

# scaffolds

Update on Pest Management  
and Crop Development

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

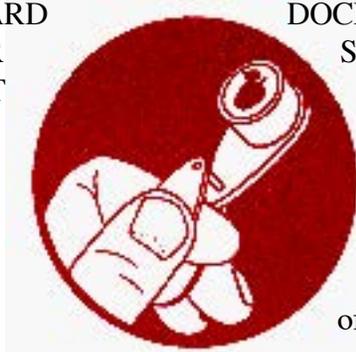
July 21, 2014

VOLUME 23, No. 18

Geneva, NY

HEAT  
WAVE

ORCHARD  
RADAR  
DIGEST



DOCK DAYS OF  
SUMMER  
(Art Agnello,  
Entomology,  
Geneva)

HOLED  
UP

[H = Highland; G = Geneva]:

## Roundheaded Appletree Borer

RAB peak hatch roughly: July 8 to July 25 (H)/  
July 12 to July 29 (G).

## Dogwood Borer

Peak DWB hatch roughly: July 26 (H)/July 31  
(G).

## Codling Moth

Codling moth development as of July 21: 2nd  
generation adult emergence at 26% (H)/7% (G)  
and 2nd generation egg hatch at 3% (H)/0%  
(G).

2nd generation 7% CM egg hatch: July 24 (H)/  
July 31 (G) = target date for first spray where  
multiple sprays needed to control 2nd genera-  
tion CM.



❖❖ The dock sawfly always  
creeps in during this general period  
of the season. Following is a repeat 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 ap-  
pearance 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 ap-  
ple 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,

continued...

## IN THIS ISSUE...

### INSECTS

- ❖ Orchard Radar Digest
- ❖ Dock sawfly
- ❖ Spotted wing Drosophila update

### GENERAL INFO

- ❖ Western NY & Wayne Co. Summer  
Fruit Tours

### PEST FOCUS

### INSECT TRAP CATCHES

### UPCOMING PEST EVENTS

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.)



## 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](mailto:ama4@cornell.edu)

Editors: A. Agnello, D. Kain

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

## SPOT CHECK

SPOTTED WING  
DROSOPHILA UPDATE  
(Juliet Carroll, NYS IPM  
Program, Geneva)

❖❖ Spotted wing Drosophila (SWD) is a destructive vinegar fly (fruit fly) recently introduced to North America from Asia. Females can slice directly into ripening fruit to lay eggs; they can lay about 7–16 per day. When populations build in late summer and early fall, soft fruit such as fall raspberry, blackberry, blueberry, elderberry, grapes, plums, cherries and peaches can be at risk of severe infestation.

Cornell University and Cornell Cooperative Extension established a SWD monitoring network in 2012. In 2014, monitoring for SWD is being done in Albany, Cayuga, Chautauqua, Chemung, Clinton, Columbia, Dutchess, Erie, Herkimer, Livingston, Monroe, Niagara, Onondaga, Ontario, Orange, Orleans, Rensselaer, Saratoga, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Tompkins, Ulster, Washington, Wayne, Wyoming, and Yates Counties. Traps are checked once per week and results are posted on the SWD blog, <http://blogs.cornell.edu/swd1/>, which you can subscribe to for email alerts.



Four SWD adults, the first reported for the 2014 growing season, were captured the week ending July 9. Two females were found in ripening summer raspberry in Suffolk County, one male in summer raspberry in Onondaga County, and one female in summer raspberry in Cayuga County. Eleven SWD were captured the week ending July 17: one female in blueberry and one female in summer raspberry in Niagara County; one male in blueberry and one female in summer raspberry in Schuyler County; three females in summer raspberry, two SWD in woods, and three SWD in blueberry in Ontario County.

Sustained trap catch is a milestone often used in IPM for timing management tactics against insect pests. Insect traps in the SWD monitoring network are checked once per week until adult SWD have been caught for two consecutive weeks at that location, indicating sustained trap catch. On the blog, we post SWD first catch reports. Some of these reports may not prove to be first sustained trap catch because SWD adults are not caught the following week. This was the case for the traps in Suffolk, Onondaga, and Cayuga Counties. No SWD adults were caught at these locations the week ending July 16, and in Suffolk County, no infested fruit was detected.

continued...

