

# SCAFFOLDS Fruit Journal, Geneva, NY

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Update on Pest Management and Crop Development

July 30, 2018

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## COMING EVENTS

	43°F	50°F
Current DD* accumulations		
(Geneva 1/1-7/30):	2234.5	1554.5
(Geneva 1/1-7/30/2017):	2164.4	1410.1
(Geneva "Normal"):	2253.3	1518.5
(Geneva 1/1-8/6, predicted):	2456.0	1727.0
(Highland 1/1-7/30):	2439.8	1697.7
Upcoming Pest Events – Ranges (Normal +/- Std Dev):		
Apple maggot peak flight .....	2127-2642	1426-1824
American plum borer		
2nd flight peak .....	2005-2575	1351-1777
Codling moth 2nd flight peak .....	1954-2684	1300-1854
Comstock mealybug		
2nd gen crawlers emerge .....	2234-2624	1505-1781
Lesser appleworm		
2nd flight peak .....	2144-3071	1433-2129
Obliquebanded leafroller		
2nd flight start .....	2219-2628	1489-1817

Oriental fruit moth

2nd flight subsides ..... 2026-2524 1344-1756

Redbanded leafroller

2nd flight subsides ..... 2166-2707 1458-1863

San Jose scale 2nd flight peak .... 2137-2493 1440-1742

Spotted tentiform leafminer

3rd flight start ..... 2240-2629 1499-1824

White apple leafhopper

1st brood adults subside..... 2195-2521 1564-1792

\*[all DDs Baskerville-Emin, B.E.]

TRAP CATCHES (Number/trap)

Geneva

	7/20	7/23	7/27	7/30
Redbanded Leafroller	2.5	1.0	0.5	0.5
Spotted Tentiform LM	2.5	4.5	4.5	25.5
Oriental Fruit Moth	48.5	23.5	25.5	17.0
Codling Moth	15.0	26.0	46.5	38.0
Lesser Peachtree Borer	1.0	1.0	1.0	2.5
Obliquebanded Leafroller	0.0	0.0	0.0	1.0
Dogwood Borer	-	0.5	0.0	0.0
Peachtree Borer	10.0	5.5	8.0	7.0
Apple Maggot	0.0	0.0	0.0	2.0*

Highland (Peter Jentsch)

7/9 7/16 7/23 7/30

Redbanded Leafroller	60.5	75.0	24.5	11.5
Spotted Tentiform LM	65.5	57.0	21.0	86.0
Lesser Appleworm	0.0	0.0	0.0	0.5
Oriental Fruit Moth	1.5	0.0	0.0	1.5
Codling Moth	7.5	34.5	45.5	45.5
San Jose Scale	7.0*	269.0	445.5	1328.0
Obliquebanded Leafroller	17.0	0.0	0.0	1.0
Dogwood Borer	1.0	2.5	-	-
Tufted Apple Bud Moth	4.5	1.5	0.0	0.0
Sparganothis Fruitworm	7.5	3.5	0.0	0.0
Apple Maggot	4.3	3.0	3.8	10.3

\* 1st catch

## PEST FOCUS

Geneva: 1st Apple Maggot trap capture today, 7/30.

## ORCHARD RADAR DIGEST

**[H = Highland; G = Geneva]:**

### Codling Moth

Codling moth development as of July 30:

2nd generation adult emergence at 77% (H)/53% (G)  
and 2nd generation egg hatch at 40% (H)/16% (G).

### White Apple Leafhopper

2nd generation WALH found on apple foliage: Aug 5 (G).

## [Section: INSECTS]

### FINAL CHECKLIST

(Art Agnello, Entomology, Geneva; [ama4@cornell.edu](mailto:ama4@cornell.edu))

### [Box Text: LATE IN THE GAME]

As harvest preparations are being made, it's worth keeping in mind the late season arthropod pests that can still pop up and complicate life during the (even if they're not so much) hot and dry days of August. Take some time to ensure that your pest management program is not overlooking the following potential problems during this period:

#### **Apple Maggot**

We typically get the highest trap captures during the first week of August, and have been steadily catching adults in our network traps in Wayne Co. Monitor your traps carefully this week, and be ready to apply a preventive spray if necessary. Options include: Imidan, Assail, Altacor, Avaunt, Delegate, Exirel, certain premixes such as Endigo, Leverage, Voliam Xpress/Besiege, and the pyrethroids.

#### **Internal Lepidoptera**

Respectable adult numbers are being seen in traditional high-pressure blocks; 2nd brood codling moth egg hatch is in progress, and the 3rd flight of oriental fruit moth is due to start soon. Recommended options include Altacor, Assail, Delegate, Exirel, Voliam Xpress/Besiege, or Minecto Pro. 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.

## **European Corn Borer**

This late season moth can be active until the middle of September, so larvae can be a threat particularly to later varieties. Delegate is a good option for control, and 1-2 sprays of a B.t. product can also be a useful alternative.

