Effective SWD insecticides registered for use in OR and WA caneberries, and considerations for their use.

Active Ingredient	Trade Name (Examples only)	Insecticide Resistance Management Group (IRAC)	PHI	REI	MRL[1] USA (ppm)	MRL[1] Japan (ppm)	MRL[1] EU/UK (ppm)	MRL[1] Canada (ppm)	Bee hazard[2]	Surface water hazard[3]	Residual effects (days)	Potential for controlling SWD[4]
Acetamiprid	Assail	4A	1 day	12 hrs	1.6	1.6	0.01	NT	y	n	1-3	F
Bifenthrin	Brigade	3A	3 day	12 hrs	1.0	1.0	0.3	NT	y	y	10-14	E
Carbaryl	Sevin	1A	7 days	12 hrs	12.0	10.0	0.05	10	y	y	10-14	G
Diazinon	Diazinon	1B	7 days	5 days	0.75	0.1-0.2	0.01	NT	y	y	7-10	E
Esfenvalerate	Asana	3A	7 days	12 hrs	1.0	1.0	0.02	NT	y	y	10-14	E
Fenpropathrin	Danitol	3A	3 days	24 hrs	12.0	5.0	0.01	NT	y	y	10-14	E
Imidacloprid (foliar)	Provado 1.6F	4A	3 days	12 hrs	2.5	3.5	5.0	2.5	y	y	1-3	F
Malathion	Malathion	1B	1 day	12 hrs	8.0	8.0	0.02	8.0	y	y	7-10	E
Pyrethrin	Pyganic*	3A	0 day	12 hrs	1.0	1.0	1.0	1.0	y	y	0	G
Spinetoram	Delegate	5	1 days	4 hrs	0.7	NT	0.05	0.5	y	y	5-7	E
Spinosad	Entrust*, Success	5	1 days	4 hrs	0.7	1.0	0.3	0.5	y	y	5-7	G-E
Thiamethoxam (foliar)	Actara	4A	3 days	12 hrs	0.35	0.35	0.05	0.02	y	y	1-3	F
Zeta-cypermethrin	Mustang Max	3A	1 day	12 hrs	0.8	0.5	0.5	NT	y	y	10-14	E

[1] MRL = Maximum Residue Level expressed in parts per million. NT = no tolerance listed. MRLs for other countries can be found at: www.mrldatabase.com

[2] y = Bee hazard indicated on label; n = No bee hazard indicated. For details, consult label or Extension publication PNW591:How to Reduce Bee Poisoning from Pesticides (http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20772/pnw591.pdf)

[3] Surface water hazard indicated on pesticide label. See specific label for precautions.

[4] E = 90-100% mortality;G = 70-90% mortality; F = 50-70% mortality. This information is an efficacy rating only, based on information from field and lab experiments, and does not include potential negative impacts on IPM programs, beneficial arthropods, or the environment.

* Approved for organic production

Considerations:

~ Make application only when trap count indicates adults are present AND fruit is susceptible (i.e. fruit has started to turn color)

~ Rotate insecticide chemical classes (IRAC) to reduce likelihood of resistance

~ Thorough coverage is essential to achieve control.

~ 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.

~ Aerial applications may result in reduced control compared to ground applications. All products listed above allow aerial application EXCEPT diazinon.

~ Be aware of buffer restrictions,surface water hazard, PHIs, REIs. Consider MRLs if fruit is destined for export market.

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, OSU.

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