



## ***The BLUEBERRY BULLETIN***

*A Weekly Update to Growers*

*Dr. Gary C. Pavlis, County Agricultural Agent*

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### **EPA Approves Registration of Avaunt® in Blueberries**

**Great news for blueberry growers!!!! EPA has approved the registration of the insecticide Avaunt (Indoxacarb; DuPont) for use in blueberries. Avaunt belongs to a new class of insecticides called the oxidiazines. This insecticide has a novel mode of action: it inhibits sodium ion entry into the nerve cells that results in paralysis and death of the targeted pest. Avaunt is designated by the EPA as a “reduced-risk” pesticide, has broad-spectrum activity, and is labeled for control of fruitworms (at 3.5-6 oz/acre) and spanworm (at 6 oz/acre). Most importantly for New Jersey blueberry growers, it controls plum curculio. Avaunt is formulated as a 30WDG, has a 7 day PHI, and a 12 h REI, with a seasonal limit of 24 oz/acre.**

#### **Culture:**

*Dr. Gary C. Pavlis  
County Agricultural Agent  
Rutgers University*

Leafhoppers of many species feed on plants by piercing the surface of leaves or stems and sucking juices from the phloem tissues. Any leafhopper feeding in the phloem of a stunt-infected blueberry plant has the potential to pick up some stunt phytoplasma's in its meal. Fortunately, only one species of leafhopper is known to be able to harbor these phytoplasma's in its body and transmit them to other plants. This is the blueberry sharp-nosed leafhopper,

*Scaphytopius magdalensis*. This leafhopper feeds and reproduces on a relatively wide range of blueberry cultivars and on the wild blueberry which grows nearly everywhere in the pinelands of New Jersey. Sharp-nosed leafhoppers are not a pest unless the following steps are completed:

- 1) They must feed on stunt-infected plants.
- 2) They must move to healthy plants.
- 3) They must feed long enough to transmit the phytoplasma to the plants.

Stunt disease will spread quickly if these three steps are favored by the particular situation in a blueberry field. Disrupting any of these steps to a sufficient degree can reduce the spread of stunt disease.

Of course, getting rid of all leafhoppers in an area would halt the spread of stunt disease. This is a very impractical solution, since the wild blueberry plants in our area provide for a large population of leafhoppers in the areas around our cultivated fields. We can't control the development of these populations, so we must defend our cultivated plantings from them. We do this with insecticide treatments, made during the periods when adult leafhoppers are active. Only adult leafhoppers have wings and the ability to move great distances, so these are the real pests in the stunt disease problem.

Pesticides can affect only the second and third steps of stunt disease spread listed above. Leafhoppers are either killed before they reach healthy plants or they die before feeding long enough to transmit the phytoplasma to a new plant. Errors in detecting the presence of adult leafhoppers and problems with the timing of

pesticide treatments make it difficult to achieve 100 percent stunt control by chemicals alone.

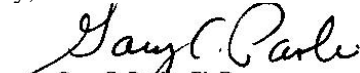
This is why the roguing of disease bushes provides an important factor in stunt disease control. Stunted bushes are easy to find especially when symptoms become bold in the fall. Attacking the stunt disease transmission cycle at steps one, by the removal of infected plants, is both simple and very effective.

Remember that it is highly recommended to spray stunt-infected plants with a short residual insecticide like Sevin or Malathion before the plant is removed. This will keep any phytoplasma carrying leafhoppers on the infected plant from dispersing to healthy plants when the infected bush is disturbed during removal.

**Herbicides:** A grower asked a very good question regarding the use of Roundup. I've mentioned that July and August is an excellent time to eliminate problem weeds because now is the time when there is movement of plant substrates down to the roots. That means Roundup will move to the root and kill weeds more efficiently. The grower asked if the dosage of Roundup should be changed if mulch or woodchips are used in the blueberry field and if soil type would have an effect on efficacy or possible damage.

