN BACTERIOPHAGES DO THE JOB?

🕒 12:15-12:30

FRIKHA-GARGOURI O., BENKHOUD Z., KALLEL Y., BEN ABDALLAH D., TRIKI M.A., TOUNSI S. EVALUATION OF DIFFERENT STRAINS OF BACILLUS FOR THEIR ACTIVITY AGAINST ERWINIA AMYLOVORA

🕒 12:30-12:45

SGAMMA T., MASSIAH A., LUZIATELLI F., CIRILLI M., GATTI L., THOMAS B., RUZZI M., MULEO R. LIGHT QUALITY MODULATES INFECTION AND DEFENCE RESPONSE TO FIRE BLIGHT IN PEAR TREES

🕒 12:45-13:00

ISMAILOVA E., ALIMZHANOVA M., MOLZHIGITOVA A., SHEMSHURA O., SADANOVTHE A. INFLUENCE OF PHYSICAL MUTAGENESIS ON THE ANTAGONISTIC ACTIVITY OF BACILLUS AMYLOLIQUEFACIENS AGAINST FIRE BLIGHT

🕒 13:00-13:15

GAYDER S., CASTLE A.J., SVIRCEV A.M. PHAGE-MEDIATED BIOCONTROL OF ERWINIA AMYLOVORA SCREENING FOR THE IDEAL CARRIER

🕒 13:15-14:15 Lunch

🕒 14:15-15:15

Session VI Improvements in Bacterial Wilt Biocontrol (Chair, Messiha N.A.S.)

🕒 14:15-14:45

MESSIHA N.A.S. (KEYNOTE SPEAKER), ELHALAG K.M.A., MATAR H.A., FARAG S.M.A., BLABEL N.M., HAGAG M.H., KHAIRY A.M., ABD EL-ALIEM M.M., ALI E.E., SALEH O.E. AND FARAG N.S. MICROBIAL GROUPS AND BIOCONTROL AGENTS ASSOCIATED WITH DIFFERENT CROPPING ROTATIONS IN RELATION TO POTATO BROWN ROT SUPPRESSION

🕒 14:45-15:00

ARWIYANTO T., ARYANI W.T., GUSTI E., RESTINA D. CONTROL OF TOMATO BACTERIAL WILT (RALSTONIA SOLANACEARUM) BY GRAFTING AND BACTERIOPHAGE APPLICATION

🕒 15:00-15:15

MIROSHNIKOV K.A., KABANOVA A.P., SHNEIDER M.M., VASILIEV D.M., IGNATOV A.N. PRINCIPLES OF BACTERIOPHAGE USE TO CONTROL SOFT-ROT BACTERIOSIS OF POTATO

🕒 15:15-16:45 Coffee break

🕒 15:45-17:45

Session VII Sustainable Strategies for the Control of Fastidious Bacteria and their Insect Vectors (Chair, D'Onghia A.)

🕒 15:45-16:15

SAPONARI M. (KEYNOTE SPEAKER) AND BOSCIA D. RECENT ADVANCES ON THE CONTROL OF XYLELLA FASTIDIOSA AND ITS VECTORS IN OLIVE GROVES: STATE OF THE ART FROM THE ONGOING EUROPE'S HORIZON 2020 RESEARCH PROGRAM

🕒 16:15-16:30

POLIAKOFF F., LEGENDRE B.I., DOUSSET C., PAILLARD S., MOLUSSON. D., SAINTE-LUCE A., JUTEAU V., FORVEILLE A., RIVOAL C., CUNTY A., OLIVIER V. HOW EARLY DETECTION OF XYLELLA FASTIDIOSA CAN CONTRIBUTE TO STRATEGIES OF CONTROL OF THE BACTERIUM ? STATUS OF FRANCE

🕒 16:30-16:45

CICCARELLA G., BALDASSARRE F., DE STRADIS A., ALTAMURA G., VERGARO V., LORETI S., TATULLI G. DEVELOPMENT AND PROSPECTS OF NANOSTRUCTURED SMART SYSTEMS FOR SUSTAINABLE STRATEGIES CONTROL OF XYLELLA FASTIDIOSA

🕒 16:45-17:00

BAPTISTA P., CAMEIRÃO C., GIAMPETRUZZI A., MORELLI M., ABOU KUBAA R., ALTAMURA G., D'ATTOMA G., PEREIRA J. A., LINO NETO T., SILDARELLI P. UNDERSTANDING THE OLIVE MICROBIOME OF SUSCEPTIBLE AND RESISTANT CULTIVARS FOR SUSTAINABLE BIOCONTROL

🕒 17:00-17:15

BALESTRA G.M. SUSTAINABLE PESTICIDES TO CONTRAST THE BACTERIUM XYLELLA FASTIDIOSA: CURRENT SITUATION AND REASONABLE PERSPECTIVES

🕒 17:15-17:30

CENTONZE R. EFFECTS OF AGRONOMIC PRACTICES FOR CONTRASTING THE SPREAD OF XYLELLA FASTIDIOSA

🕒 17:30-20:30

Thermal bath at the SPA "Terme dei Papi"

11.7.19

🕒 9:00-11:00

Session VIII Production, Safety and Regulation of Biocontrol Agents (Chair, Wright S.)

