### PRACTICE / PRODUCT

<table>
<thead>
<tr>
<th>Insecticide Group</th>
<th>Rate/A</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altacor (chlororaniliprole)</td>
<td>3 to 4.5 oz</td>
<td>Target small caterpillars and moth eggs; Do not exceed 9 oz/season; Good system required for efficacy; very long residual; No acute mammalian toxicity: safe on bees!</td>
</tr>
<tr>
<td>Movento (spirotetramat) for tipworm</td>
<td>8 to 10 fl oz</td>
<td>Systemic (new growth protected); post bloom only &amp; no chemotherapy currently; 7-day PHI</td>
</tr>
<tr>
<td>Actara* (thiamethoxam)</td>
<td>2 to 4 oz</td>
<td>Max 12 oz/A season; low rates effective; high bee toxicity so post bloom is preferred.</td>
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<tr>
<td>Assail</td>
<td></td>
<td>Anarchy (30SG) (acetamiprid)</td>
</tr>
<tr>
<td>#Belay (clothianidin) 4 fl oz (12 fl oz for soil app)</td>
<td></td>
<td>For flea beetles &amp; leafhoppers; ‘Suppression only’ of tipworm, fireworm, fruitworm, weevil, &amp; spanworms; Toxic to bees on direct exposure or to residue on blooming crops and weeds.</td>
</tr>
<tr>
<td>#Scorpion* 3.5-7 fl oz</td>
<td></td>
<td>Venom* 2.4 fl oz (dinitofuran)</td>
</tr>
<tr>
<td>Closer SC (sulfoxaflor)</td>
<td>2.75 to 5.75 oz</td>
<td>Leafhoppers &amp; scale; post bloom only; do not exceed 17 oz/A/year; extremely toxic to bees!</td>
</tr>
<tr>
<td>Avaunt (indoxacarb)</td>
<td>6 oz</td>
<td>Hold water 1 day.</td>
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</tbody>
</table>

### Rate depends on the product; works only on caterpillars; allow time for control, as product must be consumed by larvae (so thorough coverage critical); best in low gallonage, against young larvae, in well-timed systems; Combination with other insect control products may control larger caterpillars.

### New this year! (It's like combining Rimon & Assail together; so two modes of action in one)

**For immature insects only; Products must be eaten by the larvae (thus, thorough coverage is essential). Rimon kills tipworm larvae but not tipworm flies, as it must be ingested; Rimon is non-toxic to adult bees and can be used up to three times per season.**

### Bt (Bacillus thuringiensis)

<table>
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<tr>
<th>(examples: Dipel DF &amp; ES, Biobit, and Xentari)</th>
<th>Rate depends on the product; works only on caterpillars; allow time for control, as product must be consumed by larvae (so thorough coverage critical); best in low gallonage, against young larvae, in well-timed systems; Combination with other insect control products may control larger caterpillars.</th>
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<tr>
<td>Confirm 2F (tebufenozide)</td>
<td>16 fl oz</td>
</tr>
<tr>
<td>Intrepid 2F*, Turnstyle* (methoxyfenozide) 10-16 fl oz</td>
<td></td>
</tr>
<tr>
<td>Rimon 0.83EC (novaluron: IGR chitin inhibitor)</td>
<td>12 fl oz</td>
</tr>
<tr>
<td>Cormoran (novaluron and acetamiprid)</td>
<td>12 fl oz</td>
</tr>
<tr>
<td>Diazinon 50 W*</td>
<td>4 to 6 lb</td>
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<tr>
<td>Diazinon AG500*</td>
<td>4 to 6 pt</td>
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<tr>
<td>Diazinon AG600*</td>
<td>51 to 76.5 oz</td>
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</tbody>
</table>

### Extremely toxic to fish; Hold water at least 5 days; use only 2 times per season; rates of 2 pt (chemigation) give control; 60-day PHI and 24-hr REI; Miticide (for southern red mite);

### Only one app per season; 90-day PHI (but some 75); DO NOT apply from 10 days prior to bloom until completion of pollination due to bee toxicity; 24-hr REI;

### Spanworms, gypsy moth, other various caterpillars (tussock, tent, woollybears)

### Avoid application within 10 days of bloom onset; 7-day PHI; no more than five applications per season; 7-day application interval.

