

RUTGERS

New Jersey Agricultural
Experiment Station

The BLUEBERRY BULLETIN

A Weekly Update to Growers

Dr. Gary C. Pavlis, County Agricultural Agent

6260 Old Harding Highway, NJ 08330

Phone: 609/625-0056, Fax: 609/625-3646, Email: Hpavlis@aesop.rutgers.edu

May 19, 2008

Vol. XXIV, No. 10

AT A GLANCE... Insect and disease problems that should be considered this week.

PEST/DISEASE	WEEK OF MAY 19 - Bees being removed (Listed insecticides after bees removed)	WEEK OF MAY 26
Botrytis	No longer an issue	No longer an issue
Stem Blight	Symptoms are beginning. Prune out dying branches	
Phomopsis	Symptoms are now apparent and fields with five or more strikes per bush should be targeted for sprays in 2009	
Anthracnose Abound, Cabrio, Captan, Pristine, Switch, Ziram	Consider stopping fungicide applications on Duke. Ziram should be stopped at least 1 month before harvest.	
Scorch/Sheep Pen Hill	Scout for symptomatic plants and flag for removal	Begin aphid scouting especially in affected fields
Aphids	Low populations present. Assail (also for CBFW), Actara, Provado, Lannate (also for CBFW, GM, some PC activity)	Continue scouting, treat if populations increase.
Gypsy Moth (GM)	Controlled on most farms, some larvae still dropping from woods.	Should be controlled. Additional sprays may be included when used for other pests.
Leafrollers (LR)	Scout for larvae Treat if over 1 larva/100 clusters.	Continue scouting for larvae. Use same threshold.
Thrips	Not a problem, but populations present. Controlled with some aphid materials (Assail, Actara, Provado)	Also controlled with CBFW sprays (Delegate, Assail, Lannate)
Plum Curculio (PC)	Check for egg scars. Imidan, Guthion, Diazinon, or high rates of pyrethroids	Check for new egg scars. Treat if new egg scars present.
Cranberry Fruitworm (CBFW) If populations are HIGH or a previous problem area	Record trap numbers If high counts, then treat with an insect growth regulator (IGR)	Record trap numbers Projected treatment with Delegate, Assail, Imidan, pyrethroids, Diazinon or Lannate
Root rot	Have a diagnosis for any suspicious plants	

Blueberry Twilight Meeting

Thursday, June 5, 2008 @ 5:30 PM

Atlantic Blueberry Company

7201 Weymouth Rd.

Hammonton, NJ 08037

For directions call 609/561-8600

Culture:

Dr. Gary C. Pavlis,

County Agricultural Agent

Iron Chlorosis: When the symptoms of iron chlorosis occur, the blueberry plants are sending the grower a message. Yes, the plants are deficient in iron due to an elevated pH.

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cooperating Agencies: Rutgers, The State University of New Jersey; U.S. Department of Agriculture; and County Boards of Chosen Freeholders. The U.S. Department of Agriculture (USDA) prohibits discrimination in all programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Rutgers Cooperative Research & Extension is an Equal Opportunity Program Provider and Employer.

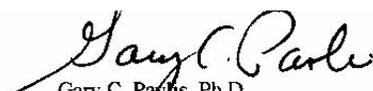
However, iron is just the first deficiency that shows up. When the pH is high, the blueberry plant has a harder time taking up all nutrients and water. So iron chlorosis is an early warning sign which can be fixed by a couple of foliar sprays of iron chelate and lowering the pH with sulfur. Please remember that if you have iron chlorosis, the plant growth is being stunted and this will reduce yield the following year. Powdered sulfur is the fastest acting, about 1-2 months to bring the pH all the way down to the 4.5 - 4.8 range. Pelleted sulfur is much slower, sometimes 6 months. This form is easier to apply however too slow if the plants are deficient. This is a good formulation for a late fall application when a new planting is going in the next spring. Lastly, never use aluminum sulfate. Blueberries don't like aluminum.

So, if you see new leaves with green veins and the rest is yellow, get a pH test of your soil. Here is a quick chart to determine the amount of sulfur to use to lower the pH.

The following amounts of sulfur are recommended lbs/per acre to reduce the soil pH one-half unit (ex. 5.0-4.5):

<u>Loamy Sand</u>	<u>Sandy Loam</u>	<u>Loam</u>	<u>Silt Loam</u>
196	305	435	609

Sincerely,



Gary C. Parris, Ph.D.
Atlantic County Agricultural Agent

Editor, Blueberry Bulletin
GCP/sp

Insects

Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University

Mr. Dean Polk, IPM Agent – Fruit

Gypsy Moth Larvae: Tray samples for Gypsy Moth are lower this week with 75% of samples being positive, and only 15% over the 1 per 100 cluster level. This probably reflects the results of Confirm / Intrepid applications, since many farms have used these for control. A couple of sites were seen with negative tray samples but when lower shoots (near crown) were checked by hand many larvae could be

found feeding on foliage. This may reflect poor coverage and in one case aerial sprays were used. In fields where populations had been high and / or where treatments went on late, it is common to find dead flower clusters and / or injured fruit. About 40% of fruit samples are showing injury from mainly gypsy moth, with most injury being at levels under 1%.

Leafrollers and Other Leps: Tray and shoot samples are showing lower levels of larvae this week. Only 5% of tray samples show positive for worms other than gypsy moth. When shoot samples are positive, it is mostly for gypsy moth larvae.

Aphids: Aphid populations have increased over the past week, with about 55% of shoot samples showing some aphid presence. Most colonies are only individual insects at this point. About 14% of samples are over the 10% infestation level.

