

## Insecticides registered for use in OR and WA Caneberries for management of SWD, and considerations for their use.

Active Ingredient	Trade Name <sup>1</sup>	IRAC <sup>2</sup>	Rate (lb ai/A)	PHI (days)	REI (hours)	MRL <sup>3</sup> USA (ppm)	MRL <sup>3</sup> EU/UK (ppm)	MRL <sup>3</sup> Canada (ppm)	MRL <sup>3</sup> Japan (ppm)	MRL <sup>3</sup> Korea (ppm)	MRL <sup>3</sup> Taiwan (ppm)	Residual effects (days) <sup>4</sup>	Potential SWD Control <sup>5</sup>
Carbaryl	Sevin	1A	1.5	7	12	12.0	0.05	10	10.0	0.5	0.5	10-14	G
Diazinon	Diazinon	1B	1.0	7	5 days	0.75	0.01	0.1 <sup>d</sup>	B=0.1;R=0.2	B=0.1;R=0.2	0.5	7-10	E
Malathion	Malathion	1B	2.0	1	12	8.0	0.02	8.0	8.0	0.5	0.01	7-10	E
Bifenthrin	Brigade	3A	0.1	3	12	1.0	1.0	0.1 <sup>d</sup>	1.0	1.0	1.0	10-14	E
Esfenvalerate	Asana	3A	0.05	7	12	1.0	0.02	0.1 <sup>d</sup>	1.0	0.0 <sup>d</sup>	1.0	10-14	E
Fenpropathrin	Danitol	3A	0.3	3	24	12.0	0.01	12	5.0	0.5	3.0	10-14	E
Pyrethrin	Pyganic*	3A	18 fl oz prod*	0	12	1.0	1.0	1.0	1.0	1.0	0.0 <sup>d</sup>	0	G
Zeta-cypermethrin	Mustang	3A	0.05	1	12	0.8	0.5	0.1 <sup>d</sup>	0.5	2.0	2.0	10-14	E
Acetamiprid	Assail	4A	0.1	1	12	1.6	0.01	4.0	1.6	1.0	0.01	1-3	F
Imidacloprid (foliar)	Provado 1.6F	4A	0.05	3	12	2.5	5.0	2.5	4.0	B=0.3;R=0.5	1.0	1-3	F
Thiamethoxam (foliar)	Actara	4A	0.05	3	12	0.35	0.05	0.35	0.35	1.0	0.01	1-3	F
Spinetoram	Delegate	5	0.09	1	4	0.7	B=0.05;R=0.8	0.5	0.01 <sup>d</sup>	0.1	B=0.0 <sup>d</sup> ;R=0.5	5-7	E
Spinosad	Entrust*, Success	5	0.09	1	4	0.7	1.5	0.5	0.7	B=1.0;R=0.5	0.0 <sup>d</sup>	5-7	G-E

<sup>1</sup> Examples of trade names only. The MRLs, residual effects, and potential control also apply to products with a different trade name with the same active ingredient, but by a different manufacturer.

<sup>2</sup> Insect Resistance Action Committee: 1A = Carbamates; 1B = Organophosphates; 3A = Synthetic Pyrethroids and Pyrethrins; 4A = Neonicotinoids; 5 = Spinosyns

<sup>3</sup> MRL = Maximum Residue Level expressed in parts per million. MRLs for these and other countries can be found at: [www.mrlatabase.com](http://www.mrlatabase.com)

<sup>4</sup> Based on plants sprayed in the field and then exposing adult SWD to treated leaves in the lab; field results may differ. See full publication at: [wileyonlinelibrary.com](http://wileyonlinelibrary.com) (search for: DOI 10.1002/ps.2242)  
Additional information from Washington State University lab experiments can be found at: [www.mtvernon.wsu.edu/ENTOMOLOGY/pests/SWD.html](http://www.mtvernon.wsu.edu/ENTOMOLOGY/pests/SWD.html)

<sup>5</sup> E = 90-100% mortality; G = 70-90% mortality; F = 50-70% mortality. Based on lab experiments; field results may differ. Does not include potential negative impacts on IPM programs.

<sup>d</sup> No MRL exists. The default MRL for that country applies, which is listed here.

\* Approved for organic production. Pyrethrin rate is for Pyganic EC 5.0 formulation.

For bee safety information, consult label or Extension publication "How to Reduce Bee Poisoning from Pesticides" at: [ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20772/pnw591.pdf](http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20772/pnw591.pdf)

### Considerations:

- Make application only when trap count indicates adults are present AND fruit is susceptible (i.e. fruit has started to turn color). Thorough coverage is essential to achieve control.
- Rotate insecticide chemical classes (see IRAC) to reduce likelihood of resistance.
- Consider other pests that may also be controlled when choosing an insecticide for SWD.
- Be mindful of protecting bees and other beneficial organisms; all insecticides listed above will impact IPM programs and beneficial arthropods.
- Aerial applications may result in reduced control compared to ground applications. All above product labels allow aerial application EXCEPT diazinon.
- Be aware of buffer restrictions, surface water hazard, PHIs, REIs. Consider MRLs if fruit is destined for export market.
- Additional information can be found in the PNW Insect Management Handbook (<http://uspest.org/pnw/insects>) and on the OSU website: [www.spottedwing.com](http://www.spottedwing.com)

**This table is a guideline and not a legal document. Changes in registration status may occur. Consult the pesticide label before application. The label is the law.**

For further information, contact Joe DeFrancesco, Oregon State University

April 15, 2013