SCAFFOLDS Fruit Journal, Geneva, NY
Volume 24, No. 18
Update on Pest Management and Crop Development
July 27, 2015

#### COMING EVENTS

<table>
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<tr>
<th>Event Description</th>
<th>43°F</th>
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<tr>
<td>Current DD* accumulations</td>
<td></td>
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<tr>
<td>(Geneva 1/1-7/27):</td>
<td>2011</td>
<td>1352</td>
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<td>(Geneva 1/1-7/27/2014):</td>
<td>2085</td>
<td>1411</td>
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<td>(Geneva &quot;Normal&quot;):</td>
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<td>1385</td>
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<td>(Geneva 1/1-8/3, predicted):</td>
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<td>1533</td>
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<tr>
<td>(Highland 1/1-7/27/15):</td>
<td>2445</td>
<td>1708</td>
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Upcoming Pest Events – Ranges (Normal +/- Std Dev):

**American plum borer**
- 2nd flight begins ...................... 1557-2089 1029-1395

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

**Apple maggot**
- 1st oviposition punctures......... 1605-2157 1144-1544
- Apple maggot flight peak......... 2115-2655 1417-1837
- Codling moth 2nd flight peak...... 1956-2722 1298-1884

**Comstock mealybug**
- 1st flight subsides ............... 1818-2132 1216-1418

**Dogwood borer flight peak**........ 1477-1895 925-1257
Obliquebanded leafroller
  2nd flight begins.......................2248-2640  1513-1827
Oriental fruit moth
  2nd flight subsides ......................2066-2548  1377-1779
Redbanded leafroller
  2nd flight subsides ......................2177-2731  1467-1883
San Jose scale 2nd flight peak.....2137-2493  1440-1742
STLM 2nd flight subsides ..............1994-2366  1316-1634
STLM 2nd gen
  tissue feeders present................1378-2035  913-1182
STLM 3rd flight begins ..................2263-2647  1518-1838
*[all DDs Baskerville-Emin, B.E.]*

Pest Focus
Highland:  Obliquebanded Leafroller 2nd flight beginning.
  278 DD50 accumulated since San Jose Scale 2nd gen biofix on 7/6. Crawler emergence expected at 400 DD.
  345 DD50 accumulated since Codling Moth 2nd gen biofix on 7/13.
  278 DD50 accumulated since Spotted Tentiform Leafminer biofix on 7/6. Sap-feeding mines present.
## TRAP CATCHES (Number/trap/day)

### Geneva

<table>
<thead>
<tr>
<th>Insect</th>
<th>7/16</th>
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<th>7/24</th>
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<tr>
<td>Redbanded Leafroller</td>
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<td>0.9</td>
<td>1.8</td>
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<tr>
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<td>8.5</td>
<td>5.1</td>
<td>2.7</td>
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<tr>
<td>Oriental Fruit Moth</td>
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<td>0.0</td>
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<tr>
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<td>1.3</td>
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<tr>
<td>Pandemis Leafroller</td>
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<td>0.1</td>
<td>0.0</td>
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<tr>
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### Highland (Peter Jentsch)

<table>
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<td>Lesser Appleworm</td>
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<td>0.2</td>
<td>2.8</td>
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<tr>
<td>Oriental Fruit Moth</td>
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<td>0.5</td>
<td>0.8</td>
<td>0.6</td>
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<tr>
<td>Codling Moth</td>
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<td>1.7</td>
<td>6.1</td>
<td>2.5</td>
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<td>San Jose Scale</td>
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<td>33.9</td>
<td>61.4</td>
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<tr>
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<td>0.7</td>
<td>0.4</td>
<td>0.1</td>
<td>0.2</td>
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ORCHARD RADAR DIGEST

[Box Text: ANTENNA BEARING]

[H = Highland; G = Geneva]:
Roundheaded Appletree Borer
   Peak RAB egg hatch roughly: July 4 to July 23 (H)/July 7 to July 29 (G).
Dogwood Borer
   Peak DWB egg hatch roughly: July 24 (H)/July 29 (G).
Codling Moth
   Codling moth development as of July 20:
      1st generation adult emergence at 98% (H)/93% (G)
      and 1st generation egg hatch at 80% (H)/58% (G).
White Apple Leafhopper
   2nd generation WAL found on apple foliage: July 29 (H)/August 7 (G).

