

75<sup>th</sup>

**International Symposium on  
Crop Protection**  
Jubilee edition



ISCP

INTERNATIONAL SYMPOSIUM  
ON CROP PROTECTION

**May 21, 2024**  
**Ghent**  
**Belgium**

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# PROGRAMME 75<sup>th</sup> ISCP - 21 May 2024

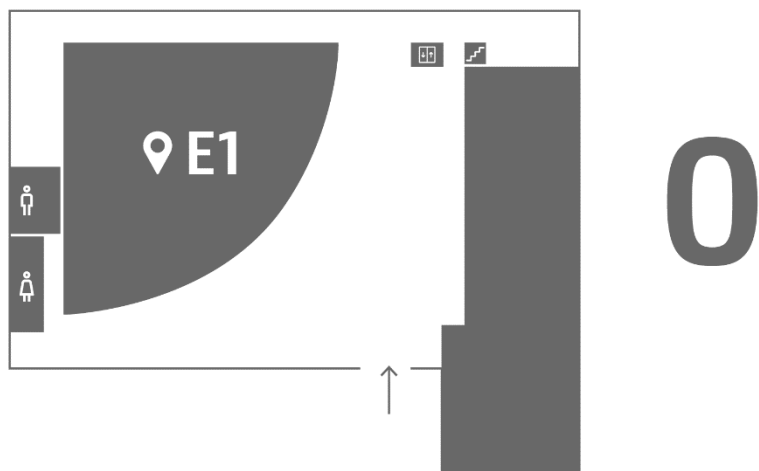
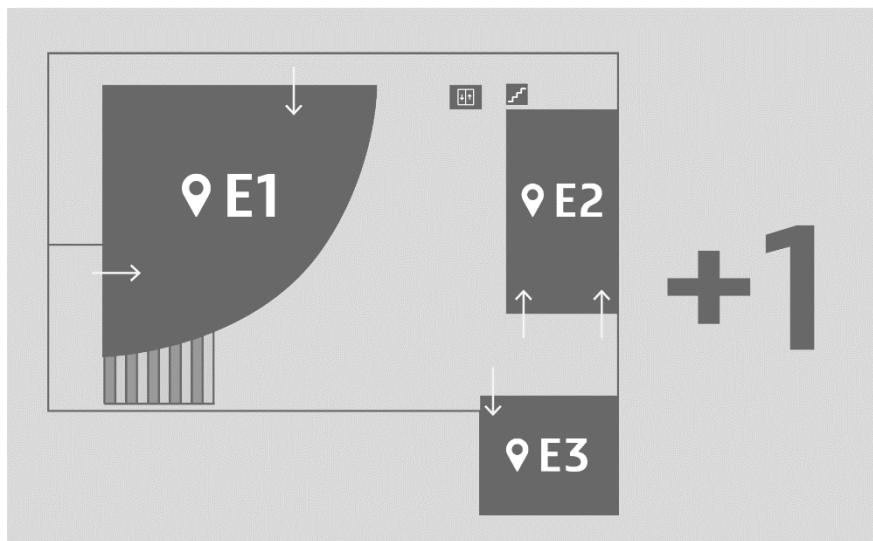
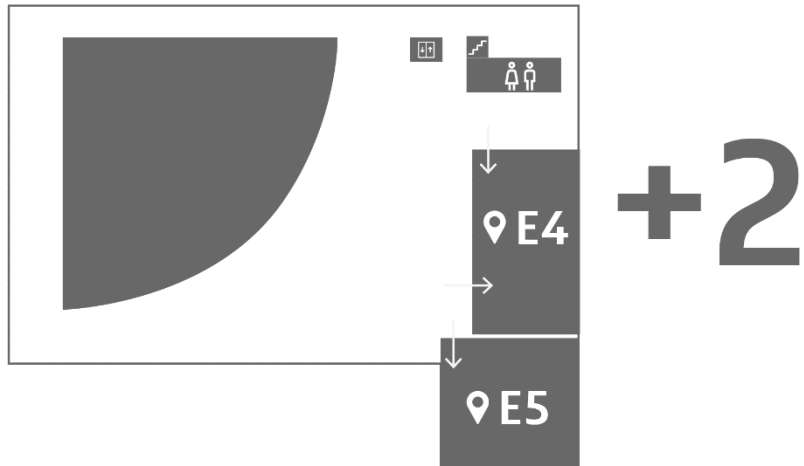
## Schedule (CEST)

08:00	<b>REGISTRATION</b> (building E, ground floor, Agora)
09:30-10:40	<b>PLENARY SESSION</b> (building E, first floor, room E1)
10:40-11:10	<b>COFFEE BREAK</b> (building E, ground floor, Agora)
11:10-12:30	<b>ORAL SESSIONS</b> (building E)
12:30-13:40	<b>LUNCH</b> (building E, ground floor)
13:40-14:40	<b>POSTER SESSION</b> (building E)
14:40-15:00	<b>COFFEE BREAK</b> (building E, ground floor, Agora)
15:00-17:20	<b>ORAL SESSIONS</b> (building E)
17:20	<b>RECEPTION</b> (building E, ground floor, Agora)
19:30	<b>BANQUET</b> <b>Oude Vismijn, hall "Eau'rangerie"</b> <b>Sint-Veerleplein 5</b> <b>9000 GHENT</b>

## THE SYMPOSIUM VENUE

<b>Session</b>	<b>Blok (Building)</b>	<b>Floor</b>	<b>Auditorium No</b>
Plenary Session	E	+1	E1 (OEHOE)
Special session: Innovative crop protection systems	E	+1	E1 (OEHOE)
Phytopathology: control	E	+1	E2
Phytopathology: characterisation	E	+1	E3
Herbology	E	+1	E3
Formulation and Application Technology	E	+2	E4
Agricultural Entomology and Acarology	E	+2	E4
Nematology	E	+2	E5
Pesticide Residues: Toxicology and Ecotoxicology	E	+2	E5
Poster session	E	0 +1 +2	hallways

