CULTURE

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

As June is drawing to a close, growers should be thinking about applying the last applications of nitrogen fertilizers if they have not done so already. Research has shown that nitrogen applied after July 1 is likely to result in an increase in winter damage, an increase in stem blight disease and an increase in aphid numbers. Some growers like to apply nitrogen after harvest to help the plants recover from the stress of producing fruit but in the end this is not a good practice and does more harm than good. On the other hand, if the blueberry plant is showing any other nutrient deficiency such as iron, magnesium, or potassium, there is no problem with applications of these nutrients after the July 1 date.

INSECTS

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

Rutgers University; Dean Polk, IPM Agent, Rutgers Cooperative Extension; Amy Raudenbush, Fruit IPM Program Associate, Rutgers Cooperative Extension

Spotted Wing Drosophila (SWD): The first male SWD were captured in a trap in Atlantic county on Wednesday, June 17th. Since then, one other location in Atlantic county has had SWD males in the trap. Both of the locations with SWD are in close proximity to wild blackberry plants. We are recommending that all growers start the 7-day insecticide program for SWD. Insecticides effective against SWD include: Asana, Adjourn, Brigade, Danitol, Exirel, Hero, Imidan, Lannate, Malathion and Delegate. Duke being exported to Canada SHOULD NOT receive any additional Imidan applications, since the MRL in Canada is less than in the U.S. If you are not exporting to Canada, then any pyrethroid will do, and Imidan is fair game. Delegate is a good choice for SWD, and should be in an alternating program during the last 2-3 weeks of the program. It actually has a higher MRL for Canada than we have in the U.S. It has a 3 day PHI and should be used at a rate of 5-6 oz/A with a maximum use of 19.5 oz/A/season. This means you get 3 applications 6-7 days apart, alternating with another chemistry. Malathion still has a 24C label for the high rate as used last year with a 1-day PHI. This means you can use the Malathion 8F at up to 2.5 pt/A or 2.5 lb ai/A. The high rate is what is needed for good SWD control.

In addition to trap monitoring for SWD adults, we are doing salt tests to monitor field picked berries from the packing line. Tests will begin
this week and continue throughout the rest of harvest.

**Blueberry Maggot (BBM):** The first blueberry maggot adults were found in Atlantic County on Monday June 15th. Since then, BBM has been found in traps on 3 farms in Atlantic County out of 33 farms sampled. Currently, we have not had any BBM in traps in Burlington County. All Growers exporting to Canada should have made their first BBM treatment by June 20th (5 days after the first BBM adult captured) and sprays must be applied throughout harvest every 7-10 days based on the label. Blueberry maggot adults are monitored for by yellow sticky cards placed on a metal pole that positions the trap right above the blueberry canopy. Since we have had the first SWD catch, insecticides used should be effective against BBM and SWD which include: Asana, Adjourn, Brigade, Danitol, Exirel, Hero, Imidan, Lannate, and Malathion. Delegate can be used for SWD control and when BBM populations are very light.

**Aphids:** About 70% of the sampled sites had aphids present over this past week. The percentage of sites with over 10% of shoots infested with aphids remained the same compared to last week at 41%. In addition, the average percent of shoots with aphids was similar to the previous week with 11.8% per 50 shoot sample. Growers with aphids present should not be using the neonicotinoids at this point because it is not good resistance management and they’re not effective against SWD. Instead, use Lannate where aphids are a problem, which has moderate control of aphids and good control of SWD.

**Sharp-nosed Leafhopper (SNLH):** We are still capturing SNLH on the yellow sticky cards in Atlantic and Burlington Counties (see trap counts in table below). Adults will continue to fly as they mature from the nymphs that are present near and in blueberry fields. Sharp-nosed leafhoppers have two generations in blueberries and transmit stunt disease to blueberry plants. Since the adults can fly and spread stunt disease, this is the stage that should be controlled. Most aphicides will also control leafhoppers, as will materials that target SWD.

