AT A GLANCE…

<table>
<thead>
<tr>
<th>Problem - Solution</th>
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</thead>
<tbody>
<tr>
<td>Weeds - Pre-Emergent Herbicides applied</td>
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<tr>
<td>Mummy Berry -</td>
</tr>
<tr>
<td>Indar (Section 18), OR</td>
</tr>
<tr>
<td>Pristine, OR</td>
</tr>
<tr>
<td>Switch 62.5 WG</td>
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</tbody>
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Disease and Culture:
Gary C. Pavlis, Ph.D.
Atlantic County Agricultural Agent

Fertigation Guidelines:
Growers have asked me for some guidelines for fertigating blueberries. As you may be aware, our research in New Jersey has shown that fertilizing blueberries a little at a time through the trickle system has shown to be very beneficial. Increases in yield have been seen each year of the research. In addition, increases in fruit firmness have often been seen. Thanks is given to Mary Beth Sorrentino, USDA-CSRS for some of the technical information in this article.

Over the years the following guidelines have been developed:

1. Determine the amount of Nitrogen required/acre/year for each field. Total N should be based on leaf analysis the year before however 60# of Nitrogen/A is a good base recommendation for mature plants if a leaf analysis has not been conducted.
2. Multiply total acres to be fertigated by #/A and convert to total gallons for the season.
3. Fertigation period is 6-8 weeks, starting at ¾ bloom. Fertigate once a week for 1-2 hours during the normal irrigation schedule. Run irrigation a minimum of ½ hour before and ½ hour after fertigation.

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If travel time from the injection point to the final application point is longer, allow for one hour before and after fertigation time of travel. This will ensure application uniformity to the furthest emitter within the zone. As a rule of thumb, for a scheduled irrigation, irrigate at least 3-4 hours during a 1-2 hour fertigation. Using a 1 gph emitter, irrigate 4-6 hours every 3 days, with a .5 gph emitter, irrigate 8-12 hours every 3 days. This is based on no rainfall and ET rates of .2"-.26"/day.

4. Install tensiometers to monitor soil moisture within the 12"-18" root zone depth. For loamy sands and sandy loams irrigate when readings are 20-30 CB on the tensiometers. This will supply needed water and fertilizer to the root zones.

5. Injection pump should be sized for maximum acreage/zone that you plan to irrigate/fertigate at one time (2 hour injection time, for a 4 hour irrigation per zone). Example- a 10 acre drip system at 60# N requirement/acre will need 600 gallons of liquid 10-10-10. If injection is scheduled for once a week for 8 weeks, 75 gph injection pump is recommended for a one hour injection period. If you inject for 2 hours, the rate is lower (37.5 gph injection rate). If zones are over 10 acres, plan for between 50-100 gph injection rate. A lower injection rate can be used with a longer fertigation/irrigation period.

Sincerely,

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

Editor-Blueberry Bulletin

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**Insects**

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

*Mr. Dean Polk, IPM Agent – Fruit*

**Leaf Rollers:** Beating tray samples have shown that 13% of sampled areas have leafroller larvae present at low levels. Most of these are green fruitworm. Although red banded leafroller larvae should be present, no monitored fields have visible populations as of this writing.

**Gypsy Moth Larvae:** Populations of gypsy moth are increasing, with about 45% of samples being positive. About 6% of these samples were above treatment level, or had larval populations greater than 1 larva per 100 clusters. Those areas that had high populations last week continued with similar populations this week (in some cases, larval populations were slightly lower.) These areas (some with greater than 10 larvae per 100 clusters) need to be treated. Treatments may also need to be repeated, since larvae will continue to blow in from the surrounding woods.

**Plum Curculio (PC):** About 14% of total samples had small numbers of adults. Most of these insects are still being found in traditional “hot spot” areas near woods, and in early varieties. Levels seen were generally lower than those of last week.

**Cranberry Fruitworm (CBFW):** Adults have started to emerge, and are present at low levels. Trap counts should increase rapidly over the next couple of weeks. However, treatment will not be needed until the last week of May to first week of June.

