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# caffolds

Update on Pest Management  
and Crop Development

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

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### Oriental Fruit Moth

Optimum 1st generation first treatment date, if needed: May 25.  
Optimum second treatment date, if needed: June 8.

### Redbanded Leafroller

2nd RBLR flight begins: July 8.

### San Jose Scale

1st generation SJS crawlers appear: June 25.

### Spotted Tentiform Leafminer

1st generation sapfeeding mines start showing: May 20.  
Optimum sample date is around May 27, when a larger portion of the mines have become detectable.  
2nd STLM flight begins around: June 23

### White Apple Leafhopper

1st generation WAL found on apple foliage: May 18.



Geneva Predictions:

### Roundheaded Appletree Borer

RAB adult emergence begins: June 6;  
Peak emergence: June 20.  
RAB egg laying begins: June 15. Peak egg laying period roughly: July 4 to July 18.

### Codling Moth

Codling moth development as of June 2: 1st generation adult emergence at 10% and 1st generation egg hatch at 0%.  
1st generation 3% CM egg hatch: June 17. This is first spray date where multiple sprays needed to control 1st generation CM.  
Second spray date if using Imidan, Avaunt, or azinphosmethyl is around June 29. If using Bt insecticide, the optimum initial spray date is June 12. The rain-adjusted second Bt spray date is around June 22, with a third Bt spray around July 2 needed to maintain protection through majority of CM egg hatch period.  
1st generation 20% CM egg hatch: June 23 (= single spray date where one spray needed to control 1st generation codling moth).

### Lesser Appleworm

Peak trap catch: May 27.

### Mullein Plant Bug

The most accurate time for limb tapping counts, but possibly after MPB damage has occurred, is when 90% of eggs have hatched.  
90% egg hatch date: May 30.

### Obliquebanded Leafroller

1st generation OBLR flight, first trap catch expected: June 16.

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**UPCOMING PEST EVENTS**

**PEST FOCUS**

**INSECT TRAP CATCHES**

## CREATURE FEATURE

COMING  
DISTRACTIONS  
(Art Agnello, Entomology,  
Geneva)

❖❖ Looking back from this vantage point, one would not be likely to confuse this season with the last one; nonetheless, we're reprinting this article from last June 3, with very few changes, and it's impressive how many similarities remain (at least so far): 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; unfortunately, Provado does **not** have another Section 18 label this year, owing to an unforeseen failure of the EPA to grant a federal stone fruit label, as was intended. Lannate and Thiodan are alternatives, but are possibly 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).

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### scaffolds

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**scaffolds** FRUIT JOURNAL

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<http://www.nysaes.cornell.edu/ent/scaffolds/>

**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 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 has yet to be noted in Geneva. 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, we're expecting to hear about the NYS registration of this product this week. Because of the delayed season, this would still not be too late to hang the ties (100–150/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, Pounce, or Warrior for this application. In cherries, use Thiodan 50WP, Asana, Pounce, Ambush, Warrior 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, particularly considering this species' slow start from our cool spring weather. 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 caught the first adult males in our traps on 5/29. On average, the first catch occurs at 251 DD (base 50°F), so they're a little late. 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.

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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 (50°F base) 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. If warm weather (that's predicted) holds, we will accumulate about 10–15 DD (base 50°F) per day so it looks like it may be late-June this year. 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 35WP can be applied at 4–5 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. ❖❖

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ADDS UP

#### 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 23 PF estimate) - 53
- Highland (May 19 PF estimate) - 141
- Lafayette (May 23 PF estimate) - 69
- Lyndonville (May 28 PF estimate) - 30
- North Appleton/Niagara Co. (May 28 PF estimate) - 27
- Saratoga/Capital District (May 27 PF estimate) - 61
- Sodus (May 27 PF estimate) - 32

**Oriental Fruit Moth.** This pest's development is tracked using a 45°F DD model from biofix, defined as the first sustained moth catch. Peach growers should be somewhere between their first (at PF) and second (14 days later) applications of a pyrethroid for this insect (plus plum curculio).

SITE	BIOFIX	CUM DD-45	APPROX. % HATCH
Highland	4/21	533	92%
Geneva	5/1	316	43%
Lyndonville	5/4	317	43%
Albion	5/5	249	25%
N. Appleton	5/6	215	18%
Williamson	5/8	235	22%

**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 22) - 59
- Highland (1st catch of May 19) - 141
- Lafayette (1st catch of May 23) - 69
- Lyndonville (1st catch of May 20) - 71
- North Appleton/Niagara Co. (1st catch of May 28) - 27
- Saratoga/Capital District (1st catch of May 22) - 104

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#### PEST FOCUS

Geneva:  
1st **San Jose scale** caught 5/29. 1st **plum curculio** oviposition scars noted 5/30.

