THE BLUEBERRY BULLETIN

A Weekly Update to Growers

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2024 Commercial Blueberry Pest Control Recommendations for New Jersey: njaes.rutgers.edu/pubs

Blueberry Culture

Dr. Gary C. Pavlis, Atlantic County Agricultural Agent

I have often spoken to growers about the importance of a leaf analysis to determine the need for fertilization applications and to keep all the essential nutrients in balance. It must be understood that each of the essential nutrients, nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, manganese, iron, copper, boron and zinc do not act independently within the plant. Higher than optimum levels of one of these can adversely affect the uptake of another. This interaction is quite extensive. Just as an FYI, I thought it would be beneficial to post a chart outlining the nutrients and their effect on other nutrients. This will be useful to growers when looking at their leaf analysis results. For example, if you results show a very high level of potassium and a low level of magnesium, one approach to remedy the situation is to lower applications of potassium AND increase the application levels of magnesium. In reality, just lowering the potassium application levels will most likely fix the magnesium problem. Late July and August are the optimum times to conduct a leaf analysis.

Nutrient - Relationships	
	Depresses
Phosphorus (P)	*Aluminum* *Zinc* *Calcium* *Manganese* *Magnesium*
Potassium (K)	*Sodium* *Iron* *Manganese* *Magnesium*
Sulfur (S)	*Calcium* *Copper*
Calcium (Ca)	*Manganese* *Magnesium* *Phosphorus* *Zinc*
Magnesium (Mg)	*Phosphorus* *Calcium*
Zinc (Zn)	*Iron* *Copper* *Phosphorus* *Sulfur*
Manganese (Mn)	*Iron* *Phosphorus* *Potassium* *Magnesium*
Copper (Cu)	*Sulfur* *Iron* *ZincPhosphorus*
Iron (Fe)	*Potassium* *Phosphorus* *Copper*
Aluminum (AL)	*Iron* *Phosphorus*

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Pest Management

Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University
Dr. Janine Spies, IPM Agent – Fruit
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These will be the final data counts for SWD, OB, and BBM. Trap monitoring will continue for SNLH and scale.

Spotted-Wing Drosophila (SWD) and Oriental Beetle (OB). No action needed.

Week Ending	SWD AC Traps		SWD BC Traps		OB AC Traps		OB BC Traps	
	AVG	HIGH	AVG	HIGH	AVG	HIGH	AVG	HIGH
6/6/25	8.5	29	3	9	7.8	29	0	0
6/13/25	21.51	45	32.6	86	240	1350	34	170
6/20/25	37.52	148	37.6	83	405	2025	555.4	4050
6/27/25	13.5	34	27.4	67	681	2025	134.9	450
7/4/25	21.2	73	41.1	64	541	2025	331.6	1575
7/11/25	46	155	48	103	322	1650	256	1238
7/18/25	42.42	127	39.8	87	133	675	174	900
7/26/25	51.76	238	34.9	100	164.8	675	64.4	200
8/2/25	66.5	233	43	78	83	675	15	28
8/8/25	49	265	70	328	14	100	9.4	24
8/15/25	45	343	20.2	40	5.3	25	4.75	13
8/20/25	33	186	22	44	4	34	5	21
SWD = Spotted-Wing Drosophila, OB = Oriental Beetle; AC = Atlantic County, BC = Burlington County								

Blueberry Maggot (BBM) and Sharp-nosed Leafhopper (SNLH). If needed, the next target spray will be for sharp-nosed leafhopper (SNLH); however, current trap counts remain low.

Week Ending	BBM AC Traps		BBM BC Traps		SNLH AC Traps		SNLH BC Traps	
	AVG	HIGH	AVG	HIGH	AVG	HIGH	AVG	HIGH
6/6/25	0	0	0	0	1	6	0.85	3
6/13/25	0.29	7	0.16	4	1.26	8	3.27	17
6/20/25	0	0	0.04	1	1.28	8	4	16
6/27/25	0.05	4	0	0	0.25	1	0.28	2
7/4/25	0	0	0	0	0.81	13	1.17	4
7/11/25	0	0	0	0	0.35	2	0.68	5
7/18/25	0	0	0	0	0.56	8	0.38	2
7/26/25	0	0	0.04	1	0.3	4	0	0
8/2/25	0.001	1	0	0	0.41	7	0	0
8/8/25	0	0	0	0	0.25	4	0.07	1
8/15/25	0	0	0	0	0.5	8	0	0

8/20/25	0	0	0	0	0.57	11	0	0
BBM = Blueberry Maggot, SNLH = Sharp-nosed Leafhopper; AC = Atlantic County, BC = Burlington County								

Sharp-nosed Leafhopper (SNLH) Life Cycle

SNLH feeds and reproduces on blueberry, huckleberry, cranberry, and related plants. While feeding causes little direct damage, this insect transmits the phytoplasma responsible for **stunt disease** in blueberries. Adults are small, brown insects with a pointed head (Figure 1). They acquire the disease by feeding on infected bushes and spread it to healthy plants during subsequent feedings.

In New Jersey, SNLH completes two generations per year. Adults are abundant in surrounding woods, where alternative hosts are present, and migrate into blueberry fields in the summer. Eggs overwinter in fallen leaves and hatch in mid-May. Nymphs progress through five instars, with first-generation adults emerging in mid-June and second-generation adults appearing in early August. Adults return to wooded areas in the fall. Monitoring these generations is essential for proper timing of control measures.

Fig 1. Sharp-nosed leafhopper adults

Monitoring and Control

SNLH is the primary target for post-harvest insecticide applications. Adults are best monitored using yellow sticky traps. First-generation SNLH is often controlled incidentally by sprays particularly targeting spotted-wing drosophila.

Second-generation treatment decisions should consider population levels and the farm's history of stunt disease. Because adults migrate from wooded areas, monitoring should be intensified along field edges, and perimeter sprays are often most effective. Insecticides are typically applied just prior to peak flight, usually from late August to early September.

Recommended insecticides include neonicotinoids (e.g. Assail, Actara), carbamates (Lannate), and organophosphates (Malathion). In addition to chemical control, it is critical to remove bushes showing stunt disease symptoms. Removals should occur after insecticide applications to reduce the risk of leafhoppers dispersing to healthy plants.

Terrapin and Putnam Scale Traps: Trap monitoring resumed this past week. A few crawlers were detected, but no treatment is recommended at this time.

Terrapin Counts		Putnam Counts	
Avg	High	Avg	High
6	15	11	41

Organic Practice Sprays. No spray is recommended at this time; the next target will be sharp-nosed leafhopper.