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Update on Pest Management and Crop Development

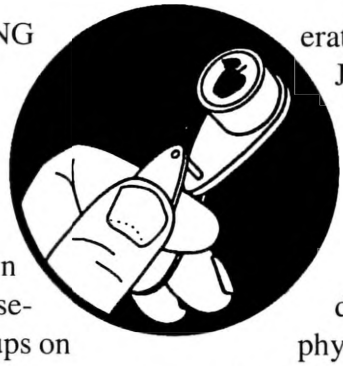
F R U I T J O U R N A L

August 27, 2001 VOLUME 10, No. 24 Geneva, NY

INSECTS

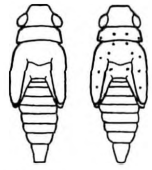
LATE SEASON PESTS

CROP HOPPING (Art Agnello, Entomology, Geneva)



❖❖ As we close in on the main apple harvest period, it might be useful to review one of our past writeups on leafhoppers and their ways:

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.



WALH RLH

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 and Provado are 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 1/1–8/27):	3002	2099
(Geneva 1/1-8/27/2000):	2827	1850
(Geneva 1/1–8/27 "Normal"):	2861	2023
(Highland 1/1–8/27):	3354	2401
(Hudson 1/1–8/27):	3100	2170

Coming Events:	**Ranges:**	
Codling moth 2nd flight subsides	2518–3693	1705–2635
Redbanded leafroller 3rd flight subsides	3103–3466	2013–2402
Spotted tentiform leafminer 3rd flight peak	2415–3142	1728–2231
Spotted tentiform leafminer 3rd flight subsides	3235–3471	2228–2472
American plum borer flight subsides	2841–3698	1907–2640
Apple maggot flight subsides	2764–3656	1904–2573
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

INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

	8/20	8/24	8/27
Redbanded leafroller	0.8	0.8	0.8
Spotted tentiform leafminer	37.5	53.3	101
Oriental fruit moth	6.8	7.1	6.8
Lesser appleworm	12.4	4.0	9.5
Codling moth	7.5	2.8	0.8
San Jose scale	0.5	0	0.2
American plum borer	0.1	0.4	0
Lesser peachtree borer	0.8	0.6	0.3
Peachtree borer	0	0	0
Dogwood borer	–	–	–
Obliquebanded leafroller	0.3	0.6	0
Apple maggot	0.2	0.1	0.3

Highland, NY

	8/20	8/27
Redbanded leafroller	1.2	0.6
Spotted tentiform leafminer	14.2	6.1
Oriental fruit moth	0.4	0.6
Codling moth	0.4	0.1
Lesser appleworm	1.4	0.6
Variegated leafroller	0.6	0.5
Obliquebanded leafroller	0.3	0.1
Tufted apple bud moth	0.1	0.1
Apple Maggot	0.6	0.1
Dogwood borer	0.1	0
Sparganothis fruitworm	2.9	2.2

Hudson, NY (Steve McKay)	8/20	8/27
American plum borer	0	0
Oriental fruit moth	0	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.

This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.