

# scaffolds

Update on Pest Management  
and Crop Development

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

September 12, 1994

VOLUME 3

Geneva, NY

I  
N  
S  
E  
C  
T  
S

## NOTABLE PEST EVENTS

1994 Tree Fruit  
Arthropod  
Pest Review  
(Art Agnello  
and Dave Kain)



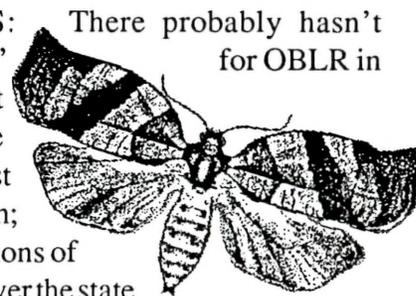
❖❖ Each year that passes convinces us that there is no such thing as a “normal” season for insect and mite pests, which is not too surprising, but more important is the continuing uncertainty over which of our joint-legged adversaries will be the next to raise a challenge to our management efforts. 1994 was very good in some respects, but we are still scratching our heads about both the good and bad events that took place in N.Y. orchards this year.

**MITES:** We were not too sure the winter’s extreme cold would be of any benefit in diminishing the overwintering egg survival, but it now seems as though winter mortality was probably fairly high. Of greater consequence was the near-ideal spring spraying conditions many of the state’s regions enjoyed, so that oil applications made at the 1/2-inch green or tight cluster stages turned out to be extremely effective. Most mite populations never quite recovered, despite the hot and dry summer weather, and even in areas that saw an eventual buildup of damaging mite numbers, this event took place relatively late in the season. Another contributing factor was the further evidence of *Typhlodromus pyri* to withstand cold winter temperatures (in regrettable contrast to *Amblyseius fallacis*), so that this western N.Y. species was prevalent in many orchards throughout the summer.

**LEAFMINERS:** Considering last year’s banner performance by 2nd and 3rd brood STLM, we

were poised for another miserable experience this spring. The good news was that cool, wet weather before bloom seemed to take all the fight out of the 1st brood this year. Although the adults laid a large number of eggs (somewhat later than we expected - many appeared during bloom and early petal fall), most of them were not viable and simply failed to hatch, probably as a result of some unknown weather factor. Unfortunately, the 2nd brood more than compensated for this little respite, and a majority of orchards (or at least farms) required a treatment to control the rampant populations. We were cornered into using a low rate of Vydate in many of our IPM orchards, despite the presence of fledgling predator mite populations, so only time will tell whether the delicate systems survived intact.

**LEAFROLLERS:** There probably hasn’t been an “off year” quite a while, but 1994 may have been more than just a problem season;



the heavy infestations of this leafroller all over the state may portend a serious crisis in the making. All the broods—overwintering, 1st and 2nd summer—were quite numerous in all the usual problem spots, and new inroads seem to have been made:

- Higher-than-normal summer populations were seen in the Hudson Valley.
- Many orchards in western N.Y. without a history of OBLR were under serious attack.
- OBLR numbers and late season OBLR damage were relatively high in pear orchards.

continued...

• OBLR showed up in tart cherries (!) during the harvest period.

• A number of complaints were received about OBLR-like worms in blueberries. Many tortricids inhabit blueberry plantings, and this is a documented blueberry pest in Michigan, but so far we hadn't seen anything concrete in N.Y. Unfortunately, we didn't get any samples to rear through, so the jury is still out on this.

Lots of B.t. applications were made, and many other compounds were used as well, but until some new IGR chemistry becomes available, it looks like this is one battle that will continue to get the better of us for a while. Research continues on mating disruption and parasitic wasp releases...

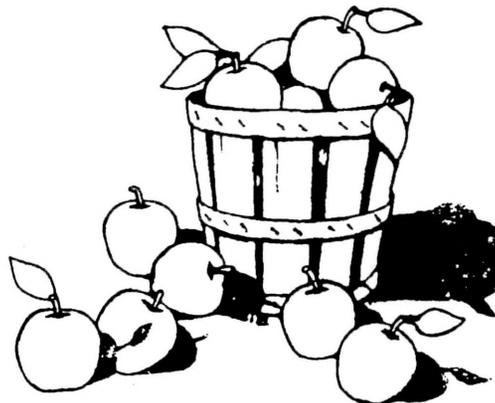
**APPLE MAGGOT:** The first fly was caught on June 30, right on schedule, and the subsequent flight was very light in western N.Y. for the remainder of the season. However, higher rainfall accumulation must have loosened the way for large numbers of emerging adults in the Hudson Valley, where the pressure is traditionally higher, because trap catches in early to mid-August were substantial in that region.

