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Update on Pest Management
and Crop Development

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

September 9, 1996

VOLUME 5

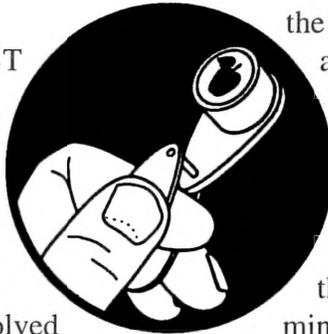
Geneva, NY

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THE FAT LADY SINGS

1996 TREE FRUIT ARTHROPOD PEST REVIEW

(Art Agnello, Harvey
Reissig, & Dave Kain,
Entomology,
Geneva)

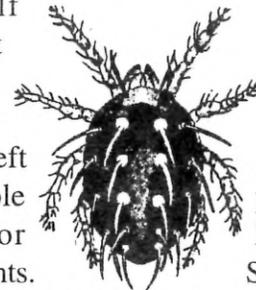


❖❖ Those of us who are involved primarily in any of the crop protection disciplines, as opposed to crop production, tend to develop something of a “jumpy” perspective in our areas of responsibility, probably because we often find ourselves largely REACTING to factors that directly influence our favorite pests, and over which we have no real control—things like the weather, pesticide availability and use, natural enemy abundance, and other mysterious components of the agroecosystem. This past growing season put everyone through a number of changes, same as always, but unpredictability seemed to play a more important part, in both positive and negative ways, than it usually does. First and foremost, certainly, was the weather, which was generally miserable in act one and then quite moderate for an extended period afterwards. Regulatory issues provided both hopes and fears for most of the season, and then the weather combined with a few of those mysteries in the final act to take us toward the conclusion of another remarkable year on the N.Y. fruit scene.

MITES: Without question, the biggest sea change came in mite control programs this year, and more in N.Y. than in any other state. The backdrop was a cold, rainy and protracted prebloom period that made it extremely difficult to do much of anything for European red mites in the early season. Fortunately, this year saw

the first statewide availability of two new acaricides, Apollo and Savey, which offered solid alternatives to the prebloom oil sprays that many growers were unable to apply anyway. As if in compensation, however, came the gratuitous loss of Omite through voluntary cancellation, stemming from a dietary issue that almost no

one would have foreseen. The N.Y. industry reacted by doing the most expedient thing it could to help forestall a potential late-season crisis, which was to obtain a Special Local Need label for Agri-Mek, another new product that had itself slipped through the cracks at the eleventh hour before being able to procure a full label. This still left us without a truly reliable product to use for mid- or late-season rescue treatments. Some southern



states mounted a last-minute effort to get a Section 18 registration for pyridaben (formerly Oracle, but henceforth to be known as Pyramite); N.Y. demurred on this option, owing to a lack of sufficient data and a passing familiarity with our internal regulatory process.

This well could have left N.Y. growers open to some anxious August scenarios, but the god of population dynamics was kind, and moderate temperatures combined with frequent showers to hold ERM numbers down fairly well in most areas. Some problem populations did develop, to be sure, but by and large the worst blocks were those where no early oil had been applied and any postbloom sprays were definitely put on later than they should have been. Many field agents

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spoke of seeing relatively few predator mites this year, but the universality of this turns out to depend strongly on the species under consideration and the insecticides that were applied for other pests. The generally low ERM numbers would indeed translate into scarce predators in blocks where *Amblyseius fallacis* is the predominant species, but *Typhlodromus pyri* can survive on alternative food sources, and the moderate summer weather should have been favorable for this species' establishment and growth. The destructive effects of other pesticides is more likely to have been an important ingredient this year. First, it appears that quite a bit of Asana was used against OBLR this summer (see below); also, increasing numbers of blocks received multiple early mancozeb sprays, and recent work by Jan Nyrop implicates this strategy as being more destructive to predator mites than 1–2 sprays later in the summer.

PLUM CURCULIO: The great-grandbeetle of all tree fruit pests was in rare form this year. Curc oviposition is highly dependent on post-petal fall weather patterns, and as its appearance in 1996 coincided with a period before the spring nasties began to settle down, its egg-laying course was accordingly stretched out over several weeks. Most blocks needed at least 2 sprays for this insect, and some could have used a third. Unfortunately, not everyone took this advice, and the unsettled weather made it difficult to properly time backup treatments for those who did. As a result, most blocks are showing more than the normal amount of curc scars.

OBLR: In some ways, we are still in a kind of holding pattern on our obliquebanded leafroller management approach, even after this year, during which we had a Section 18 label for the novel IGR product, Confirm. This material has never been as effective against OBLR as it is against tufted apple budmoth, and its mode of use is leagues apart from any alternative materials that are available. For this reason, a vigorous educational effort was made by college and industry people to alert growers to its distinctive use guidelines, and reasonable expectations for assessing the results. Nevertheless, termi-



nal infestations 2–3 weeks after applications began were disquieting enough that a number of growers were unable to avoid spraying them out with a contact toxicant, and even those who held to the 3-spray program still came away with more damage than they were expecting. However, some valuable information was obtained from this year's experience, along with prospects for better results next time around. We have no hard information, but it appears that a substantial number of orchards with OBLR pressure were treated with alternative products, including Lorsban and quite a bit of Asana. As usual, nothing seems to be the universal answer in all cases, but nobody's giving up yet.

