

# The Blueberry Bulletin

*A Weekly Update to Growers*

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- ❖ Visit the Blueberry Bulletin webpage at [njaes.rutgers.edu/blueberry-bulletin](http://njaes.rutgers.edu/blueberry-bulletin)
- ❖ The 2022 Commercial Blueberry Pest Control Recommendations for New Jersey is available on [njaes.rutgers.edu](http://njaes.rutgers.edu)

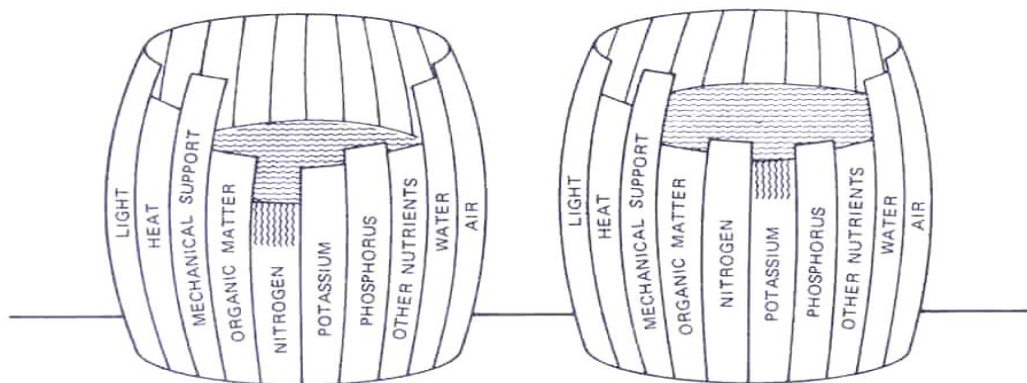
## BLUEBERRY CULTURE

**Dr. Gary C. Pavlis, Ph.D**  
**Atlantic County Agriculture Agent**

**Leaf Analysis:** Now is the time to be thinking about doing a leaf analysis on your blueberry plants. This is a practice that should be done on a regular basis to insure that your fertilizer program is doing what you think it is doing. In addition, an analysis will keep growers from wasting money on applications when they are not needed. Readers of this newsletter are aware of the fact that the only effective method to determine nutrient deficiencies is leaf analysis. Moreover, it is important to realize that

every one of the essential nutrients if deficient will cost you money in the form of decreased yields and even the loss of the blueberry plant. The illustration below shows the principal of limiting factors. As such, yield, which is represented by the level of water in the barrel, can only fill the barrel when all the nutrients are at the optimum level. This is an excellent way to think about blueberry plant nutrition. If any nutrient is deficient, it is costing the grower money.

20 SUPPLY AND AVAILABILITY OF PLANT NUTRIENTS Ch. 2



**FIGURE 2:1.** An illustration of the principle of limiting factors. The level of water in the barrels above represents the level of crop production. (*Left*) Nitrogen is represented as being the factor that is most limiting. Even though the other elements are present in more adequate amounts, crop production can be no higher than that allowed by the nitrogen. When nitrogen is added (*right*) the level of crop production is raised until it is controlled by the next most limiting factor, in this case, potassium.

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

## PEST MANAGEMENT

### Blueberry Insects

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

*Ms. Carrie Mansue Denson, IPM Program Associate – Fruit*

**Scale Traps:** Scale trap counts are on average 3.5, with a high of 13 per trap. Trap counts for the 2<sup>nd</sup> generation should be moderate for the next few weeks, so insecticide treatment will not be needed until later.

*Life history.* Scales feed on plant sap, decreasing plant vigor and fruit yield. Adult scales are protected from insecticide sprays by a waxy covering. These insects are common in older canes when not removed, and located mostly under loose bark. In New Jersey, the Putnam scale has two generations a year. It overwinters as second-instar nymphs under loose bark. Spring activity begins in early February. Eggs from the first generation are laid in late April, and immature “crawlers” begin to appear in mid-May. Peak crawler emergences occur in late May and early June. Peak crawler emergences for the second generation occur in early to mid-August (this time of the year).

