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## EFFICACY OF DIFFERENT PROTECTION STRATEGIES AGAINST *DROSOPHILA SUZUKII* IN COMBINATION WITH MASS TRAPPING

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A field trial of integrated management against *D. suzukii* was carried out in a blueberry orchard in Trentino region. Mass trapping with red traps containing an attractive based on apple vinegar (Droskidrink) was used for the entire plot. Treatments were: Spada 200 EC, Laser and Boundary. For each treatment two applications were done at the same time. Assessments were made on fruits picked every 3-7 days during all the harvest time, checking egg’s deposition of *D. suzukii* and the emerging adults from berries. The insects caught in the traps were also weekly counted. The damage observed on the three treatments was always similar and low during all the harvest time, reaching high values only in the last assessment, at the end of harvesting (90% of production already picked).

A semi-field trial was carried out to verify whether the 3 protection strategies were really equally effective. Fruits were collected 7 days after the last insecticide application and kept for 24 hours with *D. suzukii* reared in the laboratory. At the end of this period, oviposition and the development of adults was verified. The oviposition was not significantly different between treatments, even if the Boundary treated fruits showed a presence about twice of eggs compared with the insecticides (Spada 200 EC, Laser).

The number of emerged adults showed evident differences between treatments. Spada 200 EC was the most effective, showing a lower development of adults, while Boundary was the less effective. Laser showed an intermediate efficacy.

The three strategies showed a different efficacy in the semi-field trial and were similar in the field. These results could be explained with the presence of mass trapping in the orchard, which covered the differences between treatments emerged in the semi-field experiment. The arrangement of mass traps, carried out on the perimeter of a plot of limited area, has certainly enhanced their effectiveness. The traps were disposed at a distance of two meters each other and this resulted in a concentration, within the experimental plot, higher than in the bigger orchards. The efficacy demonstrated by this technique requires to consider it as the primary tool in the management of *D. suzukii* on blueberry.

**Key words:** *Drosophila suzukii*, mass trapping, blueberry, Droskidrink