



International Association for the  
**PLANT PROTECTION SCIENCES**

IAPPS

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## **XXVI INTERNATIONAL CONGRESS OF ENTOMOLOGY HELSINKI, FINLAND, JULY 19-24, 2020**

The International Congress of Entomology returns to Europe in 2020, for the first time in 24 years! The Finnish capital Helsinki is proud to host the ICE2020 – the ICE congress with latitude! The venue is the world-famous Finlandia Hall, situated in a beautiful park right in the heart of Helsinki.

The selected plenary speakers are Gene E. Robinson, Segenet Kelemu, Alexey Polilov, Louise E.M. Vet, Janet Hemingway and Jianguhua Sun.

The scientific program will include 15 sections:

- Section 1: Arctic, Alpine and Polar Entomology  
Includes e.g., entomology with altitude and latitude!
- Section 2: Biodiversity and Conservation Biology  
Includes e.g., biodiversity, biogeography, and conservation
- Section 3: Biological Control and Insect Pathology  
Includes e.g., predators, parasitoids, parasites, pathogens, and biocontrol of weeds by insects
- Section 4: Ecosystem Services  
Includes e.g., biological control as ESS; pollination, and decomposition
- Section 5: Interactions and Communication Between Trophic Levels  
Includes e.g., symbionts, arthropod-plant interactions, chemical ecology, behavior, plant disease vectors
- Section 6: Ecology, Evolution AND BEHAVIOUR  
Includes e.g., insect ecology, evolution, and sociality
- Section 7: Food Chain Entomology  
Includes e.g., agricultural, stored product, and household entomology; GM-crops and integrated pest management
- Section 8: Forest and Urban Landscape Entomology  
Includes: forest entomology and urban landscape entomology
- Section 9: Morphology, Systematics, Genetics And Genomics  
Includes e.g., insect genetics, genomics, phylogeny, morphology and systematics
- Section 10: Physiology and Developmental Biology  
Includes e.g., development, reproduction, immunology, neurobiology, and biochemistry
- Section 11: Insect and Microbial Molecular Biology  
Includes e.g., molecular biology of insects and associated microbes

- Section 12: Invasive Species and Regulatory Entomology  
Includes e.g., invasive insects, quarantine, and Homeland Security
- Section 13: Domesticated Insects and Insect Rearing  
Includes e.g., apiculture, sericulture, mass production of insects (including insects for food and feed, and insects for biological control)
- Section 14: Medical and Veterinary Entomology  
Includes e.g., arthropods vectoring pathogens of humans, animals and plants; arthropod pests of vertebrates
- Section 15: Current Special and Forward-looking Topics  
Covers various new and exciting topics such as “Nanotechnology in Entomology”, “Cyborg insects”, “Insect navigation”, etc.

Registration is now open at <https://ice2020helsinki.fi/registration/>

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## **FOURTH INTERNATIONAL CONFERENCE ON CROP IMPROVEMENT (ICCI2019) 26-27<sup>TH</sup> NOVEMBER 2019**

The Institute of Plantation Studies, Universiti Putra Malaysia in collaboration with University of South Wales, University of Readings, University of Nottingham, University of Plymouth, Sultan Qaboos University, University of Adelaide and CIRAD Agricultural research for development will be organizing the Fourth International Conference on Crop Improvement (ICCI2019) 26-27th November 2019 at University Putra Malaysia, one of the leading research universities in Malaysia.

After the success of the third ICCI2017 organized by University of Readings Malaysia Campus, co-organised with Universiti Putra Malaysia with the theme "Crop Innovations for the Health of Populations and Planet", we are back with much more impactful theme for the current agricultural industry trend titled ‘Sustainability through Data-Driven and Frontier Research’ through ICCI2019. It will serve as a platform for international networking for the advancement of research and innovations.

Through the four conference sessions, impact of accessibility to genome sequences of important crops like oil palm and the various cereal crops and the use of functional genomic tools to decipher complex biological processes and their interaction with the environment will be shared. Understanding on how big data information generated on yield prediction, food safety and operation/equipment management could be implemented for beneficial use on crop improvement will be emphasized. Various strategies to improve sustainable crop production through involvement of plant microbiota in enhancing important functions for their host’s performance, like nutrient delivery and pest control, will be highlighted. Also, exposure on agricultural traceability - what it means, why it is important, and what it looks like from the perspectives of the consumers, the supply chain owners and the community to achieve global agricultural sustainability - will be given.

Visit our ICCI2019 official website at <https://ikp.upm.edu.my/?L=en> for further details and registration.

On behalf of the Organizing Committee:

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## SPECTACULAR DAMAGE BY FRUIT-FEEDING BEETLES

A diverse group of beetles identified as Flower chafer beetle; *Oxycetonia versicolor* (Fabricius), Cowboy beetle; *Chondropyga dorsalis* (*Diaphonia dorsalis*), Green June beetle (*Cotinis nitida* Linnaeus), May/June beetle or June bugs (*Phyllophaga* spp.), Japanese beetle (*Popilia japonica* Newman), all of the Family Scarabaeidae, were recorded feeding on mango, pear, loquat, peach and cucurbitaceous vegetable crops in different villages of District Samba, Jammu and Kashmir, India.



The fruits were heavily infested with more than thousand beetles per tree. A single mango fruit hosted 15 – 25 beetles ! The whole fruit pulp along with the rind/peel was eaten away, leaving behind the seed alone (see picture on the left). As and when, guava fruits started maturing and mango, pear, peach and loquat were harvested, these beetles shifted to guava also. In horticultural settings, complete devastation of cucumber, muskmelon and okra were recorded, with the occurrence of a single muskmelon harboring 50 – 60 beetles depending upon the fruit size. Adult beetles started appearing at the end of May, 2019 and were noticed to

get attracted particularly to the ripening and fermenting fruits. The soil-dwelling, typical grubs of these beetles have been reported to be more injurious than the adult beetles; however, in this case, it was the adult beetles which cause complete devastation of both fruit and vegetable crops. It is the first time that this diverse group of beetles has been observed directly feeding on the fruits of the above vegetable and fruit crops.

To keep in check further spread and infestations by these pests, the following management strategies were recommended:

- Monitor fruit and vegetable crops of adjoining fields for any signs of beetles incursion.
- Application of Neem cake @ 25 kg/ha in the root zone and heaps of organic compost to kill the feeding grubs.
- Spraying Spinosad 45% SC, the biological insecticide, as soil drenches to kill the hiding grubs.
- Application of the biopesticide *Metarhizium anisopliae* against adult beetles.

- Preparing a Gur (a jaggery made of cane sugar) solution in water, adding Malathion @ 2 ml/Litre jaggery solution and keeping the solution in an open pan hanged from the tree or kept at places protected from stray animals and birds, which attracts and kills the adult beetles.
- As a last resort, application of insecticides, Emamectin benzoate 1.5% + Fipronil 3.5% SC or Chlorpyrifos 50% + Cypermethrin 5% EC

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**IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.**

**It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.**

**Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site [www.plantprotection.org](http://www.plantprotection.org).**

**The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:**

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