SCAFFOLDS Fruit Journal, Geneva, NY
Volume 26, No. 18
Update on Pest Management and Crop Development
July 24, 2017

---

**COMING EVENTS**

<table>
<thead>
<tr>
<th>Event Description</th>
<th>43°F</th>
<th>50°F</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>Current DD</em> accumulations</em>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Geneva 1/1-7/24):</td>
<td>2033.4</td>
<td>1268.1</td>
</tr>
<tr>
<td>(Geneva 1/1-7/24/2016):</td>
<td>2070.8</td>
<td>1384.3</td>
</tr>
<tr>
<td>(Geneva &quot;Normal&quot;):</td>
<td>2095.2</td>
<td>1404.8</td>
</tr>
<tr>
<td>(Geneva 1/1-7/31, predicted):</td>
<td>2221.9</td>
<td>1407.6</td>
</tr>
<tr>
<td>(Highland 1/1-7/24):</td>
<td>2498.0</td>
<td>1685.0</td>
</tr>
</tbody>
</table>

**Upcoming Pest Events – Ranges (Normal +/- Std Dev):**

**American plum borer**
- 2nd flight peak ........................................... 2005-2575  1351-1777

**Apple maggot flight peak .......... 2118-2638  1420-1824**

**Codling moth 2nd flight starts .... 1775-2234  1028-1499**

**Codling moth 2nd flight peak ..... 1948-2693  1298-1863**

**Comstock mealybug**
- 2nd gen crawlers increasing .... 2012-2638  1292-1811

**Lesser appleworm**
- 2nd flight peak .................. 2144-3071  1433-2129

**Oriental fruit moth**
- 2nd flight subsides .................. 2024-2532  1346-1764
Redbanded leafroller
   2nd flight subsides .................. 2160-2711  1455-1868
San Jose scale 2nd flight peak .... 2137-2493  1440-1742
Spotted tentiform leafminer
   2nd gen flight subsides ............. 2002-2361  1323-1630
White apple leafhopper
   1st brood adults subside .......... 2195-2521  1564-1792
*[all DDs Baskerville-Emin, B.E.]

PEST FOCUS

TRAP CATCHES (Number/trap)
Geneva

<table>
<thead>
<tr>
<th></th>
<th>7/14</th>
<th>7/17</th>
<th>7/21</th>
<th>7/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redbanded Leafroller</td>
<td>16.0</td>
<td>6.0</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Spotted Tent. Leafminer</td>
<td>144.0</td>
<td>158.0</td>
<td>55.5</td>
<td>42.0</td>
</tr>
<tr>
<td>Oriental Fruit Moth</td>
<td>48.5</td>
<td>5.5</td>
<td>6.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Codling Moth</td>
<td>3.0</td>
<td>1.5</td>
<td>7.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Lesser Peachtree Borer</td>
<td>2.5</td>
<td>4.0</td>
<td>3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Peachtree Borer</td>
<td>6.0</td>
<td>4.5</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Dogwood Borer</td>
<td>7.0</td>
<td>1.5</td>
<td>4.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Obliquebanded Leafroller</td>
<td>7.5</td>
<td>5.0</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Apple Maggot</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0*</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Highland (Peter Jentsch)
<table>
<thead>
<tr>
<th>Insect Name</th>
<th>7/3</th>
<th>7/10</th>
<th>7/17</th>
<th>7/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redbanded Leafroller</td>
<td>16.0</td>
<td>22.0</td>
<td>15.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Spotted Tent. Leafminer</td>
<td>177.0</td>
<td>271.5</td>
<td>193.5</td>
<td>180.5</td>
</tr>
<tr>
<td>Oriental Fruit Moth</td>
<td>1.5</td>
<td>4.5</td>
<td>3.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Lesser Appleworm</td>
<td>20.0</td>
<td>21.0</td>
<td>0.0</td>
<td>14.5</td>
</tr>
<tr>
<td>Obliquebanded Leafroller</td>
<td>9.5</td>
<td>16.5</td>
<td>4.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Codling Moth</td>
<td>6.0</td>
<td>2.0</td>
<td>10.0*</td>
<td>16.5</td>
</tr>
<tr>
<td>San Jose Scale</td>
<td>0.0</td>
<td>0.5*</td>
<td>53.0</td>
<td>1597</td>
</tr>
<tr>
<td>Sparganothis Fruitworm</td>
<td>0.0</td>
<td>1.5</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Variegated Leafroller</td>
<td>2.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Tufted Apple Bud Moth</td>
<td>7.0</td>
<td>1.5</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Dogwood Borer</td>
<td>4.0</td>
<td>3.5</td>
<td>0.5</td>
<td>24.5</td>
</tr>
<tr>
<td>Apple Maggot</td>
<td>0.0</td>
<td>0.0</td>
<td>4.3</td>
<td>3.3</td>
</tr>
</tbody>
</table>

