scaffolds

Update on Pest Management and Crop Development

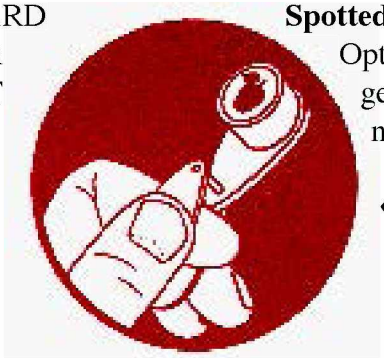
F R U I T J O U R N A L

July 7, 2014 VOLUME 23, No. 16 Geneva, NY

INSECTS

ANTENNAE ANTENNA

ORCHARD RADAR DIGEST



[H = Highland; G = Geneva]:

Roundheaded Appletree Borer
RAB peak hatch roughly: July 8 to July 25 (H)/ July 12 to July 29 (G).

Dogwood Borer
Peak DWB hatch roughly: July 26 (H)/July 31 (G).

Codling Moth
Codling moth development as of July 6 (H): 2nd generation adult emergence at 1% and 1st generation egg hatch at 98%.
Codling moth development as of July 6 (G): 1st generation adult emergence at 100% and 1st generation egg hatch at 92%.

Lesser Appleworm
2nd generation LAW flight begins around: July 7 (H)/July 11 (G).

Oriental Fruit Moth
2nd generation second treatment date, if needed: July 13 (H)/July 19 (G).

Redbanded Leafroller
Peak RBLR catch and approximate start of egg hatch: July 8 (H)/July 13 (G).

Spotted Tentiform Leafminer
Optimum first sample date for 2nd generation STLM sapfeeding mines: July 8 (H)/ July 13 (G).

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IN THIS ISSUE…

ABOUT NOW

CRUISING ALTITUDE
(Art Agnello, Entomology, Geneva)

❖❖ Our summer once again seems to have bypassed the traditional July warming-up phases and jumped straight to August-like dog-days, complete with recurring afternoon pop-up thunderstorms. This type of weather pattern tends to benefit some insect pests and hinder others. The following is a brief rundown of some items to keep near the top of your "scramble" list, just to help prevent anything from boiling over.

Internal Leps

We are still generally in between the first and second flights for both codling moth and oriental fruit moth. The first brood CM hatch essentially ended last week, so most sites with traditionally heavy pressure from these pests should have already addressed first generation larval control needs. Look for the first captures of the 2nd flight for purposes of timing management sprays; we should note a definite uptick in trap numbers within the next 7–10 days, especially if the current hot spell continues.

Obliquebanded Leafroller

According to our developmental models, the first summer brood hatch should be anywhere from about 50–90% complete around the state this week. Orchards with historically high OBLR pressure should have received an application of a suitable material during the first part of July, so this week would be the latest possible time for such an application against the larvae of this brood if they haven't been attended to. Delegate, Altacor, Belt, Rimon and Proclaim are appropriate choices, particularly in cases where the larvae are a bit larger, and a B.t. product such as Dipel, or else the IGR Intrepid are also options, but these tend to be more effective when applied against the earlier stages. If you are applying Belt, Altacor or Delegate to control codling moth and oriental fruit moth, they will also be very effective against OBLR at this time. Regardless, we have found that this specific spray is the most critical for preventing fruit-feeding damage at harvest, so put this at the top of your list of priorities if OBLR has distressed you in the past.

Apple Maggot

Adults made their first appearance in Geneva last week, and should begin showing up in traditional high-pressure sites around the state this week. Stings and larval tunneling would first be detected in early and favored varieties such as Ginger Gold and Honeycrisp, particularly in the Hudson Valley. If you aren't monitoring in specific orchards and haven't yet made preparations for a protective spray against AM (and aren't using Delegate or Altacor for OBLR, both of which have some activity on AM), prudence would suggest attention to this pest. Hanging a few volatile-baited sphere traps on the edge of susceptible plantings can provide valuable insight on when (and whether) immigrating flies are posing a threat. Growers on a Delegate or Altacor program for leafrollers/internal leps should get some protection against moderate AM pressure. For those not using Imidan in their cover sprays, Assail and Calypso will both provide excellent control of apple maggot as well as internal leps.

