Fruit Pest News

Volume 4, No. 5  April 14, 2003

A weekly, online newsletter whose goal is to update Extension agents and growers of commercial tree fruit and small fruit crops on diseases and insects in Tennessee.

Text appearing in blue or red can be clicked to link to other web sites. Be aware that much of the linked information is produced in other states and may not be applicable to Tennessee.

In This Issue:

1. Current Conditions
2. Apology for Last Week's Issue
3. Strawberry: Phytophthora Crown Rot
4. Peaches: Mycoshield Shortage
5. Peaches: Plum Curculio
6. Tree Fruit: Pheromone Trap Catches and Biofixes

1. Current Conditions

We have only had one major frost event, that of March 31. Some damage was done but, if it makes you feel any better, similar damage occurred in such unlikely areas as southern Mississippi and eastern Texas, where temperatures dropped into the upper 20's. The weather this week is supposed to be generally warm, with slight chances of showers. There should be good opportunities for spraying and other orchard jobs. (SB)

2. Apology for Last Week's Issue

We apologize for the appearance of last week's issue of FPN. If you had problems reading or printing the issue, please try again. The problems have been corrected. (SB)

3. Strawberry: Phytophthora Crown Rot

A case of Phytophthora crown rot was submitted to the lab last week. Be on the lookout for wilting plants with reddish-brown discoloration of crown interiors. Feel free to send us a sample for confirmation, and please let us know if you think you have this disease in your strawberries. Refer to the
4. Peaches: Mycoshield Shortage

In case you missed it, the antibiotic Mycoshield is supposed to be in short supply in the southern U.S. this year. You can refer to an article written by David Ritchie and Phillip Brannen at http://newsletters.caes.uga.edu/SRPN/ . The article discusses alternative controls for bacterial spot, primarily copper and Syllit plus captan. Copper is the most effective alternative, but the chances of phytotoxicity are high under some circumstances. For this reason, most labels specify that copper-containing products be used after bloom only in the 1st and 2nd cover sprays. The authors offer the following suggestions in their article:

- If at all possible, insecticide and fungicide applications should be conducted only when foliage is dry. Spraying when the foliage is wet can spread the bacteria.
- If you have Mycoshield, begin applications at late shuck-split to the start of shuck-off, and repeat at 7-10 day intervals for 3-4 weeks, if weather conditions remain wet. "Wet" can be defined as at least one measurable rainfall per week or heavy dews that result in several hours of leaf wetness. Do not use less than 0.75 lb of material per acre in an attempt to stretch the Mycoshield by using low rates.
- Once pit hardening occurs, at which time fruit apparently become less susceptible, evaluate the bacterial spot situation on fruit as well as the foliage. If few or no lesions are observed, but weather conditions remain favorable for disease, consider alternating a low rate of copper or a Syllit 65W + captan application with Mycoshield. Also, focus the use of Mycoshield on the most susceptible varieties.
- If you do not have Mycoshield, use reduced rates of copper -- carefully monitoring for injury before each application until a point is reached that injury is considered too great to continue the use of copper. Switch to Syllit 65W + captan at this time.
- On highly susceptible varieties, if no early-season copper sprays were used, the grower has no Mycoshield, and bacterial spot is observed, the grower may need to evaluate whether any of the alternatives for Mycoshield are economically worthwhile for this season.

5. Peaches: Plum Curculio

Plum curculio is the most important fruit feeding insect in the Southeast. These 1/4 inch long weevils (curved snout) are mottled black, gray and brown with two bumps on each wing cover and white markings across the back. Adults overwinter in leaf litter in and around orchards. The warm (70 degree F) weather each spring causes the adults to emerge, mate and lay eggs under the fruit skin. This should be happening now. The eggs hatch in a few days and the white, legless larvae feed in the fruit where
Fruit Pest News

they become 1/4 inch long when mature.

