

With the support of:



IOBC 2023 – PROGRAMME

INTEGRATED CONTROL IN PROTECTED CROPS,
TEMPERATE AND MEDITERRANEAN CLIMATE
OCEANOPOLIS, BREST, FRANCE
27TH – 31ST AUGUST 2023

With the participation of:



PROGRAMME IOBC 2023

SUNDAY AUGUST 27th:

19h00-21h30 - WELCOME RECEPTION

MONDAY AUGUST 28th

8h15-8h45: Registration – Welcome coffee

8h45-9h30: Opening ceremony

First session: Chair: Bruno Gobin, Secretary: Sanja Radonjic

9h30-10h10: Lecture: Beneficial soil microbes and zoophytophagous predators as plant 'vaccination' agents against arthropod pests, Maria Pappas, Democritus University of Thrace, Greece

10h10-10h50: Lecture: Multifunctional entomopathogenic fungi for sustainable protected cultivation, Enrique Quesada Moraga, Universidad de Cordoba, Spain

10H50-11H10: BREAK

Second session: Chair: Judit Arnó, Secretary: Jérémy Gonthier

11h10-11h25: Interactions between two mirid predators and their efficacy on whitefly control, Elisabete Figueiredo, Universidade de Lisboa, Portugal

11h25-11h40: Pre-established *Macrolophus pygmaeus* population reduces *Nesidiocoris tenuis* population growth in tomato, Marlies Huysmans, Research Centre Hoogstraten, Belgium

11h40-11h55: Can we exploit the joint use of entomopathogenic fungi and predatory bugs to control *Tuta absoluta*? Luciana Tavella, UNITO, Italy

11h55-12h10: Developing new and native hemipteran biocontrol agents for the Canadian greenhouse industry, Roselyne Labbé, Harrow R and D Centre, Canada

12h10-12h25: The combined effect of *Trichoderma harzianum* and *Nesidiocoris tenuis* inoculation on water stress in tomato, Alberto Urbaneja, Instituto Valenciano de Investigaciones Agrarias, Spain

12h25-12h45: Discussion



12H45-14H15: LUNCH

Third session: Chair: Gerben Messelink, Secretary: Dionysios Perdikis

14h15-14h55: Lecture: Biological control in protected crops in developing countries: difficulties, opportunities and threats: Tunisia as an example. Khaled Abbas, University of Sousse, Tunisia.

14h55-15h10: *Dolichogenidea gelechiidivoris* Marsh (*Hymenoptera: Braconidae*) a new biological control agent of *Tuta absoluta* (Meyrick) (*Lepidoptera: Gelechiidae*) in the Mediterranean Basin, Judit Arnó, IRTA, Spain

15h10-15h25: Comparing the host-specificity of two *Tuta absoluta* parasitoids from different origin, Jérémy Gonthier, Agroscope, Switzerland



15:25-15h40: Biological control of *Tuta absoluta* using a parasitoid and a granulovirus, Janique Koller, Agroscope, Switzerland

15h40-15h55: *Macrolophus pygmaeus* and *Nesidiocoris tenuis* (*Hemiptera: Miridae*) searching ability under four *Tuta absoluta* (*Lepidoptera: Gelechiidae*) egg densities and different prey distribution patterns, Sofia Dervisoglou, Agricultural University of Athens, Greece

15h55-16h10: Discussion

16H10-16H30: BREAK

Fourth session: Chair: Alberto Urbaneja, Secretary: Juliette Pijnacker

16h30-16h45: Student award: Colonizing new territory: *Orius* establishment on tomato lacking type VI trichomes, Julia van Leemput, Wageningen University & Research, The Netherlands

16h45-17h00: First record of an *Orius laevigatus* egg parasitoid: Parasitism by *Erythmelus funiculi* (Fam.: *Mymaridae*) disrupts biological control in greenhouse sweet pepper, Amir Grosman, Bio-bee, Israel

17h00-17h15: The search for a new beneficial to control the tomato russet mite, *Aculops lycopersici*; From the very beginning to a commercial product, Evelien Aussems, Proefstation voor de Groenteteelt, Belgium

17h15-17h30: Preventive inoculation of *Pronematus ubiquitus* averts crop damage and population development of the tomato russet mite *Aculops lycopersici*, Louis Sutter, Agroscope, Switzerland