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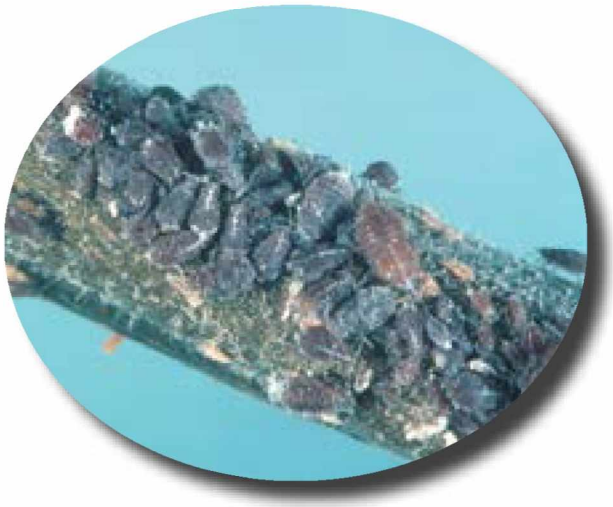
Woolly Apple Aphid (from Jim Eve)

Individual nymphs have started to become noticeable in Wayne Co. as they make their way up into the canopies of infested trees, although no actual aerial colonies have yet been seen. This would be a prudent time to begin a preventive spray program for this pest in blocks with historically high pressure. Quoting from the June 9 issue's overview of treatment options:

'WAA is resistant to the commonly used organophosphates, but other insecticides are effective against WAA, including Diazinon and Thionex, and some newer products such as Admire, Assail, Beleaf, or Movento may offer suppression (for Movento and Assail, addition of a non-ionic surfactant or horticultural mineral oil will improve activity). Good coverage to soak through the insects' woolly coverings is integral to ensuring maximum efficacy. Additionally, a Lorsban trunk application for borers made at this time will effectively control any nymphs that might be contacted by these sprays.' ❖❖



CHEM NEWS

SEC. 18 A GO

BIFENTHRIN APPROVED AGAINST BMSB IN HUDSON VALLEY

(Peter Jentsch, Entomology, Highland; pjj5@cornell.edu)

❖❖ New York's Section 18 application for the use of products containing the pyrethroid bifenthrin has been approved by the EPA. This is a renewal by the EPA and NYS DEC of an emergency exemption use permit (Section 18) for bifenthrin to control brown marmorated stink bug on apples, peaches, and nectarines this year. The regional application request was submitted to EPA from the mid-Atlantic states of DE, MD, NC, NJ, PA, VA, WV and NY. Bifenthrin is one of the most effective insecticides for use against the brown marmorated stink bug (BMSB). As was the case last year, its use is limited to Orange, Dutchess and Ulster Counties of NY. Applications should be considered as the first step in managing the insect, taking into account the 30-day interval between applications. The first application, upon trapping or observational threshold, can be made along the orchard edge, bordering deciduous woodland and hedgerows or clusters of host trees such as black locust, Tree of Heaven, maple, or ash. The need for a second application can be triggered as the insect is observed on fruit and/or captured in pheromone traps using 40 BMSB per trap per week as a threshold.

Bifenthrin is a pyrethroid sold under the trade names of Brigade WSB (10% bifenthrin, EPA Reg. No. 279-3108, FMC Corp.), Bifenture EC (25% bifenthrin, EPA Reg. No. 70506-227), and Bifenture 10DF (10% bifenthrin, EPA Reg. No. 70506-227, United Phosphorus Inc.). Regardless of the product used, a maximum of 0.08 to 0.2 lb[AI]/acre/season will be allowed, with no more than 0.5 lb a.i./acre applied per year with multiple applications made

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at a minimum of 30 day intervals; a restricted entry interval (REI) of 12 hours and pre-harvest interval (PHI) of 14 days must be observed. When applying either of these materials for BMSB control on apples, peaches, or nectarines growers must have possession of the Section 18 label, which can be found at: (http://pmep.cce.cornell.edu/regulation/

PEST FOCUS

Highland: **Obliquebanded leafroller** fruit damage evident. **Spotted tentiform leafminer** eggs expected to hatch this week. **Apple maggot** 1st catch today, 7/7. **Japanese beetle** feeding damage noted on apple and stone fruit.

