



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: pavlis@njaes.rutgers.edu

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At a glance. Insect and disease problems that should be considered this week.

PEST/DISEASE	WEEK OF JULY 13	WEEK OF JULY 20
Anthracnose Abound, Cabrio, or Captan	Continue anthracnose schedule on susceptible cultivars.	Continue anthracnose schedule on late cultivars.
Aphids Imidacloprid (Provado etc.), Assail, Actara, or Lannate for suppression of low populations	Monitor and treat if over 10% of terminals infested.	Monitor and treat if needed.
Blueberry Maggot See list from previous newsletter	Monitor traps 2X/week Treat every 7-10 days if on a calendar schedule. Don't spray if monitoring and nothing is found.	Monitor traps 2X/week. Treat if needed. Should only be concerned with Elliott fields.
Oriental Beetle Imidacloprid (AdmirePro and generics)	Monitor fields with Japanese beetle can traps baited with OB pheromone. Treat if needed before the end of July if possible.	Continue monitoring, and treat if needed.
Putnam Scale Esteem or Diazinon Record Locations of any infested fruit.	If scale is present on fruit, then identify the field from where the fruit was harvested, and plan on a scale treatment in August.	Same as previous week.

Federal Minimum Wage Increase

Beginning on July 24, 2009, the federal minimum wage will be \$7.25 per hour.

Every employer of employees subject to the Fair Labor Standards Act's minimum wage provisions must post and keep posted, a notice explaining the Act in a conspicuous place in all of their establishments so as to permit employees to readily read it. The content of the notice is prescribed by the Wage and Hour Division of the Department of Labor. An approved copy of the minimum wage poster is made available for informational purposes or for employers to use as posters.

For addition information on Federal Wages call 1-866-487-9243 or visit www.wagehour.dol.gov

Culture:

Dr. Gary C. Pavlis

County Agricultural Agent

Water Management: Blueberries have shallow root systems that cannot use water stored deep in the soil. As a result, blueberries grow best where the soil has a high water-holding capacity. Water has been very plentiful this spring, however, hot, dry weather is in the forecast. Knowing how to efficiently supply water to blueberries is important to the health of a planting. Information about soil water-holding capacity is generally available in soil surveys. Soil texture is another clue to water-holding capacity (Table 1). In general, sandy soils hold

the least amount of water. These soils must be irrigated more frequently and with less water per application than soils with a high percentage of silt and clay.

Crop rooting depth and the soil water-holding capacity are used together to determine the total water-holding capacity of the rooting volume. The capacity of the rooting volume is important in scheduling irrigation.

Table 1.
Typical Water-holding capacity for various soils.

Texture	Water-Holding Capacity (inches of water per inch of soil)
Sand	0.05
Fine sand	0.08
Sandy loam	0.11
Loam	0.16
Silt loam	0.18
Clay loam	0.19
Silty clay	0.20
Clay	0.22

The following example shows how to determine the water-holding capacity of the rooting volume and how to use this information to schedule irrigations. In this example, assume that blueberries are planted on a sandy loam soil. Using a rooting depth of 1.5 feet, the total

INSECTS

*Dr. Cesar Rodriguez-Saona,
Extension Specialist in Blueberry Entomology
Rutgers University
Mr. Dean Polk, IPM Agent – Fruit*

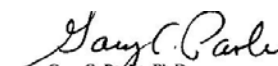
Aphids: About 83% of shoot samples have been positive for aphids, with 50% over the 10% infestation level. This is a slight decline since last week.

Putnam Scale: About 11% of fruit samples have been positive for injury. We expect to see an increase in crawler activity later in July or early August, as second generation crawlers

water-holding capacity of the rooting volume is 18 inches of soil times 0.11 inch of available water per inch of soil depth, which equals 2 inches of total water-holding capacity. The total water available in the rooting volume should not drop below 50% of the total water-holding capacity. This assures easy access to water by the roots and prevents drought stress. Using this limit in the example, the total water available should not fall below 1 inch, which is half of the 2-inch total water-holding capacity. A blueberry plant growing vigorously in summer can evapotranspire more than 0.25 inch per day. With 1 inch of water available in the rooting volume and approximately 0.25 inch being used per day, it takes 4 days for the blueberry plant to use this stored soil water. Since the average time between rains is 5 days, irrigation is highly desirable for this soil and site under peak use conditions. In general, blueberries grown on light soils with low water-holding capacities will benefit from irrigation most years, even in the humid regions.