I'm sure this question was asked because an increase in organic matter due to mulching does effect herbicide efficacy. So does soil type. An increase in organic matter and/or an increase in soil weight (sandy -> clay) requires higher rates of pre-emergent herbicides. This is not so with Roundup because the material is sprayed directly on the weed. I talked to Monsanto, the maker of Roundup and they agree with the information above. A 2% solution, i.e.  $\frac{2}{3}$  oz. of Roundup, 41% a.i./gallon will kill most problem weeds.

Sincerely,



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

Editor – Blueberry Bulletin  
GP/slp

### **Insects:**

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

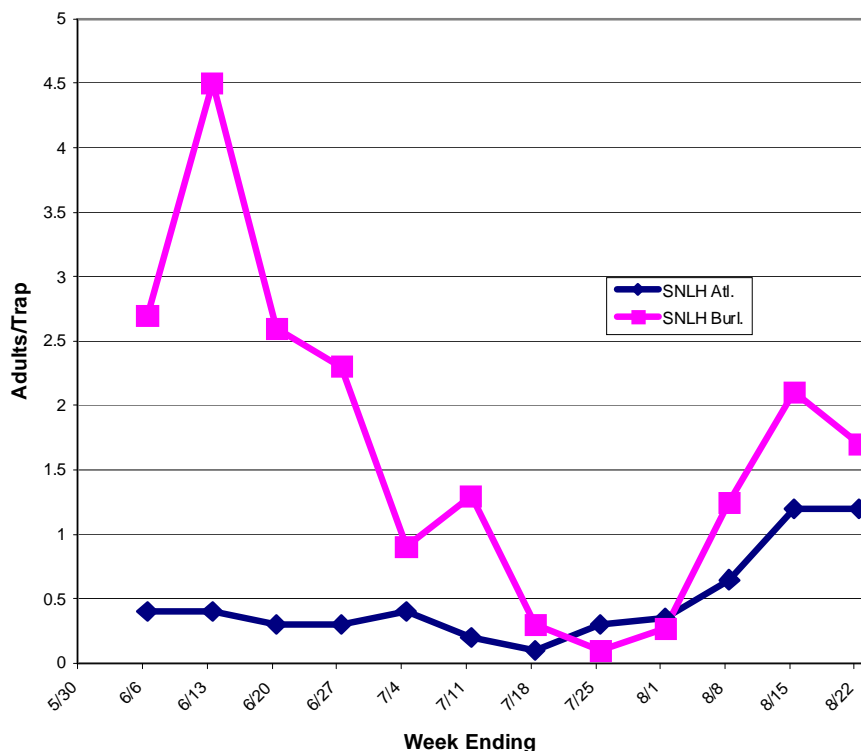
*Mr. Dean Polk, IPM Agent – Fruit*

*Mr. Gene Rizio, IPM Program Associate – Fruit*

**Mealy Bugs and Ants:** A number of growers have asked about the presence of mealybugs on blueberry plant roots. One of the more common ants found in blueberries, the smaller yellow ant, *Acanthomyops claviger*, and the blueberry mealybug, *Dysmicoccus vaccinii* have a symbiotic relationship where the ant tends the mealybug for its nutrient rich honeydew on which the ant feeds. Growers sometimes evaluate plants for possible mealybug infestation after harvest. Growers have often noted that sporadic weak and/or off color plants may be associated with the presence of mealy bugs on the roots. If closer examination reveals ant activity in the root zones, mealybugs may be feeding on roots. Ants do not harm the plants but they are helping to move the mealybugs around. Significant ant activity may not always be obvious at the soil surface and therefore some shallow digging may be needed to uncover activity in the root zone. Mealybugs appear as small (1-2mm) white soft bodied insects clinging to root tissue. Legs may not be visible since the pest often secretes a white powdery coating that can be dense. Previous root infestation can be seen since the pest often leaves a white residue on the root area it has been clinging to. Also be aware that the presence of mealybugs does not mean that they are necessarily responsible for any root damage that may be present. Mealybugs and oriental beetle grubs are often present on the same root system. Where OB grubs were controlled and no longer present, remaining root damage may still exist in the presence of an ongoing mealybug population. Where growers wish to control the ants, Esteem Ant Bait can be applied to the soil at the rate of 1.5 - 2 lb/acre. Ants will carry this bait back to the nest where other ants will feed on it. Applications should be made when there is no rain in the 3-4 day forecast since this product may lose its potency when wet.