# BLOK E





## Plenary Session

Chair **M. HÖFTE** (Ghent University, Ghent, Belgium)

Secretary **B. VANDEKERKHOVE** (Ghent University, Ghent, Belgium)

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### Auditorium E1 (OEHOE)

09:30 **B. TORTO** (International Centre of Insect Physiology and Ecology, Nairobi, Kenya)

- Nature-based solutions for selected Solanaceae crop pests

10:05 **M. HÖFTE, AND P. SPANOGHE** (Ghent University, Ghent, Belgium)

- 75 years of crop protection

**10:40 Coffee Break**

## **Special Session**

### **Innovative crop protection systems**

Chair: **P. JACQUES** (University of Liège, Gembloux, Belgium)

Vice-chair: **M. MAHILLON** (Ghent University, Ghent, Belgium)

Secretary: **R. BEX** (Ghent University, Ghent, Belgium)

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#### **Auditorium E1 (OEHOE)**

11:10 **W. MUSHTAQ, C. DE CLERCK, AND M.-L. FAUCONNIER** (University of Liège, Gembloux, Belgium)

- Assessment of induced allelopathy in crop-weed co-culture using the rye-pigweed model

11:30 **H. RAZAFINDRALAMBO, M. MOUNIR, S. KOUHOUNDE, K. ADEOTI, AND P. JACQUES** (University of Liège, Gembloux, Belgium; ProBioLab, Namur, Belgium.)

- Synbiotics for sustainable African farms

11:50 **T. DARDOURI, L. SARLES, AND E. LEPPIK** (Agriodor, Rennes, France)

- Control of sugar beet yellows viruses by behavioural manipulation of aphid vectors in the field via volatiles

12:10 **P. JACQUES, E. DUTILLOY, AND J.-Y. PARFAIT** (University of Liège, Gembloux, Belgium)

- Promoting sustainable farming: Walloon network for digital and biocontrol integration



**Special session**  
**Innovative crop protection systems**

Chair: **P. JACQUES** (University of Liège, Gembloux, Belgium)

Vice-chair: **M. MAHILLON** (Ghent University, Ghent, Belgium)

Secretary: **R. BEX** (Ghent University, Ghent, Belgium)

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**Auditorium E1 (OEHOE)**

- 15:00 **J. BYRNE, L. WALSH, F. THORNE, AND R. LILLYWHITE** (Teagasc, Carlow, Ireland; University of Warwick, Coventry, UK)
- Towards a metric for integrated pest management in Irish horticulture
- 15:20 **K. DE KOCK, P. MOTTI, E. DEGROOTE, M. PERNEEL, B. CAMMUE, M. HÖFTE, K. DEMEESTERE, S. MANGELINCKX, D. GEELEN, AND T. KYNDT** (Ghent University, Ghent, Belgium)
- Fennel and other Apiaceae waste extracts as novel inducers of plant immunity
- 15:40 **M.L. FAUCONNIER, M. GENVA, AND C. BURGEON** (University of Liège, Gembloux, Belgium)
- Botanicals: a sustainable strategy in crop protection?
- 16:00 **M. HOUBRAKEN, T. DE MULDER, C. KLANK, G. BOSSUYT, S. VANDENABEELE, M. RICCI, AND I. VERCAUTEREN** (Aphae.Bio nv, Zwijnaarde, Belgium)
- VALORIA and VIRTUOSA - two novel biofungicides for cereals and fruit & vegetables
- 16:20 **B. FIFFANI B., F. DELVIGNE, V. PHALIP, E. DUTILLOY, G. DENEYER, N. COLLOT, P. DELAPLACE, AND P. JACQUES** (University of Liège, Gembloux, Belgium)
- Development of a new biostimulant based on *Trichoderma harzianum*, *Bacillus velezensis* and nitrate
- 16:40 **S. HEANG MADLENER, A. ROCHEX, A. BRICOUT, A. PELUS, C. MORRIS, M. BARDIN, P. NICOT, A. SIAH, B. TISSERAND, M. DUBAN, P. JACQUES, V. LECLERE, AND D. LECOUTURIER** (Université de Lille, Université de Liège, UMRt BioEcoAgro 1158-INRAE, Lille, France)
- Potential of lipopeptide-producing *Pseudomonas syringae* strains for biocontrol
- 17:00 **J. TEMMERMANS, M. LEGEIN, I. CHECCHIA, W. SMETS, R. KARISE, AND S. LEBEER** (Antwerp University, Antwerp, Belgium)
- Common cultivation practices drastically shape the strawberry flower microbiome

## Session

### Phytopathology: control

Chair: **S. MASSART** (University of Liège, Gembloux, Belgium)

Vice-chair: **N. DE ZUTTER** (Ghent University, Ghent, Belgium)

Secretary: **L. DE TROYER** (Ghent University, Ghent, Belgium)

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#### Auditorium E2

11:10 **E. GEUKENS, L. LEUS, E. SMOLDERS, AND K. HEUNGENS** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Melle; KU Leuven, Leuven, Belgium)

- Black root rot resistance screening in *Ilex crenata*

11:30 **M. KORNIICHUK, E. VAN CUTSEM, G. VAN AUBEL, G. MÉTILLON, AND P. VAN CUTSEM** (Fytofend S.A., les Isnes, Belgium)

- Resilient sugar beets: oligosaccharide elicitors for *Cercospora* leaf spot control

11:50 **S. MONTANARI, A. NESLER, C.M.O. LONGA, AND M. PERAZZOLLI** (University of Trento, Trento; Research and Innovation Centre, Fondazione Edmund Mach, Trento, Italy)

- Efficacy of a new fungicide against tomato grey mold

12:10 **L. PESENTI, AND C. BRAGARD** (UCLouvain, Earth and Life Institute, Louvain-la-Neuve, Belgium)

- Exploring Salicaceae xylem endophytes interplay with *Xylella fastidiosa* or *Brenneria salicis*

## Session

### Phytopathology: control

Chair: **S. MASSART** (University of Liège, Gembloux, Belgium)

