

Food-attractant trap: Spotted-Wing Drosophila



Pheromone dispenser against Drosophila Suzuki



M2i technology

- Bottle with ceramic wick: homogeneous diffusion of active substances
- Constant and extended rate of pheromone release for greater efficiency
- Easy storage, at room temperature
- Extended shelf life: 2,5 years

User guide

M2i recommends: Droso Pro Classic® bottle + Droso trap

Trap setup: remove the cap and screw the wheel onto the bottle. Fill the (yellow) bottom part of the trap with water and unscented soap. Place the wheel horizontally in the bottom part of the trap, with the ceramic wick facing up. Twist the (transparent) top part of the trap into place on the bottom part. Flies are attracted by the food-attractant, enter the trap and drown in the water.

Characteristics of Droso Pro Classic®

Type of product	Food-attractant dispenser
Use	Monitoring
Active substance	Attractive cocktail
Volume of formulation	28 mL
Indicative diffusion span*	4 to 8 weeks
Targeted insect life-stage	Adult (fly)
Estimated radius of diffusion	Flies attracted on a radius of 5-7m

* depending on climatic conditions, for an average temperature of 30°C and without strong winds. Avoid direct sun exposure in hot weather.



© M2i

Monitoring setup

Detection period: from March to November (adapt and renew the food-attractant dispenser according to the recommended diffusion time).

Trap location:

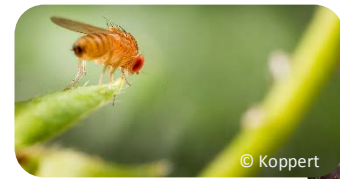
- ✓ *At the beginning of the season* (when flies are not yet in the crop): place traps at the edges of the plot, hung on poles around 1.5 m above the ground, if possible in areas used as shelter by the flies (close to woods, hedges, water). Traps must be positioned at a minimum of 10 m and no more than 50 m from the crop.
- ✓ *During the season* (as soon as 1st flies are seen or caught on the farm or close to the farm): move the traps into the plot. They can be hung directly in the canopy of the tree, around 1.50m from the ground.

Recommended density: 1-2 traps/1000 m²

Pest monitoring and recommendations

Trap follow-up frequency	Weekly
Vigilance threshold	As soon as flies are caught (intervention depending on the tolerance threshold of the infestation level)
Pest control methods	During the critical season and depending on trapping levels: it is possible to perform an additional insecticide and/or a biocontrol treatment according to the insect life stage. Refer to recommendations of registered products for plant protection (ephy.anses.fr) and/or to your technical advisor.
Possible preventive measures	Harvest fruit as soon as they are mature (regular frequencies of harvest). Avoid the presence of ripe fruits in the plot. Eliminate waste, fruits infested and/or fallen to the ground. Ensure a good ventilation of the crop (adapted tree pruning, low sodding).

Food-attractant trap: Spotted-Wing Drosophila



© Koppert



© G. Seljak



© Gamm vert



© Gamm vert

The Spotted-Wing Drosophila (*Drosophila suzukii*)

Pest life-stage: larva **Order:** Diptera

Drosophila suzukii is native from Asia. Adults are pale brown to yellowish-brown with black stripes on the abdomen and red eyes. They measure 2-3 mm and live 3 to 9 weeks. Females lay 200 to more than 500 eggs during their lifespan. Eggs are laid by groups of 1-3 per oviposition, under the skin of the fruit. They hatch 1-3 days later.

Larvae are translucent milky-white, with black mouthparts. They measure 0.6-4 mm and develop in 3-13 days (depending on climatic conditions). They feed from the inside of the fruit. This feeding pattern, combined with the fruit sting related to oviposition, favours the development of microorganisms and molds, leading to the fruit decay. These damages can cause up to 80% losses for some producers.

When fully grown, larvae pupate in the fruit or in the ground. Adult emerge 4 to 43 days later. The pest can be present throughout the year depending on the presence of crops, the geographical area and climatic conditions. It is generally active from April to November-December. During the winter, below 5°C, the pest enter a diapause at the adult stage, in sheltered areas (woods, groves, ground...). *D. suzukii* can spawn up to 13 generations per year.

Recommendations / Security

Keep out of reach of children. Keep away from domestic animals.

Store away from food and drink. Do not freeze.

Do not eat, drink or smoke during use.

Wash hands after use.

Store in original packaging. Comply with doses, conditions, instructions and precautions for use mentioned in the user's guide.

Dispose of the empty and clean packaging in the household trash.

First aid

If eye contact occurs, rinse with water for several minutes.

In case of skin contact, wash with plenty of water.

If swallowed, do not induce vomiting, rinse mouth and see a doctor.

In case of faintness, see a doctor and show him the product label.

Product approved for organic agriculture.

Host plants

Drosophila suzukii is a polyphagous species and a major invasive insect pest of small and stone fruits: cherry, blueberry, blackberry, raspberry, strawberry, plum, peach, grape, fig, apricot, pear, apple, persimmon...

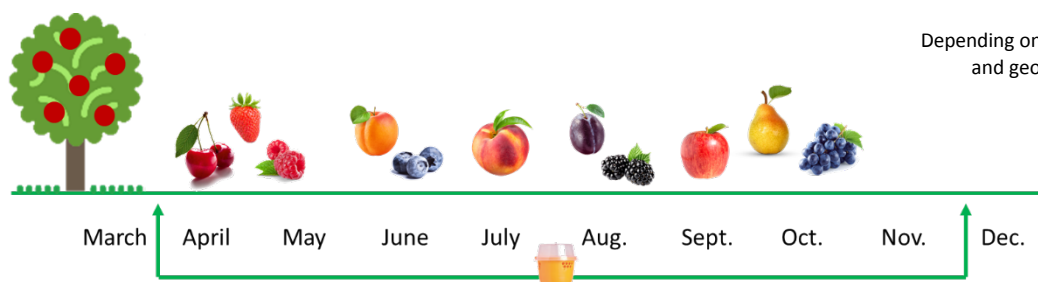
Detection strategy: food attractants

Food attractants are mimicking substances produced by the host plant in order to attract an insect. Monitoring using such molecules can attract either males or females allowing for the detection of the fly in the orchard. In case of high pest pressure, performing a curative treatment and measuring its efficiency can also help.

Benefits

This method is efficient, selective and harmless for fauna, flora, operators and local residents. It does not generate residues, inputs or resistance mechanisms.

Detection period for *D. suzukii*



Depending on weather conditions and geographical area