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Update on Pest Management and Crop Development

FRUIT JOURNAL

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INSECTS

ALMOST THERE

PENULTIMATE PEST PROSPECTS (Art Agnello, Entomology, Geneva)

❖❖ In contrast to many recent years, this has been one of those summers that is more like they used to make 'em, featuring temperatures that were warmer than usual, and rainfall that was either more (western NY) or less (eastern NY) plentiful than desired. The impact on arthropod pests has varied accordingly, with a few head-scratching outbreaks but not many actual crises, as most of this year's problems have been met appropriately by NY growers. With harvest approaching, there are just a couple remaining pest management duties.

Of greatest potential concern are the internal leps, which have been noticeable, as usual, but not overwhelming in the normal trouble spots; however, there are still oriental fruit moths and even a few codling moths flying in some sites. Therefore, to be cautious, we shouldn't rule out the possibility that blocks with a history of internal worm problems might need a last-minute application of an appropriate-length 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. Potential choices (and PHIs) now include Altacor (5 days), Assail (7 days), a B.t. (0 days), Calypso (30 days), Delegate (7 days), a pyrethroid (PHI varies), or a sprayable pheromone (0 days), as applicable.

A couple of less common last-minute pests have surfaced in specific orchards around the state, illustrating the range of species that can potentially cause trouble during any given season. One is western flower thrips, found in nectarines being grown on drought-stressed Long Island. Adults move from alternate weed or crop hosts to fruit just prior to and during harvest, feed on the fruit surface in protected sites, such as in the stem end, the suture, under leaves and branches, and between fruits. This results in silver stipling or patches; injury is particularly obvious on highly colored varieties. An application of Delegate immediately before the first harvest may prevent subsequent losses; however, an additional application may be needed if pressure is severe. The PHI varies from 1 day (nectarines) to 7 days (cherries, plums, and prunes) to 14 days (peaches and apricots.

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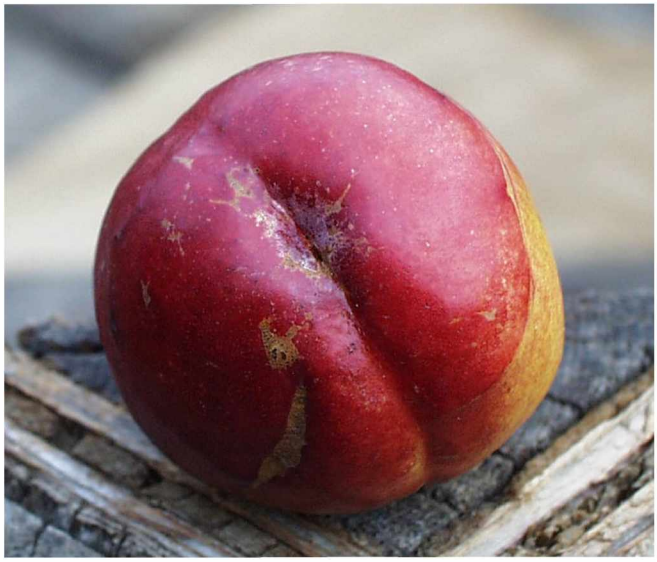

Western flower thrips damage (Note sivering in suture)

Also, a severe infestation of what was originally thought to be white peach scale was detected by Jim Eve in Wayne Co. in sweet cherry trees last week. Upon further investigation, however, it appears more likely that this was a closely related species, white prunicola scale, which cannot be separated from its sister species in the field. Of the two, the white prunicola scale is more common in temperate climatic zones such as upstate New York and New England. Infestations are characterized by numerous white scales that cluster on the trunk and scaffolds, giving them a whitewashed appearance. Feeding reduces tree vigor, and foliage of affected trees may become sparse and yellow; heavy infestations can cause death of twigs, branches and entire trees if left unattended. This species overwinters as an adult female and deposits eggs in the spring. Horticultural oil is recommended as a dormant spray in April, and insecticides can be used against crawlers in mid-June through early July (about 700–1150 DD base 50°F from March 1). Materials such as Movento or Centaur would be two good candidates at such a time.

Another season-end problem that may deserve consideration now is pearleaf blister mite, a sporadic pest of pears that shows up in a limited number of commercial pear orchards and is a fairly com-

White prunicola scale on cherry (Jim Eve photo)

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mon 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.

