

# caffolds

Update on Pest Management  
and Crop Development

R U I T J O U R N A L

June 3, 2002

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Geneva, NY

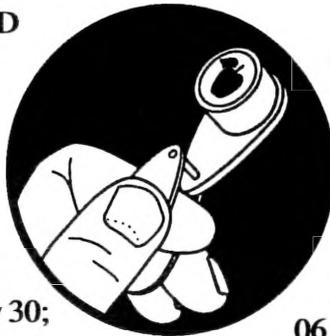
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## ECHO LOCATION

### ORCHARD RADAR DIGEST



#### Geneva Predictions:

Roundheaded Appletree Borer

RAB adult emergence begins: May 30;

Peak emergence: June 13.

RAB egg laying begins: June 09. Peak egg laying  
period roughly: June 28 to July 13.

#### Codling Moth

Codling moth development as of June 03: 1st  
generation adult emergence at 29% and 1st gen-  
eration egg hatch at 0%.

Key CM management dates: 1st gen 3% CM  
hatch: June 12 (= first spray date where two  
sprays are needed to control 1st generation CM;  
2nd spray is 2-3 weeks later). 1st gen 20% CM  
egg hatch: June 19 (= spingle spray date where  
one spray is needed to control 1st gen CM).

#### Obliquebanded Leafroller

1st generation OBLR flight, first trap catch: June  
12.

#### Oriental Fruit Moth

Optimum 1st generation - second treatment date,  
if needed: June 04.

#### San Jose Scale

1st generation SJS crawlers appear: June 20.

#### Highland Predictions:

Roundheaded Appletree Borer

RAB adult emergence begins: May 26; Peak  
emergence: June 08.

RAB egg laying begins: June 03. Peak egg laying  
period roughly: June 23 to July 07.

#### Codling Moth

Codling moth development as of June  
03:

1st generation adult emergence at 52%  
and 1st generation egg hatch at 3%

Key codling moth management dates:

1st generation 3% CM egg hatch: June  
06 (= first spray date where two sprays  
needed to control 1st generation codling moth,  
2nd spray is 2-3 weeks later). 1st gen 20% CM  
egg hatch: June 13 (= single spray date where one  
spray needed to control 1st gen CM).

#### Obliquebanded Leafroller

1st generation OBLR flight, first trap catch: June  
07.

#### Oriental Fruit Moth

Optimum 1st generation - second treatment date,  
if needed: May 30.

#### San Jose Scale

1st generation SJS crawlers appear: June 14.

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### INSECTS

- ❖ New York orchard radar pest predictions
- ❖ Summer insect control
- ❖ Insect developmental models status

### PEST FOCUS

### UPCOMING PEST EVENTS

### INSECT TRAP CATCHES

UP 'N'  
COMERS

**SUMMER RERUNS**  
(Art Agnello, Entomology,  
Geneva)

❖❖ Despite the regular procession of unseasonably chilly nights, we are now officially into the summer phase of the fruit pest management season, and if past trends are any indication (and even if they aren't, which is more likely), our assorted insect pests are continuing along their regularly scheduled developmental paths. If there's such a thing as a normal schedule, they're probably a bit behind it, but that doesn't eliminate those points in time, like about now, when a lot of them might pop up all at once. The following are updates on some of the more noteworthy players in this season's lineup. Dates in parentheses, where present, are the mean date of occurrence according to our recent records.

### **Obliquebanded Leafroller (June 10)**

We have yet to catch the first obliquebanded leafroller adult in western N.Y., but it won't be too much longer before the first moths start showing up. Depending on the location, larvae can be found now in many stages of development, from the relatively small to the pupal stage in some of the more advanced sites. This would therefore be an advisable time to hang a pheromone trap in problem apple blocks, to fix the date of first emergence in your specific area. Recall that we recommend sampling at 600 DD (base 43°F) after the first adult catch, to determine the need and timing for treatment. It pays to keep an eye on the daily highs and lows for your area if you are doing your own trapping, as it's likely that our "normal" first sampling date of July 5 won't turn out to be necessarily appropriate this year.