* 1st catch
Roundheaded Appletree Borer
RAB peak hatch roughly: July 10-July 30 (G).

Dogwood Borer
Peak DWB egg hatch roughly: July 29 (G).

Codling Moth
Codling moth development as of July 24:
2nd generation adult emergence at 50% (H)/15% (G) and 2nd generation egg hatch at 14% (H)/2% (G).
2nd generation 7% CM egg hatch = target date for first spray where multiple sprays needed to control 2nd generation CM: July 31 (G).

White Apple Leafhopper
2nd generation WALH found on apple foliage: July 28 (H)/ August 7 (G).

[Section: INSECTS]

BEYOND THE CLOUDS
(Art Agnello, Entomology, Geneva; ama4@cornell.edu)
[Box Text: WET DOG DAYS]
Most of the season's major arthropod pest control decisions are likely to be completed during the next couple of weeks. As you prepare to make what may be your final passes through the orchard for crop protection purposes before starting to concentrate on harvest activities, try to keep alert to any late-breaking pest developments that might conceivably round out the summer. As in most years, forecast weather trends appear to be more of what we've been having in terms of rain (pretty much daily) and heat (not so much), which will have their specific impacts on insect activity, depending on the species. Here's a quick rundown of some of the more important late July-August pests to keep in mind during this homestretch.

**Apple Maggot**

Adults have just started flying in most areas, but numbers have not been increasing so far in the Wayne Co. orchard sites where we're trapping for them this year. In historically high-pressure orchards, early to mid-August is the most active period for flies to be out and laying eggs. With the regular rains softening the ground and easing the process of emergence for those adults that haven't drowned, we're sure to see further upticks in trap numbers during this period. As always, targeted trapping can pay off in the event that some
blocks are under greater pressure than others, even on the same farm, so please continue to monitor traps in representative "problem" blocks. Our best options these days are Imidan, Assail, and to a somewhat lesser degree, Altacor, Avaunt, Delegate, Exirel, certain premixes such as Endigo, Leverage, Voliam Xpress/Besiege, and the pyrethroids.

**Internal Lepidoptera**

This complex of fruit-feeding larvae continues to pose a threat in several problem sites. The second generation flights are under way, but are still generally at low levels, so it pays to stay on top of the situation in your specific orchard, to be sure you're aware of any signs of fruit damage.

Conditions are predicted to be favorable for respectable August flights, particularly for codling moth, and the 2nd generation egg hatch will be under way in the most advanced areas of the state this week, so we'll soon be in the window for control sprays against the smallest larvae. This will be an appropriate time for management sprays for oriental fruit moth as well, so prudence would dictate a critical evaluation of your late-season fruit protection status, to be sure you
are adequately covered until the PHI for the various respective varieties.

