

SCAFFOLDS Fruit Journal, Geneva, NY

Volume 21, No. 26

Update on Pest Management and Crop Development

September 4, 2012

2011 FRUIT ARTHROPOD PEST REVIEW

(Art Agnello, Entomology, Geneva; ama4@cornell.edu)

[Box Text: ON RECORD]

Probably to no one's surprise, this year's review of fruit arthropods will of necessity be rather cursory, owing to the sparse nature of actual fruit that was available for us to monitor, and the modified management programs implemented on many farms as a result. Having a few weeks of spring-summer weather (March) followed by a normal month of winter-spring weather (April), plus one of the driest seasons on record, not only took its toll on the normal development of our tree fruit crops, it also seemed to throw many of the insects' cycles into the realm of the never-been-seen before.

Internal leps seemed to make the most of the strange season; we had some of the earliest first flights ever seen (OFM as early as April 14 in Western NY, and May 4 for CM), and the prolonged warm temperatures have

easily promoted a 4th generation OFM flight in more advanced sites like Long Island (especially in peaches), and a 3rd CM generation flight statewide. Damage from these species has been notable in high-pressure sites around the state, so growers fortunate enough to have a crop have had their work cut out for them keeping it protected from attack. Obliquebanded leafroller, on the other hand, seemed not to fare so well; we generally saw a normal (if early) 1st flight, starting at the end of May and finishing by mid-July, and then the 2nd flight never really materialized into anything more than marginal straggling numbers for the remainder of the season. Damage from these caterpillars also seemed to be scarce. Plum curculio probably came and went fairly early in the season, but we truthfully didn't notice much evidence of its activity at the time, and even now, fruit damage seems to be relatively minimal.

The hot and dry July-August period was actually pretty similar to 2011; **European red mites** threatened to take off in a few orchards, and **woolly apple aphids** were evident in a few here and there. **Japanese beetles** once again made an appearance, but didn't seem to leave much damage in their wake. **Apple maggot** was almost nowhere to be found for most of

the summer, although a few August rains produced a small bump in trap numbers for a short time. Potato leafhoppers did come through in a couple of waves, making the case for control sprays in some younger plantings.

Finally, the summer wouldn't be complete without a nod to the two long-anticipated and potentially troublesome invasives that have been keeping most of our neighboring states very busy, **Brown Marmorated Stink Bug (BMSB)** and **Spotted Wing Drosophila (SWD)**. BMSB traps (with new, more effective lures) were set out in the Hudson Valley this season, and did capture some specimens in agronomic plantings, although feeding damage was not readily seen, as far as we can tell so far. Weekly inspections in Finger-Lakes area tree fruits and peripheral weed hosts turned up nothing once again this year. SWD started showing up in low numbers by July in ENY, and early August west of Rochester; there was a sharp increase in trap captures at the end of August, with peaches, brambles and grapes being the favored sites to date. If this year is anything like 2011, this trend should continue at least well into October.

[Section: CHEM NEWS]

AZINPHOS-METHYL USE EXTENDED

(from EPA's Office of Pesticide Programs, Aug. 30, 2012)

[Box Text: + 365]

After considering comments from growers and other stakeholders, EPA has completed a final risk-benefit analysis for the remaining uses of the organophosphate insecticide azinphos-methyl (AZM). EPA has decided to maintain the September 30, 2012, effective date for cancellation of the remaining uses of AZM on (the following tree fruits): apples, pears, sweet and tart cherries. Due to unusual bad weather conditions in 2012, EPA will modify the cancellation order to allow growers to use only existing stocks of AZM in their possession for another year, through September 30, 2013. All the required mitigation measures now reflected on AZM labeling will remain in effect during this use. Distribution or sale of AZM after September 30, 2012, remains prohibited. (**NOTE:** Even though the EPA has issued this change, keep in mind that any pesticide used in New York State must be currently registered with the DEC at the time of use. Check the registration status of any product prior to use.)

THE STICKY DETAILS

(Art Agnello & Dave Kain, Entomology, Geneva)

[Box Text: OVER 'N' OUT]

With this issue, Scaffolds ceases publication for the season; we expect to start up again next March. In February, as usual, we'll send out an email to all current subscribers to verify addresses for next year's mailing list. Our thanks to all of you who have sent comments, suggestions, and articles our way, a practice we hope you'll continue. As a wrap-up, here's our annual summary of the year's pheromone trap results and an Index of Volume 21, 2012 of Scaffolds Fruit Journal.

KEY = GFW - Green Fruitworm; RBLR - Redbanded Leafroller; STLM - Spotted Tentiform Leafminer; OFM - Oriental Fruit Moth (in apples); LAW - Lesser Appleworm; CM - Codling Moth; SJS - San Jose Scale; APB - American Plum Borer (in cherries); LPTB - Lesser Peachtree Borer (in cherries); DWB - Dogwood Borer; PL - Pandemis Leafroller; OBLR - Obliquebanded Leafroller; PTB - Peachtree Borer; AM - Apple Maggot; * - first catch of the generation

