

# Managing Spotted Wing Drosophila in Berry Crops

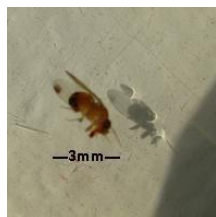


Figure 1: Male SWD. Photo by A. Mintenko

Berries are susceptible to Spotted Wing Drosophila (SWD) infestation from the time colour starts to appear on the berry all the way through harvest. However, there are no benefits to applying chemical controls before berries begin to colour up. Growers should expect SWD population numbers to increase with moist or warm weather and as food sources for SWD from wild bush fruit hosts and ripening commercial berry fields start occurring by mid-July. Producers have many chemical control options to manage SWD (see table below). It is important to constantly rotate every application through different insecticide chemical groups to avoid potential insecticide resistance issues with SWD. Repeat with an alternate insecticide group type every seven to 10 days.

## Cultural Controls

Harvest ripe berries frequently and cool berries quickly after harvest. SWD stop growing in the berry, and eventually die, at cool refrigerator temperatures. For raspberries, keep rows narrower to reduce favourable habitat for SWD. For all berry crops, if possible, remove unmarketable fruit and crush in alleyways.

## Chemical Control

Weekly applications of approved insecticides are quite effective at controlling SWD and protecting the berry harvest from damage. If SWD are present, then control measures should start when berries begin to colour up. It is important to constantly rotate every application through different insecticide chemical groups to avoid potential insecticide resistance issues with SWD.

## SWD Background Information

Spotted Winged Drosophila (*Drosophila suzukii*) (SWD) are a vinegar fly of East Asian origin that can cause damage to many soft-skinned fruit crops. SWD pierce seemingly healthy fruit and lay their eggs, which hatch in about three days. The larvae feed on the fruit and emerge as adults after six to 28 days. Early detection is critical because symptoms often do not appear until after the fruit is harvested. Commonly confused with the common fruit fly, *Drosophila melanogaster*, SWD differ as they attack unripe and ripe fruit, whereas the common fruit fly feeds on overripe and rotting fruit. SWD most commonly affect strawberries, raspberries, saskatoons, cherries and plums.



Photo by A. Mintenko

Figure 2: SWD larvae on strawberry.

### Salt Water Test for Larvae

Test berries for larvae using a mixture of one part salt to 16 parts water. Place ripe (but not overripe) berries in a pan with the salt solution. Gently break up the berries and look for small, white larvae floating in the solution. [Salt Water Test for SWD OMFRA](#)

The following insecticide control options are a guide only. Always refer to the product label before applying the product.

2022 SWD Registered Insecticides with Pre-Harvest Interval (PHI) of 3 Days or Less					
June-Bearing Strawberry	Group	Product	Rate	REI*	PHI**
	1B	Malathion 85 E	1 L/1,000 L water	12 hours	3 days
	3	Up-Cyde 2.5EC	245-285 mL/ha (98-114 mL/ac)	12 hours	2 days
	5	Delegate	280 g/ha (112 g/ac)	12 hours	1 day
	5	Entrust or Success	292-364 mL/ha (117-146 mL/ac) 145-182 mL/ha (58-73 mL/ac)	When dry	1 day
	5	Scorpio Ant and Insect Bait	35-45 kg/ha (14-18 kg/ac)	12 hours	1 day
	28	Exirel	1.0-1.5 L/ha (0.4-0.6 L/ac)	12 hours	1 day
	28	Harvanta 50SL	1.2-1.6 L/ha (0.48-0.64 L/ac)	12 hours	1 day

Raspberry	Group	Product	Rate	REI	PHI
	1B	Malathion 85 E	1L/1,000 L water	12 hours	1 day
	3	Up-Cyde 2.5EC	245-285 mL/ha (98-114 mL/ac)	12 hours	2 days
	5	Delegate	315-420 g/ha (126-168 g/ac)	12 hours	1 day
	5	Entrust or Success	344-440 mL/ha (138-176 mL/ac) 165-220 mL/ha (66-88 mL/ac)	When dry	1 day
	5	Scorpio Ant and Insect Bait	35-45 kg/ha (14-18 kg/ac)	12 hours	1 day
	28	Exirel	1.0-1.5 L/ha (0.4-0.6 L/ac)	12 hours	1 day
	28	Harvanta 50SL	1.2-1.6 L/ha (0.48-0.64 L/ac)	12 hours	1 day

Saskatoons	Group	Product	Rate	REI	PHI
	1B	Malathion 85 E	1 L/1,000 Lwater	12 hours	1 day
	3	Up-Cyde 2.5EC	245-285 mL/ha (98–114 mL/ac)	12 hours	2 days
	5	Delegate	315-420 g/ha (126-168 g/ac)	12 hours	1 day
	5	Entrust or Success	344-440 mL/ha (138-176 mL/ac) 165-220 mL/ha (66-88 mL/ac)	When dry	1 day
	5	Scorpio Ant and Insect Bait	25-50 kg/ha (10–20 kg/ac)	12 hours	1 day
	28	Exirel	1.0-1.5 L/ha (0.4-06 L/ac)	12 hours	3 days
	28	Harvanta 50SL	1.2-1.6L /ha (0.48-0.64 L/ ac)	12 hours	1 day

\*REI = re-entry interval, \*\*PHI = pre-harvest interval

Insecticide information from: [Pesticide Label Search - Health Canada \(hc-sc.gc.ca\)](http://www.hc-sc.gc.ca/pest/labelsearch/)

## Contact Us

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