

SCAFFOLDS Fruit Journal, Geneva, NY

Volume 20, No. 6

Update on Pest Management and Crop Development

April 25, 2011

COMING EVENTS

	43°F	50°F
Current DD accumulations		
(Geneva 1/1-4/25):	160	61
(Geneva 1/1-4/25/2010):	327	170
(Geneva "Normal"):	214	98
(Geneva 1/1-5/2 Predicted):	260	121
(Highland 1/1-4/25):	201	79
Coming Events – Ranges (Normal +/- Std Dev):		
European red mite egg hatch	231-337	100-168
Green apple aphid present	111-265	38-134
Green fruitworm peak catch	102-216	39-101
Obliquebanded LR larvae active	158-314	64-160
Oriental fruit moth 1st catch	222-324	94-164
Pear psylla adults active	31-99	8-34
Pear psylla 1st oviposition	40-126	11-53
Pear psylla 1st egg hatch	174-328	60-166
Pear thrips in pear buds	118-214	50-98
Redbanded leafroller 1st catch	108-174	39-79
Redbanded LR 1st flight peak	231-365	105-187

Rose leafhopper 1st nymph on rose	239-397	96-198
Rosy apple aphid nymphs present	134-244	56-116
STLM 1st catch	113-199	41-93
STLM 1st oviposition	143-273	58-130
McIntosh tight cluster	213-255	92-124

Phenologies 4/25 5/2 (Predicted)

Geneva:

Apple (McIntosh):	½" green	tight cluster
Apple (Empire):	½" green	tight cluster
Apple (Red Delicious):	¼" green	tight cluster
Pear (Bartlett):	bud burst	bud burst
Sweet cherry (Hedelfingen):	swollen bud	white bud-bloom
Tart cherry (Montmorency):	swollen bud	white bud
Peach (Red Haven):	swollen bud	pink
Apricot (Harrowblush):	bud burst	bloom

Highland:

Apple (McIntosh/Ginger Gold, Red/Golden Delicious):	tight cluster
Pear (Bartlett/Bosc):	early green cluster
Peach (early and late):	pink
Plum (Italian/Stanley):	green cluster
Cherry (Sweetheart, Early):	early bloom
Apricot (Early):	late bloom

TRAP CATCHES (Number/trap/day)

Geneva

	4/14	4/18	4/21	4/25
Green Fruitworm	0.1	0.0	0.0	0.0
Redbanded Leafroller	0.0	0.0	0.0	1.0*
Spotted Tentiform Leafminer	0.0	0.0	0.0	0.0

Highland (Peter Jentsch)

	4/18	4/25
Green Fruitworm	0.3	0.0
Redbanded Leafroller	3.9	4.7
Spotted Tentiform Leafminer	0.4	10.8
Oriental Fruit Moth	0.0	0.0
Lesser Appleworm	-	0.0

* = 1st catch

PEST FOCUS

Geneva: Redbanded Leafroller 1st trap catch today,
4/25

[Section: INSECTS]

SLINKING TOWARDS PINK

(Art Agnello, Entomology, Geneva)

[Box text: SLOWLY WE TURN]

After a quarter-century in this job, I'm still waiting to see a "normal" growing season, or for that matter, even a spring that doesn't qualify as being just a little strange. The old expression says that even the most inhospitable weather can't push the buds back in, but if it were possible, it seems it could have happened this year. Regardless, a look at our "average" apple phenology dates shows that we're still within the expected range of dates for both half-inch green and tight cluster for Macs in Geneva (although we're still at HIG), but the warmer temperatures forecast for the next few days should put at least some of the state within sight of pink bud by later in the week. As such, this is a timely opportunity to get prepared for the rush of pest management issues that always seem to converge over too short a period at this time of year. A brief rundown 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** in the bullpen. OFM could show its fuzzy face at any time in the Hudson Valley, and it won't be very long before biofix is

established in a number of 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.

Experience has shown that even though we may get quite a few moths flying during pink and bloom, the average temperature ranges during this period tend to 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 for plum curculio, 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 have had a hard time managing internal leps in the past, 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 Assail to the list of options) first cover sprays. This way you will 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. Added to the scenario is the availability of Altacor, Belt and Delegate, which are other options at petal fall to address all the above-noted caterpillars, and, to a lesser extent for Altacor and Delegate, plum curculio, although it may be a bit early to formulate a strategy for this period just yet.

According to your personal philosophy, RAA and TPB can be either perennial challenges, vexing but superficial annoyances, or else a complete flip of the coin. Do they occur, 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 yet to indicate their potential for problems this season, although it's likely that rosies can be found already in local orchards, given enough inspection. It's possible to scout for RAA at pink, but this is often not practical, considering 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 (see Peter Jentsch's article in last year's April 5 issue for a discussion of the factors to take into account:

<http://www.scaffolds.entomology.cornell.edu/2010/10/0405.pdf>).

We have seen few orchards in western NY (and only slightly more in the Hudson Valley) where TPB control is warranted, simply because the most effective treatment has been to use 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, Proaxis 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, Beleaf, Calypso, Esteem, Lannate, Lorsban, Thionex, and Vydate) 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? **Spotted tentiform leafminer** 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 68 and 70 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 a portion of the population is active at this time, so while you might get good control of any larvae you spray now, don't forget 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 use) 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/Onager, Zeal) available for use, whether before or after bloom; a rescue-type product after bloom (add Acramite, Carzol, Kanemite, Nexter, and Portal to the above list) that can reduce motile numbers later on if they should begin to approach 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, as 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. Recall that Proclaim is related to Agri-Mek, and also has some miticidal activity, if you elect to use it at petal fall for leafrollers. 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. 71 of the Recommends).

This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Scaffolds is published weekly from March to September by Cornell University -- NYS Agricultural Experiment Station (Geneva), and Ithaca -- with the assistance of Cornell Cooperative Extension. New York field reports welcomed. Send submissions by 3 p.m. Monday to:

Scaffolds Fruit Journal

Editors: A. Agnello, D. Kain

Dept. of Entomology, NYSAES

630 W. North St.

Geneva, NY 14456-1371

Phone: 315-787-2341 FAX: 315-787-2326

E-mail: ama4@cornell.edu

Online at

<<http://www.scaffolds.entomology.cornell.edu/index.html>>