**Sharpnosed Leafhopper (SNLH):** Leafhopper populations are about the same levels as were found during last week. The same considerations for control still apply. See graph below.

**Sharpnosed Leafhopper as of 8/22/09**



**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
6/27	0.5	56.3	6.4	0.3	253.0	0.16
7/4	0.1	46.0	5.3	0.4	565.3	0.42
7/11	0.0	24.5	3.7	0.2	315.4	0.83
7/18	0.0	8.5	1.0	0.1	124.6	2.03
7/25	0.0	6.1	2.7	0.3	71.0	4.48

8/1		18.8	7.8	0.3	31.1	3.72
8/8		28.5	5.8	0.6	11.6	8.06
8/15		14.1	1.5	1.2	4.1	9.24
8/22		25.8	3.7	1.2		1.10

### 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
6/27	1.0	45.5	10.4	2.3	516.9	0.94
7/4	0.1	33.0	8.4	0.9	449.3	1.67
7/11	0.1	26.7	1.2	1.3	130.0	0.59
7/18	0.1	5.8	0.2	0.3	80.1	1.27
7/25	0.0	2.1	0.8	0.1	37.4	3.08
8/1		1.3	1.8	0.3	10.0	2.78
8/8		3.2	1.0	1.3	3.5	0.52
8/15		4.8	1.8	2.1	0.3	0.40
8/22		10.7	1.3	1.7		0.57

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**Blueberry IPM Training at  
Perry Acres, Berks County, PA  
Monday, September 21, 2009, 1:00 - 4:45 pm  
Perry Acres, 33 Perry Lane, Hamburg, PA 19526**

A workshop on Blueberry pest identification and monitoring techniques is being offered by personnel from Rutgers University in cooperation with personnel from the Atlantic Blueberry Company and Penn State. The workshop will be held at Perry Acres, farm of George Perry, former Ag extension agent and long-time fruit grower in Berks County.

**Workshop Description:** The Blueberry IPM Training Workshop will provide growers and extension agents with general information on pest management practices in blueberries. Emphasis of the workshop will be placed on sampling and identification of insect pests and diseases. Admission is free. Handouts and refreshments will be provided, but we suggest you bring a folding chair for some portions of the presentations.

**Presenters:** Cesar Rodriguez-Saona, Small Fruit Extension Specialist, Rutgers University; Dean Polk, Fruit IPM Agent, Rutgers University; Faruque Uz-Zaman, Research Associate, Rutgers University; Gene Rizio, Fruit IPM Program Associate, Rutgers University; Becky Gleason, IPM Coordinator, Atlantic Blueberry Company; George Perry, Grower, Perry Acres

**Registration:** Please register for this workshop by calling the Schuylkill county extension office at 570-622-4255 by 4:30 p.m. on September 17. They will also give you directions.

Reminder – Friday August 28<sup>th</sup> is the last day to Nominate Projects for the  
2009 Food Use Workshop

To nominate a project and for more information visit the IR-4 website <http://ir4.rutgers.edu/>

## Website for Helping Farmers Cope with Stress

**F**arming can be stressful in the best of times. Financial worries, unpredictable weather, plant pests, livestock diseases, and isolation all contribute to farmers' anxiety. University of Maine Cooperative Extension has developed a webpage with resources to help farmers and their families who are under stress:

<http://www.extension.umaine.edu/FarmersUnderStress>

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### **Fruit and vegetable growers are now eligible for federal low-interest financing to build or upgrade cold storage and handling facilities.**

The maximum amount of a loan through the federal Farm Storage Facility program is \$500,000. Participants are required to provide a down payment of 15%, with U.S. Department of Agriculture's Commodity Credit Corporation providing a loan for the remaining 85% of the net cost. Loan terms of seven, 10 or 12 years are available depending on the amount of the loan, according to the news release.

