

scaffolds

Update on Pest Management
and Crop Development

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

April 28, 2008

VOLUME 17, No. 6

Geneva, NY

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PREPARE
FOR
TAKEOFF

ORCHARD
RADAR
DIGEST



Redbanded Leafroller

Peak trap catch and approximate start of egg hatch: May 1.

San Jose Scale

First adult SJS caught on trap: May 17.

Spotted Tentiform Leafminer

1st STLM flight, peak trap catch: May 9.

1st generation sapfeeding mines start showing: May 21.

Optimum sample date is around May 22, when a larger portion of the mines have become detectable.

White Apple Leafhopper

1st generation WALH found on apple foliage: May 13



Geneva Predictions:

Roundheaded Appletree Borer

RAB adult emergence begins: May 28;

Peak emergence: June 13.

RAB egg laying begins: June 6. Peak egg laying period roughly: June 28 to July 12.

Codling Moth

1st generation 3% CM egg hatch: June 9 (= target date for first spray where multiple sprays needed to control 1st generation CM).

1st generation 20% CM egg hatch: June 16 (= target date where one spray needed to control 1st generation codling moth).

Lesser Appleworm

1st LAW flight, 1st trap catch: May 9.

Mullein Plant Bug

Expected 50% egg hatch date: May 13, which is 9 days before rough estimate of Red Delicious petal fall date.

The most accurate time for limb tapping counts, but possibly after MPB damage has occurred, is when 90% of eggs have hatched.

90% egg hatch date: May 18.

Obliquebanded Leafroller

1st generation OBLR flight, first trap catch expected: June 10.

Oriental Fruit Moth

1st OFM flight starts, and first treatment date, if needed: April 28.

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PEST FOCUS

UPCOMING PEST EVENTS

INSECT TRAP CATCHES

READY
TO
BUST

THE BRINK OF PINK
(Art Agnello, Entomology,
Geneva)

❖❖ The stop-and-go temperature wheel has succeeded in playing havoc with nearly everyone's expectations about where we are vs. where we should be at this point in the season, since some blocks in some regions are certainly at pink bud already (or will get there this week), and others are still clambering through tight cluster. Nevertheless, this would probably be a timely opportunity to get prepared for the crush of pink bud pest management duties that always seems to coincide during too short a period. A brief assessment of where we stand with insect pests might be useful at this point.

The potential pests of most concern just now are probably rosy apple aphid (RAA), oriental fruit moth (OFM), and tarnished plant bug (TPB), with European apple sawfly and plum curculio lurking in the wings. Unlike the past few years, OFM has managed to show its face well before bloom this season, and very likely the warm-up predicted for the end of this week will see biofix established in most plantings statewide. In blocks with a history of internal worm infestations, 1 or 2 traps checked weekly might help indicate the relative size of the first generation population this year. This is followed, of course, by the question of how to respond when the numbers start building.

This is always a pertinent time of the year to quote the philosopher Yogi Berra, who might have been giving prebloom advice when he said 'If you don't know where you are going, you will wind up somewhere else.' However, I might venture a guess that, even though we may get quite a few moths flying during pink and bloom, the overall temperature ranges we're expecting will result in very little egg hatch until petal fall, when the newly emerged 1st

brood larvae will be best handled. Most growers will be using an OP like Guthion or Imidan at petal fall, possibly tank-mixed with a Bt, Intrepid or Proclaim for OBLR, and all of these will have some effect on most OFM populations. In particularly high-risk situations (that is, where you had a hard time managing internal leps last year, and can predict that they'll be back this year), you might want to substitute a more lep-active material like Avaunt or Calypso for one of your petal fall or (adding As-sail in the list of options) first cover sprays. This way you might get an extra jump on the OFM/CM complex during their first generation, while covering the need to protect against other petal fall regulars like plum curculio and European apple sawfly. Speaking of which, both of these postbloom anticipators will have gotten a kick-start from the recent warm days and nights, so they're likely to be waiting anxiously for the newly set fruitlets to become available for their good works. This will underscore the importance of prompt petal fall sprays, admittedly more of a challenge in mixed plantings of varieties with markedly different bloom dates.

continued...

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According to your personal philosophy, RAA and TPB can be either perennial challenges, puzzling but non-fatal occurrences, or else a complete flip of the coin. Do you have them, do you need to treat for them, are you able to control them if you do, and does it matter if you don't? These pests also have been slow to tip their hand this season, although some founding colonies have already been noted in local orchards. It's possible to scout for rosies at pink, but this is often not practical, given all the other hectic activity at this time. TPB is not a good candidate for scouting, and if the bloom period is prolonged by cool, wet weather, a pink spray is of little use. You'll have to decide for yourself whether this bug is of sufficient concern to you to justify treating. We have seen few orchards in western NY where TPB control is warranted (and only slightly more in the Hudson Valley), simply because the most effective treatment to use has been a pyrethroid, which a) kills predator mites, and b) still rarely lowers TPB damage enough to be economically justified. If you elect a spray of Ambush, Asana, Baythroid, Danitol, Pounce or Warrior at pink for plant bug, you'll take care of rosy apple aphid (and STLM) at the same time. If RAA is your main concern, you could elect a pink spray (non-pyrethroid options include Actara, Assail, Calypso, Esteem, Lannate, Lorsban, Vydate, OR the newly labeled product Beleaf – see the "Chem News" section) if you have the luxury of a suitable application window. Once again, be sure to consider potential impacts on non-target species such as beneficials, and be aware of your bee supplier's concerns about effects on pollinating bees.

