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Update on Pest Management
and Crop Development

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

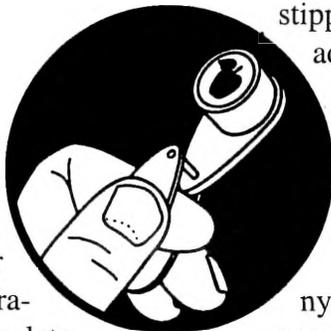
August 23, 1999

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Geneva, NY

NO FLY
ZONE

WAITING TO
INHALE
(Art Agnello,
Entomology,
Geneva)



❖❖ It was previously believed that only white apple leafhopper (WALH), which exhibits two generations after petal fall and in mid- to late August, and potato leafhopper, which appears sporadically between these broods, depending on weather, were present in New York apples. An apparent additional brood has been noted in eastern New York between July and early August. This brood tends to overlap the late August population, so that various stages of WALH are often found on leaves throughout the summer. More recent field observations have shown that many of the leafhoppers seen in apples during midsummer may be a closely related species, rose leafhopper (RLH). An initial study of the leafhopper species complex in the Hudson Valley showed that RLH completes its first generation on weed hosts such as multiflora rose; adults begin ovipositing on apple in mid-June and nymphs appear by early July. From this time until harvest, both species are likely to be present on apple trees; usually one greatly predominates over the other, but the factors influencing the species mixture have yet to be determined. WALH (or leafhopper species complex) appears to have two fairly distinct generations in western New York. Eggs from the single summer generation usually begin to hatch from late July to early August, continuing until mid- to late August. Adults appear in late August and are active until fruit harvest.

Nymphs and adults feed on leaves during the summer, removing chlorophyll and causing white

stippling. Excrement from nymphs and adults on fruit leaves small black spots that resemble the summer disease, flyspeck. During harvest, adults fly throughout the tree canopy, annoying pickers.

Decision Making: WALH nymphs and adults are usually most common on older fruit cluster leaves inside the tree. The number of WALH on a single older fruit cluster leaf should be counted on each of 10 clusters from 5 to 10 trees. Economic threshold levels for WALH feeding damage on apples have not been developed in New York, but the thresholds suggested in other states vary from an average of 0.25 to 2 WALH nymphs and adults per leaf. Treatment for second- or third-generation WALH (or RLH mixture) is recommended in New York if an average of one or more insects (nymphs and adults) per leaf are detected. Sevin, Carzol, and Provado are all potential choices as effective insecticides with short (1-7 days) PHI's.❖❖

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UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1-8/23):	2975	2072
(Geneva 1998 1/1-8/23):	3064	2112
(Geneva "Normal" 1/1-8/23):	2712	1962
(Highland 1/1-8/23):	3482	2502

Coming Events:

Ranges:

American plum borer 2nd flight subsides	2841-3698	1907-2640
Apple maggot flight subsides	2764-3656	1904-2573
Codling moth 2nd flight subsides	2782-3693	1796-2635
Lesser appleworm 2nd flight peak	2961-3328	1927-2359
Lesser appleworm 2nd flight subsides	2775-3466	2002-2460
Lesser peachtree borer flight subsides	2782-3474	1796-2513
Obliquebanded leafroller 2nd flight peak	2634-3267	1789-2231
Oriental fruit moth 3rd flight subsides	2987-3522	2018-2377
Peachtree borer flight subsides	2230-3255	1497-2309
Redbanded leafroller 3rd flight begins	2389-3113	1722-2209
Redbanded leafroller 3rd flight peak	2514-3225	1818-2625
San Jose scale 2nd flight subsides	2494-3257	1662-2302
STLM 3rd flight subsides	3235-3471	2228-2472

INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

Highland, NY

	<u>8/16</u>	<u>8/19</u>	<u>8/23</u>		<u>8/16</u>	<u>8/23</u>
Spotted tentiform leafminer	573	749	556	Spotted tentiform leafminer	12.6	22.3
Redbanded leafroller	0	0	0.1	Redbanded leafroller	0.1	0.7
Oriental fruit moth	15.6	30.0	21.3	Oriental fruit moth	0	0
Lesser appleworm	9.5	7.2	6.8	Codling moth	0.6	0.3
Codling moth	4.8	12.2	7.1	Lesser appleworm	0	0
American plum borer	-	0.3	0.3	Fruittree leafroller	0	0
Lesser peachtree borer	-	1.8	0.3	Obliquebanded leafroller	<0.1	0
Obliquebanded leafroller	0	0.2	0	Tufted apple budmoth	1.3	3.0
San Jose scale	1.6	0.5	0.4	Variegated leafroller	2.4	2.9
Peachtree borer	0.4	0.8	0.6	Sparganothis fruitworm	1.2	1.1
Dogwood borer	-	0.7	0	Apple maggot	<0.1	0.1
Apple maggot	0.1	0.5	0			

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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