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Presence and harmfulness of San Jose scale, *Comstockaspis pernicios* (Comstock) on cherry trees

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Abstract

San Jose scale, *Comstockaspis pernicios* (Comstock) is polyphagous species which inhabits many fruit trees, most commonly apple, pear and cherry. It is a quarantine pest in many countries. However, in Serbia it has recently lost this status. Presence of San Jose scale on fruits intended for export is not allowed. Presence and harmfulness of *C. pernicios* were evaluated on cherry (*Prunus avium* L.) during 2020/21 in Radmilovac locality. The orchard was in the seventh year of age and the dominant variety was Burlat. In order to reduce scale population, late winter treatment with mineral oil (Nitropol, 1.5%) was done on 25.02.2021 in phenophase swelling buds. Infested twigs were sampled throughout the season. After sampling, the abundance of scales, as well as their vitality, were monitored in laboratory using binocular. San Jose scale develops three generation per year and overwinters as first instar larvae on woody parts of the cherry. In the observed locality, all above-ground parts of the plant were heavily infested. Feeding of such a high number of individuals caused redness, yellowing and drying of the leaves as well as drying of thin twigs. The symptoms on trunk and branches were manifested in the form of wounds from which amber-colored resin is excreted. It darkens over time and the bark of the tree cracks and dries. Damaged plants are physiologically weakened, do not have sufficient nutrients for the formation of fertile buds, they are more susceptible to the attacks of other pests and diseases, as well as to frosts. Since scale is easily transmitted by plant material, strict phytosanitary control and use of healthy plant material are the best preventive measures for controlling this pest. Late winter treatment of cherry trees is necessary measure for controlling this pest. During this research, the use of mineral oil-based preparation has achieved good results, thus reducing populations of *C. pernicios* to a minimum.

Key words: San Jose scale, harmfulness, cherry, pest control

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