Reprinted: Highbush Blueberry Production Guide.

Sincerely,



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

*Editor – Blueberry Bulletin
GP/sp*

begin to emerge. Growers who have had scale problems on fruit this year should plan on treating this stage when it is present.

Plum Curculio: This has been an extraordinarily drawn out season for Plum Curculio. While no fresh injury has been seen during the last several weeks, adults were captured in 3% of our beating tray samples.

Since no fresh injury has been seen, no treatments are needed for this insect.

Leafrollers and Other Leps: About 6% of beating tray and shoot samples have been positive for larvae. This is an increase since last week but most of the larvae have been leafminers, which is not rated as a pest at this time, and treatments are not needed.

Blueberry Maggot: Adult flies are still being captured at low numbers, especially on the edges of fields. Duke is finished and Bluecrop will be

coming into the last pickings. Where single fly captures have been seen on the edges of Bluecrop fields, some growers have been very satisfied with border sprays. Depending on the market, other growers are treating occasional single fly captures as optional for treatment. Any flies captured in and around Elliott fields should be treated.

Anthracnose: About 17% of fruit samples have been positive for infection. All levels seen were under 0.5%.

INSECT TRAP COUNTS

Blueberry Trap Counts – Atlantic County

Week Ending	CBFW	RBLR	OBLR	SNLH	Or. Beetle	BBM
4/5		19.9				
4/12		55.1				
4/19		72.0				
4/25		69.4				
5/2		71.6				
5/9	.009	43.6				
5/16	0.07	7.9	0.00			
5/23	0.2	1.6	0.02			
5/30	0.1	0.3	9.6			
6/6	0.2	5.8	19.5	0.4		
6/13	0.03	39.4	18.8	0.4		0.00
6/20	0.1	48.2	12.8	0.3	47.0	0.03
6/27	0.5	56.3	6.4	0.3	253.0	0.16
7/4	0.1	46.0	5.3	0.4	565.3	0.42
7/11	0.0	24.5	3.7	0.2	315.4	0.83

Blueberry Trap Counts – Burlington County

Week Ending	CBFW	RBLR	OBLR	SNLH	Or. Beetle	BBM
4/5		9.3				
4/12		22.6				
4/19		19.2				
4/25		25.1				
5/2		38.0				
5/9	.1	16.2				
5/16	0.1	3.4	0.0			
5/23	0.2	0.4	1.3			
5/30	0.7	0.0	6.5			
6/6	1.9	0.5	20.4	2.7		
6/13	0.3	16.4	20.1	4.5	15.0	0.07
6/20	1.1	33.5	15.2	2.6	42.0	0.41
6/27	1.0	45.5	10.4	2.3	516.9	0.94
7/4	0.1	33.0	8.4	0.9	449.3	1.67
7/11	0.1	26.7	1.2	1.3	130.0	0.59

Current Topics at Rutgers IR-4 Minor Use Pesticide Testing Program
By Dr. Cesar Rodriguez-Saona, Specialist in Blueberry/Cranberry Entomology

I am happy to inform everyone protecting minor use crops in New Jersey that I have been appointed IR-4 Liaison for New Jersey. The IR-4 Project is “a cooperative program of the USDA and Ag Experiment Stations, with the principle goal of developing data to support and to expedite regulatory clearances of newer, reduced risk pest control products for specialty crop growers.”

More information on the IR-4 Project can be found in <http://ir4.rutgers.edu/>. My responsibility is to represent the pesticide needs of minor crops in New Jersey at the IR-4 Food Use Workshop meeting. I also keep contact with Rutgers nursery ornamentals non-food use work conducted at NJAES Cream Ridge Research and Extension Farm.

This year, the IR-4 Food Use Workshop will take place in September 14-16 in Cleveland, OH. New projects can be submitted through

August 29. Proposed project needs will be discussed at the workshop in September. If you would like to submit a project, visit the IR-4 website listed above and click on “Submit a Request”. Let me know if you are submitting a request, and whether you plan to attend the meeting. That way I will be aware of projects submitted and attendees from New Jersey, and be better prepared to support your requests.

In addition to representing New Jersey at the IR-4 workshop, I am beginning a regular column in the Pest & Plant Advisory Newsletter and the Blueberry Bulletin. Articles will be published during the Spring-Summer months; providing information on IR-4 projects conducted at the Rutgers NJ Agricultural Experimental Station.