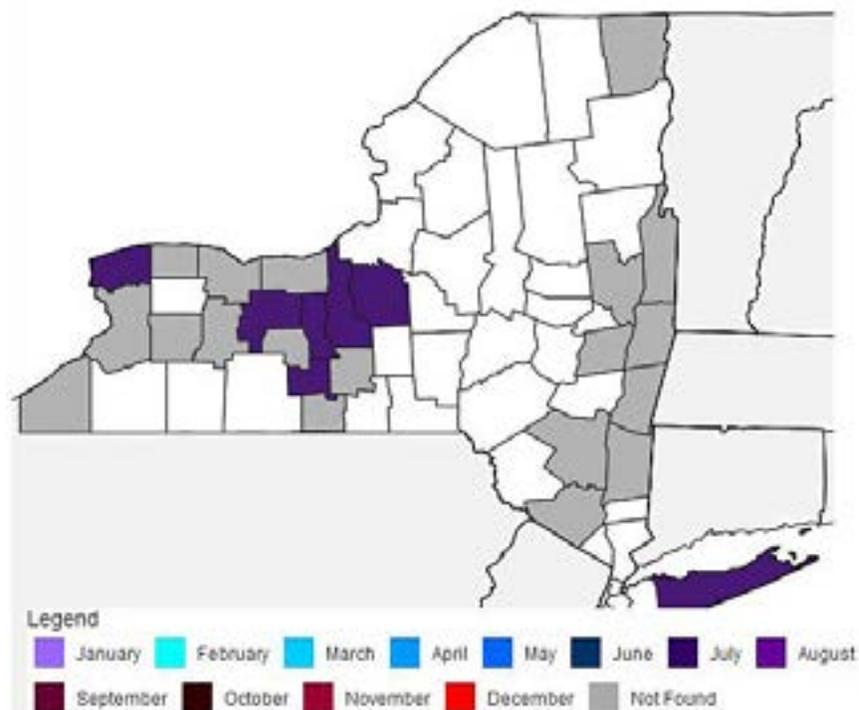
This indicates that SWD populations are still very low in NY. Cultural practices such as removing overripe berries from the planting, clean picking, dragging equipment across the ground to squash and break up dropped berries, etc., may provide some benefit, particularly in crops that are nearing the end of the harvest window, such as summer raspberries. Also, it is recommended to remove alternate weed hosts, such as pokeweed and bittersweet nightshade, from the area before these weeds develop fruit. Consider creative approaches to sanitation in U-pick plantings such as providing a discount on purchased fruit when the customer brings in an extra bucket of damaged and over-ripe fruit to the counter for disposal.

Keep track of fruit ripening in other susceptible crops and plan to protect these with insecticides in the coming weeks. Berry in-

secticide tables and tree fruit and grape insecticide tables are found on the Cornell Fruit Resources website. SWD populations and damage can increase dramatically with favorable weather and susceptible ripe fruits. Insecticide control requires frequent applications (5–7-day interval), so plan spray programs carefully to maintain coverage and optimize the utility of the applied materials. Rotate insecticide mode-of-action to avoid insecticide resistance.

More information on SWD can be found on the Cornell Fruit Resources SWD website, [www.fruit.cornell.edu/spottedwing](http://www.fruit.cornell.edu/spottedwing). An up-to-date distribution map for NY and the Eastern US can be found on the Cornell Fruit Resources [SWD Distribution page](#), courtesy of the Southern Region IPM Center and the University of Georgia Center for Invasive Species and Ecosystems Health. And don't forget to subscribe to the blog, <http://blogs.cornell.edu/swd1/>. ❖❖

spotted wing drosophila (*Drosophila suzukii*) January 1, 2014 - December 31, 2014.



FRUIT  
TOUREVENT  
ANNOUNCEMENTS

## CCE-LOF SUMMER TOUR - JULY 24

❖❖ The 2014 Lake Ontario CCE Summer Fruit Tour will take place on July 24, and will feature New Technology in the Orleans/Niagara Co. Fruit Industry. The stops and topics include:

- Kast Farms, Lattin Rd., Albion - Gala, NY1, & NY2 plantings, economics, and management, including de-fruiting techniques; weed control in young trees; managing fire blight in young trees (Deb Breth, Alison DeMarree, Kerik Cox, Terence Robinson, Mario Miranda Sazo).

- Pettit Farms, Bates Rd., Medina - Black stem borer invasions; low vigor in NY1 & Honeycrisp (Deb Breth, Hannah Rae Warren, Art Agnello, Terence Robinson).