🕒 9:00-9:30

HORN N. (KEYNOTE SPEAKER) ASSESSMENT OF IMPACT OF THE RELEASE OF BIOLOGICAL CONTROL AGENTS

🕒 9:30-9:50

GIOVANNETTI G., POLO F., NUTRICATO S., MASOERO G., NUTI M. A HOLISTIC MODEL CAN BE USED TO EXPLAIN THE SYMBIOTIC MITIGATION OF THE OLIVE QUICK DECLINE SYNDROME

🕒 9:50-10:10

GRIMALDI A., GALY R. AN OVERVIEW OF EUROPEAN REGULATORY OF BIOPESTICIDES

🕒 10:10-10:30

HOLTAPPELS D., LAVIGNE R., HUYS I., WAGEMANS J. PROTECTION OF PHAGE APPLICATIONS IN CROP PRODUCTION: A PATENT LANDSCAPE

🕒 10:30-10:50

WRIGHT S.A.I. EVALUATING THE SAFETY OF BIOCONTROL AGENTS FOR USE AGAINST PLANT DISEASES

🕒 10:50-11:15 **Coffee break**

🕒 11:15-13:30

Session IX Science and Politics meet Industry (Chair, Stefani E.)

🕒 11:15-11:45

KAMILOVA F., KNOELL NL BV (KEYNOTE SPEAKER) APPLICATIONS OF PLANT BENEFICIAL MICROBES: OPPORTUNITIES AND CHALLENGES TOWARDS SUSTAINABLE AND RESILIENT AGRICULTURE

🕒 11:45-12:00

BENUZZI M., IBMA NEW EU REGULATORY FRAMEWORK FOR BIOPROTECTION AGENTS. IBMA VISION ON HOW TO IMPROVE REGULATION IN THE EUROPEAN UNION

🕒 12:00-12:15

FENU C., CONAF TECHNICAL ASSISTANCE FROM AGRONOMISTS TO CONTROL BACTERIAL DISEASES IN SUSTAINABLE AGRICULTURE: NEEDS AND PROSPECTS

🕒 12:15-12:30

FARAGLIA B., MIPAAFT REORGANIZATION OF THE NATIONAL PHYTOSANITARY SERVICE FOR BIOLOGICAL CONTROL

🕒 12:30-12:45

XIA J., IPPC INTERNATIONAL YEAR OF PLANT HEALTH 2020 PROTECTING PLANTS, PROTECTING LIFE

12:45-13:00

THAER Y., FAO BIOCONTROL PRODUCTS AGAINST BACTERIAL DISEASES IN THE NENA REGION: EGYPT AS A CASE STUDY

🕒 13:00-13:30

Conclusions and Closing BIOCONTROL2019

🕒 13:30-14:30 **Lunch**

🕒 14:30-18:30

Excursion to Lake Bolsena

KEYNOTE SPEAKERS

Linda Kinkel, Univ. of Minnesota, USA

Interactions Between Plants And Microbiomes

Linda Kinkel's research focuses on the ecology and evolutionary biology of soil and endophytic microbes in relation to plant health. Through integrated studies of agricultural and natural habitats, her work sheds light on community assembly and selection processes that mediate the capacities of bacterial and fungal populations to suppress plant pathogens, and sheds light on novel practical approaches for managing microbiomes to control plant diseases.

Boris Vinatzer, Virginia Tech, USA

Genetics And Genomics: Basis For Innovative Control Strategies

He is a Professor at Virginia Tech's School of Plant and Environmental Sciences. His research spans from molecular plant-microbe interactions to molecular evolution and taxonomy of plant pathogenic bacteria. He takes advantage of the revolution in DNA sequencing technology to develop bioinformatics tools for precise and fast detection, classification, and identification of plant pathogens and biocontrol agents. A second area of research focuses on environmental microbes that may play a role in the formation of precipitation. He teaches an interdisciplinary undergraduate course in Microbial Forensics and Biosecurity in which he covers concepts of biosecurity through examples of bioterrorism and natural disease epidemics of humans, animals, and plants. He has published over 75 peer-reviewed research articles and book-chapters.

Emilio Montesinos, Univ. of Girona, Spain

Epidemiology and Forecasting Models

He is Professor of Microbiology and Plant Pathology at the University of Girona. He earned his graduate studies in Biology and PhD in Microbiology at the Autonomous University of Barcelona (1982). He created a Plant Pathology group at the University of Girona in 1986, and was visiting Lecturer in the Department of Plant Pathology at Cornell University (1994). His area of research and development is focused on Plant Pathology, in the field of biopesticides (microbial and antimicrobial peptides), and epidemiology and control of plant quarantine bacteria. His group have contributed to the field of biocontrol with several strains of beneficial bacteria producing functional peptides. He is inventor in several patents, and contributed to the creation of a spin-off company.