USDA changed its Farm Storage Facility program to be in line with the 2008 Farm Bill. USDA Implements Farm Storage Facility Loan Program

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WASHINGTON, Aug. 17, 2009 - Agriculture Secretary Tom Vilsack today announced that changes to the Farm Storage Facility Loan (FSFL) program have been implemented in accordance with the 2008 Farm Bill, which will allow producers of eligible commodities to obtain low-interest financing to build or upgrade farm storage and handling facilities. The USDA Farm Service Agency (FSA) administers FSFL on behalf of the USDA Commodity Credit Corporation (CCC).

"President Obama and I are committed to providing the necessary resources to keep producers financially solvent before, during and after each crop year, and this program will help ensure that they have adequate capacity to store their harvest until they sell it on the open market," said Vilsack.

The maximum principal amount of a loan through FSFL is \$500,000. Participants are required to provide a down payment of 15 percent, with CCC providing a loan for the remaining 85 percent of the net cost of the eligible storage facility and permanent drying and handling equipment. Loan terms of 7, 10 or 12 years are available depending on the amount of the loan. Interest rates for each term rate may be different and are based on the rate which CCC borrows from the Treasury Department.

Payments are available in the form of a partial disbursement and the remaining final disbursement. The partial disbursement will be available after a portion of the construction has been completed. The final fund disbursement will be made when all construction is completed. The maximum amount of the partial disbursement will be 50 percent of the projected and approved total loan amount.

Applications for FSFL must be submitted to the FSA county office that maintains the farm's records. An FSFL must be approved before any site preparation or construction can begin.

### **The following commodities are eligible for farm storage facility loans:**

Corn, grain sorghum, rice, soybeans, oats, peanuts, wheat, barley or minor oilseeds harvested as whole grain

Corn, grain sorghum, wheat, oats or barley harvested as other-than-whole grain

Pulse crops - lentils, small chickpeas and dry peas

Hay

Renewable biomass

### **Fruits (including nuts) and vegetables - cold storage facilities**

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**Tuesday, December 15, 2009  
(DEADLINE)**

**Applications Being Accepted for  
Scholarship for High School Seniors  
Interested in Careers in Agriculture or  
Sciences**

New Jersey residents who are entering their senior year in high school this fall and are planning a career in agriculture or science may apply for the New Jersey Agricultural Achievement Award. One person will be selected for the \$500 scholarship, sponsored by Amy Butewicz, a former New Jersey Equestrian of the Year who wants to give back to the community. Contestants must be a current, active member of an organization either on the New Jersey Equine Advisory Board and/or represented at the Youth

Reception portion of the annual New Jersey State Agricultural Convention. Each organization on the New Jersey Equine Advisory Board and a participant of the State Agricultural Convention may nominate a maximum of two contestants. Each contestant must submit a resume and an essay on the topic, "How has your involvement within your respective nominating organization helped to shape your future career choice?" The deadline for the submission is December 15, 2009. If chosen as the winner, the contestant must be present to accept the scholarship check at the 53<sup>rd</sup> Annual New Jersey Bred Equine Breeders Award Dinner to be held on Sunday, January 31, 2010 at Charley's Other Brother Restaurant in Eastampton, where that person will read the winning essay to the attendees. For more information, call Debra Moscatiello at (609) 984-4389 or e-mail her at [debra.moscatiello@ag.state.nj.us](mailto:debra.moscatiello@ag.state.nj.us).

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## ***BLUEBERRY BULLETIN***

If you have any comments about this newsletter, please make them in the space below and mail to:

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6260 Old Harding Highway, Mays Landing, NJ 08330

I would like to see an article on the following subjects: \_\_\_\_\_

I would like to comment on the following articles: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Comment: \_\_\_\_\_

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