**Oriental Beetle (OB):** Trap numbers have increased in both Atlantic County and Burlington County over the past week. The average trap count in Atlantic County was 1634.13 and 1798.78 in Burlington County. We will continue to monitor traps to identify peak OB activity.

**Plum Curculio (PC):** We are still finding scarring on fruit from PC adults laying eggs. At this time the percentage of fruit with scarring from egg laying is minimal, since most infested fruit has prematurely dropped off, and will not be harvested.

**Leps. and other larvae:** We have been noticing cranberry fruitworm (CBFW) larvae damage in a few fields in Atlantic County. Damaged fruit will blow out on the sorting line and growers should focus on pest management for aphids, BBM and SWD.

**Putnam Scale:** We continue to find Putnam scale on fruit in Atlantic County and Burlington County. Currently, 27.9% of the locations have had noticeable scale on the fruit. Crawlers have been active over the last two weeks. The scale is noticeable on fruit by discoloration and the small scale located on the fruit. If you have visible scale on your berries you should target the crawler stage. Both Esteem or Diazinon are effective against scale crawlers. Diazinon can only be used once, but will also control BBM and SWD. Esteem can be used twice, and is a very good scale material, but only controls crawlers at this time of year. Both Esteem and Diazinon have a 7 day PHI, so this makes it almost impossible to use these materials on Duke, but you can still use them on Bluecrop, Draper and later varieties.

**Diseases:** We have been observing a couple of locations in Burlington and Atlantic Counties with minimal mummy berry present. No anthracnose has been observed in the field. We will begin collecting fruit in the next 7-10 days
for incubation to assess effectiveness of disease management practices.

**Blueberry Trap Counts**

<table>
<thead>
<tr>
<th>Week ending</th>
<th>CBFW</th>
<th>OB</th>
<th>BBM</th>
<th>SNLH</th>
<th>SWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/6</td>
<td>0.01</td>
<td>9.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>94.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>6/20</td>
<td>0.04</td>
<td>1634</td>
<td>0.04</td>
<td>0.14</td>
<td>0.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week ending</th>
<th>CBFW</th>
<th>OB</th>
<th>BBM</th>
<th>SNLH</th>
<th>SWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/6</td>
<td>0</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0.05</td>
</tr>
<tr>
<td>6/13</td>
<td>0.7</td>
<td>8.7</td>
<td>0</td>
<td>0</td>
<td>0.05</td>
</tr>
<tr>
<td>6/20</td>
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<td>1799</td>
<td>0.0</td>
<td>0.15</td>
<td>0.05</td>
</tr>
</tbody>
</table>

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Attached please find the New Jersey Department of Agriculture’s 2015 Pesticide Container Recycling Program announcement courtesy of Roberta Lang of the NJDA. It provides dates, locations, and procedures to be followed.

This year NJDA has added three additional recycling sites in Burlington County, Monmouth County, and Morris County.

This program is offered to agricultural, professional and commercial pesticide applicators that hold NJDEP pesticide licenses. Also, state, county and municipal government agencies may participate. One core credit will be given to pesticide license holders who follow the few simple processing steps and bring their license with them at time of collection.

For more information on each site and additional items that may be recycled at each location please visit NJDA’s website at: [http://www.state.nj.us/agriculture/divisions/md/prog/recycling.html](http://www.state.nj.us/agriculture/divisions/md/prog/recycling.html) or call Roberta Lang at 609/292-2242.
The New Jersey Department of Agriculture’s (NJDA) Pesticide Container Recycling season has started. This year NJDA is proud to announce three additional recycling sites in Burlington County, Monmouth County and Morris County.

This program is offered to agricultural, professional and commercial pesticide applicators that hold NJDEP pesticide licenses. Also, state, county and municipal government agencies may participate. One core credit will be given to pesticide license holders who follow the few simple processing steps below and bring their license with them at time of collection.