### **Stone Fruit Aphids**

Although green peach aphids are not always a serious pest every year, colonies of these greenish, smooth-looking aphids may have already started showing up in peach blocks. They cause curled leaves that may turn yellow or red in severe cases,

and more importantly, they are vectors of Plum Pox Virus, which still has not been documented in N.Y., fortunately. The young aphids begin to hatch about the time of peach bloom and remain on the trees for 2–3 generations, until early summer, when they seek other hosts (mainly vegetable truck crops). Green peach aphids suck the sap from the new fruits and twigs, and are also found on plum, apricot, cherry, and many ornamental shrubs. These insects are difficult to control; Provado has another Section 18 label this year, and Lannate and Thiodan are also options, but are probably less effective. Applications are recommended before excessive leaf curling occurs, in order to maximize the spray's effectiveness. Also, keep an eye out for black cherry aphid in your cherry trees after shuck fall. If colonies are building up on the foliage, recommended materials include Provado, Sevin and Imidan (tart cherries only).

### **Cherry Fruit Flies (June 16)**

No adults have been reported caught on sticky board traps yet, but because of the zero tolerance in cherries for insect damage or presence, it's prudent to begin sprays in your cherries

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### **scaffolds**

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now (for this pest as well as for curculio). Guthion, Imidan (tart cherries only), Sevin, Diazinon or the pyrethroids are all effective treatments. Sevin and Imidan will also control black cherry aphid.

### **Lesser Peachtree Borer (May 25)**

The first adult catch in Geneva was noted on May 23. Remember to get your trunk and scaffold sprays on peaches and cherries during the first 10 days of June if borers are a problem in your blocks. If you're planning to use Isomate-L pheromone disruption this year, now is the time to hang the ties (125–150/acre will disrupt both species — Peachtree Borer appears about mid-month — in our region). This pest increases the severity of *Cytospora* canker infections in peaches and is often found within the canker; by feeding in the callous tissues, it interferes with the tree's natural defenses against the disease. Infestations can be determined by the presence of the insect's frass, which resembles sawdust, in the gum exuded from the wound. In peaches, you can use Lorsban 4E, Thiodan, Asana, Ambush, or Pounce for this application. In cherries, use Thiodan 50WP, Asana, Pounce, Ambush, or Lorsban 50WP (tarts only) or 4E, as a trunk spray ONLY; do not spray the fruit.

### **Summer Oil for European Red Mite**

In situations where European red mite pressure or the crop's sensitivity to them haven't necessarily justified an early season treatment with Agri-Mek, Apollo or Savey, this is the time of year when a summer oil program might be considered as an alternative preventive approach. Field research trials conducted in commercial and experimental apple orchards in western N.Y. have shown the effectiveness of using a highly refined oil in a seasonal program to control mites throughout the summer. Some examples of these products are Sunspray Ultra Fine Spray Oil (Sun Refining & Marketing, Philadelphia), Stylet-Oil (JMS Flower Farms, Vero Beach, FL), and Omni Supreme (an ExxonMobil product formulated using Orchex 796 and distributed in our area by Helena); others are labeled and may be available, although we haven't tested all brands.

Our approach is to make three applications, on a preventive schedule, immediately after the bloom period, before mite populations have a chance to build. The first application can be any time from petal fall to 1–2 weeks later, followed by two additional sprays at 10–14-day intervals. The oil is not concentrated in the tank, but rather mixed on the basis of a rate per 100 gallons of finish spray solution; in most cases, we recommend 100 gal. per acre. A rate of 1–2 gal/100 should maintain control of most moderate populations. Don't apply without leaving at least a 10–14-day interval before or after a captan spray.

### **San Jose Scale (June 19)**

Minute SJS adult males emerge in the spring from beneath scale covers on the trees, usually during bloom, and mate. We have not yet caught any adult males in our traps this season. On average the first catch occurs at 481 degree days (50°F base). The females produce live crawlers within 4–6 weeks of mating; these make their way to new sites and insert their mouthparts into the tree, secreting a white waxy covering that eventually darkens to black. SJS infestations on the bark contribute to an overall decline in tree vigor, growth, and productivity. Fruit feeding causes distinct red-purple spots that decrease the cosmetic appeal of the fruit. Insecticidal sprays are most effective when directed against the first generation crawlers, specifically timed for the first and peak crawler activity, which are usually 7–10 days apart.

