

Recommendations for Managing Spotted Wing *Drosophila* (SWD), *Drosophila suzukii*, in Oregon Sweet Cherry¹

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Integrated Management of SWD in cherries:

- Monitor orchard and surrounding area with traps (see below)
- Manage alternate host plants in surrounding habitat
- If SWD not detected, follow normal cherry fruit fly program
- If SWD detected, treat crop with “preferred” insecticides
 - See below for list of preferred insecticides
- Rotate chemistries using resistance management groups
- Continue to monitor with traps to determine effectiveness of control program
- Sample fruit for infestation
- Consider post-harvest clean-up spray to reduce population
- Stay informed: OSU SWD Website: <http://swd.hort.oregonstate.edu/>

Traps: We are using 1 quart “clear” deli containers with numerous 3/16” holes drilled near the top. Drill or punch holes at 0, 90, 180, 270 degrees. On three sides, add 2 to 3 holes between original four leaving one side blank to pour out vinegar. Insert hanger wires through pairs of original four holes and fasten on opposite side. Add 1” apple cider vinegar, 1-2 drops of unscented dish soap/detergent, put a lid on it, then hang it about 3-5 ft from the ground. Check and replace vinegar weekly, don’t pour the spent vinegar on the ground; remove it and dispose elsewhere. We use stiff wire hangers to keep the traps in place.



Earlier versions of the trap had a yellow sticky card in it. This was useful when the bait was yeast, sugar and water. The card captured some of the flies making it easier to ID SWD because it is difficult to see them in the cloudy yeast bait. Visibility is not a problem with the AC vinegar.

Chemical Control: (Material choices are listed below) Fruit appears to be susceptible from light straw color through harvest and beyond. Japanese literature suggests that organophosphorus and pyrethroid insecticides will provide a week of control. Consider REIs, PHIs and MRLs when selecting products to use. Remember to rotate classes of insecticides to delay insecticide resistance development. Malathion EC may cause phytotoxicity to some cultivars.

¹These recommendations are subject to change based upon updated information. Please check the following website for up-to-date recommendations: <http://swd.hort.oregonstate.edu/>

Table 1: Insecticides registered for use on sweet cherry in Oregon and considerations for their use against the spotted wing drosophila.

Product and formulation	Common name	Restricted (RUP) or general use (GUP) pesticide	Resistance management group	REI	PHI	Maximum amount/acre/year	Maximum applications/year	Bee hazard ¹	Buffer required ²	Surface water hazard ³	IPM rating for WPM ⁴	Predicted efficacy from lab studies ⁵	Potential for controlling SWD ⁶	Remarks
Preferred Insecticides														
Assail 30SG	acetamiprid	GUP	4A	12 h	7 d	32 oz	4	x	-	-	-	0	G	Repeated applications may flair mites.
Assail 70WP	acetamiprid	GUP	4A	12 h	7 d	13.6 oz	4	x	-	-	-	0	G	Repeated applications may flair mites.
Delegate 25WG	spinetoram	GUP	5	4 h	7 d	28 oz	4	x	-	x	L	+	E	Also controls OBLR and thrips; time application for these pests. Repeated applications may flair mites; limit to one application per season.
Entrust 80WP	spinosad	GUP	5	4 h	7 d	9 oz	-	x	-	x	L	+	G	Also controls OBLR and thrips; time application for these pests. Repeated applications may flair mites.
Malathion 8EC	malathion	GUP	1B	12 h	3 d	-	-	x	x	x	L	+	E	Repeated applications may flair mites and leafminers. May have cross resistance with other OPs and carbaryl. Can be phytotoxic.
Provado 1.6F (or generic)	imidacloprid	GUP	4A	12 h	7 d	40 oz	-	x	x	x	L-M	-	G	Also controls black cherry aphid. Repeated applications may flair mites; limit to one application per season.
Sevin 4F	carbaryl	GUP	1A	12 h	3 d	15 qt	3	x	x	x	M-H	+	G	Repeated applications may flair mites and leafminers; consider using early or late season. May have cross resistance with OPs.
Success 2L	spinosad	GUP	5	4 h	7 d	29 oz	-	x	-	x	L	-	G	Also controls OBLR and thrips; time application for these pests. Repeated applications may flair mites; limit to one application per season.
Insecticides Considered as Emergency Use Only														
Asana XL 0.66EC	esfenvalerate	RUP	3	12 h	14 d	72 oz	-	x	x	x	H	-	E	High potential to flair mites and leafminers.
Baythroid XL 1EC	beta-cyfluthrin	RUP	3	12 hr	7 d	5.6 oz	-	x	x	x	H	+	E	High potential to flair mites and leafminers.
Diazinon 50WP	diazinon	RUP	1B	4 d	21 d	4 lb	2	x	x	x	L	+	E	High potential to flair mites and leafminers.
Dimethoate 4E	dimethoate	GUP	1B	10 or 14 d	21 d	2.75 pt	-	x	x	x	L-M	-	E	For postharvest cleanup application only.
Guthion Solupak 50WP	azinphos-methyl	RUP	1B	15 d	15 d	1.5 lb	-	x	x	x	M	-	E	High potential to flair mites and leafminers.
Pounce 25WP	permethrin	RUP	3	12 hr	3 d	2.4 lb	4 total; 3 after petalfall	x	x	x	H	+	E	High potential to flair mites and leafminers.
Proaxis 0.5EC	gamma-cyhalothrin	RUP	3	1 d	14 d	1.6 pt	-	x	x	x	H	-	E	High potential to flair mites and leafminers.
Warrior II 2.08EC	lambda-cyhalothrin	RUP	3	1 d	14 d	12.8 oz	-	x	x	x	H	-	E	High potential to flair mites and leafminers.
All pesticides must be used as directed on the label.														
¹ Bee hazard indicated on pesticide label. See specific label for precautions.														
² Buffer required between application site and surface water. See specific label and http://egov.oregon.gov/ODA/PEST/buffers.shtml for requirements.														
³ Surface water hazard indicated on pesticide label. See specific label for precautions.														
⁴ Generalized impact on western predatory mite (<i>Typhlodromus occidentalis</i>) IPM programs (L = low impact, M = moderate impact, H = high impact, - = no data available).														
⁵ Based upon results from recent laboratory studies from Denny Bruck, Jana Lee and Hanna Goodwin, USDA-ARS Horticultural Crops Research Laboratory, Corvallis, OR (+ = potentially effective, 0 = limited or no potential for controlling SWD, - = no data).														
⁶ This information is preliminary and based upon information from several sources including our familiarity of the material and crop -and- disregarding potential negative impacts on IPM programs (E-excellent, G-good, M-moderate, F-fair, P-poor, U-uncertain). Future research may result in changes to this information.														
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