### At a Glance. Insect and Disease Problems That Should Be Considered This Week.

<table>
<thead>
<tr>
<th>PEST/DISEASE</th>
<th>WEEK OF APRIL 18</th>
<th>WEEK OF APRIL 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWTH STAGE</td>
<td>EARLY BLOOM</td>
<td>BLOOM</td>
</tr>
<tr>
<td>Anthracnose</td>
<td>Begin anthracnose spray applications</td>
<td>Make a second application 7-10 days after the first one</td>
</tr>
<tr>
<td>Ziram, Abound, Cabrio</td>
<td></td>
<td></td>
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<tr>
<td>Mummy berry</td>
<td>Make spray applications if needed</td>
<td>If strikes are obvious make another application</td>
</tr>
<tr>
<td>Abound, Pristine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cranberry Weevil</td>
<td>Should be controlled</td>
<td></td>
</tr>
<tr>
<td>Asana, Guthion, Imidan, Mustang Max</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leafrollers, spanworms, gypsy moth</td>
<td>Use pheromone traps to monitor adult flight.</td>
<td>Continue scouting for larvae. Use same threshold.</td>
</tr>
<tr>
<td>B.t., Intrepid</td>
<td>Scout for larvae. Treat if over 1 larva/100 clusters.</td>
<td></td>
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</tbody>
</table>

### Culture

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

**Fertilizing Newly Planted Fields:** Growers putting in a new field have requested information on fertilization. First, no fertilizer should be placed in the planting hole. When the plants are set out in the fields, usually in April or early May, the fruit buds should be rubbed or pruned off. With no crop present and only a small area of soil requiring fertilizer, about 125 lbs/A of 10-10-10 is sufficient (1 1/2 oz./bush). Sidedressing with a fertilizing spreader will require higher rates to compensate for open areas between plants. Special caution should be observed as to the time of fertilizing after planting. Fertilizer should not be applied until a second growth starts. For example, if plants are set...
out while dormant, do not fertilize while the first crop of leaves is unfolding and changing from light green to dark green, wait for new growth. Making the first field application too soon has frequently caused reddened foliage and a delay of several weeks in the starting of new growth. Keep the fertilizer at least 2 inches away from the crowns of the young plants. In late-June, the application of fertilizer is usually made.

**Note:** Never put leaves, chips, sawdust and etc. in the planting hole unless it has been composted for at least 2 years. Fresh organic matter ties up all nutrients and starves the blueberry plants.

Sincerely,

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

GP/slp  Editor

**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*

**Cranberry Weevil (CBW):** Adult weevils have been commonly seen at field boarders near woods and trashy areas. With just a few exceptions, none of the samples showed activity more than about 50 feet from the border exceeding 2/bush. The consistent cool temperatures have been slowing down the advancement of the pest into the interior of the fields thus making perimeter sprays an adequate treatment for some farms. Overall, 48% of all tray samples have been positive for CBW while only 8% have exceeded the threshold of 5/bush.

**Plum Curculio (PC):** The first adult PC was seen on April 12 in Atlantic Co., and one was seen in a trap that same week. No activity has been seen since then.

Lep larvae and other leafrollers and “worms”: Larvae were present in 2% of beating tray samples and have been at very low levels. Most of the insects seen have been spanworms.

**Thrips:** Based on our “Thrips Activity Predictions” ([http://benedick.rutgers.edu/Blueberryweather/ddcalc2.php](http://benedick.rutgers.edu/Blueberryweather/ddcalc2.php)), so far thrips have accumulated a total of 160.32 degree-days. Based on our multi-year experiments, thrips require approx. 380-400 degree-days to reach 10% activity. Thus, no thrips activity is expected this week.

**DISEASE**

*Peter V. Oudemans, Ph.D.*

*Associate Professor and Extension Specialist Plant Pathology*

Blueberries are in early-bloom and mummy berry and anthracnose are the major fungal diseases that will need to be managed. Last year at this time we were already in mid-bloom! Remember scouting for mummy berry should precede any decision to spray.

For **mummy berry**, plants are susceptible to secondary infections and the shoot strikes are now visible. Cultivars such as Weymouth, Early Blue, Blueray and Jersey are very susceptible. In areas where shoot strikes are visible the open flowers will require protection from secondary infection. Either Indar, or Orbit can be used to protect against primary infections (see NJ Blueberry recommendations for rates). Remember that fungicides such as Switch, Pristine and Abound are also very effective against the secondary phase of the disease and also provide efficacy against anthracnose.

For **anthracnose** management, the key is to start at midbloom. This is the most critical period to begin anthracnose sprays. Initiating applications during bloom have been demonstrated to be most effective. Choice of materials should be determined by efficacy. Our research has shown that Abound applied during mid-bloom will reduce migration of the pathogen on to developing fruit. Other fungicides are effective at protecting the developing fruit. For susceptible cultivars such as Bluecrop apply Abound twice during bloom and once with Ziram, Captan or Omega. Subsequent fungicide applications should utilize protectant fungicides such as Abound, Cabrio, Captan or Ziram. It is my experience that Ziram provides a longer residual period and a 14-day interval is reasonable. Captan will require a 7-day interval. Fungicides such as Pristine or Switch are effective for protecting against...
Mummy, Botrytis and Anthracnose while Captevate can be used for Botrytis and Anthracnose.

