# scaffolds

Update on Pest Management and Crop Development

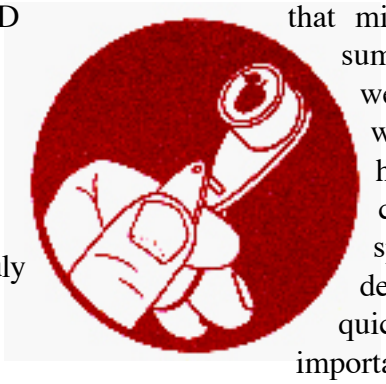
F R U I T J O U R N A L

July 25, 2016 VOLUME 25, No. 19 Geneva, NY


INSECTS

## SUMMER SPECIALS

## ORCHARD RADAR DIGEST



❖❖ **Geneva Predictions**:

Roundheaded Appletree Borer
Peak RAB egg hatch roughly: July 8-27.

Dogwood Borer
Peak DWB egg hatch roughly: July 27.

Codling Moth
Codling moth development as of July 25: 2nd generation adult emergence at 36% and 2nd generation egg hatch at 7%.
2nd generation 7% CM egg hatch: July 25 = target date for first spray where multiple sprays needed to control 2nd generation CM.
2nd generation 30% CM egg hatch: August 2 = target date where one spray needed to control 2nd generation CM.

White Apple Leafhopper
2nd generation WAL found on apple foliage: August 2.

## DOG DAY DUTIES


NOT A PICNIC
(Art Agnello, Entomology, Geneva; ama4@cornell.edu)


❖❖ 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 (precious little), 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 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 a few 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

continued...

## IN THIS ISSUE…


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, 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, and are even becoming heavy in some cases, so it 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. 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 MVP.

**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

continued...

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 pm Monday to:

scaffolds FRUIT JOURNAL
Dept. of Entomology
NYSAES, Barton Laboratory
Geneva, NY 14456-1371
Phone: 315-787-2341
FAX: 315-787-2326
E-mail: ama4@cornell.edu

Editor: A. Agnello

This newsletter available online at:
http://www.scaffolds.entomology.cornell.edu/index.html

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 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, particularly in a hot and dry 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, 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 31 issue regarding management options for woolly apple aphids, which are still present and increasing.

- 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. ❖❖

GENERAL INFO

WAYNE COUNTY FRUITGROWER TOUR
Wednesday, August 3, from 9:00 am
Registration and 1st stop at MackQuinLe Farms, Norris Rd/Rte 104, North Rose, NY (GPS: N 43.204284, W 76.933619)

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 18th year, and will feature presentations on Gala production (orchard fertility & PGR use), fireblight control, weed control, crop nutrient and biostimulant programs for new apple plantings and processing apple varieties, apple scab alerts, plus much more. Door prizes, lunch, some droll humor, 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.

SPANISH-SPEAKING FRUIT SUMMER TOUR IN WAYNE CO.
Saturday, August 13, 1:00-6:30 pm

The CCE LOF team is organizing its second Fruit Summer Tour for Spanish-speaking farmers and employees, to be held in Wayne County from 1:00 pm until 6:30 pm on Saturday, August 13, 2016. At each of the 4 tour stops, participants will be hosted by a Spanish-speaking farmer or employee who has significant orchard experience by managing a modern apple orchard and/or a nursery operation. The tour will cover aspects related to orchard establishment, training, pruning, pest management, orchard mechanization, tractor safety, on-farm nursery production, and fruit quality at harvest. The tour is FREE for your employees, but pre-registration is required by Wednesday, August 10. For more information (including the full program) and registration, see:
http://lof.cce.cornell.edu/event.php?id=573

## INSECT TRAP CATCHES (Number/Trap)

**Geneva, NY**

| | 7/15 | 7/18 | 7/25 |
|---|---|---|---|
| Redbanded leafroller | 19.5 | 9.5 | 11.0 |
| Spotted Tentiform Leafminer | 73.0 | 53.0 | 31.0 |
| Oriental Fruit Moth | 0.0 | 0.0 | 0.0 |
| Codling Moth | 0.5 | 4.5 | 24.0 |
| American Plum Borer | 0.0 | 0.0 | 0.0 |
| Lesser Peachtree Borer | 0.5 | 0.0 | 0.0 |
| Obliquebanded Leafroller | 0.0 | 0.0 | 0.0 |
| Pandemis Leafroller | 0.0 | 0.0 | 0.0 |
| Dogwood Borer | 0.0 | 0.5 | 0.0 |
| Peachtree Borer | 6.0 | 0.0 | 0.0 |
| Apple Maggot | 0.0 | 0.0 | 0.7 |

**Highland, NY**

| | 7/18 | 7/25 |
|---|---|---|
| Redbanded leafroller | 14.5 | 3.5 |
| Spotted Tentiform Leafminer | 60.5 | 151.0 |
| Oriental Fruit Moth | 3.5 | 1.5 |
| Lesser Appleworm | 4.0 | 9.0 |
| San Jose Scale | 15,684* | 3696 |
| Codling Moth | 69.0 | 52.0 |
| Obliquebanded Leafroller | 5.5 | 10.0 |
| Dogwood Borer | 5.5 | 2.5 |
| Brown Marmorated Stink Bug | 0.0 | 0.0 |
| Apple Maggot | 4.3 | 7.8 |

* = 1st catch

## UPCOMING PEST EVENTS

| | 43°F | 50°F |
|---|---|---|
| Current DD accumulations (Geneva 1/1–7/25/16): | 2102.8 | 1409.3 |
| (Geneva 1/1–7/25/2015): | 1956.1 | 1311.1 |
| (Geneva "Normal"): | 2116.9 | 1420.9 |
| (Geneva 1/1-8/1, predicted): | 2323.8 | 1581.3 |
| (Highland 1/1–7/25/16): | 2558.6 | 1736.0 |

| Coming Events: | Ranges (Normal ±StDev): | |
|---|---|---|
| Apple maggot peak flight | 2116-2646 | 1419-1831 |
| American plum borer 2nd flight peak | 2005-2575 | 1351-1777 |
| Codling moth 2nd flight peak | 1959-2709 | 1302-1874 |
| Comstock mealybug 2nd gen crawlers emerging | 2234-2624 | 1505-1781 |
| Lesser appleworm 2nd flight peak | 2154-3098 | 1440-2150 |
| Obliquebanded leafroller 2nd flight start | 2228-2634 | 1499-1821 |
| Oriental fruit moth 2nd flight subsides | 2059-2537 | 1372-1770 |
| Oriental fruit moth 3rd flight start | 2271-2833 | 1539-1967 |
| Redbanded leafroller 2nd flight subsides | 2161-2721 | 1456-1876 |
| San Jose scale 2nd flight peak | 2137-2493 | 1440-1742 |
| STLM 2nd flight subsides | 1998-2364 | 1321-1633 |
| STLM 3rd flight start | 2259-2641 | 1515-1833 |
| White apple leafhopper 1st brood adults subside | 2195-2521 | 1564-1792 |

all DDs Baskerville-Emin, B.E.

## PEST FOCUS

**Highland:** San Jose 2nd generation flight continuing.

Codling moth 2nd generation flight continues with egg laying and hatch observed.

Apple maggot trap captures increasing with threshold reached.

BMSB trap captures very low. No threshold observed in Hudson Valley orchard monitoring sites.

NOTE: Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are possible. These recommendations are not a substitute for pesticide labelling. Please read the label before applying any pesticide.

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.