Vice-chair: **N. DE ZUTTER** (Ghent University, Ghent, Belgium)

Secretary: **L. DE TROYER** (Ghent University, Ghent, Belgium)

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#### Auditorium E2

15:00 **L. VLASSELAER, S. CRAUWELS, B. LIEVENS, AND B. DE CONINCK** (KU Leuven, Leuven, Belgium)

- A microbiome study on healthy and *Phytophthora cryptogea*-inoculated lettuce

15:20 **K. VAN LOOCKE, J. DE ROP, M. HÖFTE, AND B. DE CONINCK** (Ghent University, Ghent, Belgium)

- *Harnessing Bacillus* spp. for *Phytophthora cryptogea* biocontrol in hydroponic lettuce

15:40 **H. MESTDAGH, A. HAEGEMAN, T. DOCKX, J. VAN MULLEM, A. DECOMBEL, I. VANDEVELDE, K. HEUNGENS, AND M. HÖFTE** (Ghent University, Ghent, Belgium)

- *Fusarium oxysporum* f.sp. *lactucae* pathotypes: genotyping and alternative hosts

16:00 **M. DELAETER, A. LUCAU, M. MAGNIN-ROBERT, B. RANDOUX, AND A. LOUNES-HADJ SAHRAOUI** (Université du Littoral Côte d'Opale, Calais cedex, France)

- Mycorrhizal inoculation modulates wheat leaf transcriptome and resistance to Septoria Tritici Blotch

16:20 **J. KENFAOUI, M. DUBAN, S. LE GUILLOUZER, V. LECLERE, E. AIT BARKA, AND Q. ESMAEEL** (Université de Reims Champagne Ardenne, Reims, France)

- Heterologous expression of cyclic lipopeptides for grapevine protection

16:40 **A. RAZACK SARE, M. HAISSAM JIJAKLI, AND S. MASSART** (University of Liège, Gembloux, Belgium)

- Highlighting the complexity of pathogenesis: the host microbiota impacts disease development on apple fruit and is a cornerstone for its biocontrol

17:00 **C. DE PESSEMIER, M. VANDECASTEELE, K. HAMONTS, D. VAN DAMME, AND S. GOORMACHTIG** (VIB-UGent, Center of Plant Systems Biology, Zwijnaarde, Belgium)

- Unravelling mode-of-action of biocontrol agents to combat fungal diseases in wheat

## Session

### Phytopathology: characterisation

Chair: **E. PAUWELYN** (Inagro, Rumbeke, Belgium)

Vice-chair: **S. MARCOU** (Ghent University, Ghent, Belgium)

Secretary: **H. MESTDAGH** (Ghent University, Ghent, Belgium)

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#### Auditorium E3

11:10 **S. MARCOU, I. KERSTENS, R. BEX, J. MOYSE, O. LEROUX, A. QUÉRO, K. STEPPE, AND M. HÖFTE** (Ghent University, Ghent, Belgium)

- Plant xylem metabolite and starch dynamics in the *V. dahliae* – pepper interaction

11:30 **L. HERMAN, R. MERTENS, E. AUSSEMS, R. CLYMANS, AND K. HEUNGENS** (Research station for vegetable production, Sint-Katelijne-Waver, Belgium)

- Characterization of *Fusarium* isolates involved in a new wilting disease in sweet pepper

11:50 **E. PAUWELYN, M. AMEYE, T. ARNOUITS, I. VANDEVELDE, N. DECLERCK, L. VERGOTE, S. VERHELST, A. DECOMBEL, AND E. TARDY** (Inagro vzw, Rumbeke, Belgium)

- *Berkeleyomyces rouxiae* causes Black Root Rot on lamb's lettuce in Flanders

12:10 **I. DEWITTE, E. GULDENTOPS, M. HEYNEMAN, Y. FOUCART, K. DE JONGHE, AND S.P.O. WERBROUCK** (Flanders Research Institute for Agricultural Fisheries and Food, Merelbeke (ILVO); Ghent University, Ghent, Belgium)

- Detection of plant viruses with high-throughput sequencing and in vitro elimination of detected viruses

## Session Herbology

Chair: **B. DE CAUWER** (Ghent University, Ghent, Belgium)

Vice-chair: **F. HENRIET** (Centre wallon de Recherches agronomiques (CRA-W), Gembloux, Belgium)

Secretary: **M. DE MEESTER** (Ghent University, Ghent, Belgium)

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### Auditorium E3

15:00 **V. CLAEYS, J. LATRÉ, E. WAMBACQ, S. LANDSCHOOT, K. DEWITTE, V. DERYCKE, AND G. HAESAERT** (University for Applied Sciences and Arts of Ghent, Bottelare; Ghent University, Ghent, Belgium)

- Weed control in intercropping maize with climbing beans in Flanders

15:20 **J. DUTORDOIR, K. STEPPE, B. VANHOUTTE, S. REMY, W. VERJANS, A. GOMAND, T. BELIËN, T. THYS, W. ODEURS, J. VERELLEN, AND B. DE CAUWER** (Ghent University, Ghent, Belgium)

- Challenges and opportunities for integrated weed management in pome fruit

15:40 **E. DENDAUW, J. BODYN, AND S. BUYSSENS** (Viaverda, Kruishoutem, Belgium)

- Research in weed management in minor crops in Flanders

16:00 **J. FEYS, D. REHEUL, W. DE SMET, S. CLERCX, S. PALMANS, G. VAN DE VEN, AND B. DE CAUWER** (Ghent University, Ghent, Belgium))

- Effect of anaerobic soil disinfestation on tuber vitality of *Cyperus esculentus*

16:20 **F. HENRIET, F. RABIER, AND C. CREVITS** (Centre wallon de Recherches agronomiques (CRA-W), Gembloux, Belgium)

- Selectivity of several herbicides in sunflower (*Helianthus annuus*)