Immediately after petal fall, insecticides are typically needed every 7-10 days to protect against plum curculio, plant bugs and Oriental fruit moth. We are currently at shuck split here in Nashville. Endosulfan is a weak plum curculio material but real good on plant bugs. Limit the use of endosulfan to a single petal fall application. Imidan and Guthion are the other recommended insecticides for these pests. While Imidan and Guthion should be used if San Jose scale have been a problem, scale are best controlled in May when crawlers emerge. Remember, Guthion is no longer labeled for use in nectarines or plum.

(FH)

6. Apple: Disease Control During Bloom and at Petal Fall

The sterol inhibitors (SI's) are important fungicides for the control of apple scab, powdery mildew, and rust diseases. Examples of SI's are Nova, Rubigan, and Procure. Some areas of the country are beginning to experience loss of control of scab due to the development of strains resistant to the SI's. As far as I know, this has not happened in Tennessee. (If you think it is happening in your orchard, please let me know.) Let's try to prevent resistance from developing by always tank mixing our SI's with a protectant fungicide such as mancozeb, captan, ziram, etc., and using SI's only when necessary.

If your bloom-time spray is applied only 6 or 7 days after the pink tip spray, it may not be necessary to use fungicides with lengthy kick-back activity (i.e. the SI's). A contact material such as mancozeb or ziram may be sufficient at that time, and these two materials would also provide rust control.

Petal fall through first cover is a peak risk period for powdery mildew, cedar-apple rust, and fruit infection by scab. Use an SI with a contact fungicide at each of these two growth stages. Note: I recommend that the strobilurin materials (Flint, Sovran) be reserved for use during the summer, when their characteristics are more fully utilized. (SB)

7. Tree Fruit: Pheromone Trap Catches and Biofixes

Nashville (Davidson County) Pheromone Trap Catches for 2003

<table>
<thead>
<tr>
<th>Date</th>
<th>OFM</th>
<th>RBLR</th>
<th>OBLR</th>
<th>CM</th>
<th>GBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-18</td>
<td>0</td>
<td>3*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3-20</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3-24</td>
<td>0</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
3-31 0 12 0 0 0
4-2 1 5 0 0 0
4-4 2 biofix 1 0 0 1 not biofix yet
4-7 4 4 0 0 0
4-11 1 5 0 0 0
4-14 4 4 0 0 0

* Biofix for RBLR in Davidson County estimated as occurring on March 8

Bradley County Pheromone Trap Catches

<table>
<thead>
<tr>
<th>Date</th>
<th>OFM (traps)</th>
<th>RBLR</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-10</td>
<td>0</td>
<td>22*</td>
<td>0</td>
</tr>
<tr>
<td>3-17</td>
<td>0</td>
<td>69</td>
<td>0</td>
</tr>
</tbody>
</table>

*Biofix for RBLR in Bradley County estimated as occurring on March 8

Putnam County Pheromone Trap Catches

<table>
<thead>
<tr>
<th>Date</th>
<th>OFM (traps)</th>
<th>RBLR</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-31</td>
<td>0</td>
<td>8*</td>
<td>0</td>
</tr>
<tr>
<td>4-2</td>
<td>0</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>4-5</td>
<td>0</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>4-7</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4-9</td>
<td>2 biofix</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>4-11</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

*Biofix for Putnam County estimated as occurring on March 8

Obion County Pheromone Trap Catches

<table>
<thead>
<tr>
<th>Date</th>
<th>OFM</th>
<th>RBLR</th>
<th>CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-8</td>
<td>1</td>
<td>10*</td>
<td>0</td>
</tr>
<tr>
<td>4-14</td>
<td>2 biofix</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

*Biofix for RBLR occurred prior to trap placement, estimated as occurring on March 8
The Fruit Pest News URL is: http://web.utk.edu/~extepp/fpn/fpn.htm

Contacts:

Steve Bost, Professor and Extension Plant Pathologist
scbost@utk.edu

Frank Hale, Associate Professor and Extension Entomologist
fahale@ext1.ag.utk.edu

Both authors available at:
615-832-6802
fax 615-781-2568
Plant and Pest Diagnostic Center
5201 Marchant Drive
Nashville, TN 37211