### BLUEBERRY INSECT CONTROL — COMMERCIAL

<table>
<thead>
<tr>
<th>Insect</th>
<th>Material and Formulation</th>
<th>Amount to Use/Acre</th>
<th>Remarks/Precautions</th>
<th>Days to Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUD SWELL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale</td>
<td>Apply dormant oil if scale present</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climbing Cutworm</td>
<td>Sevin 80S</td>
<td>1 7/8-2 1/2 lb</td>
<td>During dormant pruning, clip off bagworms on plants and adjacent juniper/cedar trees. Destroy these bags so larvae do not hatch next June and disperse to and defoliate blueberry plants. At bud swell, begin checking plants daily for damaged buds or check after dusk for climbing cutworms feeding on the buds. Spray weekly as long as damage is occurring or climbing cutworms are present.</td>
<td>7</td>
</tr>
<tr>
<td>Bagworms</td>
<td>Sevin XLR</td>
<td>1 1/2-2 qt</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

**FRUIT FEEDING INSECT PESTS OF BLUEBERRY ARE RARE IN ARKANSAS.**

**PETAL FALL**

- **Cherry Fruitworm**
  - Asana XL
  - 4.8-9.6 fl oz
  - Asana repels bees; do not apply within 7 days of pollination.
- **Cranberry Fruitworm**
  - Assail 30SG
  - 4-6.9 oz
  - Apply insecticide against cherry fruitworm at petal fall and 10 days later.
- **Eastern Tent Caterpillar**
  - Avaunt
  - 3-5.6 oz
  - Apply insecticide against cranberry fruitworm 10 days and 20 days after petal fall.
- **Leafroller (usually not a problem)**
  - Confirm 2F
  - 16 fl oz
  - 1
  - Danitol 2.4
  - 13-16 oz
  - 3
  - Delegate
  - 3-6 oz
  - 3
  - Imidan 70W
  - 1 1/3 lb
  - 3
  - Intrepid
  - 10-16 fl oz
  - 7
  - Knack 0.83EC
  - 16 fl oz
  - 7
  - Malathion 5EC
  - 2 pt
  - 1
  - Mustang Maxx
  - 4 fl oz
  - 3
  - Rimon
  - 20-30 fl oz
  - 8
  - Sevin 80S
  - 1 7/8-2 1/2 lb
  - 7
  - Sevin XLR
  - 1 1/2 qt
  - 7
  - Success
  - 4-6 fl oz
  - 3
  - Entrust 2SC (OMRI*)
  - 4-6 fl oz
  - 3
  - Deliver (OMRI*)
  - 0.25-1.5 lb

**FIRST AND SECOND COVER**

**Fruitworms**

- **Plum Curculio**
  - Brigade
  - 5.3-16 oz
  - See PETAL FALL
  - In the last couple of years, plum curculio adults and larvae were observed causing damage in blueberry fruit.
  - 1
  - Danitol
  - 10.6-16 oz
  - 3
  - Imidan 70W
  - 1.3 lb
  - 3
  - Malathion
  - 1.5-2.5 pt
  - 1
  - Surround (OMRI*)
  - 0

**Bagworms**

- **Deliver (OMRI*)**
  - 0.25-1.5 lb
  - During the first or second week of June, check planting for newly hatched bagworms (very localized near bagworm-infested junipers or other trees) and either remove by hand or spray.
  - 0

- **Entrust (OMRI*)**
  - 1.25-2.0 oz
  - 3
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| **THIRD AND ADDITIONAL COVERS**

**Blueberry Maggot**

- **Flatheaded Apple Tree Borer**
  - Sevin XLR: 1-2 qt
  - Sevin 80S: 1 1/2-2 1/2 lb
  - Imidan 70W: 1.3 lb

  Blueberry maggot larvae and adults have not been observed in Arkansas.

