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THE BLUEBERRY BULLETIN

A Weekly Update to Growers

Visit the Blueberry Bulletin webpage: njaes.rutgers.edu/blueberry-bulletin
2024 Commercial Blueberry Pest Control Recommendations for New Jersey:
njaes.rutgers.edu/pubs

Blueberry Culture

Dr. Gary C. Pavlis, Atlantic County Agricultural Agent

During farm visit this week I once again saw young plants with a large fruit load and very few leaves. Whenever you see a blueberry plant with few leaves you know there is something wrong below ground. The plant is not happy and the only way to diagnose the problem is to pull a plant out of the ground. Pulling a dead plant usually does not tell you much. The lack of leaves is usually due to grubs or root rot due to poor drainage. Recent surveys by the IPM staff have shown that grubs are present in many blueberry fields in our area. Young plants are most susceptible to the feeding and resulting root damage because the root system of young plants is not extensive. Another cause may be mealy bugs. A clue to their presence is ant hills around the blueberry plants. Ants "farm" the mealy bugs and move them around the blueberry field spreading the problem. Lastly, a soil test should be done to determine the pH. A blueberry plant at 3.5 is not happy, and also not happy at 5.9.

All of these problems can be fixed relatively easily but left unchecked, plants will die. Grubs can be controlled with Admire Pro or one of the generics, mealy bugs can be controlled by killing the ants that farm them. pH can be fixed with either sulfur to decrease the pH of lime to increase. Poor drainage is harder. This may require some advice from the Soil Conservation folks.

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

Pest Management

Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University
Dr. Janine Spies, IPM Agent – Fruit
Ms. Carrie Mansue, IPM Sr. Program Coordinator – Fruit

IPM scouting was conducted last week across 64 fields in Burlington and Atlantic Counties, with coverage limited due to weather conditions. Most pest activity was observed on the lower shoots of the plants. Any injury found on the fruit appeared to be old damage caused by plum curculio and leafrollers.

Week Ending	Leafroller		Spongy Moth		Plum Curculio		Thrips	
	AVG	HIGH	AVG	HIGH	AVG	HIGH	AVG	HIGH
4/26/25	0.009	0.2	0.005	0.1	0.08	0.2	0	0
5/2/25	0.08	0.5	0.002	0.1	0.04	0.4	7.18	141
5/10/25	0.07	0.7	0	0	0.05	0.2	3.22	25
5/17/25	0.011	0.2	0.15	8	0.03	0.4	1.03	4
5/22/25	0	0	0	0	0	0	2.09	30

Infested Fruit. No new injury was reported on fruit from leafrollers or plum curculio.

Week Ending	Leafroller		Plum Curculio	
	AVG	HIGH	AVG	HIGH
5/10/25	0.13	0.07	0.97	4.3
5/17/25	0.15	0.8	0.95	4.8
5/22/25	0	0	0	0

% of Infestation on Lower Shoots for Leafroller and Aphids. Aphid counts have increased compared to last week, with an average of 26% of terminal shoots infested and a maximum infestation rate of 66% observed in some fields. Fields with 10% or more of lower shoots infested with aphids should be treated with an insecticide. (Refer to last week's newsletter for specific recommendations.)

Week Ending	Leafroller		Aphids	
	AVG	HIGH	AVG	HIGH
5/17/25	0.11	4	4.6	22
5/22/25	0.09	2	26	66

Terrapin Scale. Scale crawler numbers have increased in traps since last week, with an average of 30 and a high of 58 crawlers per trap. Peak crawler activity is expected next week or the following week.

Week Ending	Scale	
	AVG	HIGH
5/2/25	0	0
5/17/25	5.5	32
5/22/25	29.6	58

Cranberry Fruitworm and Cherry Fruitworm. Currently, activity has decreased in both cherry fruitworm and cranberry fruitworm traps.

