Poster Presentations
Non-chemical control options

P N-CCO 34
The insecticidal effects of *Laurus nobilis* essential oil against immature stages of the flour moth, *Ephestia kuehniella* Zeller

J. Karimi, T. Salehi, A. Askarianzadeh, A. S. Garjan
1Shahed University, Plant protection, Tehran, Islamic Republic of Iran
2Iranian Research Institute, Plant Protection, Tehran, Iran
karimi.jaber@yahoo.com

Among the plants species, some of them are able to produce secondary metabolites which play an important role in the defense mechanisms of plants against arthropods. Phytochemicals are usually less environmentally harmful than synthetic agrochemicals. Mediterranean flour moth, *Ephestia kuehniella* Zeller (Lep.: Pyralidae) is a worldwide pest and its close association with human foods makes it prime target for control methods other than chemical pesticides. At this study, insecticidal effect of essential oil of *Laurus nobilis* on *E. kuehniella* was evaluated. Experiments were carried out at the dark conditions in germinator (27±2°C, 65±5% RH). Mortality percentages of immature stages were tested at six different concentrations ranging from 0.5 to 3.5 μL/L air, during several times intervals from 6 to 24 hours with six replications. Results showed that with increasing dose and time, percentage of mortality increased significantly. LC₅₀ values after 24 h fumigation with *L. nobilis* essential oil were 32.37, 10.67, 18.18 and 26.08 μL/L air, for egg, 2nd instar larvae, 3rd instar larvae and 4th instar larvae, respectively.

P N-CCO 35
Laboratory developmental traits and functional response of *Pseudapanteles dignus* (Hymenoptera: Braconidae) attacking *Tuta absoluta* (Lepidoptera: Gelechiidae) in eggplant.

N. Salas Gervassio, M. G. Luna, P. C. Pereyra, F. D’Auro, N. E. Sánchez
Universidad Nacional de La Plata, Facultad de Ciencias Naturales y Museo - CEPAVE (CCT La Plata - CONICET), La Plata, Argentina
ppereyra@cepave.edu.ar

Laboratory studies were carried out to investigate some developmental traits and functional response of *Pseudapanteles dignus* (Muesebeck), a larval endoparasitoid of *Tuta absoluta* (Meyrick) in eggplant, *Solanum melongena* L., another crop attacked by this pest. Stage specific developmental times were evaluated by exposing 10 2nd and 3rd *T. absoluta* larvae to *P. dignus* wasps. To determine *P. dignus* potential efficiency to control *T. absoluta* in eggplant crops, the parasitoid functional response to varying host densities (3, 7, 10, 15 and 20 2nd and 3rd -instars larvae; 24 h- exposition period, 8 replicates per host density) was assessed.