  In late April, set out emerald ash borer purple sticky traps in vertical orientation along the wooded perimeter of the blueberry planting being attacked by this borer. Check purple traps weekly for adult flatheaded borers. Apply insecticide to canes at three-week intervals from first to last capture of adult borers on purple traps or adults observed on blueberry canes. DO NOT make more than five applications of Imidan per acre per year.

| **POST-BLOOM TO HARVEST**

Leafrollers

- Deliver (OMRI*): 0.25-1.5 lb
- Entrust 2SC (OMRI*): 4.6 fl oz

  Leafrollers are usually NOT a problem in blueberries in Arkansas. Deliver is a formulation of *Bacillus thuringiensis var kurstaki* (Bt).

- Actara 25WB: 3 oz
- Assail 30SG: 4.5-5.3 oz
- Malathion: 1-4 pt
- Sevin 4F: 1-2 qt
- Sevin 80S: 2.5 lb
- Surround WP (OMRI*): 25-50 lb

  Mid-June to late July, check for foliar feeding by Japanese beetle or fruit feeding by green June beetle. Spray weekly as needed with seven-day minimum interval between applications.

  After harvest, you can suppress Japanese beetle foliar feeding by applying enough Surround to white-wash the foliage. Reapply Surround as needed to maintain white-washed appearance. Supplemental controls may be needed to complete insect control.

Japanese Beetle

- Assail 30SG: 4.5-5.3 oz
- Malathion: 1-4 pt
- Sevin 80S: 2.5 lb

Green June Beetle

- Surround WP (OMRI*): 25-50 lb

  Japanese Beetle and green June beetle. Spray weekly as needed with seven-day minimum interval between applications.

| **YELLOWNECKED CATERPILLARS**

- See PETAL FALL

  In July and August, check twice weekly for groups of fall webworms defoliating limbs inside a web or groups of yellownecked caterpillars defoliating whole plants. Usually, these pests are localized, so hand removal and destruction of caterpillars provides adequate control.

| **FALL WEBWORM**

- Fruitworm sprays

| **SPOTTED WING DROSOPHILA**

- Danitol 2.4EC: 16-21.33 fl oz
- Delegate 25WG: 3-6 oz
- Exirel: 13.5-20.5 fl oz
- Malathion 8EC: 1-4 pt
- Mustang Maxx: 4 oz
- Entrust 2SC (OMRI*): 4-6 oz
- Pyganic 1.4 (OMRI*): 16-64 fl oz

  Days of residual activity:

<table>
<thead>
<tr>
<th>Insect</th>
<th>Days of Residual Activity</th>
</tr>
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<tbody>
<tr>
<td>Spotted Wing Drosophila**</td>
<td>3 days</td>
</tr>
<tr>
<td>Delegate 25WG</td>
<td>7 days</td>
</tr>
<tr>
<td>Exirel</td>
<td>5 days</td>
</tr>
<tr>
<td>Malathion 8EC</td>
<td>7 days</td>
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<td>Entrust 2SC (OMRI*)</td>
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<td>Pyganic 1.4 (OMRI*)</td>
<td>0-2 days</td>
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| **RED IMPORTED FIRE ANTS (ALL FIRE ANT BAITS)** – Apply when ants are active and soil temperature is above 60 degrees F. DO NOT treat if rain is anticipated within 6 hours.

- S-Methoprene: 3-5 Tbsp/mound
- (Extinguish): 1.0-1.5 lb/acre

  Mound-to-mound treatment rate.

  Broadcast rate.

  This product is an insect growth regulator (IGR). Apply 3 to 4 weeks prior to harvest date.

*OMRI = Organic Materials Review Institute lists compounds approved for organic production.

**Spotted Wing Drosophila (SWD) is a new invasive insect pest that was detected in ripening and ripened fruit in many Midwest states, including Arkansas, in 2013. The SWD larvae feed inside and damage ripening soft-skinned fruit, especially blackberry, blueberry, raspberry and strawberry. See the Spotted Wing Drosophila site: [http://www.ipm.msu.edu/invasive_species/spotted_wing_drosophila](http://www.ipm.msu.edu/invasive_species/spotted_wing_drosophila) or the Arkansas SWD fact sheet: [https://www.uaex.edu/publications/PDF/FSA-7079.pdf](https://www.uaex.edu/publications/PDF/FSA-7079.pdf)