RUTGERS
New Jersey Agricultural Experiment Station

The Blueberry Bulletin

A Weekly Update to Growers

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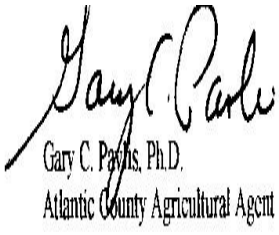
- *Visit the Blueberry Bulletin webpage at njaes.rutgers.edu/blueberry-bulletin*
- *The 2022 Commercial Blueberry Pest Control Recommendations for New Jersey is available on njaes.rutgers.edu*

BLUEBERRY CULTURE

Dr. Gary C. Pavlis, PhD.
Atlantic County Agricultural Agent

I see that the harvest of the 'Draper' variety has begun in Atlantic County. I have a research plot of this variety and was doing some harvesting of my own this week. This variety's yield is very good. The clusters are large and have uniform ripening. I saw very little disease evidence. The berries are firm, have an excellent texture, color, and flavor and are quite large. There was early concern that there would be a green fruit drop problem but that has not happened to any degree over that past three years and in my plots there was no drop at all this year. I believe the trick is raising the soil pH up to the mid 5's with a target of 5.5. This makes calcium more available and seems to eliminate any green drop problem. Until the pH is increased it may be necessary to apply weekly foliar applications of calcium. I have noted at past meetings and in this newsletter that many blueberry fields have a pH in the 3's and low 4's. This is not 'Draper' ground unless the pH is brought up. Bottom line, this variety may be a good alternative to 'Bluecrop' due to its decreased susceptibility to anthracnose.



PEST MANAGEMENT

Blueberry 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

Spotted-wing drosophila (SWD) Traps: Numbers for SWD have increased from last week. At this point, SWD is the main target of insecticide sprays on Dukes, Bluecrop, Liberty and Drapers.

	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

Aphids: Aphids numbers have slightly decreased. Percent infested terminals was on average 5.6%, with a high of 58%. Aphid populations have decreased some since last week mostly due to treatments being applied. If you have already treated and your aphid populations are very low, or well less than 10% of terminals infested, then you can move on and concentrate on SWD treatments. If you still have aphid populations then you will need to treat both pests – aphids and SWD.

	% 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

Scale: Scale number have decreased from last week most likely due to berries being picked. Average infested berries are 0.04 with a high of 1.5.

Blueberry Maggot (BBM), Oriental Beetle (OB) and Sharp-nosed Leafhopper (SNLH) traps: Traps for BBM have been 0 for both counties. OB trap counts have increased in both counties. We are starting to see SNLH in traps for both counties, we will monitor for 2Nd generation of SNLH when treatment is needed.

	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

	SNLH AC		SNLH BC	
	Avg	Max	Avg	Max
6/18	0	0	0	0
6/25	0.02	1	0.76	10

Infested fruit - Mummy Berry, Anthracnose and Alternaria: Past two weeks Dukes and the start of Bluecrop are showing anthracnose symptoms. This week, the average infested fruit by anthracnose was 0.005, with a high 2.2. 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

Leps (Lepidoptera larva – green fruitworms, leafrollers, spanworms, spongy (= gypsy moth)) and Plum Curculio (PC): During this past week of scouting, Lep and PC averages have decreased

	% Leafroller fruit Injury		% PC fruit Injury	
	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

Cranberry Fruitworm (CBFW) and Cherry Fruitworm (CFW) Traps:

	CBFW AC		CBFW BC		CFW AC		CFW BC	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max
4/8	0	0	0	0	0.1	1	0.25	1
4/14	0	0	0	0	0	0	0	0
4/20	0	0	0	0	0.2	1	0	0
4/29	0.1	1	0	0	0.9	3	0.25	1
5/7	0	0	0	0	7.1	15	4.5	15
5/13	0.1	1	0	0	9.1	22	10.25	17
5/21	2.3	14	0	0	19.1	40	14.5	20

5/28	2.6	24	3.25	13	12.1	27	13.5	35
6/2	0.70	7	0	0	5.12	15	7.5	17
6/10	1	3	1	2	2.3	8	2.33	4
6/18	0.2	1	1.5	6	1.2	4	2	6
6/25	0.4	4	1	2	0.22	2	0.25	1

Biological Control of Spotted-Wing Drosophila: A Research Update

Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University
Dr. Patricia Prade, Post-doctoral Associate, Department of Entomology, Rutgers University

Ganaspis brasiliensis. Photo from: Buffington & Forshage; PROC. ENTOMOL. SOC. WASH. 118(1), 2016.

