

# scaffolds

Update on Pest Management  
and Crop Development

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

August 19, 1996

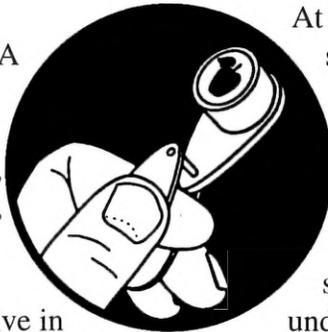
VOLUME 5

Geneva, NY

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GET  
THE  
(PIN)  
POINT?

LATE-SEASON  
APPLE SCAB IN A  
COOL, WET  
YEAR  
(Dave Rosenberger,  
Plant Pathology,  
Highland)



❖❖ Apple scab is still active in some apple orchards where primary scab was not completely controlled. Unless growers take special precautions, fruit from some of these orchards may develop pin-point scab (also known as storage scab) if we have a wet harvest season.

In most years, apple scab becomes relatively inactive during summer. Usually, hot dry days during late June or early July reduce production and viability of apple scab conidia. The arresting effects of the heat are magnified by captan applied in cover sprays. Mature, bearing trees usually set terminal buds in mid-July, and the spread of scab is further limited when the trees stop producing the highly susceptible, unfolding new leaves. This year, the maximum temperature in the Hudson Valley has not reached 90°F since May 21, and we have had abundant rain-fall. Many trees continued growing into late summer because of the ideal growing conditions. Secondary scab lesions have appeared on the upper surface of newly developing terminal leaves through mid-August in some orchards. Now scab is appearing on the underside of leaves.

Scab develops on the undersides of leaves in late summer and fall because of seasonal changes in the natural susceptibility of leaves. Apple leaves gradually become resistant to scab infection as they unfold, expand, and reach full size.

At any given time during spring and early summer, only the youngest leaves are susceptible to infection, even on highly susceptible cultivars like McIntosh. However, susceptibility of leaves of all cultivars increases again during late summer. Late-season infections usually occur on the underside of the leaf. Under-leaf scab fails to develop when primary scab is well controlled or when the combination of heat and summer fungicides inactivates scab during July and August. However, this year under-leaf scab is already prevalent in many orchards in eastern NY.

Scab lesions that develop on the undersides of leaves during late summer and fall usually appear as small, pale brown lesions rather than as the velvety, olive-colored lesions that are typical of spring infections. Sometimes, the under-leaf scab lesions are so indistinct as to escape detection by all but the most experienced observers. However, these indistinct lesions can still produce abundant conidia.

Pin-point scab develops when fruit become infected during the last several weeks before harvest. Fruit with late-season infections may be symptomless at harvest, but numerous small scab lesions can then develop on the fruit during the first 30–45 days in cold storage. Pin-point scab becomes a problem only when all three of the following occur:

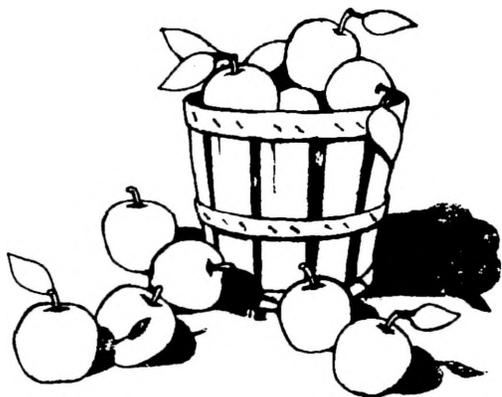
1. Abundant scab inoculum is present (thus, the concern about under-leaf scab).
2. Fungicide residue on fruit is depleted several days or weeks before harvest.

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3. *Wetting* periods longer than 30–36 hours occur after fungicide residue is depleted.

In orchards where late-season terminal scab or under-leaf scab is present, an additional captan cover spray may be needed during the last week of August or in early September if extended wetting periods are predicted. The usual preharvest spray interval of 30–60 days may not provide adequate protection against pin-point scab in high-inoculum orchards during a wet harvest season. Benlate or Topsin M applied in mid-August to prevent fly-speck will NOT protect against apple scab because most orchards in NY have strains of apple scab that are resistant to these fungicides. The same is true for dodine (Syllit). Applications of SI fungicides (Rubigan, Nova, Procure) are specifically NOT recommended during late summer, both because such applications are likely to contribute to the development of SI-resistant strains of scab, and because the eradicator/suppressant activity of these fungicides is totally unproven for applications made in late summer and fall when leaves are increasing in natural susceptibility to infection.

There is no postharvest treatment that will arrest development of infections that produce pin-point scab in storage. Thus, preventing infections that lead to pin-point scab can be accomplished only by keeping fruit protected with captan right up until harvest. ❖❖



IT AIN'T  
OVER  
'TIL...

