Cranberry Pest Management

Once the water is removed until bloom, growers should scout their beds using sweep net sampling for lepidopteran pests (gypsy moth, blackheaded fireworm, spotted fireworm, Sparganothis fruitworm, and cranberry blossomworm) (graph 1), and blunt-nosed leafhoppers.

We use the combined threshold for gypsy moth, blossom worm, and armyworm of 4.5 larvae per 25 sweeps, and a threshold for blackheaded fireworm and Sparganothis fruitworm of 1.5 larvae per 25 sweeps. If lepidopteran pest numbers exceed the threshold, we recommend growers to use a selective insecticide (Intrepid, Altacor, or Delegate) for the control of these pests. Intrepid is an Insect Growth Regulator (IGR), which are very effective against lepidopteran pests. IGRs work by disrupting the molting process. Because they mainly act by affecting normal insect growth, results might be observed several days after treatment. Delegate and Altacor are selective, reduced-risk products effective against lepidopterans. Avaunt can be used to control most lepidopteran pests except for Sparganothis fruitworm.

Monitoring for Early-Season Lepidopteran Pests and Control Options

INTREPID, ALTACOR. DELEGATE, OR
AVAUNT (EXCEPT FOR SPARG)

From the beginning of bloom until the end of August, we recommend monitoring insect populations using pheromone Delta traps (see picture). Pheromone lures are commercially available for monitoring adult male Sparganothis fruitworm, cranberry fruitworm, and blackheaded fireworm. Placing pheromone traps for a particular pest is most important if your farm has a previous history of infestation. Pheromone traps are useful for knowing whether an insect is present, when it is present, and its peak flight activity. There is, however, no information available on whether trap
captures correlate with amount of damage and the need for treatment. Thus, visual observations of leaf and fruit injury are also required.

Traps should be checked weekly and number of moths counted (it is critical to know how to identify the different moth species before monitoring). One trap should be placed every 10 acres (whenever possible). There are different suppliers of traps and lures including Great Lakes IPM Inc (http://www.greatlakesipm.com/), Suterra (http://www.suterra.com/index.cfm), and ISCA technologies (http://www.iscatech.com/exec/index.htm).

**Monitoring for Mid- to Late-Season Lepidopteran Pests and Control Options**

<table>
<thead>
<tr>
<th>Pre-bloom</th>
<th>Bloom</th>
<th>Post-bloom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsy moth, Fruitworms, Fireworms</td>
<td>INTREPID</td>
<td>INTREPID, ALTACOR, DELEGATE, ASSAIL (CRANBERRY FRUITWORM)</td>
</tr>
<tr>
<td>Spotted fireworm, Blackheaded fireworm Sparganothis fruitworm Cranberry Fruitworm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>