16:40 **S. DE RYCK, I. ZWERTVAEGHER, D. NUYTTENS, J. VANWIJNSBERGHE, T. ANDARGIE ZEWDIE, P. VERBOVEN, AND B. DE CAUWER** (Ghent University, Ghent, Belgium)

- Optispray: Performance of drift-reducing nozzles for controlling small weeds with foliar herbicides

## Session Formulation and Application Technology

Chair: **P. SPANOGHE** (Ghent University, Ghent, Belgium)

Vice-chair: **E. LOPEZ-DAVILA** (Ghent University, Ghent, Belgium)

Secretary: **P. HOENDERVANGERS** (Ghent University, Ghent, Belgium)

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### Auditorium E4

11:10 **P. HOENDERVANGERS, P. SPANOGHE, D.P.L. ROUSSEAU, AND D. CIRNE** (Ghent University, Ghent, Belgium)

- Benchmarking and integrating nature-based solutions and engineered technologies for enhanced pesticide removal

11:30 **J. MOELANTS, AND L. BOSMANS** (Proefcentrum Hoogstraten, Meerle, Belgium)

- Repeated UV-C treatments to control powdery mildew in tomato and side effect on *Aculops Lycopersici*

11:50 **T. ANDARGI ZEWDIE, I. ZWERTVAEGHER, D. NUYTENS, J. VANWIJNSBERGHE, S. DE RYCK, B. DE CAUWER, AND P. VERBOVEN** (KU Leuven, Leuven, Belgium)

- Selecting optimal spray application techniques using a CFD modelling

12:10 **J. VANWIJNSBERGHE, I. ZWERTVAEGHER, B. DE CAUWER, S. DE RYCK, E. ANDARGIE ZEWDIE, P. VERBOVEN, AND D. NUYTENS** (Inagro vzw, Rumbeke, Belgium)

- Coverage and deposition of spray application techniques in potato

## Session Agricultural Entomology and Acarology

Chair: **B. GOBIN** (Viaverda, Destelbergen, Belgium)

Vice-chair: **J. BONTE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)

Secretary: **A. MOCCHETTI** (Ghent University, Ghent, Belgium)

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### Auditorium E4

- 15:00 **B. VANTHOURNOUT, J. GOSSEYE, F. TEMMERMAN, E. CAUWELIER, S. FLEERAKKERS, AND A. DE ROISSART** (AgroFoodNature, University College Ghent, Ghent, Belgium)
- The use of bankerplants to recruit natural enemies in organic cabbage crops
- 15:20 **D. MARET, L. NORRGROVE, AND L. SUTTER** (Bern University of Applied Sciences, Zollikofen, Switzerland)
- Weekly pollen optimises control of the tomato russet mite by *Pronematus ubiquitus*
- 15:40 **F. MAERTENS, M. HEYNEMAN, A. HAEGEMAN, J. WITTERS, J. BONTE, L. HEYMAN, S. BUYSSENS, K. DE JONGHE, AND W. DERMAUW** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)
- High-throughput sequencing surveillance of *Bemisia tabaci*: detecting plant viruses and insecticide resistance mutations
- 16:00 **A. CHACON HURTADO, F. RUHLAND, A. BOULLIS, AND F.J. VERHEGGEN** (Université de Liège, Gembloux, Belgium)
- Beyond the smell: evaluation of wireworm potato varietal preference associated with tuber volatile emissions, palatability, and larval fitness
- 16:20 **I. BEN FEKIH, M.C. COKOLA, K. DESSAUVAGES, K. NONGAMANÉGRÉ, L. GLACET, A. BADOLO, AND F. FRANCIS** (Université de Liège, Gembloux, Belgium)
- Biocontrol with endophytic entomopathogenic fungi of the order Hypocreales
- 16:40 **I. CALLEWAERT, A. STAES, K. GEVAERT, A. HENDRIX, AND K. DE SCHUTTER** (Ghent University, Ghent, Belgium)
- Characterisation of extracellular vesicles in insect cells
- 17:00 **M. FROYEN, W.-Y. LIAO, E. PEETERS, J. AUDENAERT, R. VERHOEVEN, B. GOBIN, AND P. DE CLERCQ** (Ghent University, Ghent, Belgium)
- Biological Control of the Rhododendron Aphid using *Micromus angulatus*

## Session Nematology

Chair: **R. SIKORA** (University of Bonn, Bonn, Germany)

Vice-chair: **K. DAVIES** (University of Hertfordshire, Hatfield, UK)

Secretary: **L. TANING** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)

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### Auditorium E5

11:10 **J.A. PRICE, M.F. ALI, L.L. MAJOR, T.K. SMITH, AND J.T. JONES** (The James Hutton Institute, Dundee, Scotland)

- The molecular basis of the potato cyst nematode hatching cascade

11:30 **J. HU, U. HASSI, M. TSEGAYE GEBREMIKAEL, K. DUMACK, T. DE SWAEF, W. WESEMAEL, S. SLEUTEL, AND S. DE NEVE** (Ghent University, Ghent, Belgium)

- Root traits explain multitrophic interactions of belowground nematodes on soil nitrogen mineralization and plant productivity

11:50 **P. BRINKMAN, V. KURM, J. VISSER, AND G. KORTHALS** (Wageningen University and Research – Field Crops, Lelystad, the Netherlands)

- Effects of agricultural system and soil measures on nematodes

12:10 **L.M. TANING, J. AUDENAERT, I. DELCOUR, T. KYNDT, AND W.M.L WESEMAEL** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)

- Effectiveness of (biological) agents against plant-parasitic nematodes under field conditions in tree nurseries



## Session Nematology

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### Auditorium E5

15:00 **R.A. SIKORA** (University of Bonn, Bonn, Germany)

- Improving root health in crop production systems in Sub Saharan Africa, using new technologies for integrated nematode management.

