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New Jersey Agricultural
Experiment Station

The BLUEBERRY BULLETIN

A Weekly Update to Growers

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At a glance. Insect and disease problems that should be considered this week.

PEST/DISEASE	WEEK OF JUNE 22	WEEK OF JUNE 29
Anthracnose Abound or Ziram	Continue anthracnose schedule on susceptible cultivars.	Continue anthracnose schedule on susceptible cultivars.
Blueberry Maggot (BBM) See list in newsletter	Monitor traps 2X/week Treat every 7-10 days if on a calendar schedule. Don't spray if monitoring and nothing is found.	Monitor traps 2X/week. Treat if needed.
Sharpnosed Leafhopper (SNLH) SNLH is controlled with insecticides used for BBM and aphids.	Monitor with yellow sticky traps No specific treatment suggested unless not treating for aphids and BBM, and SNLH population is high.	Continue as in previous week.
Aphids Imidacloprid (Provado etc.), Assail, Actara, or Lannate for suppression of low populations	Monitor and treat if over 10% of terminals infested.	Monitor and treat if needed.
Oriental Beetle (OB) Imidacloprid (AdmirePro and generics)	Monitor fields with Japanese beetle traps baited with OB pheromone. Treat if needed.	Continue monitoring, and treat if needed.
Putnam Scale Esteem or Diazinon	If crawlers are present, then treat with Esteem or Diazinon. May need to wait until August.	Will probably need to wait until second generation in August.

Culture:

Dr. Gary C. Pavlis

County Agricultural Agent

Cane Death: Farm visits over the last couple of days have turned up a number of canes dying from what used to be called winter damage. We now recognize that this wilting and death of individual canes during the summer can also be due to Stem Blight. Control of Stem Blight depends largely on cultural methods. It is important to discourage late-season growth and promote early hardening off thus late-season

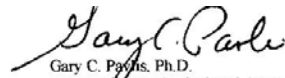
fertilization, late-season weed cleanup and late-season irrigation should be avoided. Pruning to remove infected stems is the best method of reducing disease in established fields. Pruning serves two functions: 1) removes infections from bushes, preventing eventual death of the plant, and 2) reduces the number of spores released in the field by removing dead, spore bearing stems.

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Pruning can be done at any time infected stems are observed, but care should be taken to cut well below the infected area. After a stem is removed, examine the cut end of the remaining stem. If any brown areas are visible in this cross-section, a cut must be made further down the stem until all infected tissue is removed.

Sincerely,



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

Editor – Blueberry Bulletin
Blueberry Bulletin – Editor
GP/sp

INSECTS

Dr. Cesar Rodriguez-Saona,
Extension Specialist in Blueberry Entomology
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Mr. Dean Polk, IPM Agent – Fruit

Blueberry Maggot (BBM): Adult BBM flies are being found in low numbers at several sites, but at higher levels at one site in Burlington County. See table for treatment options.

Correction: Please note that the rate for Provado use on BBM is 6-8 oz/Ac and not 3-4 oz/Ac as indicated in last week’s newsletter.

Blueberry Maggot Insecticide Options

Material	Rate/A	REI	PHI	Rating
Diazinon 50W	1 lb	5 days	7 days	G
Guthion 50W	1 lb	7 days	7 days	E
Imidan 70WSB	1.33 lb	24 hr	3 days	E
Lannate 90SP	1 lb	48 hr	3 days	G
Malathion 8	1.5 pt	12 hr	1 day	G
Sevin 80WSP /4F	1.5 lb / 3 pt	12 hr	7 days	G
Asana XL	8 oz	12 hr	14 days	G
Danitol	10 2/3 – 16 oz	24 hr	3 days	G
Provado 1.6F	6–8 oz	12 hr	3 days	G
Actara	4 oz	12 hr	3 days	G
Assail 30SG	4.5–5.3 oz	12 hr	1 day	G
Spintor 2SC	6 oz	4 hr	3 days	F
Surround	25 lb	4 hr	day of harvest	suppression
Entrust	2 oz	4 hr	3 days	suppression
GF120	20 oz	4 hr	day of harvest	F

