



Spotted Wing Drosophila Management Guidelines for Oregon Sweet Cherry

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SWD Management Guidelines: Oregon Sweet Cherry

NOTES:

- The lists of insecticides presented here were compiled at a meeting held at the Hood River County Extension Office 19 March, 2010. Through a collective effort, individuals from the cherry industry representing packing houses, chemical distributors, growers, applicators, and OSU research and Extension came up with 2 lists of insecticides that could be used to manage both the spotted wing drosophila (SWD) and cherry fruit fly in Oregon sweet cherry orchards.
- This information is subject to change based upon new information received.
- Currently, Malathion ULV and GF-120 are not being recommended because of uncertainties about how effective they will be in controlling SWD. Research is planned to determine the effectiveness of these and other products.

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SWD Management Guidelines: Oregon Sweet Cherry

- Integrated Management of SWD in cherries
 - Monitor orchard and surrounding area with traps
 - 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 following slides for list of preferred insecticides
 - Rotate chemistries using resistance management groups
 - Continue to monitor with traps to evaluate IPM program
 - Sample fruit for infestation
 - Consider post-harvest clean-up spray to reduce population
 - Stay informed:

<http://swd.hort.oregonstate.edu/>

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SWD Management Guidelines: Oregon Sweet Cherry

- Monitor with traps
 - Traps should be placed in and around orchard
 - Border traps provides for “easy” servicing
 - Interior traps useful for evaluating sprays and invasion
 - Place traps in earliest blocks first, before straw color
 - It is crucial to know if SWD is present before cherries start to show pink color
 - Expand trapping to later maturing blocks
 - Continue monitoring harvested blocks to determine if a clean-up spray is needed



SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control
 - If no SWD detected, follow normal cherry fruit fly program
 - If SWD found in traps in or near orchard, apply “preferred” insecticides (see following slides for list of insecticides)
 - Make sure you read and follow the label especially when there are issues with bees and surface water
 - Follow BMPs for mitigating surface water contamination
 - Rotate insecticides to help prevent or delay occurrence of resistance
 - See insecticide class codes on labels
 - Consider MRLs for export markets



SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control
 - Preferred Insecticides*
 - Acetamiprid (Assail®)
 - Carbaryl (Sevin®)
 - Imidacloprid (Provado®, other generics)
 - Malathion EC**
 - Spinosad (Entrust®, Success®)
 - Spinetoram (Delegate®)

*These are insecticides that may control SWD with the least disruption to the orchard system or negative worker protection impacts.

**Malathion EC may be phytotoxic to sweet cherries. We are uncertain about the efficacy of Malathion ULV at this time. Research is planned to investigate this.

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SWD Management Guidelines: Oregon Sweet Cherry

Preferred insecticides*

Insecticide	Common name	<u>Potential hazard to</u>			Potential to control SWD
		Bees	Water	IPM	
Assail 30SG, 70WP®	Acetamiprid	yes	-	yes	good
Delegate 25WG®	Spinetoram	yes	yes	yes	excellent
Malathion 8EC**	Malathion	yes	yes	yes	excellent
Provado 1.6F®***	Imidacloprid	yes	yes	yes	good
Sevin® (various)	Carbaryl	yes	yes	yes	good
Success 2L®	Spinosad****	yes	yes	yes	good

*These are the products to use first.

**Phytotoxicity concerns. We are uncertain about the efficacy of Malathion ULV. Research is planned to investigate this.

***Generics available.

**** We are uncertain about efficacy of GF-120 at this time. Research is planned to investigate this.



SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	4A	Insecticide
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- Preferred Insecticides

- Acetamiprid (Assail®)
 - Impacts bees
 - Repeated use may flair mites
 - Effective against black cherry aphid

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	1A	Insecticide
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- Preferred Insecticides

- Carbaryl (Sevin®)
 - Impacts bees, surface water, natural enemies
 - Repeated use will flare mites, possibly leafminers
 - Consider using early or late season
 - May have cross-resistance with OPs

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	4A	Insecticide
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- Preferred Insecticides

- Imidacloprid (Provado[®], other generics)
 - Impacts bees, surface water, NE's
 - Repeated use can flair mites
 - Will control black cherry aphid
 - Recommended use once per season

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	1B	Insecticide
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- Preferred Insecticides

- Malathion (EC*)
 - May be phytotoxic to sweet cherries
 - Impacts bees, surface water, NE's
 - Repeated use may flair mites, leafminers
 - May have cross resistance with carbamates

*We are uncertain about the efficacy of Malathion ULV at this time. Research is planned to investigate this.

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	5	Insecticide
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- Preferred Insecticides

- Spinosad (Entrust[®], Success[®])
 - Impacts bees, surface water, NE's
 - Use once per season, target OBLR and thrips
 - Keep Entrust for organic growers only, more than one application is OK

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

Group	5	Insecticide
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- Preferred Insecticides

- Spinetoram (Delegate®)

 - Impacts bees, surface water, NE's
 - Effective against OBLR and thrips
 - Don't over use
 - Use once per season, target OBLR and/or thrips

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control

- **Emergency Use Only Insecticides***

- Azinphos-methyl (Guthion[®])
 - Diazinon (closed-cab requirement)
 - Pyrethroids (including Asana[®], Baythroid[®], permethrin, Proaxis[®], Warrior[®])



*Some of these materials have worker protection issues, strong potential to disrupt IPM programs and cause 2^o pest outbreaks

They are toxic to bees and have surface water issues

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SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide resistance management
 - Limit repeated use of a single product or class of insecticide
 - One application per season for Success, Delegate, imidacloprid products
 - Observing resistance management groups on the label helps when determining rotations
 - Malathion:
 - Maximum two applications in succession then rotate to something else

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SWD Management Guidelines for Oregon Sweet Cherry

- For information on SWD, click on the following link:
<http://swd.hort.oregonstate.edu/>
- For information regarding insecticide use on Oregon sweet cherries, contact:

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