15:20 **J. MAOSA, D. GITONGA, Z. GITHINJI, H. TIEN NGUYEN, M. COUVREUR, L. CORTADA, C. ODUOR, D. COYNE, AND W. BERT** (Ghent University, Ghent, Belgium)

- Challenges and prospects of nematode identification, with a spotlight on coffee nematodes in Kenya

15:40 **F.H. TUMPA, M.D.A. RAHMAN KHOKON, S. NAMDEO CHAVAN, AND T. KYNDT** (Ghent University, Ghent, Belgium)

- Comprehensive investigation on rice root-knot nematodes in Bangladesh: molecular profiling, pathogenicity assessment, and resistant variety screening

16:00 **L.P.G. MOLENDIJK** (Wageningen University and Research - Open Fields, Lelystad, the Netherlands)

- Integrated Nematode Management (INM) as part of Integrated Crop Management (ICM)

16:20 **K.G. DAVIES** (University of Hertfordshire, Hatfield, UK)

- The origin of the cuticle surface coat: lessons from *Caenorhabditis elegans* applied to phytonematodes

## Session

### Pesticide Residues: Toxicology and Ecotoxicology

Chair: **P. SPANOGHE** (Ghent University, Ghent, Belgium)

Vice-chair: **E. LOPEZ-DAVILA** (Ghent University, Ghent, Belgium)

Secretary: **P. HOENDERVANGERS** (Ghent University, Ghent, Belgium)

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#### Auditorium E5

16:40 **M. RAIMONDI, P. SPANOGHE, L. PEETERS, W. REYBROECK, F. DE VIS, D. BYLEMANS, J. BUYSSE, AND B. DE CAUWER** (Ghent University, Ghent, Belgium)

- A holistic approach to PPP withdrawal: integrating human and environmental risks

17:00 **H.H. BOUKHALFA, N. GUEHILIZ, AND K. DEGHNOCHE** (Mohamed Khider University of Biskra, Biskra, Algeria)

- Assessment of phytosanitary challenges in cereal cultivation within an arid zone of Algeria

## Posters

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### Special session: Innovative Crop Protection Systems

- S-01 **F. BOUBSI, C. CHEMOTTI, M. DELEU, M. ONGENA, AND P. JACQUES** (University of Liège, Gembloux, Belgium)
- Towards Sustainable Agriculture: screening methods to unveil new antifungals and biomolecules inducing plant systemic resistance
- S-02 **C. BURGEON, A. SEGERS, P. JACQUES, M.-L. FAUCONNIER, M. H. JIJAKLI, AND F. FRANCIS** (University of Liège, Gembloux, Belgium)
- ADOPT-IPM : EU-China joint action to increase development and adoption of IPM tools
- S-03 **C. BURGEON, M. DELEU, M.-L. FAUCONNIER, AND M.H. JIJAKLI** (University of Liège, Gembloux, Belgium)
- CERCOIL: Combatting Cercospora leaf spot disease using essential oil-based fungicides.
- S-04 **K. FARIH, H. RAZAFINDRALAMBO, M. MOUNIR, AND P. JACQUES** (University of Liège, Gembloux, Belgium)
- Biocontrol potential of native citrus bacteria against *Penicillium* sp.
- S-05 **M. MOHADDAB, M. FAKIRI, Y. EL-GOUMI, M. GENVA, AND M.-L. FAUCONNIER** (University of Liège, Gembloux, Belgium)
- In vitro production of secondary metabolites by *Capparis spinosa* callus culture
- S-06 **P.L.K. TAFOKEU TAGUIMJEU, M. GENVA, F. MER, AND M.-L. FAUCONNIER** (University of Liège, Gembloux, Belgium)
- EXTRABARK PROJECT: Towards a reinforced circular economy valorization of wood bark by-products by the extraction of valuable molecules as an alternative to synthetic products in agronomy and wood protection
- S-07 **L. VAN DEN BERGHE, C. BURGEON, AND H. JIJAKLI** (University of Liège, Gembloux, Belgium)
- TAVOIL: how to develop an essential oil-based fungicide against apple scab
- S-08 **M. HOUBRAKEN, M. RICCI, AND S. VANDENABEELE** (Apeha.bio nv, Zwijnaarde, Belgium)
- Apeha.Bio: an innovative approach to research and develop plant biostimulant and plant protection products

## Posters

- S-09 **T. DE MULDER, M. RICCI, AND S. VANDENABEELE** (Apeha.bio nv, Zwijnaarde, Belgium)
- APEX, a revolutionary pipeline of microbial solutions
- S-10 **S.M. JAZAYERI, L. URBAN, J. AARROUF, AND F. LAURI** (Avignon Université, Avignon, France)
- Flashes of UV-C light : a plant resistance inducer and biostimulant
- S-11 **A. SAKHO, A. DIAGNE, M.B. DIOP, A.S.A. BA, M.T. GUEYE, M. GENVA, F. FRANCIS, H. AZADI, AND M.L. FAUCONNIER** (Université Gaston Berger, Saint Louis, Senegal; University of Liège, Gembloux, Belgium)
- Post-harvest loss management initiative in Senegal using bio-pesticides derived from essential oils of indigenous plants for sustainability and food security
- S-12 **B. LAEKEMAN, W. DERMAUW, J. BONTE, A. CHRISTIAENS, L. DE CLERCK, B. GOBIN, J. VAN HUYLENBROECK, E. DHOOGHE, AND P. LOOTENS** (Ghent University, Ghent; Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Melle, Belgium)
- AI-based detection of thrips and whitefly species on sticky traps in greenhouses and vertical farms
- S-13 **F. NJERU, W. DESMEDT, O. ZWAENEPOEL, G. HAESAERT, J. GETTEMANS, G. MISINZO, T. TRAN MINH, K. DE JONGHE, AND K. AUDENAERT** (Sokoine University of Agriculture, Morogoro, Tanzania)
- Nanobodies as an innovative tool for the management of maize lethal necrosis disease

