



The Blueberry Bulletin

A Weekly Update to Growers

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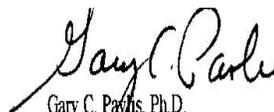
- ❖ Visit the Blueberry Bulletin webpage at njaes.rutgers.edu/blueberry-bulletin
- ❖ The 2024 Commercial Blueberry Pest Control Recommendations for New Jersey is available on <https://njaes.rutgers.edu/pubs/>

BLUEBERRY CULTURE

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

Yellow Leaves: Numerous fields in the Hammonton area showed yellow leaves on the new growth. This has occurred almost entirely on 'Duke'. Yellow leaves at this time of year are normal because the plant is growing so fast that it causes Nitrogen deficiency in the new growth. When the growth slows during fruit maturation, the problem will fix itself. This is not the problem I am seeing this week. These leaves are light green/yellow but the veins are green. They are found only on the new growth. This is definitely iron deficiency. Years ago I would always say that this means the pH has climbed up past 5.5. For most varieties this is true, but for 'Duke', it may not be true.

It appears that the iron requirement for 'Duke' is higher than 'Bluecrop' and 'Elliott'. As a result it is possible to get iron deficiency when the pH is in the optimum range of 4.5 to 4.8. If you see this problem it is critical to fix it now. A simple foliar application of an iron chelate will green these plants up in a few days. If left unchecked, growth will be decreased and next year's flower bud development will also be decreased. This will have an effect on next year's yield.


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
Carrie Mansue, Senior Program Coordinator

During the week of May 27th-June 1st, 169 fields were scouted throughout Burlington and Atlantic Counties.

Leafrollers (LR), Spongy Moth (SM), and Plum Curculio (PC). Numbers from beating tray sampling have been low for LR, SM, and PC.

Week Ending	LR/Tray		SM/Tray		PC/Tray		Thrips/Tray	
	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
4/6	.	.	.	.	.	.	.	.
4/13	.	.	.	.	.	.	.	.
4/19	0.01	0.2	0.006	0.2	0.03	0.3	.	.
4/26	0.02	0.3	0.01	0.2	0.03	0.5	0	0
5/4	0.06	0.4	0.008	0.4	0.11	1.1	0.05	4
5/11	0.06	0.4	0.005	0.2	0.10	3	0.41	8
5/17	0.04	1.0	0.002	0.10	0.04	0.80	0.58	1
5/24	0.01	0.30	0.001	0.20	0.003	0.30	1.44	22
6/1	0.0047	0.02	0.0007	0.10	0.05	8.00	2.71	55

LR = Leafrollers, SM = Spongy Moth, PC = Plum Curculio

% Injury to Fruit. This week, scouting observations included percent injury to developing berries. The number recorded is only for new injury to berries.

Week Ending	% Injury of Fruit by LR		% Injury of Fruit by PC	
	Average	Maximum	Average	Maximum
5/11	0.17	3.9	0.80	12.7
5/17	0.23	3.0	1.25	13.20
5/24	0.10	1.40	0.45	11.30
6/1	0.02	1.10	0.06	2.90

LR = Leafroller, PC = Plum Curculio

Cranberry Fruitworm (CBFW) and Cherry Fruitworm (CFW). Traps for CBFW and CFW were inspected this past week. There has been a notable decrease in the number of moths entering fields, particularly for CFW in Atlantic (AC) and Burlington Counties (BC).

Week Ending	CBFW Traps				CFW Traps			
	AC AVG	AC Max	BC AVG	BC Max	AC AVG	AC Max	BC AVG	BC MAX
4/19	0	0	0	0	0.44	2	0	0
4/26	0.4	3	1	2	0.1	1	0	0
5/4	0	0	0	0	12.1	25	9.5	14

5/11	0	0	0	0	17.25	44	20	24
5/17	0.031	1	0	0	2.25	4	8.25	14
5/24	0	0	0	0	5.75	16	8.75	18
6/1	0	0	0	0	2.125	7	3.25	5

AC = Atlantic County, BC = Burlington County, CBFW = Cranberry Fruitworm, CFW = Cherry Fruitworm

Scale Traps. Scale traps were inspected this week. We are starting to see more scale activity. There was an average of 43 scale per trap with a high of 120 scales.

% of Infestation on Lower Shoots for Leafroller and Aphids. In scouting for aphids, 80 of the 169 fields that were scouted in Burlington and Atlantic Counties had a percentage of 11% or more of aphids on lower shoots. Fields with 11% or more aphids on lower shoots should be treated with an insecticide (see last week's newsletter for recommendations). Colony size of aphids was on average 6 to 10 aphids per shoot.