Aleksa Obradovic, Univ. of Belgrade, Serbia

Biocontrol of Bacterial Diseases

Professor of plant pathology, plant bacteriologist and leader of the Faculty of Agriculture Laboratory for Phytobacteriology; Research focus: plant pathogenic bacteria associated with economically important crops grown in Serbia; Possesses an expertise in bacterial detection and identification, as well as in disease diagnosis, control and management; Created the biocontrol research program based on isolation and use of bacteriophages in control of plant pathogenic bacteria; Responsible for the Laboratory accreditation by National Plant Protection Directorate in monitoring several quarantine bacteria including *X. fastidiosa*; Participated in several national and international projects; Mentored five PhD theses; Member of the national Plant Protection Council.

Antonet Svircev, Agriculture and Agri-Food, Gov. of Canada

Fire Blight Control: Innovation From Science to Field Applications

She is a research scientist at Agriculture and Agri-Food Canada in Vineland, Ontario, Canada, specializing in fire blight management and the development of biological control agents for the control of pre- and post-harvest pathogens. Current research includes management of young orchards to prevent fire blight infections and the development of a novel biopesticide that uses bacteriophages with a carrier bacteria. Her ultimate goal is to keep on advertising (to any one that will listen) and promoting the importance of incorporating biologicals in fire blight control programs.

Nevein A.S. Messiha, Agric. Res. Cent., Egypt

Improvements in Bacterial Wilt Biocontrol

She is scientific researcher at Plant Pathology Research Institute, Agric. Res. Centr. Egypt. She is specialised in management of potato brown rot disease and detection of its causal agent, *Ralstonia solanacearum* from its natural habitats (22 years). She worked in disease management with non-chemical approach such as Biological Soil Disinfestation (BSD), application of organic amendments, natural antioxidants and crop rotation as well as strengthen the efficiency of biocontrol agents. Her research focus in disease suppression, induced resistant and crop production in relation to soil microbial biodiversity.

Maria Saponari, Ist. Prot. Sost. delle Piante, CNR BA, Italy

Sustainable Strategies for the Control of Fastidious Bacteria and their Insect Vectors

She started her research in plant pathology on the detection and characterization of olive-infecting viruses developing protocols for virus detection and for setting in vitro cultures for virus elimination and sanitation. In 2003, she begun to work on the development of molecular tools for Citrus tristeza virus (CTV) and viroids, in Italy and then at the USDA in California in the framework of two stages funded by the CNR short-term mobility program 2006 and 2007. More recently she has extended her expertise in the field of the next-generation sequencing (NGS) technology, by using this approach for metagenomic analysis of diseased trees affected by unknown causal agents. The results have contributed to the discovery and characterization of three novel citrus viruses: Citrus yellow vein clearing, Citrus chlorotic dwarf virus and Citrus virus A. During the last five years, she has extended her scientific interest to the development of several research programs on *Xylella fastidiosa*, at national and European level. She contributed to the first report of *X. fastidiosa* in Europe; to define the genetic relatedness of the Apulian strain to the *X. fastidiosa* subsp. *pauca* and to identify the first ascertained vector of *X. fastidiosa* in Italy (*Philaenus spumarius*). Recently, she contributed to fulfill the kock's postulates on *Xylella fastidiosa* and the olive quick decline disease, and to obtain the first complete genome of a EU strain of *X. fastidiosa*. She currently coordinates the EU project H2020 XF-ACTORS "Xylella Fastidiosa Active Containment Through a multidisciplinary-Oriented Research Strategy" (2016-2020).

Nico Horn EPPO Director General

Production, Safety and Regulation of Biocontrol Agents

Mr. Nico Horn is Director-General of EPPO, the European and Mediterranean Plant Protection Organization. He graduated in Plant Pathology from the Wageningen Agricultural University in the Netherlands, where he also obtained a PhD degree in Plant Virology. He worked for many years in Asia and in Europe, setting up research in plant pathology, training plant pathologists, negotiating EU plant health legislation and working towards global harmonization of approaches in Plant Health. Since January 2019, he has been leading EPPO, an intergovernmental organization responsible for cooperation in plant health within the Euro-Mediterranean region. EPPO has 52 member countries and its objectives are to protect plants, by developing international strategies against the introduction and spread of pests which are a threat to agriculture, forestry and the environment, and by promoting safe and effective pest control methods. Setting Standards on the safe use of biological control is part of the core work programme of EPPO. Under this programme several Standards have been developed on import and use of biological control agents. Mr Horn is also the Editor-in-Chief of the EPPO Bulletin, which publishes many papers on biological control from around the EPPO region.

Faina Kamilova, Knoell, NL

Science and Politics Meet Industry

She is involved in research of plant growth promoting microorganisms for 20 years, preferentially in study of biocontrol of soil borne pathogenic fungi. Since ten years she has been directly involved in the commercialization of biocontrol microbes, biostimulants and biofertilizers by registration of these product worldwide. Simultaneously via two trade organizations such as IBMA and EBIC, she is involved development of proposals on how to make EU regulatory environment more suitable for biological-based agricultural inputs.

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