**CULTURE**

*Dr. Gary C. Pavlis, Ph.D.*

*Atlantic County Agricultural Agent*

**Cane Death:** Farm visits over the last couple of days have turned up a number of canes dying from what used to be called winter damage. We now recognize that this wilting and death of individual canes during the summer can also be due to Stem Blight. Control of Stem Blight depends largely on cultural methods. It is important to discourage late-season growth and promote early hardening off thus late-season fertilization, late-season weed cleanup and late-season irrigation should be avoided. **Pruning to remove infected stems is the best method of reducing disease in established fields.** Pruning serves two functions: 1) removes infections from bushes, preventing eventual death of the plant, and 2) reduces the number of spores released in the field by removing dead, spore bearing stems. Pruning can be done at any time infected stems are observed, but care should be taken to cut well below the infected area. After a stem is removed, examine the cut end of the remaining stem. If any brown areas are visible in this cross-section, a cut must be made further down the stem until all infected tissue is removed.

**INSECTS**

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**Aphids:** Aphids counts were up this week with 79.8% of sites having aphids present compared to last week with only 58.3%. The average percent of shoots with aphids was 10.0% per 50 shoot sample. The maximum percentage of shoots infested with aphids was 92% at a farm in Atlantic County. There is a low threshold for aphids since they are capable of vectoring Blueberry Scorch Virus. Growers with aphids present should target this pest and consider treatment options such as: Assail, Actara, Admire Pro and Sivanto. Sivanto is not a neonicotinoid, and is a bee safe product. It acts systemically against the aphids with a mode of action similar to the neonicotinoids.

**Cranberry Fruitworm (CBFW):** This is the normal timing for CBFW treatments. Trap counts for CBFW remained low over the past week with only 2 CBFW adults found in traps. We are continuing to monitor traps for adults. When growers think of insecticides over this next week, aphids are first on the list, and
CBFW should usually come in second. (Some Cherry Fruitworm larvae have also been seen.) Insecticide materials should be chosen that control both aphids and internal Leps.

Leps. and other larvae: Leps and leaf rollers were found in low numbers in the field over the past week. The maximum number of leaf rollers observed was 2 out of a 10 bush sample. Fruit damage from leps was observed at 66% of the sampled sites with an average of 0.45% of fruit damaged out of 1000 berries.

Plum Curculio (PC): The number of sites with PC adults has decreased from 20%, to only 0.8% over the past week. In addition, the maximum number of PC adults found in the field also dropped to only 1 adult out of a 10 bush sample. We observed 40.3% sites with evidence of PC damage, and the average percentage of injured fruit at 0.35% per 1000 fruit sampled. The highest level of injury seen in a field was 4.3%. Damage is monitored by observing approximately 1000 fruit for crescent shaped scarring. Treatment options after bees are removed include: Avaunt, Imidan, Danitol, Brigade, Mustang Max (pyrethroids weaker on PC).

What Do I Spray?: Delegate, Altacor, and Exirel are three “reduced-risk” insecticides with very good activity against caterpillars; except for Exirel (at high rate), they do not control aphids. Assail is a neonicotinoid insecticide active against aphids and cranberry fruitworm. Here are few guidelines you may consider for choosing appropriate insecticides against aphids and leps:

1) If cranberry fruitworm is your only concern, Altacor, Delegate or Assail are good choices.
2) If plum curculio is your main concern, Avaunt is a good choice. Avaunt will also control cranberry fruitworm.
3) If cranberry fruitworm and aphids are your primary targets, you may apply Assail or Lannate.

4) If aphids are your primary concern, and you do not have major caterpillar pressure, then use the neonicotinoids Assail, Admire Pro, or Actara, or the new insecticide Sivanto. Assail will also control cranberry fruitworm. These compounds are very effective against sucking insects. Alternatively you may use a broad-spectrum insecticide such as Lannate. Lannate will also control caterpillars and other pests, but is weaker on aphids than the neonicotinoids and Sivanto. Diazinon can suppress aphids, but field observations over the last several years have shown that it is less effective on aphids than Lannate.

5) If you want to use a broad-spectrum material for caterpillars, aphids, plum curculio, etc., you should choose one of Imidan, Diazinon, Lannate, or a pyrethroid (e.g. Danitol). Imidan will control all pests normally targeted at that time, but will not control aphids. Pyrethroids can also be used but are generally weak on aphids, but control most other pests (see labels). While the pyrethroids will control plum curculio, high rates need to be used to achieve control. Pyrethroid insecticides are very toxic to natural enemies, and thus will disrupt biological control, especially aphid predators and parasitoids.

6) We recommend to save Exirel, Imidan, Lannate, and pyrethroids for later use against spotted wing drosophila. Also save Diazinon to control scales, since you are allowed only one foliar application per season.
June 2, 2015

BLUEBERRY BULLETIN

If you have any comments about this newsletter, please make them in the space below and mail to:

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The Blueberry Bulletin
Weekly Newsletter
Published By
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