EYES OPEN

(Art Agnello, Entomology,  
Geneva)

❖❖ As the apple insect season winds down, don't neglect the possibility of the traditional eleventh-hour infestations that can complicate picking efforts and add to the stress on trees that are preparing for their transition to the cooler, non-productive days of fall. We have already seen healthy infestations of woolly apple aphids in McIntosh trees, and the weather in coming days is forecast to remain favorable for their buildup. Judge the severity of any infestations in your trees, plus the projected harvest dates, and if needed, select a suitable material keeping in mind the respective PHI: PennCap-M (14 or 21 days PHI), Thiodan (21 days), or Lorsban (28 days). PennCap-M and Lorsban will also control apple maggot. This is also prime time for an increase in nymphal populations of white apple leafhopper; an average of more than 2 per leaf can be addressed using Provado (7 days PHI),

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**scaffolds** FRUIT JOURNAL

Dept. of Entomology  
NYSAES, Barton Laboratory  
Geneva, NY 14456-0462

Phone: 315-787-2341 FAX: 315-787-2326  
E-mail: ama4@cornell.edu

Editors: A. Agnello, D. Kain

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<http://www.nysaes.cornell.edu/ent/scaffolds/>

Sevin (1 day), the aforementioned Thiodan, Lannate (14 days), or Carzol (7 days). Provado and Lannate will also help out on any 3rd brood leafminers and green aphids, Sevin and Lannate will help control apple maggot, and of course Carzol is active against motile mites, although these should be packing it in on their own by now. ❖❖



N.Y. FRUIT PEST CONTROL  
FIELD DAY - 2nd NOTICE

**PEST FOCUS**

Geneva: **Obliquebanded leafroller** 2nd flight beginning. **Spotted tentiform leafminer** 3rd flight beginning.  
Highland: **17-year cicada** nymphs emerging.

❖❖ Don't forget this annual event in Geneva, sponsored by the Departments of Plant Pathology and Entomology, which has been scheduled for September 4 this year. All those interested are invited to attend this preliminary presentation of results of field trials on the control of diseases and insects attacking N.Y. fruit crops. Results will be discussed from experiments on tree fruits and grapes. Presentations on tree fruits are scheduled for the morning, and grape research plots will be highlighted after lunch. Registration begins at 8:30 at Barton Laboratory, NYSAES, Geneva, on Wednesday, September 4. See you there. ❖❖

<b>INSECT TRAP CATCHES (Number/Trap/Day)</b>								
Geneva NY				HVL, Highland NY				
	8/8	8/12	8/19		8/5	8/12	8/19	
Redbanded leafroller	0	0	0	Redbanded leafroller	0.2	0.3	1.0	
Spotted tentiform leafminer	163	96	465	Spotted tentiform leafminer	109	152	153	
Oriental fruit moth	4.2	5.6	5.2	Oriental fruit moth	0.1	0.5	0.2	
Lesser appleworm	1.0	2.5	1.2	Lesser appleworm	2.5	3.5	5.4	
Codling moth	17.7	8.5	11.0	Codling moth	8.9	4.9	3.9	
San Jose scale	7.0	1.4	3.3	Fruitree leafroller	0	0	0	
American plum borer	3.7	1.6	4.4	Tufted apple budmoth	0.1	0.2	0.4	
Lesser peachtree borer (peach)	0.3	0.8	1.5	Obliquebanded leafroller	0.3	0.7	0.4	
Peachtree borer	2.7	3.0	3.8	Sparganothis fruitworm	0	0.1	0.2	
Obliquebanded leafroller	0	0	0**	Variegated leafroller	0	0.6	0.5	
Apple maggot	0.4	0.1	0.1	Apple maggot	3.4	2.1	1.0	

\*\* OBLR being caught in other traps  
\*=1st catch

(Dick Straub, Peter Jentsch)

## UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1-8/19):	2561	1750
(Highland 1/1-8/19):	3037	2101

<u>Coming Events:</u>	<u>Ranges:</u>	
OBLR 2nd flight peak	2634-3267	1789-2231
Oriental fruit moth 3rd flight peaks	2389-3267	1712-2326
Apple maggot peaks	2033-2688	1387-1778
STLM 3rd flight peaks	2415-3142	1728-2231
San Jose scale 2nd flight peaks	2136-2591	1567-1874
Redbanded leafroller 3rd flight begins	2389-3113	1722-2209

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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Dept. of Entomology  
NYS Agricultural Exp. Sta.  
Barton Laboratory  
Geneva, NY 14456-0462

ARTHUR AGNELLO  
ENTOMOLOGY  
BARTON LAB

NYSAES