*Life Cycle:* CBFW overwinters as a fully-grown larva within a cocoon made of silk and soil particles (hibernaculum). Pupation occurs during the early spring and months begin to emerge during the second-third weeks of May (this year a few adults were caught during the 1\textsuperscript{st} week of May). Male moths emerge 3-4 days earlier than...
females. Adults are brownish gray with a pair of white markings on each forewing. The eggs are pale-green, flat, and laid singly, mostly along the inside rim of the calyx cup. Eggs hatch in 5-7 days and the newly emerged larva is pale yellowish-green. Upon hatching, larvae bore into the fruit usually near the junction of stem and berry. The larva remains inside a fruit until its content is consumed, and then it moves to another fruit. A larva may feed on as many as 5-8 berries. Infested berries are contaminated with larval excrement, which can be seen near the entrance hole. CBFW infestations can be recognized by the presence of webbings filled with excrement in berries. Infested fruit prematurely drop. Larvae drop to the ground under blueberry plants beginning the third week of June and build a cocoon. There is one generation a year.

**Control:** Treatment is suggested only if significant populations exist. A single treatment is generally applied just after the flight peak or during the first few days of June for the “average” farm. Farms having traps that show high counts may need two applications, one just prior to, and one just after the peak emergence. Reduced-risk treatment options include: Confirm 2F, SpinTor 2SC, and Esteem 35 WP. Broad-spectrum treatment options include: Diazinon, Guthion, Imidan, and Lannate. Make sure to remove bee hives before spraying.

### Insect Trap Counts - Blueberry

#### Blueberry Trap Counts – Atlantic County

<table>
<thead>
<tr>
<th>Week Ending</th>
<th>CBFW</th>
<th>RBLR</th>
<th>OBLR</th>
<th>SNLH</th>
<th>OB</th>
<th>BBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/8</td>
<td></td>
<td>184</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4/15</td>
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<td>209</td>
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<tr>
<td>4/22</td>
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<td>4/29</td>
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<td>64</td>
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</tr>
<tr>
<td>5/6</td>
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<td>30</td>
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</table>

#### Blueberry Trap Counts – Burlington County

<table>
<thead>
<tr>
<th>Week Ending</th>
<th>CBFW</th>
<th>RBLR</th>
<th>OBLR</th>
<th>SNLH</th>
<th>OB</th>
<th>BBM</th>
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</thead>
<tbody>
<tr>
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<td>54</td>
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<tr>
<td>5/6</td>
<td></td>
<td>22</td>
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</tbody>
</table>

Key: CBFW = Cranberry Fruitworm, RBLR = Redbanded Leafroller, OBLR = Obliquebanded Leafroller, SNLH = Sharpnosed Leafhopper, OB = Oriental Beetle, BBM = Blueberry Maggot
NEW JERSEY’S 2006 DEER FENCE PROGRAM
ELIGIBILITY CRITERIA

The fence is high tensile-woven wire 6 1/2 feet in height with two strands of high tensile wire to be placed above the mesh at one-foot intervals. Under this program, up to 30% of the line posts will also be provided. The life expectancy of the fencing is 20 years.

Fence will be high tensile hinge lock.

Each eligible applicant shall receive up to 5,000 linear feet of fencing and up to 30% of the corresponding line posts.

ELIGIBILITY CRITERIA:

FARMERS WHO WERE AWARDED FENCING AND MATERIALS IN THE 2004/2005 PROGRAM ARE NOT ELIGIBLE TO PARTICIPATE

To be eligible to receive deer fencing and posts under this program, an applicant must satisfy the following criteria:

- The applicant must be a New Jersey farmer having documented proof of a minimum of $40,000 in sales of agricultural commodities produced by the applicant on a New Jersey farm OR a New Jersey certified organic farmer having documented proof of a minimum of $20,000 in sales of agricultural commodities produced by the applicant on a New Jersey farm.

- The applicant must be the owner of the land upon which the fencing will be erected or the applicant must rent preserved farmland or farmland that is enrolled in an Eight-Year Farmland Preservation Program.

- The applicant must have a federal identification number.

- The applicant must attend at least one seminar sponsored by Rutgers Cooperative Extension on the proper installation procedures for deer fencing. Proof of attendance must be provided to the Department.
The fencing installation procedures used must adhere to standards that ensure the fencing provides effective exclusion of deer incursions. Fact sheets such as Rutgers Cooperative Extension fact sheet #FS889 “High Tensile Woven Wire Fences for Reducing Wildlife Damage” as well as manufacturers specifications for installation provide information regarding proper installation procedures.