[Section: INSECTS]

SUMMER HAZING
(Art Agnello, Entomology, Geneva; ama4@cornell.edu)
[Box Text: COUNT DOWN]
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 heat (it ain't over yet) and rain (same as above), 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**

Adult numbers have been increasing in the 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 recent rains softening the ground and easing the process of adult emergence, 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.

**Internal Lepidoptera**

This complex of fruit-feeding larvae continues to pose a threat in several problem sites. The second generation flights are under way, and are even becoming heavy in some cases, so it still pays to stay on top of the situation in your specific orchard. Some spots with fruit damage have been noted, but in general, most orchards look to be in good shape.

Conditions are still favorable for good August flights, particularly for codling moth. The 2nd generation egg hatch will be well under way in the most advanced areas of the state this week, so we're definitely in the window for control sprays against the smallest larvae. This is 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. In peaches, you can use Altacor, Assail, Delegate, or
Voliam Xpress. 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.

**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 at packinghouse inspections postharvest. 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**
Recall that these moths have a final flight that extends to the middle of September, and that 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 like Dipel can go a long ways toward minimizing this injury, and the 0-day PHI is compatible with any harvest schedule.

Mites
It can't be said often enough that mites are extremely good at exploiting any high temps 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, although probably not as likely during a wetter season such as we've been having. A frequent (weekly) 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. 75 in the Recommends) would be appropriate at this point in the season.

Obliquebanded Leafroller
The second summer flight of OBLR is due to start during the next 1–2 weeks, which means that 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 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, 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 June 1 issue regarding management options for woolly apple aphids, which are still present and probably increasing.
- Also, recall that all registered uses of Thionex (now labeled only in apples) will expire at the end of this month – that is, this Friday. Therefore, this week is your last opportunity to use it for any labeled pests such as apple aphids, stink bugs, or leafhoppers.

[Section: GENERAL INFO]

EVENT ANNOUNCEMENTS
[Box text: FRUIT TOUR]

WAYNE COUNTY FRUITGROWER TOUR
Wednesday, August 5, from 9:30 am
Registration and 1st stop at Wilbert's Fruit Farm, Walworth-Ontario Rd, Walworth, NY (GPS: N 43.160577, W 77.287325)

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 17th year, and will feature presentations on return bloom, pollination & crop set, frost control, apple scab and fire blight control, hard cider production, improving tree growth, black stem borer, plus much more. Door prizes, lunch, a light-hearted atmosphere, 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.

BIRD DAMAGE MANAGEMENT WORKSHOP
Wednesday, August 19, 8:30 AM to 4:00 PM

Cornell University will be holding a bird damage management workshop on Aug. 19 at CCE-Saratoga County, 50 W. High St, Ballston Spa, NY, offering comprehensive knowledge about successful bird management strategies in susceptible fruit crops,
including sweet and tart cherry, blueberry, Honeycrisp apples and wine grapes. Morning session topics: which bird species damage fruit, economic losses to fruit from birds, consumer preference for management tactics, NY grower survey, tactics for deer management, regulations & permitting for wildlife control, landscape factors that place fruit at risk, and bird mitigation strategies (Morning session available via WebEx webinar). Afternoon session: On-farm field demonstrations of scare tactics such as falconry, air dancers, discussion of tactics being used on representative farms. Registration fee, $10; advance registration is required by August 12. Contact: Marcie Vohnoutka, ENY Commercial Horticulture Program, 518-272-4210; mmp74@cornell.edu. DEC credits are being requested.

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Editors: A. Agnello, D. Kain
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>