## Phytopathology

- P-01 **D. LEGESSE, A. WAVRANT, F. OSZUST, T. MASSY, L. MERCIER, S. LEPORINI, A. HAHN, N. NASSR, F. FONTAINE, C. JACQUARD, E. AIT BARKA, L. SANCHEZ, AND Q. ESMAEEL** (Université de Reims Champagne Ardenne, INRAE, RIBP USC 1488, Reims, France)
- Exploring phyllosphere and carposphere microbiota of the primary grapevine cultivars in the Champagne region, France
- P-02 **S. BENCHLIH, R. LAHLALI, K. ABERKANI, E. AIT BARKA, AND Q. ESMAEEL** (Université de Reims Champagne Ardenne, INRAE, France ; Ecole Nationale d'Agriculture de Meknès, Meknes; University Mohammed Premier, Oujda, Morocco)
- Plant growth-promoting bacteria: a natural defense against *Clavibacter michiganensis* subsp. *michiganensis*, the causative agent of bacterial canker in tomatoes

## Posters

- P-03 **A. GOVIN- SANJUDO, M.M. ROJAS- BADIA, C. JACQUARD, AND Q. ESMAEEL** (Université de Reims Champagne Ardenne, INRAE, RIBP USC 1488, Reims, France; University of Havana, Havana, Cuba)
- *Bacillus* isolated from Cuban wheat accessions: unveiling biocontrol mechanisms and drought tolerance through antagonistic activity and stress response
- P-04 **J. RIVIÈRE, M. MOULIN, F. SERNEELS, M. BONNAVE, AND D. LANTERBECQ** (Haute Ecole Provinciale de Hainaut – Condorcet, Mons; Centre pour l’agronomie et l’agro-industrie de la Province de Hainaut, Ath, Belgium)
- Evaluation of the impact of fungicide application on microbial populations in potato crop
- P-05 **J.J. GAŠPAROVSKI, M.Č. LOC, D.B BUDAKOV, T.N. DUDAŠ, M.J. PETREŠ, D.N. KOVAČEVIĆ, AND M.S. GRAHOVAC** (University of Novi Sad, Novi Sad, Serbia)
- Toxigenic potential of *Fusarium* sp. originating from sweet corn seeds
- P-06 **M.N. MESELDŽIJA , D.N. KOVAČEVIĆ, T.J. MIHALJFI, M.J. PETREŠ, M.S. GRAHOVAC, V.B. STOJŠIN, AND D.B. BUDAKOV** (University of Novi Sad, Novi Sad, Serbia)
- Pathogenicity assay of *Alternaria* spp. on apple fruits
- P-07 **T.J. MIHALJFI, D.N. KOVAČEVIĆ, M.N. MESELDŽIJA, A. KONJEVIĆ, M.S. GRAHOVAC, T. DUDAŠ, AND D.B. BUDAKOV** (University of Novi Sad, Novi Sad, Serbia)
- Mycopopulation of hazelnut kernel in Serbia
- P-08 **M. QUIÉVREUX, M. ONGENA, P. JACQUES, C. DE CLERCK, S. MASSART, AND P. DELAPLACE** (University of Liège, Gembloux, Belgium)
- RootBoost: towards a robust stimulation of plant root growth
- P-09 **C. TEMPLE, A. BLOUIN, D. BOEZEN, M. BOTERMANS, L. DURANT, K. DE JONGHE , P. DE KONING, T. GOEDEFROIT, L. MINET, S. STEYER, E. VERDIN, M.K ZWART, AND S. MASSART** (University of Liège, Gembloux, Belgium)
- Biological characterization of Physostegia chlorotic mottle virus, an emergent virus infecting vegetables
- P-10 **F. MARTINI, E. GONTIER, H.M. JIJAKLI, M.-L. FAUCONNIER, AND J. MUCHEMBLED** (University of Liège, Gembloux, Belgium)
- Anti-oomycete activities of essential oils on 3 genotypes of *Phytophthora infestans*
- P-11 **M. GENVA, G. RACE, L. VILAIN, M. DELEU, M. ONGENA, AND M.-L. FAUCONNIER** (University of Liège, Gembloux, Belgium)
- Unravelling the functions of esterified oxylipins in plant stress responses

## Posters

- P-12 **R. CHAOUCH, Z. KTHIRI, S. RFAI, AND W. HAMADA** (Carthage University, Tunis, Tunisia)
- Enhanced resistance of tomato against pathogenic fungi using microalgae extracts
- P-13 **Z. KTHIRI, AND W. HAMADA** (Carthage University, National Institute of Agronomy of Tunisia, Tunis, Tunisia)
- The yeast *Meyerozyma* applied on tomato improve tolerance against fungal pathogens
- P-14 **A. DECOMBEL, E. PAUWELYN, J. DEBODE, K. MAENHOUT, I. VANDEVELDE, T. DOCKX, J. VAN MULLEM, K. FERKET, AND M. AMEYE** (Inagro, Rumbeke-Beitem, Belgium)
- Insufficient efficacy of soil application of BCAs: Insights from qPCR used in field trials
- P-15 **B. VERVISCH, J. CLAEYS, D. VANDERVEKEN, AND V. DERYCKE** (Inagro, Rumbeke-Beitem, Belgium)
- Striving for optimal winter wheat production systems in Flanders
- P-16 **F. MAERTENS, L. VAN CRANENBROECK, M. HEYNEMAN, M. PRAET, N. FONTDEVILA PARETA, L. CAILLAT-MIOUSSE, K. DE JONGHE, AND S. MASSART** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke)
- VITIBEL: Boosting Belgian viticulture with phytosanitary knowledge and diagnostics
- P-17 **F. MAERTENS, E. EVERAERT, M. HEYNEMAN, I. KELLENBERGER, O. SCHUMPP, AND K. DE JONGHE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke)
- Validation of NA extraction internal control procedures for diagnosis
- P-18 **W. BOVEN, B. DE CONINCK, AND M. HOLTAPPELS** (KU Leuven, Leuven, Belgium)
- A global approach to control pear scab
- P-19 **K. MACHARIS, B. NEWMAN, L. VLASSELAER, W. SMETS, S. LEBEER, AND B. DE CONINCK** (KU Leuven, Leuven, Belgium)
- Microbiome-based biocontrol technologies against fungal diseases on strawberries
- P-20 **E. EVERAERT, M. HEYNEMAN, T. GOEDFROIT, I. STOCKMANS, A. WAUTERS, N. ROJAS-PRECIADO, B. LIEVENS, H. JACQUEMYN, AND K. DE JONGHE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)
- Tracking yellowing viruses and aphid vectors in sugar beets
- P-21 **M. FROYEN, J. AUDENAERT, R. VERHOEVEN, AND K. HEUNGENS** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke; Ghent University, Ghent, Belgium)
- Screening sustainable control measures against *Phytophthora* in rhododendron culture