What else is happening at pink? STLM is laying eggs, but most orchards don't seem to suffer too greatly from 1st brood leafminer these days, and a sequential sampling plan can be used to classify STLM egg density at pink or of sap-feeding mines immediately after petal fall (see pages 69 and 71 in the Recommends). Treatment is recommended if eggs average 2 or more per leaf on the young fruit cluster leaves at pink, or if sap-feeding mines average 1 or more per leaf on these leaves at petal fall. Sampling can be completed in approximately 10 minutes.

Leafrollers are also out there, but only part of the population is active at this time, so while you might get good control of any larvae you spray now, don't neglect the fact that the rest of the population won't be out (and susceptible to sprays) until bloom or petal fall, so it's probably better to wait until then to address this pest.

Finally, if mites normally need attention in a given block, and you haven't elected (or been able to) a delayed-dormant oil application as a part of your early season mite management program, you'll be needing to rely on either: one of the ovicidal acaricides (Apollo, Savey, Zeal) available for use, whether before or after bloom; a rescue-type product (Nexter, Acramite, Kanemite, Kelthane, Carzol, Zeal) that can reduce motile numbers later on if they should begin to lap at the threshold; or Agri-Mek, which falls somewhere between these two strategies. Like the true ovicides, Agri-Mek should also be considered a preventive spray, since it needs to be applied early (before there are very many motiles) to be most effective, generally within the first 2 weeks after petal fall. Also, as a reminder, Carzol is restricted to no later than petal fall, so it may be of limited use in most programs. For any of the rescue products, the operational threshold in June is an average of 2.5 motiles per leaf (see the chart on p. 72 of the Recommends).❖❖

PEST FOCUS

Geneva:

Oriental fruit moth 1st trap catch 4/24.

Highland:

Pear psylla nymphs present on pear 4/24. 1st **plum curculio** observed in apples.

YOU CAN
BELEAF
IT

PRODUCT
REGISTRATION
UPDATE, III
(Art Agnello,
Entomology, Geneva)

ON
SITE

COLONY COLLAPSE
DISORDER UPDATE
AVAILABLE

FMC

❖❖ Beleaf 50SG (EPA Reg. No. 71512-10-279) is an insecticide labeled against aphids and plant bugs in NY for pome fruit and stone fruit; the label classifies it as an IRAC Section 9C material, which is “Unknown or non-specific mode of action – selective feeding blockers”. We have not tested it in NY field trials, but researchers in NJ have reported good efficacy against green peach aphid and tarnished plant bug in peaches. The label also lists apple aphid, black cherry aphid, rosy apple aphid, spirea aphid and woolly apple aphid. As always, proper timing and adequate coverage are recommended for best results against these species. ❖❖

❖❖ Dr. Nicholas Calerone, at Cornell’s Dyce Laboratory for Honey Bee Studies, has released an extensive update on the Colony Collapse Disorder (CCD) situation. In this letter to the Cornell University Master Beekeeper Program, Nick details the background and scope of this problem, symptoms and possible causes of CCD. He discusses possible links of the disease with known parasites and viruses, and refers to the latest published research on current findings. This very informative update will be available on the Scaffolds website for those wishing to read the letter in its entirety. ❖❖

PHENOLOGIES		
Geneva:		
	<u>4/28</u>	<u>5/5 (Predicted)</u>
Apple(McIntosh):	full pink	bloom
Apple(Red Delicious):	early pink	king bloom
Apple(Empire):	early pink	bloom
Pear(Bartlett):	white bud	bloom
Sweet cherry(Hedelfingen):	10% petal fall	petal fall
Tart cherry(Montmorency):	bloom	bloom
Plum (Stanley):	bloom	petal fall
Peach:	bloom	petal fall
Highland:		
Apple (Ginger Gold):	bloom	
Apple (McIntosh):	king bloom	
Apple (Red Delicious):	early king bloom	
Apple (Golden Delicious):	1st king bloom	
Pear (Bartlett/Bosc):	bloom	
Peach (early):	10% petal fall	
Peach (late):	bloom	
Plum (Stanley):	bloom	
Sweet cherry:	bloom–10% petal fall	

INSECT TRAP CATCHES (Number/Trap/Day)

	Geneva, NY				Highland, NY	
	<u>4/21</u>	<u>4/24</u>	<u>4/28</u>		<u>4/21</u>	<u>4/28</u>
Green fruitworm	0.0	0.7	0.0	Green fruitworm	0.1	0.0
Redbanded leafroller	5.3	9.0	7.5	Redbanded leafroller	6.7	6.1
Spotted tentiform leafminer	0.1	0.8	9.0	Spotted tentiform leafminer	30.2	53.4
Oriental fruit moth	–	0.2*	0.5	Oriental fruit moth	0.2*	4.4
				Codling moth	0.0	0.0

* first catch

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–4/28/08):	323	178
(Geneva 1/1–4/28/2007):	206	92
(Geneva "Normal"):	238	112
(Geneva 1/1–5/5 Predicted):	367	195
(Highland 3/1–4/28/08):	293	140
<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Redbanded leafroller 1st flight peak	229–377	103–191
Spotted tentiform leafminer 1st flight peak	257–407	115–207
Comstock mealybug 1st gen. crawlers in pear buds	215–441	80–254
European red mite egg hatch	231–337	100–168
European red mite egg hatch complete	368–470	182–280
Oriental fruit moth 1st catch	207–381	81–203
Pear psylla egg hatch	174–328	60–166
Rose leafhopper nymphs on multiflora rose	239–397	96–198
American plum borer 1st catch	331–525	143–279
Lesser appleworm 1st catch	257–573	116–304
Mirid bugs 1st hatch	332–468	163–239
McIntosh at bloom	348–420	171–219

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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