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

Update on Pest Management
and Crop Development

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Geneva, NY

THE YEAR THAT WAS

2000 FRUIT
ARTHROPOD
PEST REVIEW
(Art Agnello &
Dave Kain,
Entomology,
Geneva)



❖❖ It hasn't actually begun to feel like fall yet to some of us, and to others it seems like summer had a rough time making its presence felt at all this year. However, if only on the basis of photoperiod alone, it is certain that the fruit insect and mite populations have begun to pack it in for the season, so my natural response as a compulsive summarizer is to attempt to tie it all up in a form that makes it recognizable in (backwards) perspective.

Best Leading Actor. It surprised many of us with its tenacity, but I'm sure that after all the reviews are in, a majority of people will regard **plum curculio** as the worst insect problem of the year in most of the area's tree fruits. The developmental model we've been using to estimate the length of the oviposition period is a fairly accurate tool under most situations, but we've rarely seen a spring with such a pronounced, stretched out and delayed warming curve as occurred this year. Even the extra spray or two applied by most growers to protect against that last tail of curculio activity seems not to have been enough in many cases, and the tail was so long that it took quite a while for all the cures to finish up their egg laying, so many orchards now bear a higher incidence of scarred fruit than normally would have been expected, given the relatively late spray cutoff dates. It appears that you can't always put a lot of faith in past performances.

The Perfect Storm. Most of us had the benefit of waterproof footwear for navigating the sodden orchards during April and May; a numbr of early season regulars didn't fare so well, however, and in some cases it looked like they decided to take the year off. Particularly notable were **European red mites**, which, between

the poor weather and the effective miticides currently in use around the region, failed to make themselves known in many spots until late August. Rainy conditions similarly thwarted **pear psylla** and **Comstock mealybug** from becoming well established, and **spotted tentiform leafminer** continued its long-running trend of failing to appear until the second or even third generation. One particularly interesting newcomer to the category this year may be **obliquebanded leafroller**, which generally warrants a paragraph all to itself. To paraphrase one local OBLR expert, if you didn't control your oblique populations this year, you never will; it's assumed that the weather was a big factor in this

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scenario, but many growers were also helped by some new-chemistry products that were working at their peak efficiencies this season.

The Usual Suspects. The rain clouds giveth and taketh away, of course, so not all of the insect/weather interactions were necessarily benign. Ample moisture translates into lush foliage, which nicely supports flush feeders like **green aphids** and leafhoppers (several varieties). **Potato leafhopper** particularly seemed to hang around for a longer period than normal, with attendant foliar damage on trees of all ages. Similarly, there were no expectations that **apple maggot** adults would have another difficult time this year emerging from the water-charged soil. Still, the regional populations appear to have taken some major hits recently, so the increased catches did show up, but still in local hotspots, and rather later than normal in the season. The clearwing moth pests didn't have any trouble either, posing their normal challenges to trunk health; **dogwood borer** and both **peachtree borer** species were predictably numerous in sites where they've traditionally been a problem. Catches of **oriental fruit moth** were particularly high in the western stone fruit plantings, as they have been in recent years, but we won't know until the end of harvest evaluation whether our current research efforts were measurably more successful in controlling their fruit damage.

The Up-and-Comers. Complaints of borers in apple trunks are increasing, with a couple of notable hotspots coming to our attention this year. This is apparently related to the increase in dwarf plantings, which almost invariably express burrknot growth through which borers invade. We are beginning to realize that, in addition to stone fruits, **American plum borer** is one of the important borers in dwarf apple. Proximity to tart cherry orchards, in which plum borer numbers have been building for some years, is an important factor. **Mullein plant bug** damage was more widespread this season. Explanations are little more than a guess at this point because this bug remains such a mystery. The most we can say is that weather at bloom plays a role, and that

damaged orchards received either no insecticide treatment, or an insecticide with too short a residual effect, at the pink stage.

Jaws Meets The Blob. Many growers count this as among the most challenging of seasons for growing fruit that they've experienced. Even if the market were in better shape, the debilitating combination of crippling hail storms together with some serious disease-generating conditions will probably make whatever next year brings seem like a walk in the park. But we'll leave that discussion for the folks on the other side of the aisle. ♦♦

PEST FOCUS

Geneva: **Lesser appleworm** and **Oriental fruit moth** 3rd flight numbers increasing.

Highland: **Apple maggot** catch low this week. **Oriental fruit moth**, **lesser appleworm** and **redbanded leafroller** catches increasing. **Mite (ERM, TSSM)** numbers decreasing.

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UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–9/11):	3175	2101
(Geneva 1999 1/1–9/11):	3476	2441
(Geneva "Normal" 1/1–9/11):	3214	2283

Coming Events:

Ranges:

Codling moth 2nd flight subsides	2518–3693	1705–2635
Peachtree borer flight subsides	2230–3255	1497–2309
Redbanded leafroller 3rd flight peaks	2514–3285	1818–2625
San Jose scale 2nd flight subsides	2494–3582	1662–2477
Apple maggot flight subsides	2764–3656	1904–2573
American plum borer 2nd flight subsides	2841–3698	1907–2640
Lesser appleworm 2nd flight peak	2843–3328	1844–2359
Lesser appleworm 2nd flight subsides	2775–3466	2002–2460
Lesser peachtree borer flight subsides	2782–3474	1796–2513
Obliquebanded leafroller 2nd flight subsides	2809–3656	1930–2573
Oriental fruit moth 3rd flight subsides	2987–3522	2018–2377
Redbanded leafroller 3rd flight subsides	3103–3466	2013–2402
Spotted tentiform leafminer 3rd flight subsides	3235–3471	2228–2472

INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

Highland, NY

	<u>8/28</u>	<u>9/5</u>	<u>9/11</u>		<u>8/28</u>	<u>9/5</u>
Redbanded leafroller	0.1	0.3	0	Redbanded leafroller	3.0	3.1
Spotted tentiform leafminer	346	425	173	Spotted tentiform leafminer	145.1	41.8
Oriental fruit moth	2.1	3.3	28.9	Oriental fruit moth	0	1.3
Lesser appleworm	4.0	3.7	34.3	Codling moth	0.6	0.6
Codling moth	2.0	1.9	1.4	Sparganothis fruitworm	–	–
San Jose scale	0.8	0.1	1.3	Apple maggot	0.2	0.1
American plum borer	0	0	0.1	Lesser peachtree borer	0.9	–
Lesser peachtree borer	0.5	0.1	0.2	Lesser appleworm	7.6	2.6
Peachtree borer	1.3	0.4	0	Dogwood borer	0.1	–
Obliquebanded leafroller	0.3	0.1	0.1	American plum borer	0.7	–
Apple maggot	0	0	0	Obliquebanded leafroller	1.1	1.1
				Tufted apple budmoth	0	0
				Variegated leafroller	0.6	0.6

* first catch

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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.
