

# scaffolds

Update on Pest Management  
and Crop Development

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

June 2, 2014

VOLUME 23, No. 11

Geneva,

## FLIGHT PATH

ORCHARD  
RADAR  
DIGEST



to be a problem, and will be managed with insecticide against young larvae): early egg hatch and optimum date for initial application of an insecticide effective against OBLR (with follow-up applications as needed): June 22 (H)/June 26 (G).

[H = Highland; G = Geneva]:

### Roundheaded Appletree Borer

RAB egg laying begins: June 5 (H)/June 8 (G);. Peak egg laying period roughly: June 23 to July 7 (H)/June 27 to July 11 (G).

### Dogwood Borer

First DWB egg hatch roughly: June 23 (H)/June 27 (G).

### Codling Moth

Codling moth development as of June 2: 1st generation adult emergence at 35% (H)/24% (G) and 1st generation egg hatch at 0%.

1st generation 3% CM egg hatch: June 6 (H)/June 9 (G) = target date for first spray where multiple sprays needed to control 1st generation CM.

1st generation 20% CM egg hatch: June 12 (H)/June 16 (G) = target date where one spray needed to control 1st generation CM.

### Lesser Appleworm

2nd generation LAW flight begins around: July 8 (H)/July 13 (G).

### Obliquebanded Leafroller

1st generation OBLR flight, first trap catch expected: June 7 (H)/June 10 (G).

Where waiting to sample late instar OBLR larvae is not an option (= where OBLR is known

### San Jose Scale

1st generation SJS crawlers appear: June 16 (H)/June 20 (G).

### Spotted Tentiform Leafminer

2nd STLM flight begins around: June 14 (H)/June 18 (G).



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### PEST FOCUS

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### UPCOMING PEST EVENTS

**FIT TO  
BE  
TIED**

I CAN SEE CLEARWING  
NOW  
(Art Agnello, Entomology,  
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❖❖ In NY, there are two species of sesiid (clearwing) moths that attack peaches — the peachtree borer (PTB), *Synanthedon exitiosa*, and the lesser peachtree borer (LPTB), *S. pictipes*. The adult borers are striking clear-winged moths with yellow and steel-blue body markings. The adults of these insects have from one to four yellow-orange stripes across the abdomen, depending upon species and sex. The PTB enters the tree near soil level and does not require the presence of wounds or breaks in the bark for entry, but the LPTB nearly always enters the tree at a pruning scar, canker, mechanical injury, or winter-injured area. The LPTB additionally attacks cherries, causing the same type of injury in the upper trunk and scaffold branches of these trees. Both species pass the winter as borers inside the tree, and in the spring emerge as moths that lay eggs on or in the trunk during the summer. The LPTB moth emerges first, normally in late May, (we caught our first of this season in Geneva on May 27), and the PTB doesn't show up normally until mid-June; both stay active (laying eggs) through August. When the borer stages hatch, the PTB tends to crawl down the tree to soil level and burrow in there, but the LPTB will move to the nearest injured area, which may be on the lower trunk or just as easily up in the scaffold limbs. LPTB completes its development in one year, but some PTB larvae take two years to develop, so any control measure a grower would elect will require repeating for at least 2–3 years.

Injury is caused by larval feeding on the cambium and inner bark of the trunk close to the soil level (PTB) or on the upper trunk and lower scaffold branches (LPTB). Occasionally, larger roots are also attacked by PTB. Areas attacked often have masses of gum, mixed with frass, exuding from the bark. All ages of trees are injured. Young trees are at times completely girdled and subsequently die.

Older trees are often so severely injured that their vitality is lowered and they are rendered especially susceptible to attack by other insects or by diseases. Although both species may be found in infested trees, younger plantings and those not afflicted by extensive cankers or other bark splits are attacked primarily by PTB.

Chemical control is difficult, owing to the concealed habit of the larvae. Preplant dipping of roots and crowns of peach tree seedlings before planting using Lorsban has given complete control of the peachtree borer for the 1st growing season and has reduced borers during the 2nd season. For in-season control, growers have traditionally relied on one or more coarse insecticide sprays (e.g., Asana, Lorsban, Proaxis, Warrior) of the trunks and lower scaffold branches to deter egg laying and kill newly established larvae. Because this is a labor-intensive measure that often fails to completely control these pests, many growers choose not to elect treatment, or else do an incomplete job, with the intention of getting what they can out of a planting until infestations combine with other peach production factors

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

to warrant tree removal. However, there is a good alternative in the form of pheromone mating disruption (MD) tools for the control of these perennial pests.