Thrips: Thrips populations have also increased over the last week, and were seen in about 40% of our tray samples. The highest level seen so far has been 52/100 fruit/flower clusters. At this stage thrips are not likely to cause any injury, even at the highest numbers we are seeing (and this is rather low). However with cranberry fruitworm applications approaching, growers may wish to choose a product that is effective for both cranberry fruitworm and thrips, if thrips are present. These products include Delegate, Assail, and Lannate.

Plum Curculio: (PC): Fewer adults were seen this past week compared to the previous week. This may also be a reflection of cooler temps. About 10% of samples have been positive, and our overall average catch (week ending 5/17) is at 0.12 adults/sample. However, fruit samples for PC injury have been positive in 30% of the cases. Fruit injury would reflect cumulative activity over the past several weeks. The highest fruit injury level was at 1.6%.

Higher concentrations of injury have been seen at wooded edges. Fresh injury has been seen recently - this can be distinguished by the pale green color of the crescent shape scar as opposed to the older injury which is darker. During the '07 season, PC adults were active throughout May and to a lesser extent into the 1st half of June.

Gall Midge: Gall midge feeding is present at many sites. A typical field may have more than 1 or 2 strikes per bush. We know

very little about the economic effect of gall midge (if any), and there is no treatment threshold at the present time.

Atlantic County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
4/19		118.8				
4/26		80.6				
5/3		41.9				
5/10	0.4	7.7				
5/17	1.4	1.7	0			

Burlington County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
4/19		77.9				
4/26		46.3				
5/3		19.8				
5/10	0.2	8.5				
5/17	.96	1.7	0			

Diseases:

By Peter V. Oudemans, Ph.D.

*Associate Professor and Extension Specialist
Plant Pathology*

Blueberries are out of bloom. Mummy berry, Phomopsis twig blight, and Botrytis blossom blight are no longer active. Fields with symptoms of these diseases should be confirmed and targeted for management next season. To evaluate for mummy berry infections, the berries can be sliced open so that the ovaries are visible in cross section. Some or all of the locules of the infected fruit will be filled with a spongy white material that will eventually become the mummy. Healthy fruit will not have any of the white spongy material in the locules.

For anthracnose management protectant sprays should be the major emphasis now. Either Ziram or Captan can be used to protect the developing fruit. Ziram will provide a longer residual activity than Captan and therefore the interval between applications can be stretched to 14-days. However, Ziram has a 14-day PHI and it covers the fruit with a whitish residue that is not appealing to consumers. My recommendation is to leave a 20-30-day PHI

for Ziram to time to allow the residue to dissipate.

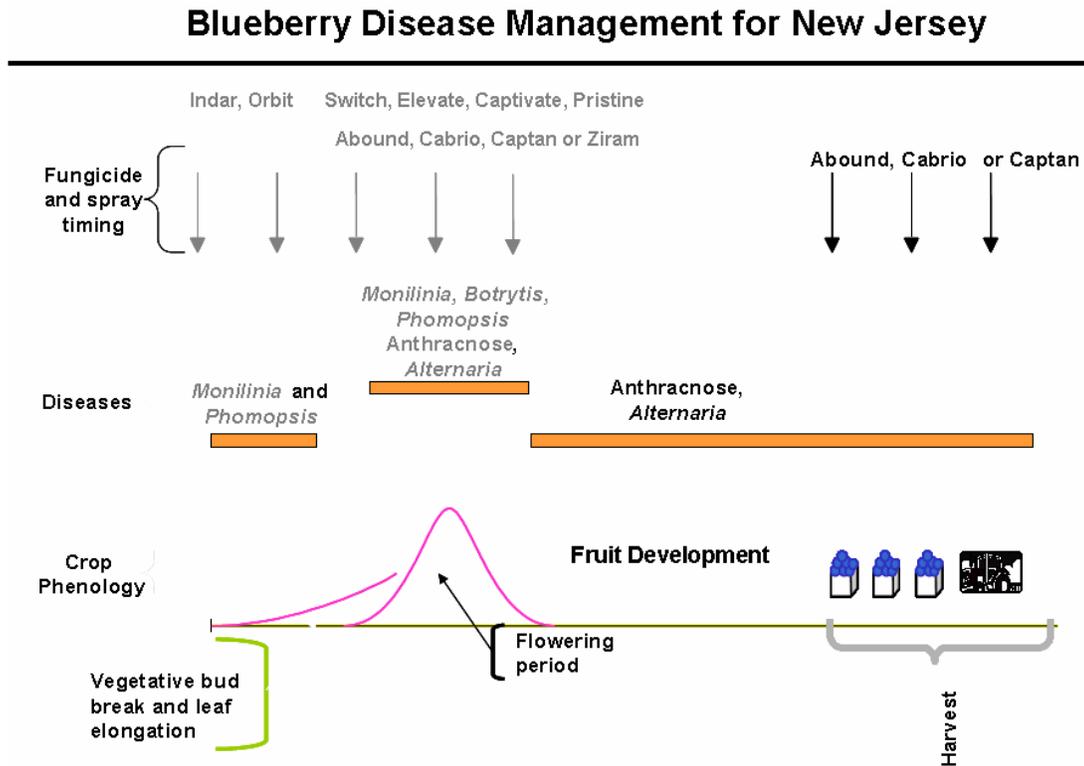


Fig 1. Disease management for late May. Treatments and diseases that are in gray have passed whereas those in black are current or upcoming.

Blueberry Scorch Virus

The symptoms of Blueberry Scorch have been rare this season. The infected bushes have not been cured; the disease is latent (symptoms are not appearing) but the virus can still be transmitted by aphids or via cuttings. Suspect plants should be tested and removed if found to be positive.

Stem Blight

Symptoms are beginning to appear now. Prune out dying branches and try to prevent the disease from entering the crown of the plant. Symptoms will continue to appear throughout the remainder of the season.