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Update on Pest Management
and Crop Development

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

August 30, 1999

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Geneva, NY

SWEAT THE DETAILS

LONG HOT SUMMER

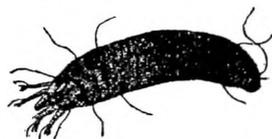
(Art Agnello,
Entomology,
Geneva)



❖❖ Most growers probably have already started thinking about this season's arthropod pest control problems in the past tense, but not every insect and mite pest can be appropriately forgotten by the end of August. There are a couple of relatively minor pests that can be prevented from becoming a big problem next season by devoting a little attention to them after the non-biological Labor Day cutoff date. The number of orchards affected by each is rather small, but you'll be thankful later on if yours is one of them (and you've followed this advice):

Pearleaf Blister Mite

This is a sporadic pest of pears that shows up in a limited number of commercial pear orchards, and is a fairly common problem in home plantings. The adults are very small and cannot be seen without a hand lens; the body is white and elongate oval in shape, like a tiny sausage.



The mite causes three distinct types of damage. During winter, the feeding of the mites under the bud scales is believed to cause the bud to dry and fail to develop. This type of damage is similar to and may be confused with bud injury from insufficient winter chilling. Fruit damage is the most serious aspect of blister mite attack. It occurs as a result of mites feeding on the developing pears, from the green-tip stage through bloom, causing

russet spots. These spots, which are often oval in shape, are usually depressed with a surrounding halo of clear tissue. They are 1/4–1/2 inch in diameter and frequently run together. A third type of injury is the blistering of leaves; blisters are 1/8–1/4 inch across and, if numerous, can blacken most of the leaf surface. Although defoliation does not occur, leaf function can be seriously impaired by a heavy infestation.

The mite begins overwintering as an adult beneath bud scales of fruit and leaf buds, with fruit buds preferred. When buds start to grow in the spring, the mites attack developing fruit and emerging leaves. This produces red blisters in which female blister mites then lay eggs. These resulting new colonies of mites feed on the tissue within the protection of the blister, but they can move in and out through a small hole in its center. The mites pass through several generations on the leaves but their activity slows during the warm summer months. The red color of the blisters fades and eventually blackens. Before leaf fall, the mites leave the blisters and migrate to the buds for the winter.

A fall spray is recommended sometime in early October, when there is no danger of frost for at least 24–48 hr after the spray. Use Sevin 50 WP (2 lb/100), or 1–1.5% oil plus either Diazinon 50WP (1 lb/100 gal) or Thiodan 50WP (1/2–1 lb/100 gal). A second spray of oil plus Diazinon or Thiodan, in the spring, just before the green tissue begins to show, will improve the control.

continued...

Roundheaded Appletree Borer

There has been a recent increase in complaints about damage by this once-serious pest; it is a cerambycid beetle that attacks young, healthy trees, unlike many other longhorn beetles that are attracted to weak or diseased trees. Although it was once considered the worst enemy of the apple tree next to codling moth, current pest management programs have generally relegated it to a rather minor status among most apple growers, except for homeowners and newer or smaller operations. This insect is also a pest of hawthorn, mountain ash, quince, shadbush, cotoneaster, and flowering crabapple.