*Monitoring and Management.* Growers that have a scale problem need to treat post harvest for the 2<sup>nd</sup> generation of crawlers (use Diazinon or Esteem). Crawlers can be monitored by wrapping black electricians’ tape covered by double-sided sticky tape around canes. Use a hand lens to see crawlers on the sticky tape. Sprays should coincide with crawler emergence.

### SWD Traps

	SWD AC		SWD BC	
	Avg	Max	Avg	Max
5/25	6	9	0	0
6/2	4.6	6	2	3
6/10	2	3	4.3	8
6/18	33.47	76	12	71
6/25	22.95	82	12.07	43
7/2	31.86	159	13	17
7/9	40.55	163	17.1	45
7/15	37.22	201	63.92	177
7/22	51.12	279	23.33	73
7/29	79	460	27.2	113
8/6	61.26	270	21.93	138

	% Shoot Infestation Leafroller		% Terminals Infested by Aphids	
	Avg	Max	Avg	Max
5/28	0.16	2	8.3	40
6/2	0.048	4	10.75	64
6/10	0	0	6.58	72

6/18	0.04	6	6.56	66
6/25	0	0	5.6	58
7/2	0	0	7.5	60
7/9	0.02	2	7.001	76
7/15	0	0	4.8	68
7/22	0	0	2.31	24
7/29	0	0	0.07	2
8/6	0	0	0	0

**Blueberry Maggot (BBM), Oriental Beetle (OB) and Sharp-nosed Leafhopper (SNLH) traps:**

	BBM AC		BBM BC		OB AC		OB BC	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max
6/18	0	0	0	0	195	340	173	675
6/25	0	0	0	0	675	675	1536	8000
7/2	0.011	1	0.04	1	2395	8100	1763	6000
7/9	0	0	0	0	3358	12825	2174	6743
7/15	0	0	0.05	1	1486	6075	1059	7087
7/22	0	0	0	0	1308	6075	1572	6075
7/29	0	0	0	0	494	4050	358	3000
8/6	0.01	1	0	0	156.37	2050	23.45	100

	SNLH AC		SNLH BC	
	Avg	Max	Avg	Max
6/18	0	0	0	0
6/25	0.02	1	0.76	10
7/2	0.22	5	0	0
7/9	0.456	7	2.33	13
7/15	0.22	2	0.09	1
7/22	0.01	1	0	0
7/29	0.135	2	0.07	2
8/6	0.05	1	1.83	12

**Infested fruit - Mummy Berry, Anthracnose, and Alternaria:** This week, the average number of infested fruit by Anthracnose was 0.103, with a high of 1.8. Mummy Berry and Alternaria symptoms are very low in the fields.

	Mummy Berry		Anthracnose		Alternaria	
	Avg	Max	Avg	Max	Avg	Max
6/25	0.0005	0.1	0.05	2.2	0.0005	0.1
7/2	0.001	0.1	0.05	1.2	0.002	0.2
7/9	0	0	0.05	1.3	0.019	0.5
7/15	0	0	0.07	0.9	0.045	0.4
7/22	0	0	0.124	1.5	0.03	0.8
7/29	0	0	0.103	1.8	0.02	0.6
8/6	0	0	0.075	0.4	0.125	0.7

**Leps (Lepidoptera larva – green fruitworms, leafrollers, spanworms, spongy (= gypsy moth))  
and Plum Curculio (PC):**

	% Leafroller fruit Injury		% PC fruit In- jury	
	Avg	Max	Avg	Max
5/21	0.03	0.2	0.34	3.2
5/28	0.02	0.7	0.39	2.5
6/2	0.001	0.2	0.022	0.9
6/10	0.001	0.2	0.004	0.3
6/18	0.02	0.2	0	0
6/25	0.001	0.1	0	0
7/2	0.012	0.2	0	0
7/9	0.003	0.2	0	0
7/15	0.005	0.2	0	0
7/22	0	0	0	0
7/29	0	0	0	0
8/6	0.025	0.2	0	0