

# The Blueberry Bulletin

## A Weekly Update to Growers

July 2, 2020

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- ❖ Visit the Blueberry Bulletin webpage at [njaes.rutgers.edu/blueberry-bulletin](http://njaes.rutgers.edu/blueberry-bulletin)
- ❖ The 2020 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 Agricultural Agent**

July 1 is my cut-off date for any applications of Nitrogen to the blueberry fields. After that date I feel there is the possibility of decreasing winter hardiness, increasing stem blight, and increasing aphid numbers. All other nutrient applications are alright to apply. Foliar applications of Iron, Copper, Zinc, can be made after harvest. In addition, if spring applications of lime to increase the soil pH or sulfur to decrease the pH were not applied, these applications can be made after the harvest has been completed.

Lastly, it has been extremely dry for quite some time. Blueberries require approximately 2 inches of water every 7-10 days. Refer to last week's article in this newsletter on water management.

### **BLUEBERRY INSECT**

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

**Mr. Dean Polk, IPM Agent – Fruit**

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

**Blueberry Maggot (BBM):** The first adult fly was captured on Monday 29 June (Figure 1). Growers who are exporting fruit to Canada need to maintain an insecticide program that adheres to the Canadian Export protocol. This means that the first insecticide application must be applied within the 5 day period after the first fly capture, or by Saturday 4 July. In most cases, treatments are being applied for SWD that also control BBM. Given this schedule, those growers exporting to Canada are OK as long as one of these treatments has fallen between 29 June and 4 July.

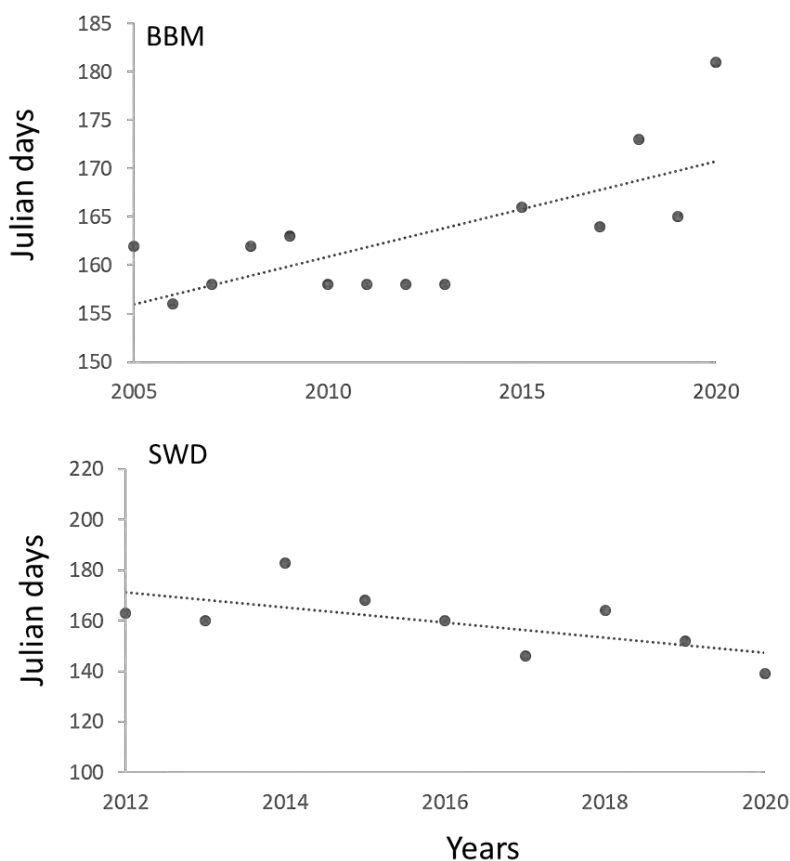
**Spotted Wing Drosophila (SWD):** This is still the primary insect of concern at this time. Try to stay on a 7 day program if you are still picking. The best insecticide choices include any pyrethroid (Asana, Brigade/Bifenture, Danitol, Mustang, Hero), Imidan, Delegate, Lannate, Malathion,



**Figure 1. Adult blueberry maggot fly on trap (Photo – Carrie Denson).**

Exirel, and Verdepryn.

We have been tracking BBM and SWD 1<sup>st</sup> adult capture for several years and a pattern is starting to emerge. We are seeing a clear delay in BBM adult emergence through the years while the opposite is observed for SWD (Figure 2). The reasons for this remains unknown but it is possible that these flies are competing with each other for resources, with SWD likely outcompeting BBM. This competition might be causing a decline in BBM populations through the years and, as a result, a delay in BBM adult emergence. In the case of SWD, it is also unclear why we are seeing an earlier adult emergence through the years. It is true that we have better tools for monitoring this fly, and we are able to catch them earlier with the new commercial lures; thus, providing earlier warning for possible fruit infestation. However, even with these new lures, we are still catching the first SWD flies sooner than in previous years. This could be due to warmer temperatures, especially milder winters, or increases in SWD population size through the years that may allow them to better survive the winter months.



**Figure 2. Date of blueberry maggot fly (BBM) and spotted wing drosophila (SWD) 1<sup>st</sup> capture (in Julian days) through the years.**

**Aphids:** Average aphid infestation levels remained near the same levels as the previous week. We had an average of 2.5% of terminal infested with colonies, with a high of 32% on newly developing canes. Anecdotally, we observed one field that had very high aphid populations, and also had high blueberry scorch incidence.

**Putnam Scale:** Some scale crawlers are still present, but should decrease over the next week to 10 days. Growers concerned about this pest should target the second generation crawler stage in early to mid-August.

**By the Numbers:**

% Injured Fruit								
Week Ending	% LEPS Injured Fruit		% PC Injury Fruit		% Scale		% CBFW	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max
5/11	0.05	0.1	0.2	0.3				
5/18	0.06	0.8	0.13	1.4				
5/25	0.122	1.1	0.43	3.8				
5/30	0.17	1.4	0.70	5.6				
6/6	0.122	1.1	0.43	3.8				
6/13	0.01	0.4	0.001	0.4	0.005	0.1		
6/19	0.003	0.2	0	0	0.02	0.5		
6/27		0.3	0.001	0.2	0.03	0.6	0.005	0.1

Trap Counts												
Week Ending	CBFW-AC		CBFW-BC		SWD-AC		SWD-BC		OB-BC		OB-AC	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
5/11	0.1	1	0	0								
5/18	0	0	0	0								
5/25	0.1	1	0.25	1	0.8	7	0	0				
5/30	0	0	0.25	1	.75	5	.55	1				
6/6	5.5	34	0.75	3	2	8	2.1	5				
6/13	5.6	22	3.5	8	4	14	7.7	20	3.2	11	18	340
6/19	7.2	48	6.5	18	4.64	30	4.9	16	71.75	675	21.4	68
6/27	0	0	3.5	8	2.8	12	4.3	25	1834	13750	462	2025

Week Ending	SNLH – AC		SNLH-BC		BBM-AC		BBM-BC					
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
6/27	0.14	3	0.8	4	0	0	0	0				

Key: PC=plum curculio, Scale=Putnam scale, CBFW=cranberry fruitworm, SWD=spotted wing drosophila, OB=oriental beetle, SNLH-sharpnosed leafhopper, BBM=blueberry maggot, BC=Burlington County, AC=Atlantic County