Researchers at the Rutgers Philip E. Marucci Center in collaboration with the New Jersey Department of Agriculture Phillip Alampi Rearing Laboratory will release this summer the biological control agent, *Ganaspis brasiliensis*, to manage spotted-wing drosophila (SWD) in New Jersey.

The use of biological control agents such as *G. brasiliensis* is a more sustainable and environmentally friendly management tactic than the current techniques available. While management in crop areas does a good job at controlling SWD, the implementation of a biological control program can help reduce the reliance and frequent use of chemical control. *G. brasiliensis*, a parasitoid from Asia, is highly specialized on SWD and has great potential to significantly reduce SWD populations in non-crop habitats surrounding susceptible crops; thus, likely reducing SWD pressure.

Our current efforts focus on the release and establishment of *G. brasiliensis* and its impact on SWD in New Jersey blueberry farms. In 2022, *G. brasiliensis* adults will be released in five commercial blueberry farms in New Jersey. Releases of this parasitoid will likely increase the diversity of natural enemies attacking SWD in New Jersey. This exotic parasitoid is expected to be more effective at controlling SWD than the existing (native) natural enemies and will thus likely enhance biological control of this pest. Once released, we expect *G. brasiliensis* to establish and provide sustainable long-term SWD control in non-crop habitats surrounding blueberry farms. Sentinel traps baited with SWD-infested fruit and collection and incubation of fruits from native non-crop plants will be used to measure the establishment of *G. brasiliensis* at the release sites.

This project is part of a nationwide program funded by the USDA Specialty Crop Research Initiative (SCRI) and Crop Protection and Pest Management (CPPM) programs to release *G. brasiliensis* in areas affected by SWD.

USDA Announces Assistance for On-Farm Food Safety Expenses for Specialty Crop Growers

The Food Safety Certification for Specialty Crops Program (FSCSC) will assist specialty crop operations that incurred eligible on-farm food safety certification and related expenses related to obtaining or renewing a food safety certification in calendar years 2022 and 2023. For each year, FSCSC covers a percentage of the specialty crop operation's cost of obtaining or renewing their certification, as well as a portion of their related expenses. USDA defines specialty crops as most of the fruits, herbs and vegetables grown in New Jersey.

To be eligible for FSCSC, the applicant must be a specialty crop operation; meet the definition of a small business or very small business; and have paid eligible expenses related to the 2022 (issued on or after June 21, 2022) or 2023 certification. Very small (up to $250,000) and small farms (less than 500,000) average monetary value of specialty crops sold during the 3-year period preceding the program are eligible.

Specialty crop operations may receive assistance for the following costs:
- Developing a food safety plan for first-time food safety certification.
- Maintaining or updating an existing food safety plan.
- Food safety certification.
- Certification upload fees.
- Microbiological testing for products, soil amendments and water.
- Training.

FSCSC payments are calculated separately for each category of eligible costs. A higher payment rate has been set for socially disadvantaged, limited resource, beginning and veteran farmers and ranchers. Details about the payment rates and limitations can be found at farmers.gov/food-safety. Also, a fact sheet with details is included in this newsletter.

Applying for Assistance

The FSCSC application period for 2022 is June 27, 2022, through January 31, 2023, and the application period for 2023 will be announced at a later date. FSA will issue payments at the time of application approval for 2022 and after the application period ends for 2023. If calculated payments exceed the amount of available funding, payments will be prorated.

Interested specialty crop producers can apply by completing the FSA-888, Food Safety Certification for Specialty Crops Program (FSCSC) application. The application, along with other required documents, can be submitted to the FSA office at any USDA Service Center nationwide by mail, fax, hand delivery or via electronic means. Producers can visit farmers.gov/service-locator to find their local FSA office. The local FSA office for Cumberland, Atlantic and Cape May is located at 1318 South Main Rd., Bldg. 5A, Vineland, NJ 08360, telephone 856-205-1225. Specialty crop producers can also call 877-508-8364 to speak directly with a USDA employee ready to assist.