Please feel free to contact me if you have any questions at 609-726-1590 x 4412, or e-mail: crodriguez@aesop.rutgers.edu

Native Bee Benefits for NJ and PA Growers Factsheet Available

Insect pollination services are a highly important agricultural input. Two-thirds of crop varieties require animal pollination for production and many crops have higher quality after insect pollination. Bees are the most important pollinators in most ecosystems. They facilitate reproduction and improve seed set for half of Pennsylvania's and New Jersey's top fruit and vegetable commodities. Estimated value of their pollination services range from \$6 - 263 million each year. Honeybee numbers in Pennsylvania and New Jersey have been declining over the past several years. Beekeepers recorded overwinter losses of 26- 48% and 17-40% respectively in PA and NJ between 2006 and 2009. These losses are much higher than the typical 15% losses seen in previous years. Although many farmers rent managed honeybees to increase crop yield and quality, surveys of small to medium size PA and NJ farms have shown that native bees provide a substantial portion of pollination services. By increasing the number and diversity of native bees, PA and NJ farmers may be able to counter rising costs of rented bee colonies while supporting sustainable native plant and pollinator communities. Now available from County Extension offices or from the web is a factsheet informing farmers how to increase native bee pollination on farms in several simple steps. The factsheet covers:

- The most effective native bees in PA and NJ and how to identify them
- Their habitat and foraging needs
- Strategies for encouraging their presence on your farm
- Sources of funding

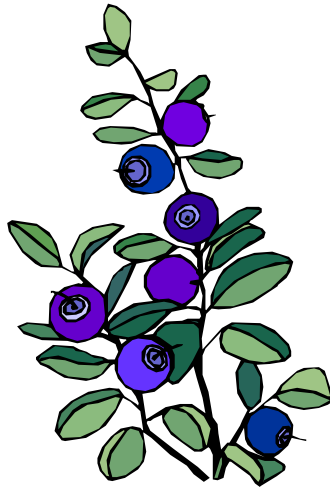
To access the factsheet from the web, go to the Native Pollinator page of the Sustaining Farming on the Urban Fringe website at: <http://njsustainingfarms.rutgers.edu/html/1.ssf-pollinators.html>

Note: Sustaining Farming on the Urban Fringe website (coming soon!) is under construction and access is currently confined to the Native Pollinator page.

The State of New Jersey, Department of Environmental Protection, Division of Fish & Wildlife, will be conducting three regional auctions, for Farm Lease and Service Agreements on properties within State-owned wildlife management areas. The auctions are open to all interested farmers. The dates and locations for the auctions are as follows:

- Northern Region: Tuesday, July 21, 2009 at 1:00 pm at the Pequest Trout Hatchery, 605 Pequest Rd. Oxford, NJ
- Central Region: Wednesday, July 22, 2009 at 1:00 pm at the Assunpink Wildlife Management Area, One Eldridge Rd. Robbinsville, NJ 08691
- Southern Region: Thursday, July 23, 2009 at 1:00 pm at the Salem County Extension Office, 51 Cheney Rd. Woodstown, NJ

To obtain bid packages, or for additional information, please visit <http://www.njfishandwildlife.com/wmaleases.htm> or call (609) 633-7575.



DR. GARY C. PAVLIS
COUNTY AGRICULTURAL AGENT
RUTGERS COOPERATIVE EXTENSION
OF ATLANTIC COUNTY
6260 OLD HARDING HIGHWAY
MAYS LANDING, NJ 08330

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

Dr. Gary C. Pavlis, County Agricultural Agent
Rutgers Cooperative Extension of Atlantic County
6260 Old Harding Highway, Mays Landing, NJ 08330

I would like to see an article on the following subjects: _____

I would like to comment on the following articles: _____

Title: _____ Date: _____

Comment: _____

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Published By
Rutgers Cooperative Extension of Atlantic County
6260 Old Harding Highway, Mays Landing, NJ 08330
Phone: 609/625-0056, Fax: 609/625-3646
E-mail: pavlis@njaes.rutgers.edu
<http://www.njaes.rutgers.edu/pubs/blueberrybulletin>
Dr. Gary C. Pavlis, County Agricultural Agent
Editor - The Blueberry Bulletin
Sharon Ponzetti, Secretary
E-mail: ponzetti@njaes.rutgers.edu