Week Ending	CBFW AC		CBFW BC		CFW AC		CFW BC	
	AVG	HIGH	AVG	HIGH	AVG	HIGH	AVG	HIGH
4/3/25	0	0	0	0	0	0	0	0
4/11/25	0	0	0	0	0	0	0	0
4/19/25	0	0	0	0	0	0	0	0
4/25/25	0	0	0	0	3.85	6	0.75	3
5/2/25	0	0	0	0	19.42	34	3.86	6
5/10/25	5.42	0	0	0	19.85	28	19.75	43
5/17/25	0	0	0	0	2.14	4	11.75	27
5/22/25	0	0	1	2	1.14	4	2	3
CBFW = Cranberry Fruitworm, CFW = Cherry Fruitworm; AC = Atlantic County, BC = Burlington County								

Organic Practice Sprays. Scouting targets for this week include plum curculio and aphids. If plum curculio is still detected, repeated applications of Venerate may be necessary. Pyrethrins can provide suppression of aphid populations.

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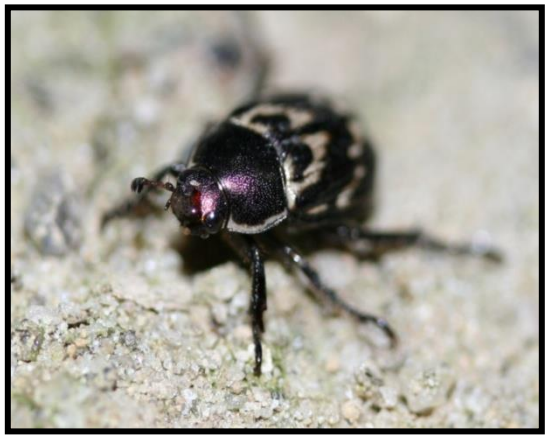
Oriental beetle. First adult emergence is expected soon. This insect completes one generation per year. Adults (see picture) typically begin emerging in early June, with peak flight occurring in early July. Females lay eggs in the soil at the base of bushes. By the end of July, most larvae have reached the first and second instar stages. Third-instar larvae appear by late August and remain in the soil through the winter. They resume feeding the following spring and enter the pre-pupal stage in late May.



Picture 1. Adult oriental beetle.

Monitoring. Japanese beetle sex pheromone traps (Trécé, Adair, OK), baited with septa lures containing the sex pheromone, are used to monitor Oriental beetle populations and detect the onset of male flight (see picture 2).

*Control*Imidacloprid (Admire Pro) is recommended for managing oriental beetle grubs in New Jersey blueberry fields. Several generic formulations are also available, including Alias, Nuprid, Couraze, and others. Imidacloprid is most effective when targeted against early instar grubs and should be applied between June and mid-July—at least 7 days before the first harvest or immediately after harvest. Applications should coincide with egg hatch, when grubs are still in the 1st and 2nd instar stages and remain near the soil surface. The insecticide has minimal impact on 3rd instars and older larvae, which begin appearing by early to mid-August. Therefore, timely applications well before this period are critical. Because imidacloprid degrades under sunlight, applications should be irrigated immediately into the soil to form an insecticide layer just below the surface. Imidacloprid has a long residual activity (>100 days), but only if protected from direct sunlight. Applications should be made late in the evening to avoid UV degradation. If soil is dry, irrigate before and after application with at least 0.5–1 inch of water.

Picture 2. Japanese beetle trap used for monitoring oriental beetle populations.

Timing recommendations by variety. Duke: If harvest finishes by the 3rd week of June, apply during the 2nd week of June or post-harvest between mid- and late July. Bluecrop: Apply 7 days before first picking, typically in late June or early July. Late varieties (e.g., Elliott): Apply no later than the end of July.

Oriental beetle mating disruption. As an alternative to insecticides, we recommend the use of mating disruption for oriental beetle control. Dispensers (Picture 3), containing the oriental beetle sex pheromone, are now available to growers. These dispensers are being sold by AgBio:

Mr. Jan Meneley, Ph.D., AgBio Inc., 9915 Raleigh St., Westminster, CO 80031

www.agbio-inc.com; ph 303-469-9221

To use, simply attach the dispensers to a lower blueberry branch at a density of 20-40 dispensers per acre in a grid pattern, depending on the size of the area to be treated. Please see label for information on restrictions, spacing, timing, etc.

Picture 3. Retrievable AgBio dispensers.