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 the spotted wing drosophila (SWD) 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.
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
  – Treat crop with “preferred” insecticides
  – Rotate chemistries using IRAC codes
  – 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/
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
  – Apply insecticides against SWD if found in traps in or near blocks
  – 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 IRAC codes on labels
  – Consider MRLs for export markets
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• Insecticide control

  – Preferred Insecticides*
    • Acetamiprid (Assail®)
    • Carbaryl (Sevin®)
    • Imidacloroprid (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.

**We are uncertain about the efficacy of Malathion ULV at this time. Research is planned to investigate this.
### SWD Management Guidelines: Oregon Sweet Cherry

**Preferred insecticides***

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

*These are the products to use first.

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

***Generics available.
Insecticide control

- Preferred Insecticides
  - Acetamiprid (Assail®)

- Impacts bees
- Repeated use may flair mites
- Effective against black cherry aphid

Group 4A Insecticide
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- Insecticide control

  - Preferred Insecticides
    - Carbaryl (Sevin®)

    - Impacts bees, surface water, natural enemies
    - Repeated use will flair mites, possibly leafminers
    - Consider using early or late season
    - May have cross-resistance with OPs
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• Insecticide control

  – 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
SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control
  - Preferred Insecticides
    - Malathion (EC*)

  - Impacts bees, surface water, NE’s
  - Repeated use may flair mites, leafminers
  - May have cross resistance with carbamates
  - Is phytotoxicity an issue with this product?

*We are uncertain about the efficacy of Malathion ULV at this time. Research is planned to investigate this.*
SWD Management Guidelines: Oregon Sweet Cherry

- Insecticide control
  - 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
Insecticide control

- 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

3/23/2010
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° pest outbreaks

They are toxic to bees and have surface water issues
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- Insecticide resistance management
  - Limit repeated use of a single product or class of insecticide
    - One application per season for Success, Delegate, imidaclorpid products
  - Observing IRAC codes on the label helps when determining rotations
  - Malathion:
    - Use two applications by ground in succession then rotate to something else
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:
  Lynn Long, Area Horticulture Agent
  Wasco County Extension Office
  The Dalles, OR
  lynn.long@oregonstate.edu