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Update on Pest Management and Crop Development

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INSECTS

HOME STRETCH

RIDING OUT THE PHOTOPERIOD

(Art Agnello, Entomology, Geneva)

❖❖ Probably no one is prepared to conclude that we've gotten into a rut with two of these cool, wet summers in as many years, but continuity does tend to play a role in the occurrence of certain insect problems, and we have tried to be mindful this year that most pest occurrences tend to revert ultimately to some long-standing norm if you wait long enough. If we were cynics, we'd speculate that nothing ensures a problem's recurrence more than tending not to pay attention to it, but for now we'll merely observe that very few of the traditional pest insects turned up in numbers we were expecting this season, especially after seemingly taking the 2003 season off.

So, to be cautious, we're not ruling out the possibility that, for instance, blocks with a history of internal worm problems might need a last-minute application of a short-PHI material to help stave off the final feeding injury caused by young larvae. Before the harvest period begins *in earnest*, a fruit examination could help determine whether the last brood of any of the likely species needs a final deterrent before the sprayer is put away. Some thought might be given to using an alternative material such as a B.t., a pyrethroid, Assail, or a sprayable pheromone, as appropriate.

PEARLEAF BLISTER MITE

Another season-end problem that may deserve attention now is this 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

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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.

For those plantings that might be suffering from this errant pest, 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/Thionex 50WP (1/2–1 lb/100 gal). A second spray of oil plus Thiodan, in the spring, just before the green tissue begins to show, will improve the control.❖❖

GENERAL INFO

LAST CALL

FINAL REMINDER - TREE FRUIT PEST CONTROL FIELD DAY

❖❖ Please remember to make plans to attend the annual N.Y. Fruit Pest Control Field Day, which will take place during Labor Day week on Sept. 9 and 10. This year, as we did last year in order to accommodate participants who may wish to attend other area tours earlier in the week, the dates have been shifted to the Thursday and Friday of the week, **AND** the Geneva installment will again take place first (Thursday Sept. 9), with the Hudson Valley installment on the second day (Friday Sept. 10). Activities will commence in Geneva on the 9th, with registration, coffee, etc., in the lobby of Barton Lab at 8:30 am. The tour will proceed to the orchards to view plots and preliminary data from field trials involving new fungicides, miticides, and insecticides on tree fruits and grapes. It is anticipated that the tour of field plots will be completed by noon. On the 10th, participants will register at the Hudson Valley Laboratory starting at 8:30, after which we will view and discuss results from field trials on apples.❖❖

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INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

	8/16	8/23	8/30
Redbanded leafroller	0.0	0.1*	0.4
Spotted tentiform leafminer	16.7	10.8	16.8
Oriental fruit moth	0.1	0.4	0.1
Lesser appleworm	0.2	0.3	0.1
Codling moth	0.0	0.1	0.0
San Jose scale	0.0	0.0	0.0
Obliquebanded leafroller	0.3	0.5	1.1
American plum borer	1.1	0.9	0.6
Lesser peachtree borer	0.1	0.6	0.4
Peachtree borer	1.7	0.9	0.0
Apple maggot	0.5	0.6	0.0

* first catch

Highland, NY

	8/16	8/23
Redbanded leafroller	0.6	1.0
Spotted tentiform leafminer	15.9	8.5
Oriental fruit moth	0.4	1.8
Codling moth	0.1	0.1
Lesser appleworm	1.9	3.1
Obliquebanded leafroller	0.0	0.0
Sparganothis fruitworm	0.4	0.4
Tufted apple bud moth	0.0	0.0
Variegated leafroller	0.1	0.0
Apple maggot	0.7	0.5

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–8/30):	2922	1936
(Geneva 1/1–8/30/2003):	2897	1959
(Geneva "Normal"):	2977	2087
(Geneva 9/6 Predicted):	3099	2064

Coming Events:	**Ranges:**	
Oriental fruit moth 3rd flight peak	2641–3249	1821–2257
Spotted tentiform leafminer 3rd flight peak	2599–3055	1776–2134
Lesser appleworm 2nd flight peak	2315–3295	1554–2292
Obliquebanded leafroller 2nd flight peak	2615–3023	1779–2117
Redbanded leafroller 3rd flight peak	2742–3222	1876–2342
Peachtree borer flight subsides	2523–3191	1708–2232
San Jose scale 2nd flight subsides	2639–3349	1785–2371
Apple maggot flight subsides	2772–3374	1908–2368

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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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