PRELIMINARY EXPERIENCES OF *DROSOPHILA SUZUKII* CONTROL ON SMALL FRUITS IN TRENTINO (ITALY) WITH A MASS TRAPPING METHOD

Grassi A., Maistri S., Eccher F., Pezzè M.

Fondazione Edmund mach, Via E. Mach 1, 38010 S. Michele all'Adige (TN), Italy.

In Trentino Province, north-eastern Italy, the control of Spotted Wing Drosophila, SWD (*Drosophila suzukii* Matsumura) on sweet cherry and small fruits still relies mainly on pesticide applications. Particularly on small fruits, the contribution of the insecticides in reducing the fruit damage is often insignificant and many factors can affect their efficacy. Moreover, their repeated application on small fruits is very complicated and unsustainable over a long time, since these crops require multiple harvests during the ripening.

Preliminary trials were carried out in 2011 in order to develop a trap effective for the mass trapping method and, as a consequence, to set up sustainable management strategies. Results indicated that red colour increased the attractiveness of standard traps baited with apple cider vinegar. High captures of adults and a limited damage on fruits were obtained in a mass trapping trial on highbush blueberry using a mixture of apple cider vinegar and red wine (nicknamed "Droskidrink") as a bait in standard traps.

Based on these results, in 2012 we suggested to our local growers a large-scale application of mass trapping as a basic control method. About 45,000 red plastic jars baited with Droskidrink were distributed by Sant'Orsola Soft Fruit Grower Association to its members. The traps were exposed in small fruits and strawberry fields from April till November. A trial was carried out on highbush blueberry in one of the most infested areas of the region, with the aim to evaluate the effectiveness of the mass trapping method, comparing different layouts of the traps.

Results confirmed the high attractiveness of the "Droskidrink" bait. Between the factors that contributed to limit the SWD damage and population development on our territory in 2012, it is likely that a role has been played also by the wide area application of mass trapping method. Particularly low damages were recorded in those farms where an optimal integration of sanitation practices, harvest procedures, mass trapping and insecticide application was applied.

However, results of our trial indicate that where the pest pressure was very high, traps were not sufficient to significantly reduce the damage on the fruits to a tolerable level for the grower. The most effective arrangement was that with traps both on border and inside the field.

Intensive trapping can be considered as a control method that can contribute to the reduction of SWD damage on small fruits, particularly if combined in an integrated management system.