## **Mites**

Our warm temperatures are still capable of promoting flare-ups of mites. The 7.5 mites/leaf threshold (sampling chart on p. 77 in the Recommends) would apply at this point in the season. There are several good rescue materials available, if needed;

check the acaricide efficacy table on p. 66 of the Recommends for ratings against TSSM vs ERM.

## **Woolly Apple Aphids**

Colonies in the canopy are still present and can always increase. It's probably too late for a Movento application to be effective, but Assail (plus a non-ionic surfactant) or Admire Pro could be of use. For fruit not intended for European markets, baby food, or any of the eco/sustainable fruit program buyers, Diazinon remains the best option on the market.

## **San Jose Scale**

This old-timer refuses to fade away, and together with white Prunicola scale, represents an increasing challenge to fruit quality during the late summer. Esteem, Centaur, and Sivanto Prime are the go-to choices for problem blocks; for more moderate pressure situations, Assail or Admire Pro (as noted for WAA above) are appropriate and will serve double duty if they're already being used for apple maggot and/or leafhoppers, etc.

## **SAWFLY SUBTERFUGE**

(Art Agnello, Entomology, Geneva; [ama4@cornell.edu](mailto:ama4@cornell.edu))

**[Box Text: DOCKSIDERS]**

The dock sawfly always creeps in during this general period of the season. Following is a rerun of our annual write-up on this pest:

Before and during apple harvest in recent years, a number of growers and fieldmen are sometimes unpleasantly surprised by the appearance of neat little (2 mm) holes bored into the side of their fruit, similar in appearance to those caused by a stem puncture. Although graders sometimes attribute this damage to apple maggot or European corn borer, cutting open these apples reveals a bright green worm with a light brown head, 3 pairs of true legs and 7 pairs of prolegs, not feeding but lying inactive, in the burrow extending in from each hole. These are larvae of the dock sawfly, *Ametastegia glabrata*, a highly sporadic but nonetheless well documented apple pest that has been known to show up in our area since 1908.

Dock sawfly probably confines its feeding almost entirely to plants belonging to the buckwheat family (Polygonaceae), including numerous docks and sorrels, the knotweeds and bindweeds, or else wild buckwheat or alfalfa. In feeding on any of these plants, the larvae devour the leaf tissue and the smaller veins, eating out

irregular holes in the leaves. Ordinarily, the midribs and the larger veins are untouched. This insect should not be confused with the related European apple sawfly, *Hoplocampa testudinea*, which has a whitish larva that lives and feeds in young apples, particularly prevalent in the eastern apple regions of N.Y.

Injury to apples by the dock sawfly is known to occur generally in the late summer and early fall, when the fruit is approaching maturity and the sawfly is searching for an overwintering site. The greater hardness of immature apples probably deters the larvae from burrowing into these, so although 4 generations per year have been identified, only the last one or two are of concern to apple growers. The injury to apples consists externally of the small round holes bored by the larvae, which after a few days show a slightly sunken, brownish ring around them and occasionally may be surrounded by a larger discolored halo. These holes may occur anywhere on the surface, but are most numerous around the calyx and stem ends, or at a point where the apple touches a leaf or another apple, since it is easier for the larva to obtain a foothold here. Inside, the injury is usually more serious, since the larva often burrows to the core and usually hollows out a pupal cell somewhat larger than itself. Apples may

have three or four, or sometimes even eight, holes in them of varying depths, but contain only one or two worms.

Since the dock sawfly does not feed upon any part of the apple tree, but must live on the above-mentioned succulent weeds, it becomes an apple pest only where these plants are growing in or around the orchard. There is little danger from this insect in orchards where the food plants don't exist. Likewise, the possibility of the larvae coming into the orchard from neighboring meadows, ditch banks, or roadsides is slight, for the larvae are incapable of finding their way over any extent of bare soil. The adults, though active, are not strong fliers, and it is not possible for the insect to travel far in this stage. Now would be a good time to assess the weed situation in your orchard and make plans for such selective herbicide applications as may be appropriate regarding this insect. Even though common wisdom says this sawfly is a pest only every 10–12 years, this is only an average estimation, and it's not a bad idea to anticipate the unexpected when hardly any season is considered to be "average".

(Information adapted from Newcomer, E. J. 1916. The dock false-worm: An apple pest. USDA Bull. 265, 40 pp.)

## SPOTTED WING DROSOPHILA UPDATE IN TART CHERRIES

(Julie Carroll, NYS IPM Program, Geneva;

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We have caught SWD at all the seven tart cherry blocks we are monitoring. Five blocks have been harvested, one block has not been harvested (as of 7/25), and in one block harvest is under way. Zero *Drosophilalarvae* or eggs were seen in 50-fruit samples collected from all locations in Wayne County this week. I am hopeful that all harvests will come through clean and be accepted by the processors this year. With the rains and cooler weather, higher numbers of SWD are being found in traps in unsprayed berry plantings. SWD populations will continue to build through fall.

Here are this week's trap catch results. At the harvested sites the SWD traps were removed this week.

Three tart cherry sites close to Lake Ontario in Wayne County:

Two are at continuous catch – fourth week in a row. One of these blocks had 10 SWD in the two traps (3 males and 7 females); the other had 1 female.