Highland:  
**European apple sawfly** and **tarnished plant bug** damage observed. Low numbers of **white apple leafhopper** on apple and **rose leafhopper** on multiflora rose.

CHECK  
IT  
OUT

**OPPORTUNITIES FOR REIMBURSEMENT FOR IPM FROM NRCS**  
(Submitted by Julie Carroll, IPM, Geneva)

❖❖ Fruit growers in New York are eligible to apply to the Natural Resources Conservation Service branch of USDA for reimbursement for integrated pest management practices that contribute to environmental conservation. An IPM Standard (595) has been developed for the US and adapted for New York. NRCS will use the IPM Elements developed cooperatively by growers, processors, Cornell faculty, CCE staff and others as a basis for determining specific IPM practices. IPM Elements are available for sweet cherries, strawberries, raspberries, and blueberries at: <http://www.nysipm.cornell.edu/elements/index.html>. IPM Elements for apples are in development and will be posted as soon as possible.

According to Frances Tucker of the state AEM (Agricultural & Environmental Management) program, farmers should visit their local NRCS office by the **June 13, 2003 deadline** to begin to apply for the reimbursement process. Depending on whether a farm is a standard,

limited resource, or beginning farm, reimbursement opportunities for IPM practice can vary from 50/50 to 90/10 cost sharing. It is a competitive application process.

Most funding for IPM practices can occur under the EQIP (Environmental Quality Improvement Program). However, New York NRCS has indicated that IPM reimbursement could also be available under CRP (Conservation Reserve Program), WRP (Wetlands Reserve Program), and AMA (Agricultural Management Assistance Program).

In addition, there is funding under these programs for reimbursement of Technical Service Providers for those who provide IPM services for farmers such as private consultants and extension personnel. To learn more about the technical service categories and Technical Service Providers, see <http://techreg.usda.gov/>.

A directory of local NRCS offices and personnel is available at:

[http://oip.usda.gov/scripts/ndisapi.dll/oip\\_public/pgCountyMap?st=ny&state name=New%20York&st cd=36](http://oip.usda.gov/scripts/ndisapi.dll/oip_public/pgCountyMap?st=ny&state name=New%20York&st cd=36)

The New York NRCS website is:

<http://www.ny.nrcs.usda.gov>

The national NRCS website is:

<http://www.nrcs.usda.gov>

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INSECT TRAP CATCHES (Number/Trap/Day)						
Geneva, NY				Highland, NY		
	5/27	5/29	6/2		5/27	6/2
Redbanded leafroller	1.3	1.8	1.0	Redbanded leafroller	1.4	1.0
Spotted tentiform leafminer	43	46.5	26.9	Spotted tentiform leafminer	8.2	3.6
Oriental fruit moth	1.2	2.5	1.8	Oriental fruit moth	4.5	0.4
Lesser appleworm	1.7	1.3	0.3	Codling moth	1.1	0.9
San Jose scale	0.0	1.0*	3.5	Obliquebanded leafroller	0.0	0.0
Codling moth`	0.1	0.3	1.3			
Obliquebanded leafroller	-	-	0.0			
American plum borer	0.1	0.3	1.3			
Lesser peachtree borer	-	-	0.0			

\* first catch

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**UPCOMING PEST EVENTS**

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1-6/2):	625	324
(Geneva 1/1-6/2/2002):	706	397
(Geneva "Normal"):	718	393
(Geneva 6/9 Predicted):	747	401
(Highland 6/2):	840	466

**Coming Events:****Ranges:**

Lesser appleworm 1st flight peak	372-851	181-483
Lesser peachtree borer 1st catch	224-946	110-553
Mullein bug hatch complete	532-720	252-390
Oriental fruit moth 1st flight peak	259-606	96-298
Spotted tentiform leafminer sap-feeders present	295-628	130-325
Pear psylla hardshells present	463-651	259-377
San Jose scale 1st flight peak	457-761	229-449
American plum borer 1st flight peak	360-962	134-601
Obliquebanded leafroller pupae present	612-860	330-509
Redbanded leafroller 1st flight subsides	417-1104	255-716

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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