



**International Organization for Biological and Integrated
Control of Noxious Animals and Plants (IOBC)**

West Palaearctic Regional Section (WPRS)

Organisation Internationale de Lutte Biologique et Intégrée contre les Animaux et les Plantes Nuisibles (OILB)

Section Régionale Ouest Paléarctique (SROP)

Second Meeting

**INTEGRATED CONTROL OF
PLANT FEEDING MITES
Working Group**

Florence, Italy, March 9th - 12th, 2009



PROGRAM

SPONSORS

 <p>AGENZIA REGIONALE PER LO SVILUPPO E L'INNOVAZIONE NEL SETTORE AGRICOLO FORESTALE - TOSCANA</p>	 <p>BASF</p>
 <p>BIO BEE</p>	 <p>BIOBEST</p>
 <p>SYNGENTA BIOLINE</p>	 <p>INTRACHEM</p>
 <p>BIOPLANET</p>	 <p>CERTIS</p>
 <p>KOPPERT</p>	 <p>COOPERATIVA DI LEGNAIA</p>
 <p>SARIAF GOWAN</p>	 <p>SOLDERA</p>

AUSPICES



INTERNATIONAL ORGANIZATION FOR BIOLOGICAL AND
INTEGRATED CONTROL OF NOXIOUS ANIMALS AND
PLANTS



CONSIGLIO PER LA RICERCA E LA SPERIMENTAZIONE IN
AGRICOLTURA



ACCADEMIA NAZIONALE ITALIANA DI ENTOMOLOGIA



MINISTERO DELLE POLITICHE AGRICOLE
ALIMENTARI E FORESTALI



MINISTERO DELLE POLITICHE AGRICOLE ALIMENTARI E
FORESTALI



PARCO NAZIONALE DELLE CINQUE TERRE



REGIONE TOSCANA

Working Group Convener

Eric Palevsky: *palevsky@volcani.agri.gov.il*

Organizing Committee

Marialivia Liguori: *marialivia.liguori@entecra.it*

Roberto Nannelli: *roberto.nannelli@entecra.it*

Sauro Simoni: *sauro.simoni@entecra.it*

Scientific Committee

Marisa Castagnoli: *marisa.castagnoli@entecra.it*

Uri Gerson: *gerson@agri.huji.ac.il*

Sauro Simoni: *sauro.simoni@entecra.it*

Phyllis Weintraub: *phyllisw@volcani.agri.gov.il*

All Meeting sessions are located at the facilities of CRA-ABP, Agricultural Research Council - Research Center for Agrobiological and Pedology (formerly Experimental Institute for Agricultural Zoology), via di Lanciola 12/a, Florence, Italy

Program

Monday, March 9th

19.00 *Registration and welcome dinner at Hotel "Villa Carlotta"*

Tuesday, March 10th

8:15 *Leave from "Porta Romana" (viale Machiavelli 25) to CRA-ABP*

9:00 - 9:30 ^A Welcome addresses of local Authorities
Pagliai M. (CRA-ABP Director)
Mammuccini M.G. (ARSIA Director)
Aleandri R. (CRA Scientific Director)
Scarascia Mugnozza G. (CRA Department Director)
Blümel S. (IOBC Executive Committee)
Palevsky E. (IOBC WG Convener)

Session: Phytoseiid Types in Biological Control

Moderator: McMurtry J.A.

9:30 - 10:10 Lecture The Phytoseiidae in biological control: relevance of taxonomic classification and life style categorization
McMurtry J.A.

10:10 - 10:25 Biological control of the old world date mite, *Oligonychus afrasiaticus*, using indigenous predatory mites in the Southern Arava Valley of Israel
Lotan A., Palevsky E., Izhaki I.

10:25 - 10:55 *Coffee break*

10:55 - 11:10 Novel application of pollen to augment the predator *Amblyseius swirskii* on greenhouse sweet pepper
Weintraub P., Kleitman S., Mori R., Gan-Mor S., Ganot L., Palevsky E.

^A Registration at desk for the participants who had not registered on Monday

- 11:10 - 11:25** Integrated pest management of *Oligonychus perseae*: Developing action thresholds and the identification and conservation of natural enemies
Maoz Y., Palevsky E., Gal S., Zilberstein M., Noy M., Izhar Y., Abrahams J., Gan-Mor S., Coll M.
- 11:25 - 11:40** The two-spotted mite *Tetranychus urticae* Koch (Acari: Prostigmata) on citrus Clementine groves: seasonal trends and control strategies
Martínez-Ferrer M.T., Campos M.J., Fibla J.M.
- 11:40 – 11:55** *Neoseiulus californicus* and *Beauveria bassiana*: a proficuous coexistence?
Simoni S., Guidi S., Tarchi F.

Session: Chemical Control

- Moderator:** Otero-Colina G.
- 11:55 - 12:10** Failure of methyl bromide fumigations to exterminate mites present on grapes exported to Mexico from Chile
Otero-Colina G., Ramírez y Ramírez F., Vega Ortiz H.E.
- 12:10 - 12:25** Comparative repellent effects of different acaricide residues to predatory and spider mites. Is there a need for including behaviour into standardized testing methods?
Sáenz-de-Cabezón Irigaray F.J., Zalom F.G.

