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Biological Control of Woolly Apple Aphid, Eriosoma Lanigerum (Hausmann) in the Nursery Production of Spruce

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Abstract : Woolly apple aphid, Eriosoma lanigerum (Hausmann) is a widely distributed pest of apple trees, especially where its parasites have been killed by insecticides. It can also be found on pear, hawthorn, mountain ash, and elm trees. Relatively small to medium-sized aphids, characterized by a reddish-brown body, a blood-red stain when crushed and a fluffy, flocculent wax covering. Specialized dermal glands produce the characteristic fluffy or powdery wax, which gives E. lanigerum its characteristic 'woolly' appearance. Also, woolly apple aphid is a problemm in nursery production of spure.The experiments were carried out in the nursery “Nevade” in Gornji Milanovac, "Srbijasume" on the spruce seedlings, aged 2 years. In this study, organic insecticide King Bo, aqueous solution (a. i. oxymatrine 0.2% + psoralen 0.4%), manufacturer Beijing Kingbo Biotech Co. Ltd., Beijing, China. extracted from plants and used as pesticides in nursery production were investigated. King Bo, bioinsecticide is manufactured from refined natural herbal extract several wild medicinal plants, such as Sophora flavescens Ait, Veratrum nigrum L, A. Carmichael, etc. Oxymatrine 2.4 SL is a stomach poison that has antifeeding and repellent action. This substance stimulates development and growth in a host plant and also controls the appearance of downy mildew.The trials were set according to instructions of methods-monitoring of changes in the number of larvae and adults compared to before treatment. The treatment plan was made according to fully randomized block design. The experiment was conducted in four repetitions. The basic plot had the area of 25 m2. Phytotoxicity was estimated by PP methods 1/135 (2), the intensity of infection according to Towsend-Heuberger, the efficiency by Abbott, the analysis of variance with Ducan test and PP/181 (2).

Keywords : bioinsecticide, efficacy, nurssery production, woolly apple aphid
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