FRUIT TOUR

EVENT ANNOUNCEMENTS

GENERAL INFO

CCE-LOF SUMMER TOUR - JULY 24

❖❖ The 2014 Lake Ontario CCE Summer Fruit Tour will take place on July 24, and will feature New Technology in the Orleans/ Niagara Co. Fruit Industry. The stops and topics include:

- Kast Farms, Lattin Rd., Albion - Gala, NY1, & NY2 plantings, economics, and management, including de-fruiting techniques; weed control in young trees; managing fire blight in young trees (Deb Breth, Alison DeMarree, Kerik Cox, Terence Robinson, Mario Miranda Sazo).
- Pettit Farms, Bates Rd., Medina - Black stem borer invasions; low vigor in NY1 & Honeycrisp (Deb Breth, Hannah Rae Warren, Art Agnello, Terence Robinson).
- Ledge Rock Farms, Gravel Rd., Medina - NY1 & NY2 tall spindle plantings; precision chemical thinning (Terence Robinson, Mario Miranda Sazo).
- Vizcarra Vineyards At Becker Farms, Quaker Rd., Gasport - history of farm & market, winery and brewery (Oscar & Mindy Vizcarra).
- New Royal Orchards, Rt. 31, Gasport - new SDHI fungicides for scab and mildew; phytotoxicity demo with tank mixes; protecting sweet cherries from rain with Voen and other canopies (Kerik Cox, Deb Breth, Mario Miranda Sazo, Terence Robinson, and Greg Lang - Michigan State).

There is no charge to attend, thanks to Sponsor and Donor support, but please pre-register by July 18 (585-798-4265 x26; or krh5@cornell.edu; or on LOF website: http://lof.cce.cornell.edu/

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INSECT TRAP CATCHES
(Number/Trap/Day)

Geneva, NY

	6/30	7/3	7/7
Redbanded leafroller	0.5*	2.7	1.9
Spotted tentiform leafminer	27.0	67.7	20.0
Oriental fruit moth	3.3	1.0	1.1
Codling moth	0.5	0.7	0.6
Lesser appleworm	0.9	0.7	0.4
San Jose scale	0.0	0.0	0.0
American plum borer	0.1	0.0	0.1
Lesser peachtree borer	0.6	0.2	0.5
Pandemis leafroller	2.6	0.7	0.6
Obliquebanded leafroller	3.0	0.7	2.8
Dogwood borer	5.4	14.7	15.0
Peachtree borer	0.9	0.7	1.6
Apple maggot	0.3*	0.5	0.3

* first catch

Highland, NY

	6/30	7/7
Redbanded leafroller	5.4	3.8
Spotted tentiform leafminer	50.2	62.9
Oriental fruit moth	2.7	4.1
Codling moth	1.6	0.4
Lesser appleworm	1.4	0.5
Variegated leafroller	0.6	0.3
Tufted apple budmoth	3.7	3.1
Sparganothis fruitworm	0.0	0.0
Obliquebanded leafroller	4.5	2.9
Apple maggot	0.0	0.04

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–7/714):	1573	1039
(Geneva 1/1–7/7/2013):	1576	1044
(Geneva "Normal"):	1623	996
(Geneva 1/1–7/14/14, predicted):	1774	1191
(Highland 1/1–7/7/2014):	1801	1188

Coming Events:	Ranges (Normal ±StDev):	
Pandemis leafroller flight subsides	1426–1660	891–1073
Comstock mealybug 1st flight peak	1505–1731	931–1143
Spotted tentiform leafminer 2nd flight peak	1384–1800	866–1200
Codling moth 1st flight subsides	1249–1839	789–1213
Dogwood borer peak catch	1470–1908	916–1264
Oriental fruit moth 2nd flight peak	1470–1980	937–1331
San Jose scale 2nd flight begins	1628–1986	1056–1342
Obliquebanded leafroller 1st flight subsides	1603–2039	1039–1373
Lesser appleworm 2nd flight begins	1418–2002	918–1326
Redbanded leafroller 2nd flight peak	1554–2002	996–1344
American plum borer 2nd flight begins	1548–2090	1021–1395
Apple maggot 1st oviposition punctures	1605–2157	1226–1575

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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