Week Ending	% Lower Shoots Leafroller		% Lower Shoots Aphids	
	Avg	Max	Avg	Max
5/24	0.02	2.00	11.03	52
6/1	0.066	4.0	15.37	72

Spotted Wing Drosophila (SWD). Traps for SWD were placed in the field and the first SWD capture was reported on May 30th in Burlington County (Picture 1). SWD populations will continue to increase as the season progresses, so it is time to initiate your spray program for SWD.



Picture 1. Male spotted-wing drosophila captured on a red sticky trap and circled. Photo by Carrie Mansue.



Picture 2. Blue color berries were observed on variety 'Duke'. This stage is attractive to SWD, the main pest of concern during the ripening phase. Photo by Carrie Mansue.

As the 'Duke' variety begins to show a blue color (Picture 2), SWD should become the primary target for insecticide applications. The most effective insecticides for SWD control include pyrethroids such as Mustang Maxx, Danitol, Brigade, and Hero (group 3A), organophosphates such as Imidan and Malathion (group 1B), carbamates such as Lannate (group 1A), spinosyns such as Delegate and Entrust (group 5), and diamides such as Exirel and Verdepryn (group 28) (Figure 1). The premix Cormoran (Assail (acetamiprid) + Rimon (novaluron)) (group 4A+15) has shown to be effective, but this conclusion is based on limited data and should be interpreted with caution.

The neonicotinoid Assail provides some control, though it is only effective against very low SWD populations and should be used if aphids are also an issue.

Exirel offers additional aphid control and is highly effective against SWD. Lannate can 'suppress' aphids and is also a strong option for SWD management.

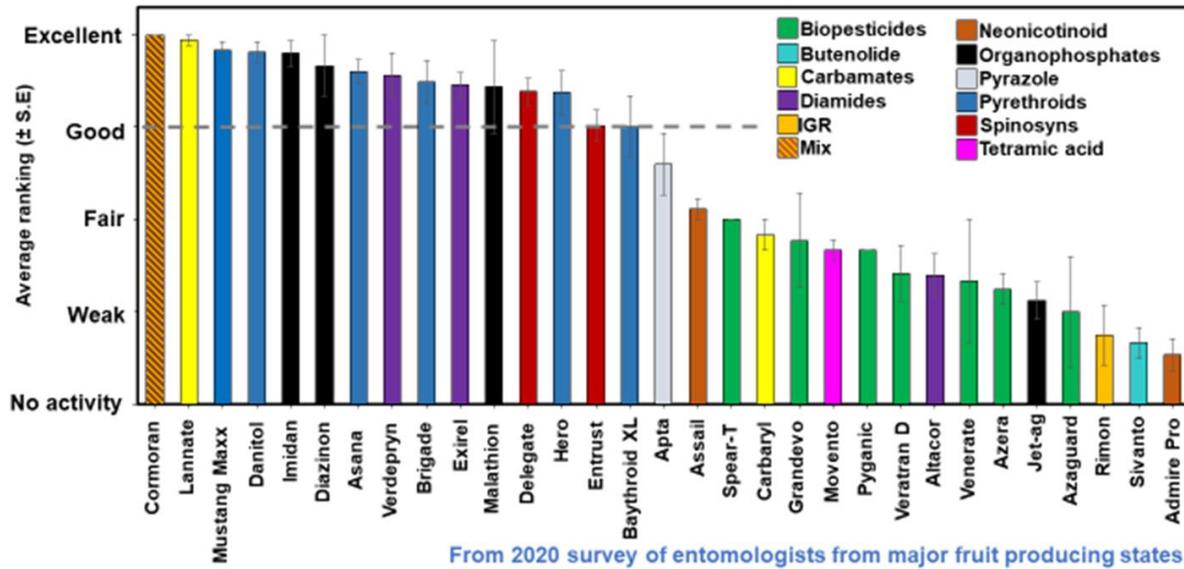


Figure 1. Ranking of insecticides based on efficacy against SWD.

The remainder of traps will be placed this week for sharp-nosed leafhoppers, Oriental beetle, and blueberry maggot fly.

Nutrient Deficiency



Picture 3. Iron deficiency in variety 'Duke'. Photo by Carrie Mansue.

In scouting this week, we are starting to see iron deficiency symptoms showing in Duke plants (Picture 3). You can spray a nutrient spray to perk them up.