- Ledge Rock Farms, Gravel Rd., Medina - NY1 & NY2 tall spindle plantings; precision chemical thinning (Terence Robinson, Mario Miranda Sazo).

- Vizcarra Vineyards At Becker Farms, Quaker Rd., Gasport - history of farm & market, winery and brewery (Oscar & Mindy Vizcarra).

- New Royal Orchards, Rt. 31, Gasport - new SDHI fungicides for scab and mildew; phytotoxicity demo with tank mixes; protecting sweet cherries from rain with Voen and other canopies (Kerik Cox, Deb Breth, Mario Miranda Sazo, Terence Robinson, and Greg Lang - Michigan State).

There is no charge to attend, thanks to Sponsor and Donor support, but please pre-register by July 18 (585-798-4265 x26; or [krh5@cornell.edu](mailto:krh5@cornell.edu); or on LOF website: <http://lof.cce.cornell.edu/>

## WAYNE COUNTY FRUITGROWER TOUR

Wednesday, August 6, from 9:00 am

Registration and 1st stop at Wafler Nursery & Orchards, 10748 Slaght Rd, Wolcott, NY

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 16th year, and will feature presentations on new club varieties, advances in automated fruit harvest systems, fire blight and apple scab management, PGR use, dealing with biennial bearing, orchard weed control, and internal worm management options, plus much more. Door prizes, lunch, some levity, a BBQ/clambake dinner with a live band, growers and industry representatives from NY and surrounding states — tough to beat on a midsummer day. Free attendance. Contact Lindsay LaMora (585-734-8904; [lindsaylamora@agrassistance.com](mailto:lindsaylamora@agrassistance.com)) for RSVP pre-registration and tour information.



## PEST FOCUS

Geneva: **American plum borer** 2nd flight began today, 7/21. **San Jose scale** trap catch increasing.

Highland: **Spotted tentiform leafminer** sap-feeding mines beginning to appear. **Oriental fruit moth** 2nd flight is at its peak. **Codling moth** 2nd generation larvae emerging.

INSECT TRAP CATCHES (Number/Trap/Day)						
Geneva, NY			Highland, NY			
	<u>7/14</u>	<u>7/16</u>	<u>7/21</u>		<u>7/14</u>	<u>7/21</u>
Redbanded leafroller	1.4	1.3	0.9	Redbanded leafroller	2.3	0.4
Spotted tentiform leafminer	52.3	18.3	23.8	Spotted tentiform leafminer	48.9	11.1
Oriental fruit moth	1.4	0.8	0.2	Oriental fruit moth	2.8	4.1
Codling moth	0.0	0.0	0.0	Codling moth	1.1	2.5
Lesser appleworm	0.5	0.0	0.2	Lesser appleworm	0.2	0.5
San Jose scale	1.5	7.5	192	Variiegated leafroller	0.3	0.1
American plum borer	0.0	0.0	0.4*	Tufted apple budmoth	0.8	0.1
Lesser peachtree borer	0.3	0.0	0.2	Sparganothis fruitworm	0.1	0.0
Pandemis leafroller	0.1	0.0	0.0	Obliquebanded leafroller	0.4	0.0
Obliquebanded leafroller	0.1	0.8	0.0	Apple maggot	0.1	0.4
Dogwood borer	2.3	5.0	3.0			
Peachtree borer	0.6	1.8	0.9			
Apple maggot	0.6	2.5	2.5			
* first catch						

UPCOMING PEST EVENTS		
	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–7/21/14):	1926	1294
(Geneva 1/1–7/21/2013):	2033	1404
(Geneva "Normal"):	2019	1277
(Geneva 1/1–7/28/14, predicted):	2137	1456
(Highland 1/1–7/21/2014):	2208	1498
<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Lesser appleworm 2nd flight begins	1418–2002	918–1326
Redbanded leafroller 2nd flight peak	1554–2002	996–1344
American plum borer 2nd flight peak	2005–2575	1351–1777
Apple maggot 1st oviposition punctures	1605–2157	1226–1575
Codling moth 2nd flight begins	1548–2090	1021–1395
Comstock mealybug 1st flight subsides	1818–2132	1216–1418
Spotted tentiform leafminer 2nd flight subsides	1987–2365	1311–1635

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.