The spotted wing Drosophila is a vinegar fly originating from South-East Asia which has invaded many countries in America, Asia and Europe. This species is included in the EPPO A2 List as recommended to be included amongst the species in phytosanitary quarantine.

Unlike other vinegar flies that feed on rotten fruit, D. Suzukii attacks the early fruit during its ripening stage. It mainly attacks red and soft summer fruits or fruits with reddish tones, such as strawberries, cherries, blueberries, raspberries, blackberries, plums, peaches, nectarines, apricots, grapes, etc.

**MORPHOLOGY AND BIOLOGY**

The spotted wing Drosophila is a small fly (2 to 3.5 mm) yellow-brown in colour with transverse black rings across the abdomen and protruding brick-red eyes. The males have a dark spot near to the edge of each wing, which gives the species its common name. The larvae are white and cylindrical, reaching 3.5mm in length.

The life cycle of D. Suzukii varies a lot because it has a very long flight period with many generations, up to 13. In this way, the generations at the beginning of the year are renewed every few weeks and the end of the season can last up to 10 months in cold areas given that they go through winter in a pupal stage.

The adults emerge from hibernation when the temperatures reach approximately 10 °C. After copulation, the fertilised female goes in search of rotten fruit, she inserts her serrated ovipositor to perforate the skin of the fruit and deposits 1 to 3 eggs. Each female can lay eggs in many fruits, with a laying capacity of more than 350 eggs in their life cycle.

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DESCRIPTION

CODE          COMMERCIAL NAME
VA297         ECONEX DROSOPHILA SUZUKII 60 DAYS

Food attractant diffuser for the attraction of both sexes of the species Drosophila suzukii, with a duration in field of 60 days.

Diffuser in blister shape, with at least one layer of permeable polyolephane to active ingredients, with a duration of 60 days in normal field conditions. It is packaged individually in an aluminium sachet with labelled instructions. Once taken out of the sachet, the diffuser needs no activation, nor should it be opened. Simply place it directly in the trap.

DETECTION AND MONITORING

We will use 1 to 2 traps per hectare, placed at the height of the crop. The traps must be active at least two weeks before the flight period of the insect and two weeks after the end of the same.

EXHAUSTIVE MONITORING

The user can increase the number of traps per ha according to their needs and characteristics of the farm.

NECESSARY MATERIAL

An ECONEX RED CHROMATIC 40 X 25 CM (Code: TA252) or ECONEX DISPOSABLE RED TRIANGULAR (Code: TA253) trap and a diffuser ECONEX DROSOPHILA SUZUKII 60 DAYS (Code: VA297) as attractant.

The ECONEX RED CHROMATIC 40 X 25 CM trap is an adhesive chromatic trap consisting of a light resistant red polyethylene sheet, coated on both sides with a contact adhesive, without solvents, and protected by a strip of silicone paper, to retain the insects. It has four holes in the corners, to facilitate its installation.

Activation of the trap: take away the silicone paper that covers the adhesive and hang the diffuser from one of the holes on the trap, using the hanger provided. Do not place the metallic part in contact with the adhesive.

The ECONEX DISPOSABLE RED TRIANGULAR trap is made of a light resistant red polyethylene sheet. The inside is coated with a contact adhesive, without solvents, and protected by a strip of silicone paper, to retain the insects. The trap comes with a hanger and it has holes in the corners to be able to hang it. The trap is presented unfolded, with measures of 40 x 23 cm. Once folded, it has a prism shape, measuring 12 x 23 x 13 cm.

Set-up and activation of the trap: fold the trap along the dotted lines, without introducing the upper tab; remove the silicone paper that covers the adhesive and place the attractant diffuser (by the non-metallic side) in the centre of the adhesive sheet, where it will remain fixed because of the glue. Introduce the upper tab into the groove to fix the shape of the trap and place the hanger.

Both the ECONEX RED CHROMATIC 40 X 25 CM trap and the ECONEX DISPOSABLE RED TRIANGULAR trap stand out for their simplicity of use and and will be operative until the attractant diffuser runs out or the adhesive surface has been saturated with insects.

DAMAGES

D. suzukii places its eggs beneath the skin of mature fruits or in process of maturation, of which a larva is born and feeds on the pulp, producing loss of turgor in fruits and taking away their commercial value. The attacks made by plagues on fruit crops cause substantial economic loss when they are not controlled.

Furthermore, the corresponding holes where the eggs were laid favour secondary infections from pathogens that contribute to the increasing losses.

The area where hatching has taken place is visible on many fruits because of a small scar or “bite” on the skin of the fruit. After 1 or 2 days, the area around the “bite” smooths out and decreases creating a stain more and more visible. The depressions in the skin can sometimes exude fluids that can generate infection through bacteria and fungi.

Depending on the state of the fruit or the outside temperature, the larvae can pupate inside the fruit or fall to the floor to get through winter.

FACTORS THAT INFLUENCE IN THE NUMBER OF TRAPS REQUIRED

Pest population, bordering crops, level of control required, etc.

An important factor is crop size. More traps are needed in small and irregular sized crops than in uniform plots with a larger surface area.

Another important factor is the distance of some plots from other plots that have Drosophila suzukii. In these cases, the boundaries of the plots should be reinforced, increasing the number of traps per ha.

STORING THE DIFFUSERS

The diffusers should be stored in their original packaging in a refrigerator at 4 °C; or in a freezer at -18 °C, in which case they remain effective for 2 and 4 years respectively.