Below are the sites, dates, times and what will be accepted at each location:

**Allied Recycling Incorporated**  
2658 Route 206  
Mount Holly, NJ 08060  
609-267-8923  
Fax – 609-267-3329  
Web – alliedrecyclingnj.com  
Email – info@alliedrecyclingnj.com  
For Your Convenience Plastic Drop Off Hours:  
Monday – Friday 6:00 am-5:00 pm  
Saturday – 7am-3:45pm  
The application for core credit can be obtained at the Allied Recycling Office.

**Rutgers Fruit Research Center**  
283 Route 539  
Cream Ridge, NJ 08514  
9:00 to 12:00 pm (Noon), Monday through Friday.  
Containers are to be placed in the dumpster. The application for core credit can be obtained in the Rutgers Fruit Research Center office.

**Helena Chemical**  
66 Route 206 (North of the Route 30/206 intersection)  
Hammonton, New Jersey  
9:00 am to 12:00 pm (Noon)  
Friday, May 1  
Friday, June 5  
Thursday, July 9 (due to a State Holiday on Friday, July 3rd)  
Friday, August 7  
Friday, September 4  
Friday, October 2

**Helena Chemical**  
440 N. Main St.  
Woodstown, New Jersey  
9:00 a.m. to 12:00 p.m. (Noon)  
Friday, May 8  
Friday, June 12  
Friday, July 10  
Friday, August 14  
Friday, September 11  
Friday, October 9
Cumberland County Solid Waste Complex  
169 Jesse Bridge Road  
(located off Route 55, Exit 29)  
Deerfield, New Jersey  
9:00 am to 12:00 pm (Noon)  
Friday, May 15  
Friday, June 19  
Friday, July 17  
Friday, August 21  
Friday, September 18  
Friday, October 16  
Friday, November 20

Morris County Municipal Utilities Authority  
Mount Olive Transfer Station  
168 Gold Mine Road  
Flanders, NJ 07836  
9:00 am to 12:00 pm (Noon)  
Thursday, May 28  
Thursday, June 25  
Thursday, July 23  
Thursday, August 20  
Thursday, September 17  
Thursday, October 15

NJDA will accept HDPE#2 pesticide containers provided that:
1. ALL pesticide containers must be either triple rinsed or pressure rinsed and drained;  
2. ALL pesticide containers must be free of residue (other than stains);  
3. The booklet must be removed (you do not have to remove the paper labels glued to the container or the plastic sleeves);  
4. Foil seal must be removed;  
5. Only non-refillable pesticide containers will be accepted – you should drill a ¼-inch hole in the container or with a utility knife make a slit in the of the container so the container will not hold liquids;  
6. Only pesticide containers embossed with HDPE or the recycling #2 will be accepted;  
7. Pesticide containers up to 55-gallons in capacity will be accepted. 5-gallon pales must be cut in half; 30-gallon containers into at least 4 pieces; and 55-gallon containers into at least 6 pieces. This can be accomplished using a sawzall, chainsaw, circular saw, or reciprocating saw. It is not necessary to cut containers less than 5-gallons; and  
8. Pesticide containers must have originally held an EPA registered pesticide.

Sorry but NJDA cannot accept:
1. Pesticide containers with dried formulation on the container, pour spout or the spout threads;  
2. Pesticide containers with liquid residue;  
3. Pesticide containers where the insides are caked with dried residue;  
4. Mini-bulk, saddle tanks and nurse tanks, which can be made of fiberglass;  
5. Pesticide containers with lids; or  
6. Containers that held any type of petroleum oil product or antifreeze.

For more information on each site and additional items that may be recycled at each location please visit NJDA’s website at: http://www.state.nj.us/agriculture/divisions/md/prog/recycling.html or call Roberta Lang at 609/292-2242/
June 22, 2015

BLUEBERRY BULLETIN

If you have any comments about this newsletter, please make them in the space below and mail to:
Dr. Gary C. Pavlis, County Agricultural Agent
Rutgers Cooperative Extension of Atlantic County
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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