

ECE 2018

XI EUROPEAN CONGRESS OF ENTOMOLOGY
2-6 JULY 2018, NAPOLI



Accademia
Nazionale Italiana
di Entomologia



UNIVERSITÀ DEGLI STUDI
DI NAPOLI FEDERICO II



BOOK OF ABSTRACTS



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Terminal Napoli SpA
Molo Angioino Stazione Marittima
80133 Napoli
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Event Planet
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Registered Office:

Capri, Via Pagliaro 7
80071 Anacapri (Isola di Capri, Na)
Italy

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Napoli, C.so Umberto I 90
Italy

common parasitoid species differed among treatments. In addition, we found that the effect of treatment varied significantly along the season. Namely, in April parasitoids were more abundant in the vegetation cover plots and in July in the plots without vegetation cover. These preliminary results suggest that the effect of vegetation treatment is time-dependent, which is potentially relevant for the management of the non-crop vegetation for biological control purposes.

Keywords: Conservation biological control, parasitoid diversity, non-crop vegetation, natural enemies, vineyards

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OCCURRENCE OF PEST AND NATURAL ENEMY IN THE FIELD OF PEPPER PLANT ACCORDING TO VEGETATION MANAGEMENT

Jong-Ho Park, National Institute of Agricultural Science, Korea
Yong-Wook Kim, National Institute of Agricultural Science, Korea
Young-Woong Byeon, National Institute of Agricultural Science, Korea
Eun-Jung Han, National Institute of Agricultural Science, Korea
Chang-Ki Shim, National Institute of Agricultural Science, Korea
Min-Jeong Kim National Institute of Agricultural Science, Korea

Pepper is one of the most important vegetable crop in Korea. There are many pests such as aphids, tobacco moths, etc of pepper. In order to investigate the effect of insect pest control on vegetation management in pepper cultivation, the density of pests and natural enemies on pepper field was investigated according to companion plant cultivation. This test was carried out in the organic cultivation field on the National Institute of Agricultural Science, Wanju city, Jeonbuk Province. One experimental section was seeded with three green manures (hairy vetch, alfalfa, crimson clover) and three kinds of flower plants (zinnia, buckwheat and cornflower) before the pepper was planted. The other experimental section was covered plastic film during pepper cultivation. the density of aphids at the section covered with film was higher at the section with companion plants from mid May to the end of June. The density of spiders at section with companion plants was higher, but the density of ladybugs at section covered film was higher than the other section.

Keywords: Pepper, pest, natural enemy, vegetation management

PO159

EFFECTS OF GREEN COVER ON THE BIODIVERSITY OF ARTHROPOD WITHIN A MEDITERRANEAN VINEYARD

María Gloria Sáenz Romo, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Ariadna Veas Bernal, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Héctor Martínez García, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Luz Dary Carvajal Montoya, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Sergio Ibañez Pascual, Departament of Viticulture, Institute of Grapevine and Wine Sciences (ICVV), Logroño, La Rioja, Spain
Vicente Santiago Marco Mancebón, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Elena Martínez Villar, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain
Ignacio Pérez Moreno, Departament of Agriculture and Food; University of La Rioja, Logroño, La Rioja, Spain

Habitat management can reduce or prevent pest density by enhancing functional biodiversity and associated ecosystem services. An interesting strategy in sustainable agriculture is managing and increasing the arthropod biodiversity by green covers. In this study, we have assessed the effect of ground cover management (tillage, native cover crop and flowering cover crop) on the total and functional abundance of arthropods in a vineyard of La Rioja (Spain) from May to September 2016. The native cover crop was characterized by the presence of *Bromus tectorum*, *Capsella bursa-pastoris*, *Conyza* sp., *Galium aparine*, *Hordeum murinum*, *Melilotus* sp., *Stellaria media*, *Urtica* sp. and *Veronica hederifolia*. The flower cover was composed mostly by *Calendula officinalis*, *Centaurea cyanus*, *Cosmos bipinnatus* and *Eschscholzia californica*. Arthropods were sampled using pitfall traps and vacuum sampling of canopy and green cover. More of 15,000 arthropods were collected. They belong to Araneae, Coleoptera, Diptera, Hemiptera, Hymenoptera, Isopoda, Myriapoda, Neuroptera, Opiliones, Orthoptera and Thysanoptera orders. There are differences between relative abundances of the arthropods orders collected in both sampling methods: mainly Hymenoptera and Coleoptera by pitfall traps, and Hemiptera, Hymenoptera, Diptera and Thysanoptera by vacuum sampling. The presence of native cover crop significantly affected total abundance of arthropods, including natural enemies (Carabidae and Ichneumonidae), which can provide ecosystem services in vineyard. However, this difference was only observed between treatments in the case of pitfall traps. Furthermore, Coleoptera and Hemiptera were significantly more abundant in native cover crop. At lower taxonomic levels, the native cover crop significantly increased the abundance of Carabidae, Cicadellidae and Ichneumonidae. On the other hand, green cover showed higher Cicadellidae abundances.

Keywords: biodiversity, green cover, arthropods, pitfall traps, vacuum sampling

PO160

SOLANUM NIGRUM (SOLANACEAE): AN IMPORTANT RESERVOIR OF PARASITIDS AND HYPERPARASITIDS IN WEST AND SOUTH REGION OF TURKEY

Serdar Satar, Department of Plant Protection, Faculty of Agriculture, Çukurova University, Balcalı Adana, Turkey
Mustafa Tüfekçi, Biological Control Research Institute Kışla Street, Yüreğir/Adana, Turkey
Gül Satar, Biotechnology Research And Application Center Çukurova University Balcalı, Adana, Balcalı Adana, Turkey
Nickolas G. Kavalieratos, Laboratory of Agricultural Entomology and Zoology, Department of Plant Sciences, Agricultural University of Athens, Athens, Greece
Mehmet Karacaoğlu, Department of Plant Protection, Faculty of Agriculture, Çukurova University, İnönü University, Malatya, Turkey
Christos G. Athanassiou, Laboratory of Entomology and Agricultural Zoology, Department of Agriculture, Crop Production and Rural Environment, University of Thessaly, Nea Ionia, Magnissia, Greece
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Petr Starý, Institute of Entomology, Academy of Sciences of the Czech Republic, Ceske Budejovice, Czech Republic

The subfamily Aphidiinae includes parasitoid species that are of high important for the biological control of aphids. The present study aims to shed light on the aphidparasitoid-hyperparasitoid interactions that are related to *Solanum nigrum* (Solanaceae), and their seasonal abundance in East Mediterranean (Adana, Gaziantep, Hatay, Mersin, and Osmaniye), West Mediterranean (Antalya, and Karaman), and Egean Region (Balıkesir, Çanakkale, İzmir, and Muğla) of Turkey. Totally, 3849 aphid colonies were sampled from different cultured plants, weed, and shrubs. Among them, 592 aphid colonies originated from *Solanum nigrum*, 85% of which were found parasitized during 2001-2013. We recorded very high parasitoid and