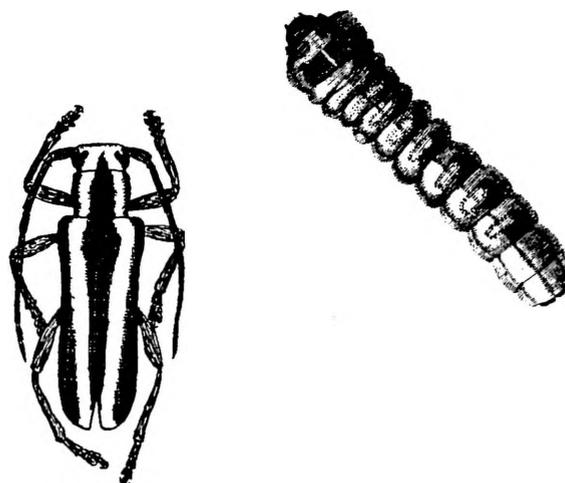
The adult is an attractive light brown beetle, approximately 5/8-inch long, and olive brown with longitudinal white stripes. It emerges in N.Y. in June, and is active at night, normally hiding by day. The larva is a pale yellow grub, 1 inch long, and deeply divided between segments, with a dark brown head and blackish mandibles. Eggs are laid mainly from late June through July in the bark near soil level. Two weeks are required to hatch, after which the larvae bore into the sapwood, and create tunnels throughout the lower trunk area. This insect takes 2–3 years to develop, and is closest to the surface during the first and last few months of its life.

Because of its concealed habit and long life cycle, control of this borer is problematic and can be rather labor-intensive. Control recommendations during the spring and summer consist of various physical or chemical methods to deter the females from laying eggs on the trunk (look for these in a new Fact Sheet on this and other apple-boring beetles by next spring). Now, however, some important steps can be taken in the fall to help ensure the best success in eliminating this pest:

Late summer to mid-Sept: Inspect the bark surface for small pinholes with sawdust exuding from them, checking the lower 24" of the trunk to just below the soil surface. Using a sturdy knife, cut through the bark at any such points until the burrow

is reached; use caution not to further damage the tree. Insert a stiff wire that is slightly hooked at the end, to reach and impale the borer if possible. Additionally, a mixture of pyrethrum in ethanol or PDB (para-dichlorobenzene) moth flakes in cottonseed oil can be injected into the gallery using a grease gun, to kill the borers unable to be reached with the wire.

Mid- to late Sept: Check the trunks for evidence of small larvae working just beneath the surface. Paint on PDB in cottonseed oil wherever castings are found protruding from the bark.❖❖



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INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

Highland, NY

	<u>8/19</u>	<u>8/23</u>	<u>8/30</u>		<u>8/23</u>	<u>8/30</u>
Spotted tentiform leafminer	749	556	305	Spotted tentiform leafminer	22.3	36.6
Redbanded leafroller	0	0.1	0.1	Redbanded leafroller	0.7	1.1
Oriental fruit moth	30.0	21.3	15.6	Oriental fruit moth	0	0
Lesser appleworm	7.2	6.8	9.9	Codling moth	0.3	0
Codling moth	12.2	7.1	2.6	Lesser appleworm	0	0.2
American plum borer	0.3	0.3	0	Fruittree leafroller	0	0
Lesser peachtree borer	1.8	0.3	0.4	Obliquebanded leafroller	0	0
Obliquebanded leafroller	0.2	0	0.2	Tufted apple budmoth	3.0	2.4
San Jose scale	0.5	0.4	0.3	Variiegated leafroller	2.9	2.0
Peachtree borer	0.8	0.6	0.5	Sparganothis fruitworm	1.1	0.8
Dogwood borer	0.7	0	0.4	Apple maggot	0.1	0.1
Apple maggot	0.5	0	0.07			

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–8/30):	3162	2210
(Geneva 1998 1/1–8/30):	3260	2259
(Geneva "Normal" 1/1–8/30):	2897	2096
(Highland 1/1–8/30):	3674	2645

<u>Coming Events:</u>	<u>Ranges:</u>	
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
Oriental fruit moth 3rd flight subsides	2987-3522	2018-2377
Peachtree borer flight subsides	2230-3255	1497-2309
Redbanded leafroller 3rd flight peak	2514-3225	1818-2625
Redbanded leafroller 3rd flight subsides	3103-3433	2013-2359
San Jose scale 2nd flight subsides	2494-3257	1662-2302
STLM 3rd flight subsides	3235-3471	2228-2472
Obliquebanded leafroller 2nd flight subsides	2809-3656	1930-2573

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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