

The Blueberry Bulletin

A Weekly Update to Growers

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CULTURE

Dr. Gary Pavlis, Ph.D.

Atlantic County Agricultural Agent

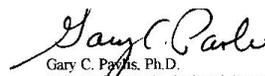
It has been some time since I discussed the use of mulch with highbush blueberries and since the season is winding down I finally have the time. The first question is why do we mulch blueberries? We mulch because we are trying to duplicate the natural soil conditions that exist where the highbush blueberry is native and thrives such as the Pine Barrens of New Jersey. Mulch has many benefits not the least of which is increasing the organic matter of the soil. Mulching increases the soil's ability to hold water and nutrients and lowers root temperature in the summer. There was no need to mulch on most south Jersey blueberry farms years ago because the soil was the perfect pH for blueberries and the organic matter was high. It was rare to find a Jersey farm that mulched before the mid 90's. Today, most farms mulch their blueberries. Why the change? We have to look at how we grow blueberries here. We use herbicides under the plants and we rototill the middles to control the weeds which are practices that are very effective but the lack of weeds does not allow organic matter to accumulate and rototilling burns up the natural organic matter. In addition, we routinely use a 10-10-10 fertilizer which usually contains nitrogen in the form of ammonium sulfate. The ammonium slowly drives the pH down, out of the optimum range for blueberries. With decades of these practices we now have to add lime to get the pH up and we have to mulch to replace the organic matter.

Growers should realize that there are also a few disadvantages to applying mulch. Many growers experience rodent problems under the

blueberry plants when mulch is used because of the perfect environment created by the mulch for these animals. In addition, mulch creates the perfect environment for the grub larva of Japanese, Oriental, and Asiatic beetles. These larvae can be very destructive to blueberries and many plantings have been damaged by these insects. Mulch can also be expensive to purchase and also to apply. Lastly, I am often asked what kind of mulch is best for blueberries. I always answer, "Whatever material the grower can get for free." Often a grower can work with a local township to receive deliveries of wood chips from their utilities authority. Realize however that no matter what mulch is used, it is going to affect nutrient availability because the breakdown process ties up nitrogen. As a result, a higher application rate of nitrogen will be required and could be as high as double the rate without mulch. It is not possible to make a recommendation as to what the additional application should be because every mulch is different and breakdown varies with soil type, temperature, micro-organism activity, etc. Nitrogen levels in the plants should be monitored with yearly leaf analysis to determine how the mulch has affected nitrogen levels in the plant.

Lastly, the pH of the mulch used is very important. Using a mulch with a high pH could impede growth. Check the pH of the mulch before applying.

Sincerely,


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

INSECTS

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

Mr. Dean Polk, IPM Agent – Fruit

Ms. Carrie Denson, IPM Program Associate – Fruit

A Rare Time for the Stars to Align: Sharp-nosed leafhopper (SNLH) adults are flying, and scale crawlers are emerging. While we may yet see an increase in the adult SNLH flight, sufficient adults are present to merit treatment. **Putnam Scale crawlers are also present, and should be treated now** in fields which had marked berries in the first generation. We usually see scale crawlers first, and then need to treat for SNLH adults about 2 weeks later. This is the first time, (in 30 years) I have seen the timing line up. Therefore, if you are using Diazinon for treating scale (it controls both SNLH and scale), then you can probably put the sprayer away after that treatment. If you are not treating for scale then you are free to use other materials for SNLH control, such as Actara, Assail, Admire, or Imidan. For scale treatments: Target a 50 gal per acre volume. **Do NOT make this treatment by air!** This is not a flying insect, but instead a very small crawling stage that stays on the wood. Therefore, the entire cane should be covered. The primary treatment window should last for about another 10 days.

Atlantic County Traps

Week Ending	SWD	OB	BBM	SNLH	Putnam Scale
6/8	1.05	8.2	0	==	
6/15	1.2	97	0	==	
6/22	0.71	1381	0.21	0.21	
6/29	4	2385	0.03	0.11	
7/6	64	1856	0.06	0.15	
7/13	87	1822	0.19	0.21	
7/20	74	1417	0.07	0.34	
7/27	64	800	0.03	0.12	14
8/3	44	369	0.07	0.29	96

Burlington County Traps

Week Ending	SWD	OB	BBM	SNLH
6/8	0.07	2.91	0	==
6/15	0.83	69	0	==
6/22	0.7	750	0.33	0.33
6/29	0.64	1113	0.125	0.8
7/6	100	2048	0.2	0.625
7/13	18	874	0.64	0.72
7/20	17	505	0.81	1.46
7/27	18	90	0.57	4.45
8/3	21	31	0.51	1.5

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