



DRUŠTVO ZA VARSTVO RASTLIN SLOVENIJE

**16. SLOVENSKO POSVETOVANJE  
O VARSTVU RASTLIN**  
z mednarodno udeležbo

**16<sup>TH</sup> SLOVENIAN CONFERENCE  
ON PLANT PROTECTION**  
*with international participation*

**5. - 6. marec 2024 / March 05-06 2024**  
**Bohinjska Bistrica, Slovenija**



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## **Izvečki referatov / *Abstract volume***

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the presence of *Oscheius myriophilus*, marking the first recorded instance of this nematode in a gastropod host. To test the virulence of Slovenian strains of *O. myriophilus* and *Phasmarhadditis papillosa*, and their effects on the feeding behavior of the Spanish slug, grey field slug (*Deroceras reticulatum*), and vineyard snail (*Cernuella virgata*), laboratory bioassays were conducted using nematodes grown in vivo. Nematodes were applied at various doses ranging from 10 to 500 nematodes/gastropod. The results showed that *O. myriophilus* and *P. papillosa* caused significant mortality ( $82.5 \% \pm 2.5 \%$  at  $15\text{ }^{\circ}\text{C}$ ) of the Spanish slug, while being less effective against the vineyard snail and grey field slug. Nematodes were more virulent at lower temperatures ( $15\text{ }^{\circ}\text{C}$ ) than at higher temperatures ( $20\text{ }^{\circ}\text{C}$ ) tested in the experiment. Additionally, both nematode species significantly reduced gastropod herbivory.



### **Susceptibility of *Aphelinus mali* (Haldeman) to different active ingredients commonly used in organic apple orchards in Trentino (North Italy)**

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*Aphelinus mali* (Haldeman) is the most important biological control agent of woolly apple aphid (WAA) *Eriosoma lanigerum* (Hausmann), a serious pest of apples. This parasitoid is not very effective its own, because the first adult wasps emerge only when the WAA has already gone through one generation, and its innate capacity of increase is considerably lower than its host's. Furthermore, the amount of products used in apple orchards could compromise the effectiveness of *A. mali* on its biological control. The rate of parasitism reaches high levels (80-90%) in late summer when part of the damage has already been caused. In Trentino region (Italy) the first peak of flight of *A. mali* is in the post-flowering period, although limited in size and is essential for an exponential flight increase and the consequent culmination of the parasitisation ratio in summer, generally at the end of July. It is essential to avoid pesticides toxic to *A. mali* after flowering but also other active substances that can reduce *A. mali* activity. For these reasons, we tested several plant protection products to evaluate potential compatibility in integrated and organic pest management programs. The direct (topical sprays in Potter's Tower) and residual (leaf residue) effect of insecticides and fungicides on the adult stage of this parasitoid were investigated under laboratory conditions. The active ingredients used in trials were deltamethrin (as a chemical referent), azadirachtin, copper sulphate, sulphur, and calcium polysulfide. The products were tested at recommended field rates. A treatment with water was used as control in both experimental trials. The insects' mortality rate on direct effect in Potter Tower was different only for the deltamethrin at different control timing. Deltamethrin caused the highest mortality also in residual effect than the other products. After 3 and 7 days from the treatment no product were caused mortality.

