By now the winter flood is off from most New Jersey cranberry beds. Once the water is removed, the vines will start to initiate bud break. From now 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), and blunt-nosed leafhoppers (see figures below). We use the combined threshold for blossom worm, spanworms, and armyworms 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 use a selective insecticide (Altacor, Intrepid, or Delegate) for the control of these pests. Intrepid is an Insect Growth Regulator (IGR) and is 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 is another selective, reduced-risk product effective against lepidopterans. Avaunt can be used to control most lepidopteran pests except for Sparganothis fruitworm.

Recommendations and Label Changes
Altacor - (DuPont). This is a new insecticide registered in cranberries. Its active ingredient, Rynaxypyr®, is from a whole new group of chemistry (Group 28) with no cross-resistance to other chemistries. Altacor is effective against lepidopteran pests including gypsy moth, leafrollers, spanworms, fireworms, and fruitworms. It controls hatching insects all the way through to adult stages of development and is easy on bees and beneficial insects. There are no restrictions prohibiting aerial application of Altacor to cranberry. However, in the current label there is a gallonage restriction of no less than 30 gpa. This restriction likely would constrain aerial application. We are working with DuPont to modify this label to allow lower gallonage for aerial applications. Please see the product label for further information and application guidelines.

Monitoring for Early-Season Lepidopteran Pests and Control Options

See Scouting Guidelines on page 3
General Scouting Guidelines for Cranberry Insect Pests

What do you need?

**Sampling for Insects**
- Sweep net
- Scouting book (record: date, bog, temperature, pests)
- 10X magnifier
- Bags
- Pheromone traps

**Monitoring**
- Lep Larvae, BNLH
- SS, BHFW
- SFW & SS

What to Look For?

**Immatures**
- SS Sparganothis Fruitworm
- SFW Spotted Fireworm
- BLWM Cranberry Blossom worm
- BHFW Black-Headed Fireworm
- SPW Spanworm
- GM Gypsy Moth

**Adults**
- SS Sparganothis Fruitworm
- SFW Spotted Fireworm
- BHFW Black-Headed Fireworm
- BLWM Cranberry Blossom worm

**Damage**

**Others - Pests**
- Blunt-nosed Leafhopper
- Grubs – Phyllophaga

See How to Sample on page 3
How to Sample?

### Action Thresholds

<table>
<thead>
<tr>
<th>Insect</th>
<th>Average Number in Sets of 25 Sweeps</th>
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</thead>
<tbody>
<tr>
<td>Black-Headed Fireworm</td>
<td>1 to 2</td>
</tr>
<tr>
<td>BHFW</td>
<td></td>
</tr>
<tr>
<td>Sparganothis Fruitworm</td>
<td>1 to 2</td>
</tr>
<tr>
<td>SS</td>
<td></td>
</tr>
<tr>
<td>Armyworms, blossomworms, gypsy moth</td>
<td>4 to 5</td>
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</table>

Averill and Sylvia 1998

### Minimum Number of Sweep Sets

1 Sweep Set = 25 Sweeps

<table>
<thead>
<tr>
<th>Area</th>
<th>Minimum Number of Sweep Sets</th>
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</thead>
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<tr>
<td>1-10 acres</td>
<td>1 sweep set/acre</td>
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<tr>
<td>10-20 acres</td>
<td>At least 10 sweep sets</td>
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<tr>
<td>More than 20 acres</td>
<td>1 sweep set per 2 acres</td>
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</table>

Averill and Sylvia 1998

### How to Sweep

Zig-Zag Pattern

### Trap Placement

- Bait replaced every 3-4 weeks
- One trap every 10 acres

Reference

Neonicotinoids and Bees
Cesar Rodriguez-Saona, Ph.D., Specialist in Entomology

Controversy has emerged from recent publications pointing out possible linkages between neonicotinoid insecticides and honey bee die-offs. Here I would like to comment on my current position on the use of neonicotinoids in cranberries in New Jersey. First, we need to mention that in general neonicotinoids are highly toxic to honey bees and native bees, and caution needs to be taken when using these insecticides. However, based on the information available so far, I advise growers not to blame bee colony declines and Colony Collapse Disorder (CCD) solely on neonicotinoids. Most researchers agree that the current bee situation is likely caused by a variety of stress factors, including pesticides (insecticides and fungicides), diseases (parasites and pathogens), malnutrition, migratory beekeeping, among others. Thus, it is likely that CCD is due to a combination of these factors.