**Abound, Cabrio, Pristine**

**Resistence!!!!!!!!!!!!!!!!!!!!!!!!**

Fungicides are subject to resistance if they are over used or improperly used. Some fungicides are considered high risk since a relatively simple genetic mutation in the fungus can lead to resistance. Other fungicides are considered low risk since it would require complex genetic changes for resistance to develop. The best strategy to reduce the chance of resistance is to use effective low-risk fungicides between applications of high-risk fungicides. In blueberry we have three fungicides which are considered high risk. These fungicides are related and this means resistance to one results in resistance to the other. It is critical therefore to never use these fungicides more than twice in a row and preferably only once. Abound, Cabrio and Pristine all contain a strobilurin fungicide as an active ingredient. Therefore these materials should not be used in succession in a spray program. The Table below gives some examples of spray regimes that may or may not select for resistance.

<table>
<thead>
<tr>
<th>Spray 1</th>
<th>Spray 2</th>
<th>Spray 3</th>
<th>Spray 4</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abound</td>
<td>Pristine</td>
<td>Abound</td>
<td>Cabrio</td>
<td>☢☢Very bad all high risk with the same mode of action</td>
</tr>
<tr>
<td>Abound</td>
<td>Pristine</td>
<td>Ziram</td>
<td>Abound</td>
<td>☢Better, but still heavy emphasis on high risk materials</td>
</tr>
<tr>
<td>Abound or Cabrio or Pristine</td>
<td>Ziram</td>
<td>Abound or Cabrio or Pristine</td>
<td>Ziram</td>
<td>☢Best, high risk materials separated by low-risk</td>
</tr>
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**New Jersey Department of Agriculture**

**Controlling Canada Geese**

**Egg and Nest Destruction**

Landowners may register online to addle or oil Canada goose eggs and destroy nests. Simply register on-line with the US Fish and Wildlife Service at https://epermits.fws.gov/eRCGR. There is no fee and applicants can register anytime after January 1 of the upcoming nest and egg season. After registering, landowners can print confirmation of their registration and immediately begin nest treatment activities. Nests and eggs may be destroyed between March 1 and June 30. The registration must be renewed annually. Applicants must log back into the registration website and report the number of nests and eggs treated prior to October 31 of that year.

**Hunting Seasons**

The Special September goose hunting season allows 15 geese to be taken daily, during the month of September. The regular hunting season runs between mid-November and mid-January, depending on the region of the state, and three geese may be harvested daily during the regular goose season. The Special Winter season runs from mid-January through mid-February and 5 geese may be harvested daily during the Winter season. Check the Migratory Bird Supplement available at license agents in September, for the specific annual season dates for your region.

**State Depredation Permits**

Farmers experiencing crop damage by Canada geese, may apply for a free permit from NJ Division of Fish and Wildlife by calling 908-735-8793. This permit allows for the control of geese between May 1 and August 31. A hunting license and firearm identification card is required for all agents listed on the permit. State permits are
typically issued within two weeks.

Federal Depredation Permits
Farmers experiencing crop damage by geese may also apply for a federal depredation permit from the US Fish & Wildlife Service. The application for a federal permit can be downloaded from [www.fws.gov/forms/3-200-13.pdf](http://www.fws.gov/forms/3-200-13.pdf). Federal depredation permits may cost up to $100, but can be used for the control of geese throughout the year. Sub-permittees listed on the federal depredation permit need not have a hunting license or firearm identification card. It may take up to six weeks to receive a federal depredation permit. Be sure to apply early. Federal permits can be renewed annually. The US Fish & Wildlife Service will send permitees a renewal application approximately 45 days before their existing permit expires. Contact the US Dept. Agriculture APHIS Wildlife Services office at 908-735-5654 for more information and guidance on applying for the federal permit.

Rutgers Soil Testing Laboratory Services
The Rutgers Soil Testing Laboratory is a part of Rutgers New Jersey Agricultural Experiment Station outreach component. Located on the George H.Cook campus, the Rutgers Soil Testing Laboratory is a service unit that performs chemical and mechanical analyses of soils for the residents of New Jersey and for University research personnel. The mission of the Laboratory is to provide accurate and timely soil and water test reports to meet the increasing agricultural and environmental needs of the state. For testing and fees provided for Greenhouse Samples or Other Organic Matter-based Growing Media or for Field, Commercial Vegetable and Fruit, or Nursery Crops, go to the web at: [http://njaes.rutgers.edu/services](http://njaes.rutgers.edu/services) or call the Lab at 732-932-7000, ext. 4231 or e-mail soiltest@rce.rutgers.edu. Soil test kits are available through your county Rutgers Cooperative Extension office.
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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