17h30-17h50: Discussion

17h50: End of the day

FREE EVENING

TUESDAY AUGUST 29th

Fifth session: Chair: Marc Bardin, Secretary: Francisco Javier Calvo

8h15-8h55: Lecture: Status of Biological Control of Aphids in Canada: Successes and Current Challenges, Jandricic Sarah, OMAFRA, Canada

8h55-9h10: Supplemental food sources enhance biological control of the potato aphid by hoverflies in strawberry, Ada Leman, Wageningen University and Research, The Netherlands

9h10-9h25: A New Banker Plant System for Supporting *Aphidius ervi*., Carol S Glenister, IPM Laboratories, USA

9h25-9h40: Clonal differences in the potato aphid (*Macrosiphum euphorbiae*) determine responses to an aphid parasitoid, Laura M. Martinez-Chavez, Harper Adams University, United Kingdom

9h40-9h55: Discussion

9H55-10H15: BREAK

Sixth session: Chair: George Broufas, Secretary: Marlies Huysmans

10h15-10h30: *Micromus variegatus* and *Scymnus interruptus*: two new promising candidates with potential for early aphid control in sweet pepper crops, Jesica Pérez-Rodríguez, Universitat de València, Spain

10h30-10h45: Student award: Evaluation of different natural enemies for biological control of *Aphis nerii* and *Myzus persicae* on Mandevilla, Tiziano Valentini, University of Padova, Italy

10h45-11h00: Influence of temperature on the predation efficiency of the ant *Crematogaster scutellaris* on the western flower thrips, *Frankliniella occidentalis*, Christophe Noppe, Ghent University, Belgium



11h00-11h15: Student award: Why does biocontrol of some thrips species fail? Giuditta Beretta, University of Amsterdam, The Netherlands

11h15-11h30: Efficacy of entomopathogenic nematodes in peat alternative growing media, Tom Pope, Harper Adams University, United Kingdom

11h30-11h45: Discussion

11H45-13H15: LUNCH

13h15-13h45: Poster session

Seventh session - Grower interaction session. Chair: Rose Buitenhuis, Secretary: Amir Grosman

13h45-14h25: Lecture: Challenges and opportunities for biological control of pests in greenhouses in Europe, Karel Bolckmans, BIOBEST, Belgium

14h25-14h40: Development of IPM in cannabis in Switzerland, Julien Mourrut-Salesse, Andermatt Biocontrol, Switzerland

14h40-14h55: Optimising biological control in greenhouse crops in SE Spain through habitat adaptations and increase of biodiversity, Jan van der Blom, Coexphal, Spain

14h55-15h10: Improvement of biocontrol programs with releases of astigmatid mites as in-crop food for phytoseiids, mirids and anthocorids, Enric Vila, Agrobío, Spain

15h10-15h25: Ringed micro-habitats as supplementations for predatory mites, Cécile Bresch, Université Côte d'Azur, INRAE, CNRS, ISA, France

15h25-15h40: The astigmatid mite *Carpoglyphus lactis* as effective supplementary food for generalist predatory mites, Suzanne Lommen, KOPPERT, The Netherlands

15h40-15h55: Supplementing food and shelter to predatory mites to improve thrips control in strawberry protected crop, Benjamin Gard, CTIFL, France

15h55-16h10: Discussion

16h10-16h30: Break

16h30-16h45: Can we boost numbers of the predatory mite *Amblyseius andersoni* with pollen for more robust biological control of two-spotted spider mite *Tetranychus urticae* on raspberry in the UK? Elysia Bartel, ADAS, United Kingdom

16h45-17h00: The use of a push-pull strategy, combining a plant volatile repellent with sticky traps dosed with aggregation pheromone, reduced crop damage from *Frankliniella occidentalis* in strawberry, Clare Sampson, Russell IPM Ltd, United-Kingdom

17h00-17h15: Iolinid mites against powdery mildew and russet mites in tomato protected crops, Juliette Pijnakker, Biobest, Belgium

17h15-17h30: The development of *Trissolcus basalus* for augmentative biological control for *Nezara viridula*, Tom Groot, Koppert, The Netherlands

17h30-17h45: An old predator against a new pest; building a standing army of *Podisus maculiventris* to control *Nezara viridula* in sweet pepper, Hessel van der Heide, Wageningen University & Research, The Netherlands

