

Spotted wing drosophila - *Drosophila suzukii* Cresson.

The fly is light brown, the eyes are red, its size is 2.5-3.5 mm. The antennae are short, branched. The thorax is light brown or yellowish brown, there are black stripes on the abdomen. There is a blackish dot on the wing of the male. This dot is missing on the female, however, here the ovipositor is with strong, saw-like teeth. [1] With it the female injures the fruit and lays her eggs. The egg is whitish, 0.2-0.6 mm. The larvae are dirty white. They spend all soil. The pupa is cylindrical, reddish brown. three instars inside the fruit.

Pupation can occur in the fruit or in the **Host plants** of the larva include cherry, strawberry, blueberry, raspberry, currant, plums, peaches, nectarines, apricots, kiwi, grapes, *Cornus*, *Sambucus* and many other berries. It attacks the soft-skinned fruits, it can lay eggs into hard-skinned fruits only if the skin is injured. The spotted wing drosophila is an invasive pest, it propagates fast. A female can lay 300-400 eggs per day! It can lay several eggs into one fruit. It lays eggs into both ripening and ripe fruits. **Damage:** the surface of the fruit holes in at the place of egg-laying. The fruit starts to rot soon as a result of secondary microbial infections, in dry weather it dries out completely [2]. Mass damages can be recorded in all regions where it is present.



The damage of the larva, which should be averted



The fly, which is captured in the trap

Especially severe damages are reported in countries where it is a newcomer (i.e. in the southern part of Germany there are reports of 90% fruit damage in cherries [2]!).

The trap should be hung from branches of trees or bushes at the height of 1.0-1.5 m, in shady places. Usual beginning of trapping in Central Europe is the middle - end of June, but due to the very prolonged flight of *D. suzukii* it is advisable to continue trapping to the end of October.

All accessories necessary are supplied with the trap, however, the natural attractant liquid should be added by the end user. Mix 150 ml red wine (with 10-14% ethanol content – Merlot type works well according to experience) PLUS 150 ml apple vinaigre (with 4-6% acetic acid content; many other natural vinaigres can also be used) PLUS some drops of detergent (i.e. household dishwasher solution – not scented!). Pour this mixture into the catch container of the VARL trap.

Selectivity of the CSALOMON® VARL trap: the natural attractant liquid will attract apart from *D. suzukii* several other insects, indigenous *Drosophila* and other small flies, etc. From these one can tell apart *D. suzukii* based on the dots on the wing of the male, and the saw-like teeth on the ovipositor of the female.

Capture of larger insects is hampered by the screen set at the funnel opening part of the trap – please DO NOT remove this screen!

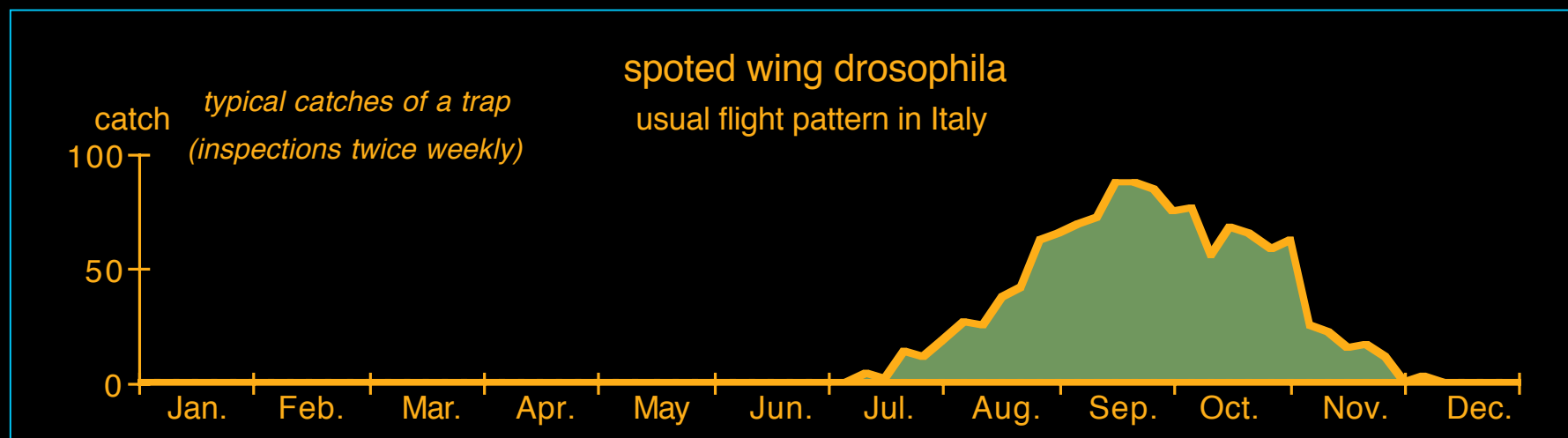
Longevity of the CSALOMON® VARL trap in field conditions: we suggest to change the attractant liquid at 8-10 day intervals. The trap itself can be used even for several years if treated with care.

D. suzukii originally comes from South-east Asia. It first was detected in Europe in Spain in 2008, later it was recorded also in France and Italy. It spread into Germany [2] and Slovenia [3] in 2011. Its invasion can be expected in all temperate regions of Europe.



The traps can be used for **early detection** and to **monitor the flight pattern**. Opportunities for mass trapping are also open. In case damages occur it is suggested to remove damaged and fallen fruits. To kill eggs and larvae collect the fruits in plastic bags, and put the bags under direct sunlight to heat it up. This should kill the insect. **DO NOT** compost fallen fruit, since the pest can develop in the compost. Do not leave old fruit on the plant after harvest. [1] Other opportunities for control include: 1. insecticide sprays at the beginning of infestation (these can be optimally timed according to our trap captures); 2. mass trapping (place the traps in the shade of trees and bushes, since flying drosophila do not like warmth and sunlight; 3. covering the plants with screen (max. 0.5-0.8 mm hole size) [2].

[1] Mann, R.S.; Stelinski, L.L. *UF IFAS Extension EENY492* 2011; <http://edis.ifas.ufl.edu/in887>; [2] JKI <http://drosophila.jki.bund.de>; <http://drosophila.jki.bund.de/index.php?menuid=16>; [3] http://www.fu.gov.si/en/services_and_measures/regulated_organisms/spotted_wing_drosophila_drosophila_suzukii/; [4] Grassi, A.; Pallaaro, M: *15th Int. Conf. Org. Fruit-Growing* (2012) <http://www.ecofruit.net/2012/proceedings-2012.pdf> 179-186.



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Fotó: Jurkó V



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1 mm

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So it looks when caught in the CSALOMON® VARL trap!