Isomate-PTB Dual (Pacific Biocontrol/CBC America, EPA Reg. No: 53575-34) is the twist-tie pheromone dispenser labeled for use against both of these species in all NYS stone fruits. They are placed in the trees at a rate of 150–250 ties/A at or before the first flight, with the higher rate (250/A) recommended when pest pressure is high. This product has replaced the Isomate-LPTB and Isomate-PTB formulations. We have conducted trials on the efficacy of Isomate-LPTB with and without the addition of directed trunk sprays in peaches, and after 2 years we saw that the pheromone dispensers completely suppressed trap catches of both PTB and LPTB for both seasons, compared with relatively heavy flights noted in the non-disrupted comparison blocks, showing that pheromone treatment was highly successful in disrupting the chemical communication of males and females of these two species.

These trials provided sufficient evidence that mating disruption alone is able to provide adequate protection from borer infestations in commercial orchards, giving growers an effective non-chemical alternative to trunk sprays for managing this pest complex in their stone fruit plantings. Growers interested in this approach should be placing the pheromone ties during these next 1–2 weeks, before the LPTB flight gets solidly under way statewide. ❖❖

### PEST FOCUS

Geneva: **American plum borer** 1st catch 5/30. **Plum curculio** oviposition scars 1st noted 5/28. **Green fruitworm** flight has subsided.

### STINK BUG SURVEY CLOSING SOON

❖❖ Got stink bugs? We need your help! We're surveying growers to assess the impact of BMSB on crops and gather information that will help us defeat this pest. Receive a free Guide to Stink Bugs\* if you complete the 10-minute BMSB survey ([https://cornell.qualtrics.com/SE/?SID=SV\\_5ssnjXLNhvp6v1H](https://cornell.qualtrics.com/SE/?SID=SV_5ssnjXLNhvp6v1H)). Your participation will help us to help you Stop BMSB! The survey will be available until June 30th.

—The Outreach Team for "StopBMSB," a project focused on the biology, ecology, and management of the brown marmorated stink bug.

For more info: [StopBMSB.org](http://StopBMSB.org)

[\* see it at [https://pubs.ext.](https://pubs.ext.vt.edu/444/444-356/444-356_pdf.pdf)

[vt.edu/444/444-356/444-356\\_pdf.pdf](https://pubs.ext.vt.edu/444/444-356/444-356_pdf.pdf)]

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INSECT TRAP CATCHES (Number/Trap/Day)						
Geneva, NY				Highland, NY		
	<u>5/27</u>	<u>5/29</u>	<u>6/2</u>		<u>6/2</u>	
Green fruitworm	0.0	0.0	–	Green fruitworm	0.0	
Redbanded leafroller	4.7	1.5	0.2	Redbanded leafroller	0.6	
Spotted tentiform leafminer	7.4	4.7	1.3	Spotted tentiform leafminer	1.8	
Oriental fruit moth	6.0	3.8	4.3	Oriental fruit moth	4.1	
Codling moth	2.3	1.7	2.5	Codling moth	2.8	
Lesser appleworm	0.1*	0.0	0.0	Lesser appleworm	1.3	
San Jose scale	1.1*	1.5	0.7	Variiegated leafroller	1.1	
American plum borer	0.0	0.3*	0.7	Tufted apple budmoth	1.2	
Lesser peachtree borer	0.9*	2.2	0.7			

\* first catch

UPCOMING PEST EVENTS		
	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–6/2/14):	687	398
(Geneva 1/1–6/2/2013):	748	460
(Geneva "Normal"):	771	406
(Geneva 1/1–6/9/14, predicted):	866	528
(Highland 1/1–6/2/2014):	868	500
<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
American plum borer 1st flight peak	590–970	321–589
Codling moth 1st flight peak	561–991	306–586
Lesser appleworm 1st flight peak	349–761	170–432
San Jose scale 1st flight peak	554–742	294–416
Pandemis leafroller 1st catch	773–901	443–525
Obliquebanded leafroller pupae present	601–821	328–482
Obliquebanded leafroller 1st trap catch	812–986	472–594
Redbanded leafroller 1st flight subsides	592–898	332–560
Black cherry fruit fly 1st catch	702–934	380–576
European red mite summer eggs hatch	737–923	424–572
Rose leafhopper adults on multiflora rose	689–893	366–498
Rose leafhopper adults on apple	809–1053	440–622
Spotted tentiform leafminer 1st flight subsides	668–950	369–577

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.