E=excellent, G=good, F=fair, suppression=suppression only
Lannate is not labeled in Canada and should be minimized or avoided if exporting berries
Assail, Provado, Actara, and SpinTor are reduced-risk/OP replacement products
Surround, Entrust, and GF120 are organically-approved insecticides

Sharpnosed Leafhopper (SNLH): Adult leafhoppers are now being caught in yellow sticky traps. This is the start of the first of 2 generations. Because this insect transmits stunt disease, it is a key insect throughout the adult flight. However, it is also easily controlled by most of the materials that are being used for aphids and blueberry maggot. Therefore specifically targeted sprays for SNLH are seldom suggested for the first generation.

Aphids: About 94% of shoot samples were positive for aphids and 70% were above the 10% infestation level. This is an increase since last week, and is indicative of a number of farms with heavy infestations on the lower developing canes. Infestations are present mostly on new foliage in the first 12” above the ground. This kind of distribution is begging for thorough coverage with ground applied sprays. Aerial applications will come up short with these populations.

Oriental Beetle (OB): OB adult trap captures are increasing, and are easily found in pheromone traps. Growers who have high beetle populations should either be treating or planning on treatments with imidacloprid.

Putnam Scale (PS): About 24% of fruit samples show low levels of infestation. As more fruit colors, greater levels of injury may become apparent. These levels are

higher than found in previous years, and indicate that many bushes have infested canes that need to be treated, either during 1 of the 2 crawler periods, or during the delayed dormant period next year. Any scale application requires dilute high volume sprays. If you are planning a treatment for a crawler emergence, it may be better to wait until the second generation in August, since bushes are closing in now, and passage with some ground sprayers is difficult.

Plum Curculio (PC): No adults have been seen in the past 2 weeks. Recent scouting of hanging fruit shows that 22% of samples have injury but none have been over the 1% damage level. This is a decrease since last week and is expected since most injured berries drop before harvest.

Cranberry Fruitworm (CBFW): The first fruit injury of the season was seen on June 15. Overall, 5% of fruit samples have shown low levels of injury. Trap levels have been very erratic this season and this may suggest that more injury is likely to occur in some locations.

Leafrollers and Other Leps: About 3% of beating tray and shoot samples have been positive for larvae. None of the individual samples seen were above threshold levels. No leafroller larvae have been seen in fruit clusters.

Anthracnose: About 5% of fruit samples show levels of infection under 0.5%. This includes both Duke and Bluecrop varieties.

INSECT TRAP COUNTS

Blueberry Trap Counts – Atlantic County

Week Ending	CBFW	RBLR	OBLR	SNLH	Or. Beetle	BBM
4/5		19.9				
4/12		55.1				
4/19		72.0				
4/25		69.4				
5/2		71.6				
5/9	.009	43.6				
5/16	0.07	7.9	0.00			
5/23	0.2	1.6	0.02			
5/30	0.1	0.3	9.6			
6/6	0.2	5.8	19.5	0.4		

6/13	0.03	39.4	18.8	0.4		0.00
6/20	0.1	48.2	12.8	0.3	47.0	0.03

Blueberry Trap Counts – Burlington County

Week Ending	CBFW	RBLR	OBLR	SNLH	Or. Beetle	BBM
4/5		9.3				
4/12		22.6				
4/19		19.2				
4/25		25.1				
5/2		38.0				
5/9	.1	16.2				
5/16	0.1	3.4	0.0			
5/23	0.2	0.4	1.3			
5/30	0.7	0.0	6.5			
6/6	1.9	0.5	20.4	2.7		
6/13	0.3	16.4	20.1	4.5	15.0	0.07
6/20	1.1	33.5	15.2	2.6	42.0	0.41

