

Poster Presentations
Non-chemical control options

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The insecticidal effects of *Laurus nobilis* essential oil against immature stages of the flour moth, *Ephesia kuehniella* Zeller

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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, *Ephesia 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, 2th instar larvae, 3th instar larvae and 4th instar larvae, respectively.

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Laboratory developmental traits and functional response of *Pseudapanteles dignus* (Hymenoptera: Braconidae) attacking

***Tuta absoluta* (Lepidoptera: Gelechiidae) in eggplant.**

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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.