The most reliable method of determining first appearance of the crawlers in your specific area is by putting sticky-tape traps on the tree limb near encrusted areas and checking them at least twice a week, starting about the second week of June. Alternatively, a degree-day accumulation of 310 DD<sub>50</sub> from the date of first adult catch has also been shown to be reliable if the degree-days are known with some accuracy. In the Geneva area, first crawler emergence has tended to occur sometime around mid-June, but as we have not yet caught any adult males, or even reached the average date of first

continued...

catch, as of this writing, we still have some time to wait. Lorsban used to be the standard recommended treatment for scale, and since it's no longer labeled for summer use, we're fortunate to have a new product available that is reportedly quite effective against this pest. Esteem 0.86EC can be applied at 13–16 oz/acre at first crawler emergence; a low rate (0.25% or 1 qt/100) of a highly refined summer oil (see above) has been shown to improve penetration and, therefore, control. The remaining OP's such as Guthion, Imidan, diazinon and dimethoate, are the conventional standby choices. ❖❖

**Codling Moth.** Also relatively behind recent years. With 250 DD (base 50°F) as a first spray date, we currently have:

Geneva (1st catch of May 23) - 141  
 Highland (1st catch of May 13) - 213  
 Lafayette (1st catch of May 31) - 26  
 Lyndonville (1st catch of May 29) - 69  
 North Appleton/Niagara Co. (1st catch of May 29) - 68  
 Saratoga/Capital District (1st catch of May 22) - 133  
 Sodus (1st catch of May 28) - 83



KEEPING  
TABS

MODEL  
BUILDING

❖❖ **Plum Curculio.** Not tremendous movement toward the 340 DD (base 50°F) spray cutoff for this pest. However, the 10-day forecast calls for uniform highs in the 70's, so these can add up fast (we hope). Some sample numbers:

Geneva (May 13 PF estimate) - 204  
 Highland (May 8 PF estimate) - 229  
 Lafayette (May 20 PF estimate) - 136  
 Lyndonville (May 20 PF estimate) - 221  
 North Appleton/Niagara Co. (May 20 PF estimate) - 101  
 Plattsburgh (May 28 PF estimate) - 73  
 Saratoga/Capital District (May 13 PF estimate) - 133  
 Sodus (May 20 PF estimate) - 128

**Oriental Fruit Moth.** In Niagara Co., using May 6 as the biofix for first flight, the 242 DD (base 45°F) accumulation puts us at 10% first brood larval hatch. Growers should be somewhere between their first (at PF) and second (14 days later) applications of a pyrethroid for this insect (plus curc).

## PEST FOCUS

Highland: 1st **obliquebanded leafroller** caught in Highland. **Potato leafhopper** and **rose leafhopper** moving into apple orchards **Plum curculio** model nearing 340 DD mark. **European red mite** populations low.

## UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–6/3):	717	402
(Geneva 1/1-6/3/2001):	745	432
(Geneva "Normal"):	724	397
(Highland 1/1–6/3):	1006	584

<u>Coming Events:</u>	<u>Ranges:</u>	
American plum borer 1st flight peak	360–962	134–601
San Jose scale 1st flight peak	457–761	229–449
Spotted tentiform leafminer 1st flight subsides	489–978	270–636
Redbanded leafroller 1st flight subsides	417–1104	255–716
Obliquebanded leafroller pupae present	612–860	330–509
Black cherry fruit fly 1st catch	686–985	392–636
Codling moth 1st flight peak	547–1326	307–824
Rose leafhopper adults on multiflora rose	668–916	336–519
Pandemis leafroller 1st catch	749–873	423–488
Pear psylla 1st summer adults present	759–864	443–512
European red mite summer eggs hatch	773–938	442–582

## INSECT TRAP CATCHES (Number/Trap/Day)

	Geneva, NY			Highland, NY		
	<u>5/28</u>	<u>5/30</u>	<u>6/3</u>		<u>5/28</u>	<u>6/3</u>
Redbanded leafroller	0.0	1.0	0.0	Redbanded leafroller	1.2	0.0
Spotted tentiform leafminer	11.5	6.5	2.1	Spotted tentiform leafminer	1.3	1.0
Oriental fruit moth	3.5	9.3	2.4	Oriental fruit moth	0.3	0.3
Lesser appleworm	20.6	13.3	7.5	Codling moth	1.3	1.3
Codling moth	3.7	23.3	2.8	Lesser appleworm	7.8	5.0
San Jose scale	0.0	0.0	0.0	Tufted apple budmoth	0.1*	0.6
American plum borer	0.6	1.0	2.0	Variegated leafroller	0.3*	0.8
Lesser peachtree borer	1.9	6.3	1.6	Obliquebanded leafroller	0.0	0.5*
Pandemis leafroller	–	–	0.0			
Obliquebanded leafroller	–	0.0	0.0			

\* first catch

**scaffolds**

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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.  
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