Fencing must be installed within one year from the date of issue or returned to the NJDA for redistribution. Any fencing that is returned will be assessed for damage. Failure to install the deer fence within the one-year agreed time frame or failure to install the deer fence according to installation standards that ensure the fencing provides effective exclusion of deer incursions shall prohibit the applicant from receiving deer fencing under any future NJDA or NJDEP programs. In addition, the applicant will be required to reimburse the NJDA for any fencing that cannot be redistributed to other farmers.

INELIGIBLE APPLICANTS/ PROJECTS:

- Farmers who were awarded fencing and materials in the 2004/2005 program
- Nonprofit organizations
- Fencing erected to contain equine, livestock, poultry or other animals

DISTRIBUTION OF FENCE:

Fence distribution will take place at the Rutgers Snyder Research & Extension Farm (Hunterdon County) and at the Rutgers Agricultural Research & Extension Center (Cumberland County). Forklifts will be available onsite to load the fencing material. Distribution dates will be determined.

APPLICATION DEADLINE:

Applications must be postmarked by May 31, 2006 and returned to:

New Jersey Department of Agriculture
Division of Agricultural & Natural Resources
PO Box 330
Trenton, New Jersey 08625-0330

or by facsimile at (609) 633-7229

ADDITIONAL INFORMATION:

Contact the New Jersey Department of Agriculture at (609) 292-5532
Schedule for Renewal Reminder and Loss of Diversion Privilege Letters

Starting in March 2006, the Bureau of Water Allocation began a quarterly process that should improve the way that renewal reminders are handled, and allows the Bureau to better manage expiring Agricultural Water Use Certifications. The Bureau has implemented the following schedule for renewal reminders and loss of diversion privilege notices:

1) About 4 to 6 months before the expiration date of the Certification, if the Department has not yet received an application, the first renewal reminder will be mailed out. The first reminder should be received by the grower before the due date of the renewal application, which is due three months before the expiration date of the Certification.

2) 1 to 3 months before the expiration date of the Certification, if the Department has not yet received an application, the second renewal reminder will be mailed out. This reminder should be received after the due date of the renewal application.

3) After the Certification has expired, if the Department has not yet received an application, the third renewal reminder will be mailed 1 to 3 months after the expiration date of the Certification. This is the last renewal letter that will be sent.

4) 3 to 6 months after the Certification has expired, if a renewal application has not yet been received, the Department will send out a notice that the diversion privileges were lost because no renewal was submitted, and that any wells must be properly decommissioned. The Certification will then be removed from the Department's database. Generally, there will be approximately one year between the first renewal reminder and the notice that diversion privileges can only be reestablished by submitting an application for a new Certification.

In addition, Enforcement will be asked to determine if there is an activity occurring at the site without a valid Certification, and the Bureau of Water Systems and Permitting will be notified if there are irrigation wells which may need to be decommissioned so that they can take action. If an Agricultural Extension Agent receives an application after the expiration date of the Certification, it is very important that they notify the Department immediately to prevent the loss of diversion privilege notice from going out.

A grower that wishes to Modify the Certification in the future, but would not able to complete the modification application before the renewal due date, must still submit a timely renewal application before the due date. After the fourth notice goes out notifying the grower that they no longer have diversion privileges, any application relating to the former Certified diversion must be submitted as a new Certification, and is subject to public notice procedures. Any other grower wishing to add the sources from the expired Certification must file a modification to their own Certification, which is subject to public notice procedures. No sources may be transferred from expired Certifications through a minor modification, unless the Certification giving up the sources is currently undergoing valid renewal or modification.

Please note that the Department is not required to send out renewal reminders, it is done as a courtesy to the growers. In addition, growers are responsible for notifying the Bureau of Water Allocation of any change in their mailing address.

If a grower wishes to start working on the application before they receive a renewal notice, they may obtain the latest forms here: http://www.nj.gov/dep/watersupply/formbwa/agc-001.pdf

Source: New Jersey Department of Water Allocation