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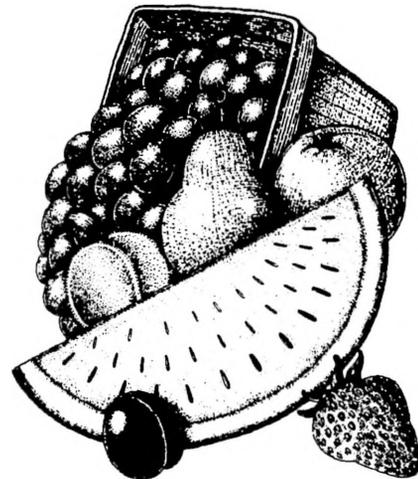
MINOR LEAGUE: Some of our familiar visitors were seen here and there, but not at the outbreak levels they can sometimes have. Spotted tentiform leafminer seems to have drowned and given up the ghost during the 1st brood, and the summer generations were problematic only in localized places. Pear psylla followed much the same trend; between the lousy spring weather and the use of Agri-Mek (available on an SLN label), most pear orchards didn't see countable numbers until later August, if at all. Leafhoppers were locally heavy, including in their old stomping grounds of the Hudson Valley, and woolly apple aphids showed up to stain fingers in a few favorite varieties. Rosy apple aphid was unpredictable, as usual, apparently nowhere to be found at pink, but then showing up after fruit set, together with some previously undetected fruit damage. For the second year in a row, apple maggot catches were substantially lower than normal, perhaps still not quite recovered from the low survival during the 1995 season; we'll have to wait a few months to see how this translates into fruit damage. In the category of disappearing acts, Comstock mealybug seems to have retrenched for the last few years, and tarnished plant bug was scarcely in evidence, at least in the western parts of the state.

FINALE: As impressive as ever, Brood II of the periodical cicada made its clockwork appearance in the lower Hudson Valley, starting at the end of May, and it kept the orchards buzzing until well into July. Substantial twig damage was incurred by ovipositing females, particularly in young trees, and thousands of specimens were collected by local researchers, maybe in an attempt to stock up for those lean years between now and 2013.❖❖

FALL WEBWORM

A TANGLED WEB IT
WEAVES
(Art Agnello)

❖❖ A call from a Long Island apple grower informs us of the activities this year of the fall webworm, *Hyphantria cunea*, a tiger moth (Arctiidae) whose larva feeds on almost all shade, fruit, and ornamental trees except conifers. This is a widespread defoliator that exhibits a preference for American elm, maples and hickory in this region, but a season with sparse OP sprays for apple maggot can bring the local populations into full view on apples and cherries. Adult females, white moths with a few dark spots and a 1-inch wingspan, deposit eggs in early spring, and the yellowish tan larvae pass through many instars (10–11) feeding within a large, compact web they produce that often encloses a whole limb of foliage. When disturbed, all the larvae in the web make jerky movements in perfect rhythm, possibly as a defense mechanism. According to Warren Johnson (“Insects that Feed on Trees and Shrubs”), nests of the fall webworm may be cut out of small trees and destroyed. This insect is detrimental mainly to the beauty of the host and is thus more a nuisance than a threat to the tree's health.❖❖



INSECT TRAP CATCHES (Number/Trap/Day)								
Geneva NY				HVL, Highland NY				
	9/3	9/5	9/9		8/19	8/26	9/9	
Redbanded leafroller	0	0	0	Redbanded leafroller	1.0	0.9	0.3	
Spotted tentiform leafminer	208	269	556	Spotted tentiform leafminer	153	102	-	
Oriental fruit moth(apple)	29.3	29.3	50.0	Oriental fruit moth	0.2	0.1	0.5	
Lesser appleworm	4.0	8.0	14.6	Lesser appleworm	5.4	5.4	1.7	
Codling moth	6.0	7.3	3.9	Codling moth	3.9	0.9	0.1	
San Jose scale	1.3	1.3	1.3	Fruittree leafroller	0	0	0	
American plum borer	0.4	0.3	0	Tufted apple bud moth	0.4	0.6	0.5	
Lesser peachtree borer (peach)	0.4	0	0	Obliquebanded leafroller	0.4	0.1	0.1	
Peachtree borer	0	0	0	Sparganothis fruitworm	0.2	0.7	1.4	
Obliquebanded leafroller	0.7	0	0.3	Variegated leafroller	0.5	0.4	0.1	
Apple maggot	0	0	0.03	Apple maggot	1.0	0.6	0.1	

(Dick Straub, Peter Jentsch)

UPCOMING PEST EVENTS		
	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1 - 9/9):	3122	2163
(Highland 1/1-9/9):	3656	2573
Coming Events:	Ranges:	
Codling moth 2nd flight subsides	2782-3693	1796-2635
Oriental fruit moth 3rd flight subsides	2987-3522	2018-2377
Lesser appleworm 2nd flight subsides	2775-3466	2002-2460
OBLR 2nd flight subsides	2809-3433	1930-2428
Apple maggot subsides	2775-3177	1958-2314
American plum borer 2nd flight subsides	3005-3698	2154-2601
Redbanded leafroller 3rd flight subsides	3103-3433	2013-2359
STLM 3rd flight subsides	3235-3471	2228-2472

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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