Neonicotinoids are systemic insecticides, and thus the possibility exists to find residues in the pollen and nectar. These residues can reach lethal or sub-lethal concentrations under certain circumstances. Neonicotinoids can also persist in the soil for months or years after an application. However, this is strongly influenced by the rate and timing of application. Growers also need to be aware that not all neonicotinoids are equally toxic to bees. For instance, acetamiprid (Assail) is considered safer to non-target beneficials than other neonicotinoids. For cranberries, I recommend not to use neonicotinoid insecticides pre-bloom and never use them during bloom. Neonicotinoids are only recommended post-bloom, i.e., after removal of honey bees. For example, applications of the neonicotinoids imidacloprid (e.g. Admire) and acetamiprid for grub and leafhopper control can be made only post-bloom.

Quinstar Section 18 Label for Cranberries
Brad Majek, Ph.D., Specialist in Weed Science

Quinstar 4L has received a section 18 Emergency Exemption for the control of dodder in cranberries in New Jersey. Apply one half pint per acre (0.25 lb ai/A) in late April or early May prior to dodder germination and attachment to control dodder during the late spring and early summer. Repeat the application in early July after cranberry bloom for full season dodder control. Always add nonionic surfactant to be 0.25% of the spray solution, or crop oil concentrate at 2 pints per acre. Apply no more than 2 applications per year, with a minimum of 30 days between applications.

Observe a 60 day PHI (Pre-Harvest Interval). Ocean Spray growers should consult with the cooperative before applying Quinstar 4L concerning the company’s policy on Quinstar 4L as it relates to European exports.
Wildlife Conservation Efforts to Support Local Economies and Preserve Farm Traditions

Agriculture Secretary Tom Vilsack and Secretary of Interior Ken Salazar announced a new $33 million partnership to use innovative approaches with farmers, ranchers and forest landowners to restore and protect the habitats for seven specific wildlife species while also helping other vulnerable and game species.

USDA’s Natural Resources Conservation Service (NRCS) and Interior’s U.S. Fish and Wildlife Service (FWS) will jointly prepare species recovery tools such as informal agreements, safe harbor agreements and habitat conservation plans to provide regulatory certainty to landowners. The goal is to have these tools in place for all priority species within the next seven months, with the intent to continue this targeted species recovery work beyond this year. Two of the species initially selected for this expanded campaign, the bog turtle and golden-winged warbler, are found in New Jersey.

This announcement kicks-off the sign-up for Working Lands for Wildlife. [Website Link]

New Jersey landowners can sign-up to manage and restore high-priority habitats for bog turtle and golden-winged warbler. New Jersey NRCS State Conservationist Donald Pettit said, “We hope to be able to reach all eligible New Jersey landowners with this new opportunity.” Applications within the priority habitat areas will receive highest consideration.

Interested producers and landowners can check the New Jersey NRCS website to see target areas [Website Link]. Producers and landowners can enroll in the Wildlife Habitat Incentive Program (WHIP) [Website Link] on a continuous basis at their local NRCS field office [Website Link]. NRCS funds from WHIP will share the cost of conservation practices with landowners in areas known to support one or both of the selected species.

For 14 years, WHIP has worked to protect, restore or develop fish and wildlife habitat for many species, including those considered at-risk. Since 2003, about $310 million has been committed to 23,000 farmers, ranchers and landowners to provide wildlife treatments on four million acres of private working lands.
Weekly Weather Summary
Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged much, much above normal, averaging 60 degrees north, 61 degrees central, and 61 degrees south. Extremes were 91 degrees at New Brunswick and canoe brook on the 17th and 39 degrees at downtown on the 21st. Weekly rainfall averaged 2.42 inches north, 2.72 inches central, and 2.30 inches south. The heaviest 24 hour total reported was 3.34 inches at long branch on the 22nd to 23rd. Estimated soil moisture, in percent of field capacity, this past week averaged 88 percent north, 76 percent central and 72 percent south. Four inch soil temperatures averaged 59 degrees north, 61 degrees central and 60 degrees south.

Weather Summary for the Week Ending 8 am Monday 4/23/12

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<tr>
<th>WEATHER STATIONS</th>
<th>RAINFALL WEEK TOTAL</th>
<th>TEMPERATURE DEP MX MN AVG</th>
<th>GDD BASE50 DEP TOT</th>
<th>MON DEP</th>
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WES KLINE -- GDD BASE 40 PINNEY HOLLOW
*LAST WEEK (97 Ending 4/16/12)
THIS WEEK (154 Ending 4/23/12)
* FEBRUARY GROWING DEGREE DAY TOTALS 59
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