

The Blueberry Bulletin

A Weekly Update to Growers

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- ❖ Visit the Blueberry Bulletin webpage at njaes.rutgers.edu/blueberry-bulletin
- ❖ The 2020 Commercial Blueberry Pest Control Recommendations for New Jersey is available on njaes.rutgers.edu

BLUEBERRY CULTURE

Dr. Gary C. Pavlis, Ph.D.

Atlantic County Agricultural Agent

The first round of “Duke” picking is largely over and the fruit quality is excellent though it appears the overall crop size is decreased due to the multiple frost episodes. “Bluecrop” picking will probably begin this weekend and was much less affected by the frosts. Interesting to note that “Draper”, which is expected to come in with “Bluecrop” is later this year. My research on Draper and its “Green fruit drop problem” may be remedied by just increasing the pH into the mid 5’s although applications of foliar calcium do increase fruit firmness which is always beneficial.

No leaves: Grower visits have revealed fields with plants that have canes with fruit but no leaves. This is not Scorch. The lack of leaves usually points to a root problem. It could be grubs it could be root rot. In not irrigated fields, the lack of leaves may be due to a lack of water. It has been very dry. The fruit will probably not ripen and the plant may not survive. In irrigated fields, grubs are still a problem. Control of grubs is highly recommended. Plants that have been damaged by grubs will pull out of the ground easily. Lastly, toxic levels of Boron can also result in no leaves. Do not apply Boron unless analysis indicates a deficiency.

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

Spotted Wing Drosophila (SWD): Trap averages have remained close to the same levels as seen last week, but activity has increased on some farm sites to over 30 flies per trap. This is the main insect target now through harvest. Both Duke and Bluecrop should be covered with regular protective sprays. The best insecticide choices include any pyrethroid (Asana, Brigade/Bifenture, Danitol, Mustang, Hero), Imidan, Delegate, Lannate, Malathion, Exirel, and Verdepryn. Assail is **no longer** recommended at this time of year.

(Continued)

IPM guides for SWD in blueberries are now available:

Download them from the Northeastern IPM Center website, provided below, or via the SWD IPM Working Group website, www.northeastipm.org/working-groups/spotted-wing-drosophila/.

Spotted Wing Drosophila IPM in Blueberries www.neipmc.org/go/swdpub2

Blueberry Maggot: There are no trap captures as of this writing. Whether this is just a late emergence year or if populations are being suppressed by SWD sprays really makes no difference in your management decisions. As long as trap captures are “0”, your management for Canadian exports is made a lot easier.

Aphids: Average aphid infestation levels decreased over the past week, with infestation levels at 2.5% of terminals infested. Some colonies are increasing in density with more aphids in each colony. The highest infestation was 30% of lower shoots infested. Some aphid materials such as Actara and Movento can be effective for scale, but these are not effective for SWD.

Putnam Scale: Scale crawlers are still active and have increased in their movement onto some fruit. Scale crawlers move out from the lower parts of the canes. With the fruit being close to the terminals, this is the last place they can go, so 1st generation crawlers often settle on the fruit. These are visible as tiny red dots with a light brown to gray center. The remainder is reprinted from last week as a reminder: Growers should take note if any berries have scale on them (see Figure 1), and which fields they come from. There are practically no scale insecticides that also control SWD. The one exception is Diazinon, but that can be only used once per season and has a 7 day PHI. Coverage is also key, so ground applications are required for adequate scale crawler control. Since this insect has 2 generations per year, it is wiser to note the fields that will need treatments and plan on treating those fields in early August when the second generation crawlers are active.

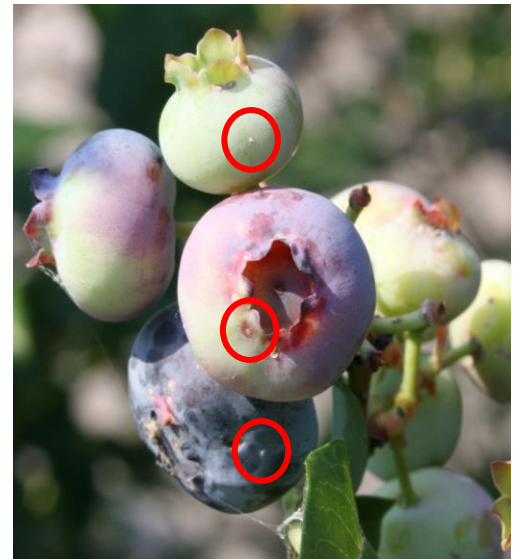


Figure 1. Maturing blueberries showing freshly settled scales

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.

Monitoring and Management: Growers that have a scale problem need to treat post harvest for the 2nd 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.

Oriental Beetle (OB): Oriental Beetle emergence is well underway. Mating and reproduction is ongoing.

For those growers who have not yet treated with Admire for this insect, and still wish to do so, Duke fields can be treated after harvest. Bluecrop fields are also in the 'treat after harvest' category if you are done by mid July. Elliott fields can be treated any time up to 7 days PHI and prior to mid-July.

Growers have 2 choices for treatment:

Choice 1: You can use imidacloprid/Admire type products @ 7-14 oz/A with a 7 day PHI. This material will control early stage larvae, so it **MUST BE APPLIED BEFORE** mid July in order to be effective. The material must be pushed below the soil surface where grub larvae are located and out of direct sunlight. Therefore the application needs to be followed with .5 to 1" of irrigation or precipitation within 24 hr, or be chemigated in.

Choice 2: Mating disruption works, but **Must Be Applied Prior to Adult Emergence**. Therefore, it is too late to use mating disruption for this year. Order the mating disruption dispensers for next year.

By the Numbers:

% Injury Fruit						
Week Ending	% LEPS Injured Fruit		% PC Injury Fruit		% Scale	
	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

PC = plum curculio; CBFW = cranberry fruitworm; SWD = spotted wing drosophila; OB = oriental beetle

Traps												
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

AC = Atlantic County; BC = Burlington County

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