**PEARPSYLLA:** The favorable oil-spraying weather noted above did a similarly efficient job on pear psylla control for many growers, some of whom managed to get two sprays in. Although there were initially high numbers in some area orchards, many growers sprayed in June with Agri-Mek or Mitac, both of which seemed to keep psylla populations in control admirably. This was a welcome change from some past seasons, as was the lack of the resurgence in psylla numbers during mid-August that we saw last year.



**MIRID BUGS:** This group of sometimes-destructive bugs, including mullein bug and apple brown bug, was not as serious as last year in the few orchards where we've seen a problem, mainly research blocks at the Geneva Station. Damage was about 25% of levels suffered last season. Other than that, things looked pretty normal with the bugs making their appearance right when they're supposed to (during bloom).

**LIGHTWEIGHTS:** Some pests made only brief appearances or seemed to be nearly absent, such as rosy apple aphid, plum curculio, San Jose scale, tarnished plant bug, green aphids, codling moth, Comstock mealybug, leafhoppers (although potato leafhopper did make its presence known in some western N.Y. plantings) and twospotted spider mite. ❖❖



**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 3 pm Monday to:

**scaffolds** FRUIT JOURNAL  
Dept. of Entomology  
NYSAES, Barton Laboratory  
Geneva, NY 14456-0462  
Phone: 315-787-2341 FAX: 315-787-2326  
E-mail: art\_agnello@cornell.edu  
Editors: A. Agnello, D. Kain

This newsletter available on CENET, on the Tree Fruit News bulletin board under FRUIT.

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

Geneva NY

HVL, Highland NY

	<u>9/1</u>	<u>9/6</u>	<u>9/9</u>		<u>8/15</u>	<u>8/29</u>	<u>9/6</u>
Spotted tentiform leafminer	143	89	31	Redbanded leafroller	0	<0.1	0.6
Redbanded leafroller	0	0	0	Spotted tentiform leafminer	23	8.3	2.2
Lesser appleworm	0	0.6	1.5	Oriental fruit moth	0.9	0.6	0.6
Oriental fruit moth(apple)	5.8	1.1	3.5	Fruitree leafroller	0	0	0
Codling moth	2.2	0.4	0.8	Lesser appleworm	0.4	0.5	0.1
American plum borer(plum)	0	0	0	Codling moth	3.9	1.7	0.1
American plum borer(cherry)	0.2	0	0	American plum borer	1.7	-	-
Lesser peachtree borer	0	0.2	0	Sparganothis fruitworm	2.9	1.7	2.1
Peachtree borer	0.3	0.1	0	Tufted apple bud moth	0.8	0.3	0.4
Obliquebanded leafroller	0.4	0.1	0.2	Variogated leafroller	2.9	1.7	3.0
Apple maggot	0.08	0	0	Obliquebanded leafroller	0.7	0.3	0.1
San Jose Scale	2.3	0.1	0	Apple maggot	0	0	0

(Dick Straub, Peter Jentsch)

**UPCOMING PEST EVENTS**

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations		
(Geneva 1/1 - 9/9):	3061	2189
<b><u>Coming Events:</u></b>	<b><u>Ranges:</u></b>	
Oriental fruit moth 3rd flight subsides	2987-3522	2018-2377
STLM 3rd flight subsides	3235-3471	2228-2472
Codling moth 2nd flight subsides	2782-3433	1796-2332
Lesser appleworm 2nd flight peak	2961-3235	1927-2326
Lesser appleworm 2nd flight subsides	3182-3466	2047-2460
OBLR 2nd flight subsides	2809-3433	1930-2332

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.

---

---

**scaffolds**

Dept. of Entomology  
NYS Agricultural Exp. Sta.  
Barton Laboratory  
Geneva, NY 14456-0462

ARTHUR AGNELLO  
ENTOMOLOGY  
BARTON LAB

NYS AES