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 XLR Plus (1.5–3 qt/A) or 80S (1.88–3.75 lb/A), or 1–1.5% oil plus either Diazinon 50WP (1 lb/100 gal) or Thionex (50WP, 0.5–1 lb/100 gal; 3EC, 0.33–0.67 qt/100 gal). A second spray of oil plus Thionex, in the spring, just before the green tissue begins to show, will improve the control. ❖❖

FIELD NOTES

Regional Trap Numbers
Week Ending 8/23, Avg No./trap

Location/County	Date	STLM	OFM	LAW	CM	OBLR	AM
Lyndonville/Orleans	8/17	34.3	2.3	6.7	1.7	0.7	19.0
Waterport/Orleans	8/17	18.3	1.3	11.7	0.7	0.7	7.7
Hilton/Monroe	8/17	45.0	2.0	7.0	10.0	0.0	-
Lincoln/Wayne	8/17	114	0.0	21.0	1.0	1.3	4.0
Sodus-Lakesite/Wayne	8/17	60.7	0.0	1.3	0.0	0.0	3.0
Sodus-Inland/Wayne	8/17	148	0.0	0.3	0.3	1.7	9.0
Alton/Wayne	8/17	242	0.0	18.0	0.7	0.0	3.0
Wolcott/Wayne	8/17	97.3	0.3	12.3	7.3	0.7	2.3
Newfield/Tompkins	8/16	310	0.0	0.0	0.7	0.0	38.5
Lafayette/Onondaga	8/16	173	0.0	26.3	2.0	3.3	3.3
Chazy/Clinton	8/17	715	0.3	4.3	0.0	0.0	6.7
Valcour/Clinton	8/17	340	0.0	4.7	0.7	0.7	2.3
Peru/Clinton	8/17	768	0.0	5.3	0.0	3.0	14.3
Granville/Washington	8/20	274	0.0	49.3	3.7	8.0	4.0
Burnt Hills/Saratoga	8/20	396	0.0	0.5	6.0	8.0	1.5
Altamont/Albany	8/20	9.5	0.0	0.0	4.5	0.0	10.0
Modena/Ulster	8/19	12.0	0.0	0.0	0.0	4.5	4.0
Marlboro/Ulster	8/19	121	50.0	0.0	8.0	1.5	20.0
Accord/Ulster	8/16	9.0	0.0	24.0	6.0	2.5	1.5

INSECT TRAP CATCHES
(Number/Trap/Day)

Geneva, NY

	8/16	8/20	8/23
Redbanded leafroller	0.1	0.4	0.2
Spotted tentiform leafminer	14.8	6.3	5.8
Oriental fruit moth	2.6	1.0	0.7
Lesser appleworm	0.0	0.0	0.0
American plum borer	0.3	0.0	0.0
Lesser peachtree borer	0.0	0.0	0.0
San Jose scale	0.5	2.0	1.8
Peachtree borer	0.0	0.0	0.0
Apple maggot	2.1	0.4	0.7

Highland, NY

	8/23
Redbanded leafroller	1.1
Spotted tentiform leafminer	15.4
Oriental fruit moth	7.8
Lesser appleworm	0.3
Codling moth	1.6
Obliquebanded leafroller	1.8
Apple maggot	0.2

* first catch

GENERAL INFO

TRIAL RUN

EVENT REMINDERS

N.Y. FRUIT PEST CONTROL FIELD DAYS
Wednesday Sept. 8 (Barton Lab, NYSAES, Geneva) 8:30 am
Thursday Sept. 9 (Hudson Valley Lab, Highland) 8:30 am

After registration in the respective labs' lobbies, the tours will proceed to the orchards to view plots and preliminary data from field trials involving new fungicides, bactericides, miticides, and insecticides on tree fruits and grapes. It is anticipated that the tour of field plots will be completed by noon. No pre-registration is required for either event.

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–8/23/10):	3211	2273
(Geneva 1/1–8/23/2009):	2707	1806
(Geneva "Normal"):	2828	1955
(Geneva 1/1–8/30 predicted):	3380	2393
(Highland 3/1–8/23/10):	3512	2461

Coming Events:	Ranges (Normal ±StDev):	
Oriental fruit moth 3rd flight peak	2649–3239	1819–2241
Oriental fruit moth 3rd flight subsides	2928–3412	1978–2310
Redbanded leafroller 3rd flight peak	2717–3207	1881–2225
Lesser appleworm 2nd flight subsides	2794–3488	1918–2422
San Jose scale 2nd flight subsides	2639–3349	1785–2371
Apple maggot flight subsides	2772–3258	1907–2283
American plum borer 2nd flight subsides	2929–3365	2015–2381
Codling moth 2nd flight subsides	2845–3493	1922–2472
Lesser peachtree borer flight subsides	2996–3446	2017–2433
Obliquebanded leafroller 2nd flight subsides	3095–3473	2121–2457

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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