Session: Posters

- 12:25 – 13:00** Application of pollen for promotion of predatory mite populations in protected basil
Adar E., Inbar M., Palevsky E.
- Resistance in *Carica papaya* L. Cv. Maradol to the mite *Eotetranychus lewisi* (McGregor) induced by the herbivory of *Estigmene acrea* (Drury)
de Coss M.E., Reyes A.E., Cabrera M.E., Flores R., Cruz L.
- Compatibility of *Amblyseius swirskii* with UV-absorbing nets
Legarrea S., Fereres A., Weintraub P.G.
- The spider mite *Neotetranychus rubi* (Träg.) a potential prey for the predatory mite *Amblyseius andersoni* (Chant)
Malagnini V., Grassi A., Maines R., Angeli G., Ioriatti C., Duso C.
- The association between the red palm weevil *Rhyncophorus ferrugineus* (Olivier) and its phoretic mites: *Centrouropoda*

almerodai Hiramatsu & Hirschmann and *Uroobovella (Fuscuropoda)*
marginata (Koch)

Ragusa E., Di Palma A., Porcelli F.

Phytoseiid mites associated with forest trees in two “Natura 2000”
location: S. Adriano woods (Sicily) and Fraktò virgin forest
(Greece)

Tsolakis H., Ragusa S.

13:00

Lunch

Session: Exotic and Non-Tetranychid Pests

Moderator: Peña J.E.

15:00 - 15:40 Lecture Predator-prey dynamics and strategies for control of the red palm mite (*Raoiella indica*) (Acari: Tenuipalpidae) in areas of invasion in the Neotropics
Peña J.E., Rodrigues J.C.V., Roda A., Carrillo D., Osborne L.S.

15:40 - 15:55 Classical biological control of the red palm mite (*Raoiella indica*): area of origin and preliminary surveys
Taylor B.

15:55 - 16:10 *Aceria carvi* - potential threat for caraway production in Europe?
Zemek R., Huusela-Veistola E.

16:10 - 16:25 Integrated control of bulb-scale mite (*Steneotarsonemus laticeps*) in *Narcissus*
Collier R., Hanks G., Millar M.

16:30 *Cheese and wine*

18.00 *Leave from CRA-ABP to "Porta Romana"*

Wednesday, March 11th

8:15 *Leave from "Porta Romana" (viale Machiavelli 25) to CRA-ABP*

Session: Behavioural Effects in Biological Control

Moderator: Sabelis M.W.

9:00 - 9:40 Lecture Multiple predators, intraguild competition and biological control of a single spider mite species
Sabelis M.W., Hanna R., Onzo A., Pallini A., Cakmak I. Janssen A.

9:40 - 09:55 Spatial refuge use by herbivorous mites poses major challenge for biological control
Schausberger P.

- 9:55 - 10:10** Oviposition behavior of *Phytoseiulus persimilis* facing the risk of intraguild predation
Walzer A., Schausberger P.
- 10:10 - 10:25** Predator cues induce behavioural shifts in alternative prey: consequences on prey life history traits and its host plant
Walzer A., Schausberger P.
- 10:25 - 10:40** Mutual interference of *Scolothrips longicornis* Priesner (Thysanoptera: Thripidae) on *Tetranychus urticae* Koch (Acari: Tetranychidae)
Pakyari H., Fathipour Y., Rezapanah M., Kamali K.
- 10:40 - 11:10** *Coffee break*

Session: Pest Management in Vineyards

Moderator: Duso C.

- 11:10 - 11:50 Lecture** Relationships between plant pathogenic fungi and mites in vineyards: implications for IPM
Duso C., Pozzebon A., Tirello P., Lorenzon M., Fornasiero D.
- 11:50 - 12:05** Notes on the phenology and the biology of *Tydeus caudatus* Dugès (Acari Tydeidae)
Lorenzon M., Pozzebon A., Duso C.
- 12:05 - 12:20** *Eotetranychus carpini*: biological control experiences in Tuscan vineyards (Italy)
Castagnoli M., Liguori M., Simoni S., Sabbatini Peverieri G., Goggioli D., Guidi S., Tarchi F.
- 12:20 - 12:35** Spider mite control in California vineyards with conventional acaricides
Sáenz-de-Cabezón Irigaray F.J., Zalom F.G., Nicola N.
- 12:35 - 12:50** Demographic testing reveals complex effects of pesticides on biological control of Pacific spider mite (*Tetranychus pacificus*) by the western predatory mite (*Galendromus occidentalis*) on grape plants
Stavrinides M.C., Mills N. J.
- 13:00** *Lunch*

Session: Plant-Pest Interactions

- Moderator:** Messelink G.
- 15:00 - 15:15** Whitefly-induced plant defence in cucumber and its impact on biological control of spider mites
Messelink G.J., Janssen A.
- 15:15 - 15:30** Effect of host plant on the functional response of *Orius albidipennis* (Hemiptera: Anthocoridae) on *Tetranychus urticae* (Acari: Tetranychidae)
Zamani A.A., Vafaei S., Vafaei R., Goldasteh S., Kheradmand K.
- 15:30 - 15:45** How homogeneous are *Tetranychus urticae* populations in citrus orchards? Preliminary isolation and characterization of polymorphic microsatellite markers for *T. urticae* (Acari: Prostigmata)
Sabater-Muñoz B., Pascual-Ruiz S., Jacas J.A., Hurtado M.A.
- 15:45 - 16:00** Comparative effectiveness of *Phytoseiulus persimilis* and *P. longipes* in the control of *Tetranychus urticae* on strawberries and roses
Hoogerbrugge H., van Houten Y., Knapp M., Bolckmans K.

Session: WG perspectives and discussion

- Moderator** Palevsky E.
- 16:00 - 17:30** Future prospects for the Integrated Control of Plant Feeding Mites
IOBC WG
- 17:30** *Leave from CRA-ABP to "Porta Romana"*
- 20:00** *Conference banquet dinner and student prize award*

Thursday March 12th

Special Excursion to visit the National Park of 5 Terre

07:00 *Leave from "Porta Romana" (viale Machiavelli 25)*

20:00 *Return to "Porta Romana"*