Recommended options in apples include Altacor, Assail, Belt, Delegate, Exirel, or Voliam Xpress/Besiege. In peaches, you can use Altacor, Assail, Delegate, or Voliam Xpress/Besiege. Pyrethroids and OPs may be less suitable because of locally resistant populations. This is also a suitable time for Cyd-X or Carpovirusine granulosis virus applications against codling moth, or Madex HP against both OFM and codling moth; these products will help to lower overall population levels over the long term. Alternate row middle applications will not be as effective as whole orchard sprays in high pressure blocks. Assess the pressure in your specific situations, check the pre-harvest intervals, and determine whether a full or border spray might be in order. In sites with more modest pressure, applications of a B.t. product on a 7–10-day schedule helps to maintain populations below an economic level; options include Deliver, Dipel, Biobit, Javelin, and Agree.

**Comstock Mealybug**

In pears especially, this begins the period of greatest migration of 2nd generation nymphs into the fruit calyx, where they will be concealed until detected as
unwelcome surprises during packinghouse inspections. In apples, infestations tend to result in blooms of sooty mold, particularly over the bottom half of fruits. Blocks with mealybug "issues" should receive a protective spray of Actara (pears only), Admire Pro (pears only), Assail (apples and pears only), Centaur, Movento, or Portal.

**European Corn Borer**

These moths have a late flight that extends to the middle of September, and the offspring can inflict last-minute fruit feeding damage to later varieties. Delegate (PHI = 7 days) is a good option for control of European corn borer. Also, one or two late sprays of a B.t. product can go a long ways toward minimizing this injury, and the 0-day PHI is compatible with any harvest schedule.

**Mites**

Although mites have not been much of an issue so far this season, they are extremely good at exploiting any high temps that may still occur, in order to pop out a few more generations before they hang it up for the winter; twospotted spider mites are also possible, including in stone fruit plantings. A periodic inspection of your foliage can pay big dividends if they happen to
build rapidly before the crop is fully mature. The 7.5 mites/leaf threshold (sampling chart on p. 76 in the Recommends) would be appropriate starting at the beginning of August; we remain at 5.0 mites/leaf until the end of this month.

**Obliquebanded Leafroller**

The second summer flight of OBLR isn't due to start until the next 1–2 weeks, but the first larvae will be out looking for something to nibble on soon afterwards. If you struggled to manage the 1st summer brood, you might also plan to cast a judicious eye on your fruits while you're in there checking the leaves for mites, to determine whether a late application of Altacor, Delegate, Exirel, Proclaim, Rimon or a B.t. material such as Dipel, Deliver or Biobit might be of use in heading off late-season feeding damage.

**A couple of reminders...**

- Review the comments in the May 22 issue regarding management options for woolly apple aphids, in case their numbers take a sudden jump in the next couple of weeks.
- Japanese beetles are still to be found feeding on apple foliage. An application (or two) of a product such
as Assail, Imidan, Sevin, Voliam Xpress or Endigo may be needed to curtail their damage.

[Section: GENERAL INFO]

EVENT ANNOUNCEMENTS

WAYNE COUNTY FRUITGROWER TOUR
Wednesday, August 2, from 9:30 am
Registration and 1st stop at G&G Farms, 6680 Tuckahoe Rd, Williamson, NY (GPS: N 43.240679, W 77.199981)

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 19th year, and will feature presentations on pre- and postharvest PGR use, apple thinning results, native pollinators, this season's disease control challenges, and tips for establishing new plantings, plus much more. Door prizes, lunch, some comic relief, a BBQ/clambake dinner with a live band, growers and industry representatives from NY and surrounding states — always a great way to spend a midsummer day. Free attendance. Contact Lindsay LaMora (585-734-8904; lindsaylamora@agrassistance.com) for RSVP pre-registration and tour information.
This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Scaffolds is published weekly from March to September by Cornell University -- NYS Agricultural Experiment Station (Geneva), and Ithaca -- with the assistance of Cornell Cooperative Extension. New York field reports welcomed. Send submissions by 2 p.m. Monday to:

Scaffolds Fruit Journal
Editor: A. Agnello
Dept. of Entomology, NYSAES
630 W. North St.
Geneva, NY 14456-1371
Phone: 315-787-2341  FAX: 315-787-2326
E-mail: ama4@cornell.edu
Online at
<http://www.scaffolds.entomology.cornell.edu/index.html>