One is now at sustained catch – SWD caught two weeks in a row; a single female.

Four tart cherry sites inland in Wayne and Ontario Counties:

One is at continuous catch – three weeks in a row. 5 SWD caught (2 males, 3 females)

Two are at sustained catch. 3 SWD caught at each (males and females).

One is at first catch. 1 female SWD.

If, after harvest, there is remnant fruit on the ground that might put nearby cherry orchards or berry plantings at risk, consider a single application of Asana XL (2ee) on the fruit remaining on the ground (see quick guide). Keep in mind that the dropped fruit would have insecticide residue on it, so any application to dropped fruit should be delayed to take advantage of that residual insecticide coverage.

The insecticide quick guide for tree fruit can be found on the Spotted Wing Drosophila Management page: <http://fruit.cornell.edu/spottedwing/management/>.

A recap of efficacy (days-to-harvest):

**Excellent** – Exirel (3 days), Minecto Pro (21 days), Danitol (3 days), Mustang Max (14 days), Imidan (7 days)

**Good to Excellent** – Entrust 80WP 2ee (7 days), Entrust 2SC 2ee (7 days), Asana XL 2ee (14 days), Lambda-Cy EC 2ee (14 days)

**Moderate** – Delegate WG (7 days)

**Fair to Poor** – Grandevo (zero days) This biological may prove useful in close rotation (3 days) with excellent materials, such as Entrust to bring you up to harvest. This is how it is being used in commercial blueberry production in NJ.

## EUROPEAN CHERRY FRUIT FLY UPDATE

(Art Agnello, Entomology, Geneva; [ama4@cornell.edu](mailto:ama4@cornell.edu))

### [**Box Text: INVASIVES AT THE GATE**]

At a conference call last week with Margaret Kelly, Asst. Director, Division of Plant Industry with the NYS Dept. of Ag & Markets, we received an update on current efforts by NYSDAM and USDA's Plant Protection and Quarantine (PPQ) program to monitor and control ECFF in New York.

As a brief overview:

- USDA is maintaining 4,700 baited yellow sticky panel traps in New York State this season; NYSDAM has an

additional 627 in western NY and the Hudson Valley (in 19 counties).

- There have been many new detections this season, some at significant levels. All have been within Niagara Co., extending to east of Newfane.

- When ECFF is detected, a quarantine is established that comprises a 4.5-mile radius surrounding the detection site, plus a 'core area' within the quarantined area comprising the 0.5-mile radius surrounding the detection site.

- Movement of host plants and their fruits from the quarantined area is prohibited except with a certificate or limited permit, and delimitation trapping must be conducted throughout the quarantined area by the ECFF Cooperative program.

- Permits for movement out of the area involve a set of trapping and treatment procedures, as well as restrictions on the destination of the distributed fruits/plants.

- Orchards within the 4.5-mile core area are/were required to be treated with GF-120 on a 7-10 day basis until harvest, starting 30 days before harvest. Growres outside the quarantined area were provided with GF-120, which they were free to apply themselves.

- USDA has started treatments on private properties within 200 meters of detections starting at the eastern

most detects. They are applying GF-120 as a foliar spray to hosts. They are hoping to do soil drenches with Warrior II in the fall.

- NYS Department of Agriculture and Markets will be reviewing the distribution of this pest after trapping is complete and evaluating the next steps in this program.

## BMSB MANAGEMENT SURVEY FOR COMMERCIAL PRODUCERS

A nation-wide survey is currently under way to gather information from farmers and growers on the economic impact of the brown marmorated stink bug (BMSB) on agriculture. The objective of the survey is to better provide you with the help you need in managing this pest. We'd like to find out when BMSB became a problem for you, where you currently get information on how to control them, how much damage you have suffered, your use of and interest in various management practices, and your feelings about biological control methods and their potential for your operation. The results of the survey will be used by Extension programs across the United States to fine tune management advice for the BMSB and help prioritize research and outreach activities.

If you'd like to participate, the survey should take you about 20-25 minutes to complete. Your individual survey responses will be confidential and the data collected will only be reported in summaries. Your participation is voluntary and you can decide not to answer a given question if you choose.

The link to the on-line survey along with more information about the survey can be found on the StopBMSB.org website (<http://stopbmsb.org/go/BfxA>). If you have any questions about the Brown Marmorated Stink Bug Management Survey for Commercial Producers, please contact Jayson Harper by e-mail at [jkh4@psu.edu](mailto:jkh4@psu.edu) or call 814-863-8638.

## NUT PRODUCTION SURVEY

Farmers of NYS, do you think growing tree nuts (chestnuts, hazelnuts, walnuts, etc.) is a nutty idea, or worth considering? Please take a few minutes to fill out this [brief survey](#) for a Cornell PhD project. Thanks!

Samuel Bosco, PhD Student

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The Cornell Pest Management Guidelines for Commercial Tree Fruit Production (aka 'The Recommends') is available from the Cornell Store, both in a printed book format as well as online; visit <https://ipmguidelines.org/> for purchasing details.

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