### Up to 6 apps per year for both of these; Delegate better vs. Entrust (more active and greater residual); efficacy improved with shorter rinse times; highly toxic to bees until products are dry (3+ hours) so if in bloom, spray at night.

### Blackhead Fireworm (and other fireworms)

| Altacor | Intrepid* | Rimon 0.83 EC | Lorsban* 4E & 75 WG |
| Assail, Anarchy (suppression) | Turnstyle* | Diazinon products* | Lorsban Advanced* |
| #Scorpion* #Venom* | Confirm 2F | Orthene / Acephate products | Nufos 4E, Hatcher* |
| Belay (suppression) | | | Imidan 70W |
| Cormoran | | | | Carbaryl 4L |
| Avaunt | | | | Delegate WG |

### Delegate WG

| Bt | Pyronyl / PyGanic* |

### Gypsy Moth caterpillars

| Avaunt | Confirmed 2F | Carbaryl 4L |
| Assail || Anarchy | Bt | #Sevin XLR Plus / 4F |
| Intrepid*, Troubadour* | Late-water flood | Pyronyl* / PyGanic* |
### Cranberry Weevil

**Reminder:** Action Threshold is 9 for the summer generation (late July) of weevils (per 25 sweeps).

- **Belay at 4 oz/A (or 12 oz/A for soil application)** (post bloom only; very high bee toxicity)
- **Lorsban 4E* or 75 WG**
- **Hatchet* (Registered for spring populations only)—no summer applications**
- **Chlorpyrifos 4E AG***
- **Actara* (Registered for spring populations only)—no summer applications**
- **Pyronyl**
- **Assail || Anarchy**
- **Cormoran**
- **Rimon 0.83 EC (blossomworm only)**
- **Diazinon products***
- **Chlorpyrifos 4E AG**
- **Carbaryl 4L**
- **Entrust* (Registered for spring populations only)—no summer applications**
- **Bt**
- **Pyronyl**
- **Orthene / Acethe products**
- **Belay (4 oz/A)** (post bloom)
- **#Scorpion* or #Venom* (suppression only)**
- **Delegater WG**
- **Delegater (blossomworm only)**

### Cranberry Tipworm

- **Lorsban 4E**
- **Lorsban 75 WG**
- **Nufos 4E, Hatchet**
- **Sevin (winter moth larvae but none found as yet)**
- **Carbaryl 4L**
- **Spring flood (24 hours)**
- **Lorsban Advanced***
- **Sevin XLR Plus**
- **Late-Water flood**
- **Ayvanta**
- **Orthene / Acethe products**
- **Belay (4 oz/A)** (post bloom)
- **Imidan 70W**
- **Sevin 4F**
- **Pyronyl**
- **Diazinon products***
- **Proven XLR Plus**
- **Delegater WG**
- **Delegater (blossomworm only)**

### Cranberry Fruitworm

- **Lorsban 4E**
- **Lorsban 75 WG**
- **Nufos 4E, Hatchet**
- **Sevin (winter moth larvae but none found as yet)**
- **Carbaryl 4L**
- **Imidan 70W**
- **Sevin 4F**
- **Pyronyl**
- **Diazinon products***
- **Proven XLR Plus**
- **Delegater WG**
- **Delegater (blossomworm only)**

### leafhoppers

- **Belay (4 oz/A) (post bloom)**
- **#Closer SC** (Note: EU nations will reject if any product residue is detected)
- **Sevin 4F / #Sevin XLR Plus**
- **#Scorpion* or #Venom* (suppression only)**
- **Assail || Anarchy**
- **Actara* (suppression only)**
- **Pyronyl**
- **PyGanic**
- **Belay (4 oz/A) (post bloom)**
- **#Scorpion* or #Venom* (suppression only)**

### Redheaded Flea Beetle

- **Cormoran**
- **Belay 4 oz/A (or 12 oz/A soil app)**
- **Actara* (suppression only)**
- **Delegater WG (suppression only)**
- **Diazinon* and Sevin products**
- **Assail || Anarchy**
- **Belay 4 oz/A (post bloom)**
- **#Scorpion* or #Venom* (suppression only)**

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**Note:** Leafhoppers (such as the Bluntnosed leafhopper) and flea beetles are on the rise! Be watchful in early Sept. for Redheaded flea beetles! This flea beetle is sometimes called Cranberry Flea Beetle.