## Posters

- P-22 **X. CHEN, AND F. LIU** (Institute of Plant Protection, Jiangsu Academy of Agricultural Sciences, Nanjing, China; Ghent University, Ghent, Belgium)
- Zinc Thiazole: role in protecting rice against Bacterial Leaf Streak
- P-23 **B.P. MARAHATTA, J. DE ROP, M. SPACAPAN, V. VENTURI, AND M. HÖFTE** (Ghent University, Ghent, Belgium)
- Cyclic-Lipopeptide mediated biocontrol in the *Pseudomonas asplenii* subgroup
- P-24 **J. DE ROP, M. HÖFTE, AND P. SPANOGHE** (Ghent University, Ghent, Belgium)
- Temperature dependency of cyclic lipopeptide production and antifungal activity against *Rhizoctonia solani* AG 1-IA and AG 2-2 in *Pseudomonas asplenii*
- P-25 **R. BEX, S. MARCOU, O. LEROUX, K. STEPPE, AND M. HÖFTE** (Ghent University, Ghent, Belgium)
- Ethylene-inducing enzymes in the *Verticillium dahliae*-pepper interaction
- P-26 **S. TOP, L. DE MAEYER, M. RYMENANTS, W. ABTS, AND K. STEPPE** (Ghent University, Ghent, Belgium)
- Internal leaf pH changes in apple linked to ontogenetic scab resistance
- P-27 **H. ALIZADEH, N. SALARI, AND Z. RUODBARI** (University of Jiroft, Jiroft, Iran)
- Pretreatments of cucumber seeds with Benzothiadiazole (BTH) induced resistance against damping-off caused by *Pythium aphanidermatum*
- P-28 **R. LAHLALI, I. CHAIR, S. GOUIT, Z. BELABESS, A. TAHIRI, AND A. LAZRAQ** (Ecole Nationale d'Agriculture de Meknès, Meknès, Morocco)
- Exploring the potential of endophytic *Trichoderma* spp. strains for biological control of apple scab (*Venturia inaequalis*)
- P-29 **M. TAOUSSI, M. RADI, I. LEGRIFI, R. EZZOUGGARI, A. HAMIM, A. BELENZAR, AND R. LAHLALI** (Ecole Nationale d'Agriculture de Meknès, Meknès, Morocco)
- Unveiling the growth-promoting and biocontrol potential of rhizospheric bacterial isolates against oomycete pathogens in strawberry
- P-30 **R. EZZOUGGARI, J. BAHHOU, AND R. LAHLALI** (Ecole Nationale d'Agriculture de Meknès, Meknès, Morocco)
- The potential of epiphytic yeasts for citrus green mold control: isolation, characterization, and in vitro and in vivo assessment

## Posters

### Nematology

- N-01 **L. WAEYENBERGE, N. EBRAHIMI, A. HAEGEMAN, AND R. ZORNOZA BELMONTE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)
- BIOservicES: linking soil biodiversity with ecosystem functions and services
- N-02 **S.E. LAASLI, R. LAHLALI, A.A. DABABAT, T. PAULITZ, AND F. MOKRINI** (Ecole Nationale d'Agriculture de Meknès, Meknès, Morocco)
- Dynamics of terrestrial nematodes influencing soil health processes in olive agroecosystems

### Formulation and Application Technology Pesticide Residues, Toxicology and Ecotoxicology

- A-01 **K. BABA-AISSA, K. MOUSSAOUI, M. VERDEGUER, AND Z. DJAZOULI** (Saad Dahleb University of Blida, Blida, Algeria)
- Biocidal effect of a formulated essential oil and a chemical insecticide on the larvae of *Tuta absoluta* (Meyrick, 1917)
- A-02 **K. MOUSSAOUI, K. BABA-AISSA, M. VERDEGUER, AND Z. DJAZOULI** (Saad Dahleb University of Blida, Blida, Algeria)
- Evaluation of the effect of an essential oil formulated from *Cupressus arizona* on the germination of durum wheat *Triticum durum* and white mustard *Sinapis alba*
- A-03 **H. ALIZADEH, M. AMIGHI, M. ZAHEDIFAR, AND M. PAYANDEH** (University of Jiroft, Jiroft, Iran)
- Encapsulation of *Nepeta hormozganica* and *Nepeta dschuprensis* extracts in chitosan NPs for improvement of antifungal activity
- A-04 **H.H. BOUKHALFA, N. GUEHILIZ, AND K. DEGHTOUCHE** (Mohamed Khider University of Biskra, Biskra, Algeria)
- Impact of cereal farming phytosanitary pressure on sheep exposure to pesticides



## Posters

### Herbology

- H-01 **D. CALLENS, J. VANWIJNSBERGHE, L. DELANOTE, AND H. DHUYVETTER** (Inagro, Rumbeke, Belgium)
- Comparing mechanical and chemical weed control in vegetable crops
- H-02 **M.L. YAZIDI, S. BEN KAAB, AND M.H. JIJAKLI** (University of Liège, Gembloux, Belgium)
- Exploring *Cynara cardunculus* L. as a botanical alternative to chemical herbicides for weed management

