

The Blueberry Bulletin

A Weekly Update to Growers

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* Visit the Blueberry Bulletin webpage at www.njaes.rutgers.edu/blueberry-bulletin

* The 2021 Commercial Blueberry Pest Control Recommendations for New Jersey is available on njaes.rutgers.edu

As we anticipate the arrival of our seasonal blueberry workers we want to share the most up-to-date information with you. The New Jersey Department of Health anticipates that about 50% of the incoming workers will not be vaccinated prior to their arrival in New Jersey. Workers who are in need of a COVID vaccine may have questions about the safety of the J&J vaccine, the most common vaccine available to farm workers in NJ. The CDC has released updated information [What do I need to know about Johnson & Johnson's Janssen COVID-19 Vaccine \(J&J/Janssen\) now? \(cdc.gov\)](https://www.cdc.gov/media/releases/2021/s0615-covid-19-vaccine-janssen.html)

If you would like to determine if on-farm vaccinations are possible for your farm please email njfarmvax@njaes.rutgers.edu and a member of the Rutgers farmworker vaccination education program will connect you with your local Federally Qualified Health Center representative. For information on our states mega centers visit [COVID-19 Vaccine \(nj.gov\)](https://www.nj.gov/health/covid-19/vaccine/)

Updated information on COVID-19 and the vaccine can be found online at [Vaccine Information Resources for Farmers - Rutgers On-Farm Food Safety](https://njaes.rutgers.edu/blueberry-bulletin/vaccine-information-resources-for-farmers/)

BLUEBERRY CULTURE

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

Harvest has begun. In my visits over that past few weeks, growers have told me that yields are not what they used to be. And we all know that yield=money. Let's go over what it takes to maximize yield.

1. **Correct pruning methods** – an annual thinning out of older canes and cutting these canes out at **ground level** to stimulate new cane growth.
2. **Adequate pollination** – scrimping on the number of hives during bloom is a mistake. If your berries are small, which decreases yield, cut the berries open. There should be at least 15-20 seeds in each berry. If there isn't, poor pollination.
3. **pH** – 70% of NJ blueberry fields are below 4.5, and 25% are below 4.0. The correct range of pH for our blueberries is **4.5 to 5.0**. Draper requires 5.0 to 5.5. If your pH is too low, high yields are not possible.

4. **Optimum nutrient levels** – Our IPM program headed by Dean Polk takes leaf samples in late July /early August to determine the nutrient levels of fields in the IPM program. If you in the program and have a deficiency, it needs to be fixed, if you are not in the program, take your own leaf samples at that time and get them analyzed. Every deficiency decreases yield.
5. **Timely application of sprays to control insects and diseases.** Consult the Rutgers Commercial Blueberry Pest Control Recommendations for details. Applications made at the wrong time or with the wrong chemical can be devastating.
6. **Efficient irrigation**- Blueberry fruit is 84% water. Blueberry plants under water stress during fruit maturation decreases yield. On average, blueberries require 2 inches of rain every 7 – 10 days. There are numerous devices that measure soil water availability. Guessing when to apply water decreases yield.
7. **Soil health** – the soils in the Pinelands have high organic matter levels and this is where the highbush blueberry evolved. IPM soil samples have shown that the organic matter level of most of our blueberry fields are now very low. If your soil is low, mulching is required to increase cane growth and plant vigor.
8. **Weeds** – I often have stated that every weed under the blueberry plant costs you a dollar. Now that may not be exactly correct but weeds rob the blueberry plant of water and nutrients, both of which the grower is paying for. A weedy field results in less cane growth and decreases yield. Efficient weed control is critical for maximum yields.

I didn't list everything needed for maximum yield but these are the most important factors. High yields can only be achieved if all of these factors are managed correctly.



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INSECTS

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

Mr. Dean Polk, IPM Agent – Fruit

Ms. Carrie Mansue Denson, IPM Program Associate – Fruit

Aphids: Aphids are still being found. Colonies are in the middle range compared to last week, the average shoot infestation rate is 9.7% of new shoots infested with a high of 84%. If aphid populations are they still must be controlled, but while working around PHIs and SWD control.

Spotted Wing Drosophila (SWD): This is still the main pest of concern. Any field that is colored or starting to color should have protection. Most materials that control SWD also control blueberry maggot (except Delegate and Entrust, which provide suppression). With regards to monitoring for the larval stage, salt tests are being incorporated starting this week.

Delegate Label: There have been a few questions regarding the 1 day PHI use compared to the traditional 3 day PHI use for this product. The ‘traditional ‘use stipulated a 3 day PHI with a maximum of 19.5 oz of product used for the season. SWD control requires a 5-6 oz/A rate, so essentially this is 3 applications with a little left over. In order to use the material with 1 day PHI, the total allowed material for the season is reduced to 17.9 oz of product per season. This is also essentially a 3 application maximum program, depending how you adjust the rate. The material should be rotated with other IRAC mode of action materials, and most growers who use Delegate are only using 1-2 applications.

Blueberry Maggot (BBM): No blueberry maggot adults have been found yet. This is probably due to the presence of SWD sprays. There has been a trend during the last several years of lower BBM populations as SWD management has become commonplace.

Oriental Beetle (OB): Adults have emerged and have been active for the past couple of weeks. Any insecticides used for the grub stage of this pest need to be applied prior to the 3rd instar stage, or before mid-July.

Anthracoese: The recent wet weather has not helped disease management. Some anthracnose disease was seen on Duke this past week. Therefore, fungicides applications are still merited. Abound, Pristine, Switch and Phosphite materials have a “0” day PHI. Not all materials can be aerially applied. See the 2021 Blueberry Pest Control Recommendations for additional products.

Week Ending	% Leps injury to Berries		% PC injury to Berries	
	Avg	Max	Avg	Max
5/14	0.13	2	0.68	7.8
5/21	0.13	1.8	0.80	9.8
5/28	0.013	0.5	0.13	3.7
6/4	0.002	0.2	0.008	0.3
6/11	0.002	0.3	0.005	0.4

Week Ending	% CBFW injury to Berries		% CFW injury to Berries		% Scale Injury	
	Avg	Max	Avg	Max	Avg	Max
6/4	0.009	0.1	0.005	0.1		
6/11	0.014	0.6	0.001	0.1	0.012	0.9

Week Ending	SWD(AC)		SWD(BC)	
	Avg	Max	Avg	Max
6/4	1.5	8	0.375	3
6/11	1.84	9	1.77	1

Week Ending	OB(AC)		OB(BC)	
	Avg	Max	Avg	Max
6/4	3.9	32	0.25	1
6/11	185.72	2025	15.8	60

Week Ending	BBM(AC)		BBM(BC)	
	Avg	Max	Avg	Max
6/4	0	0	0	0
6/11	0	0	0	0

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and Boards of County Commissioners. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.