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17h45-18h00: Improved decision making of *Nezara viridula* in greenhouse crops based on citizen science data, Rob Moerkens, Biobest, Belgium

18h00- 18h45: Open discussion with growers

18h45: End of the day

GALA DINER AT MANOIR DE CURRU

WEDNESDAY AUGUST 30th

All day technical tour

SOCIAL DINER SAVEOL

THURSDAY AUGUST 31st

Eighth session: Chair: Luciana Tavella, Secretary: Marjolein Kruidhof

8h15-8h55: Lecture: Effects of (LED) light on biological pest control, Marjolein Kruidhof, Wageningen University, The Netherlands

8h55-9h10: Novel UV-technology as a tool for management of diseases and pests in protected crops, Nina Svae Johansen, NIBIO, Norway

9h10-9h25: Efficient Powdery mildew control with repeated UV-C treatments in tomato, Julie Moelants, Proefcentrum, Belgium

9h25-9h40: Flashes of UV-C light improve tolerance to powdery mildew of rose plants, Laurent Urban, Avignon University, France

9h40-9h55: Discussion

9H55-10H15: BREAK

Ninth session: Chair: Sophie Le Hesran, Secretary: Tiziano Valentini

10h15-10h30: Development of methodological tools to better understand biocontrol products for the control of tomato grey mold (ABA PIC project, 2021-2022), Klervi Crenn, Vegenov, France

10h30-10h45: Field evaluation of alternative plants for the management of *Nesidiocoris tenuis*, Gaetano Siscaro, University of Catania, Spain

10h45-11h00: Student award: Exploring the potential of plant volatiles to enhance pest management in sweet pepper plants, Chaymaa Riahi, Instituto Valenciano de Investigaciones Agrarias, Spain

11h00-11h10: Discussion

11h10-11h25: Effect of deterrent light-emitting diode (LED) qualities on the visual behaviour of the greenhouse whitefly *Trialeurodes vaporariorum*, Maria Athanasiadou, Leibniz Universität Hannover, Germany

11h25-11h40: Factors influencing vine weevil monitoring tool efficacy, Eugenia Fezza, Harper Adams University, United Kingdom

11h40-11h55: Alternative strategies of control of striped cucumber beetle, *Acalymma vittatum*, with mass trapping in cucumber greenhouses, Geneviève Labrie, Centre de recherche agroalimentaire de Mirabel, Canada

11h55-12h10: Interest of semiochemicals against *Frankliniella occidentalis* in ornamental crops, Emilie Maugin, ASTREDHOR, France

12h10-12h25: Screening of semio-chemical molecules and entomopathogenic fungi for an auto-dissemination control strategy against *Frankliniella occidentalis*, François Lefort, HES-SO University of Applied Sciences and Arts, Switzerland

12h25-12h40: Discussion

12H40-14H10: LUNCH

14h10-14h50: WG business meeting

Tenth session: Chair: Elisabete Figueiredo, Secretary: Tom Pope

14h50-15h05: Putting pests on a diet? Changing crop production practices to reduce plant susceptibility to pests and improve biocontrol success, Rose Buitenhuis, Vineland Research and Innovation Centre, Canada

15h05-15h20: Mealybug control in Flemish greenhouses with *Cryptolaemus montrouzieri* and *Chrysoperla carnea*, Bruno Gobin, PCS, Belgium

15h20-15h35: New insights into the life cycle and behaviour of the exotic pest *Thrips parvispinus*, Sophie Le Hesran, Wageningen Research, The Netherlands

15h35-15h50: Student award: Complementarity among *Orius* species enhances pest control of foliar and flower pests, Angelos Mouratidis, Wageningen University & Research, The Netherlands

15h50-16h05: Mites of major importance on vegetables in greenhouses in southern part of Montenegro, Sanja Radonjić, University of Montenegro, Montenegro

16:05-16h20: Reconsidering the IOBC Toxicity Classification System: Problems and incompatibilities arising from its use. Introduction of the Predator/Prey or Parasitoid/Host ratio as a new, more realistic Classification System, Paraskevi Kolokytha, IPM Impact, Belgium

16:20-16h35: Discussion

16h35-16h50: Meeting Wrap-up

16h50: End of the meeting





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