### Agricultural Entomology and Acarology

- E-01 **J. BERDY, F. BONDEKWE, P. N'SEVOLO, H. AZADI, F. FRANCIS, AND M.-L. FAUCONNIER** (University of Liège, Gembloux, Belgium)
- Ethnobotanical strategies for insect pest management in stored rice and maize, Isangi, Tshopo, DRC
- E-02 **M.C. COKOLA, M. KENIS, G. NOËL, R. CAPARROS MEGIDO, L. DUROCHER-GRANGER, ES. B. BISIMWA, AND F. FRANCIS** (University of Liège, Gembloux, Belgium; Université Evangélique en Afrique, Bukavu, DR Congo)
- Fall armyworm and associated insect natural enemies in eastern DR Congo
- E-03 **X. MAN, N. YANG, W. LIU, AND F. FRANCIS** (University of Liège, Gembloux, Belgium)
- Oviposition decision-making mechanism of heteronomous hyperparasitoid *Encarsia sophia*
- E-04 **G. NOËL, L. GLACET, L. HULOT, AND F. FRANCIS** (University of Liège, Gembloux, Belgium)
- Investigating hoverfly responses to chemical cues and honeydew in agro-ecosystems
- E-05 **A. SEGERS, I. BEN FEKIH, L. GLACET, M. ONGENA, P. JACQUES, AND F. FRANCIS** (University of Liège, Gembloux, Belgium)
- Effect of beneficial microbes on wheat associated insect pests and their predators
- E-06 **F. RUHLAND, C. MARTIN, AND F.J. VERHEGGEN** (University of Liège, Gembloux, Belgium)
- Finding my way – characterization of maize roots volatiles that guide wireworms

## Posters

- E-07 **S. MOSTOVIAK, V. POPROTSKA, AND A. BEREZOVSKYI** (Uman National University of Horticulture, Uman, Ukraine)
- Main phytophages of *Fragaria x ananassa* Duch. in the conditions of the right-bank forest-steppe of Ukraine
- E-08 **H. ROMERO, R. PLANELLÓ, AND E. DE LA PEÑA** (Instituto de Hortifruticultura Subtropical y Mediterránea la Mayora, Malaga, Spain; Ghent University, Ghent, Belgium)
- Diversity of phytophagous insects associated with custard apples, *Annona* species (Annonaceae)
- E-09 **U. YÜKSELBABA, AND I. HASSAN ALI** (Akdeniz University, Antalya, Türkiye)
- Lethal and sublethal effect of flupyradifurone on eggs of predator *Orius niger*
- E-10 **M. DOĞAÇ, M. SALIH ÖZGÖKÇE, AND H. KARA** (Van Yüzyüncü Yil University, Van, Türkiye)
- Molecular phylogeny and population structure of *Eurygaster integriceps* in Southeastern Anatolia of Türkiye
- E-11 **W. BOONMEE, AND W.-B. YEH** (National Chung Hsing University, Taiwan)
- Application of the DNA microarray technology in the identification of simultaneous thrips species
- E-12 **P. REGMI, K.-W. LIN, Y.-Y. CHUANG, AND W.-B. YEH** (National Chung Hsing University, Taiwan)
- Post-harvest cold treatment of cherry tomatoes to disinfest them against fruit flies (Diptera: Tephritidae)
- E-13 **A. BENRIMA, F. GUIRAA, K. ABDALLAH, B. CHETTAH, I. DJEMAI, A. DJIDEL, Dj. MAHDJOUBI, F. OUTTAR, M. LAZAR, M. BELLATRECHE, AND A. ARABI** (University of Ghardaia, Ghardaia, Algeria)
- Fluctuation of Desert Locust populations in southern Algeria depending on rainfall
- E-14 **A. BENRIMA, F. GUIRAA, K. ABDALLAH, B. CHETTAH, I. DJEMAI, Dj. MAHDJOUBI, F. OUTTAR, M. LAZAR, M. BELLATRECHE, AND A. ARABI** (University of Ghardaia, Ghardaia, Algeria)
- The Influence of the development of Saharan agriculture on the presence and gregarization of the desert locust *Schistocerca gregaria* (Forskål, 1775) (Insecta, Orthoptera) in the Adrar region (central Sahara (Algeria))
- E-15 **T. GOEDEFROIT, N. EBRAHIMI, L. LIPPENS, L. VERBRUGGEN, J. DE MEY, N. BERKVENS, W. DERMAUW, AND J. BONTE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)
- Improving the prediction accuracy of *Thrips tabaci* activity using deep learning modelling

## Posters

- E-16 **W. DERMAUW, P. DESCHEPPER, S. VANBERGEN, J. VAN AUTREVE, V. HUYSHAUWER, M. VIRGILIO, M. DE MEYER, AND J. BONTE** (Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Merelbeke, Belgium)
- Multiple simultaneous occurrences of *Bactrocera dorsalis* in Belgium: coincidence, or a pattern?
- E-17 **R. MERTENS, AND L. BOSMANS** (Proefcentrum Hoogstraten, Meerle, Belgium)
- The potential of *Podisus maculiventris* to establish in bell pepper and to control *Nezara viridula*
- E-18 **Y. CHEN, AND K. DE SCHUTTER** (Ghent University, Ghent, Belgium)
- Biosafety aspects of RNAi-based pests control: Nutrition chain exposure
- E-19 **B. VANTHOURNOUT, J. GOSSEYE, S. DARWICH, E. DENDAUW, S. FLEERAKKERS, F. TEMMERMAN, R. VAN DEN EYNDE, A. DE ROISSART, AND J. MOENS** (University College Ghent, Ghent, Belgium)
- Integrated pest management of Cabbage root fly (*Delia radicum*)
- E-20 **Q. YANG, AND K. DE SCHUTTER** (Ghent University, Ghent, Belgium)
- The indispensable role of FucT6 in *Nilaparvata lugens*
- E-21 **L. BUYDENS, A. KELLER, C. ALAUX, S. BUTSCHKAU, M. FILIPIAK, C. LEROY, M.A. PARRENO, N. PIOT, S.D. LEONHARDT, I. MEEUS** (Ghent University, Ghent, Belgium)
- Bee pathogen prevalence in relation to local and regional characteristics

## Notes

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