Geneva Pest Trapping Results - Avg/Trap/Day

DATE	RBLR	STLM	OFM	APB	LAW	SJS	CM
3/22	1.5*						

3/26	5.6						
4/2	0.0						
4/9	1.1						
4/12	0.0						
4/16	14.8	10.5*	8.1*				
4/19	9.2	3.8	4.8				
4/26	2.0	5.9	2.3		0.8*		
4/30	3.0	2.5	0.3		0.0		
5/4	15.5	8.0	4.7		0.0	1.3*	0.3*
5/7	9.3	4.7	5.2	0.3*	0.0	0.3	1.2
5/11	4.5	3.1	1.9	0.0	0.6	0.0	0.9
5/14	2.0	7.0	4.5	1.5	0.3	0.1	2.2
5/17	–	2.5	1.2	0.3	0.0	–	2.3
5/21	3.0	1.1	0.9	0.1	0.1	0.1	0.8
5/25	1.0	1.3	0.3	0.0	0.0	0.0	1.0
5/28	0.0	1.0	0.3	1.0	0.5	0.0	1.3
5/31	0.0	0.0	0.7	0.0	0.1	0.0	0.3
6/4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
6/7	0.0	1.3*	0.0	0.0	0.0	0.0	0.0
6/11	0.0	10.6	0.0	0.3	0.1	0.0	0.0
6/14	0.0	8.2	0.0	0.0	0.0	0.0	0.3
6/18	0.0	7.9	0.0	0.1	0.0	0.0	0.4
6/21	0.0	24.3	0.2*	0.0	0.0	0.0	0.2
6/25	0.1*	34.1	0.4	0.0	0.0	0.0	0.0
6/29	0.1	12.6	1.1	0.0	0.1	0.0	0.0
7/2	0.1	11.8	0.6	0.0	0.0	0.1	0.0

7/5	0.2	8.0	0.0	0.0	0.2	1.7*	0.0
7/9	0.0	6.5	0.0	0.5*	0.0	5.0	0.1*
7/12	0.3	5.2	0.3	0.3	0.0	1.7	0.0
7/16	0.0	4.6	0.0	0.0	0.0	3.5	0.1
7/23	0.0	6.1	0.1	0.8	0.0	21.0	0.0
7/26	0.0	11.2	0.5	0.7	0.2	36.7	0.5
7/30	0.0	12.1	0.4	0.8	0.0	15.5	0.3
8/2	0.0	35.0	0.0	1.0	0.1	20.0	0.2
8/6	0.0	40.3	0.0	0.8	0.0	12.0	0.4
8/9	0.0	55.5	0.0	0.2	0.0	15.7	0.5
8/13	0.3	21.5	0.1	0.8	0.0	4.3	0.1
8/16	0.0	11.7	0.0	0.0	0.0	6.0	0.0
8/20	0.0	3.0	0.0	0.3	0.0	6.1	0.0
8/23	0.0	3.3	0.0	0.0	0.0	1.8	0.0
8/27	0.0	1.6	0.1	0.0	0.0	3.0	0.3

Geneva Pest Trapping Results - Avg/Trap/Day (continued)

DATE	LPTB	PTB	PL	OBLR	AM
5/17	1.0*				
5/21	2.1				
5/25	0.2	0.5*	0.5*		
5/28	0.7	0.2	1.8	2.2*	
5/31	0.0	0.0	0.3	0.5	
6/4	0.1	0.0	0.1	0.0	
6/7	0.0	0.1	1.5	1.0	

6/11	0.6	0.0	0.3	1.0	
6/14	0.2	0.0	0.5	1.2	
6/18	0.1	0.1	0.3	0.8	
6/21	0.5	0.0	0.8	0.5	
6/25	0.0	0.3	0.1	1.8	
6/29	0.3	0.3	0.0	0.8	0.4*
7/2	0.0	0.0	0.0	0.1	0.0
7/5	0.0	0.0	0.0	0.7	0.0
7/9	0.0	0.1	0.0	0.3	0.0
7/12	0.0	0.0		0.2	0.0
7/16	0.0	0.0		0.2	0.0
7/23	0.0	0.1		0.0	0.8
7/26	0.0	0.0		0.0	1.0
7/30	0.0	0.0		0.0	0.5
8/2	0.3	0.0		0.0	0.2
8/6	0.0	0.0		0.0	1.1
8/9	0.0	0.0		0.0	1.3
8/13	0.1	0.0		0.0	0.3
8/16	0.0	0.0		0.0	1.2
8/20	0.0	0.0		0.0	0.6
8/23				0.0	0.2
8/27				0.0	0.1

HUDSON VALLEY INSECT KEY = GFW - Green Fruitworm;
RBLR - Redbanded Leafroller; STLM - Spotted Tentiform
Leafminer; OFM - Oriental Fruit Moth (in apples); LAW -

Lesser Appleworm; CM - Codling Moth; TABM - Tufted Apple Budmoth; VLR - Variegated Leafroller; SJS - San Jose Scale; OBLR - Obliquebanded Leafroller; FTLR - Fruittree Leafroller; SPAR - Sparganothis Fruitworm; AM - Apple Maggot; * - first catch of the generation.

Hudson Valley (Highland) Pest Trapping Results -
Avg/Trap/Day

DATE	GFW	RBLR	STLM	OFM	LAW	CM	TABM
3/14	0.2*						
3/19	0.1	0.1*					
3/26	0.0	0.0	0.1*				
4/2	0.0	3.4	18.8	0.2*			
4/9	0.1	1.9	14.4	0.3			
4/16	0.0	6.0	76.8	5.6			
4/30	0.1	4.2	25.4	10.6			
5/7		1.3	6.3	3.9	1.0*	1.4*	0.1*
5/14		0.4	3.4	2.4	3.4	4.6	—
5/21		0.0	0.8	1.0	1.7	2.6	2.2
5/29		0.0	13.6*	0.4	1.7	2.5	2.1
6/4		0.0	50.7	0.4	0.5	1.7	4.6
6/11		0.5	70.2	0.5	1.9*	0.6	0.0
6/18		1.6	7.6	0.0	1.1	0.6	4.6
6/25		1.6	49.4	0.0	3.3	0.6	5.4
7/2		1.67	49.4	0.0	3.3	0.6	5.4
7/9		0.8	55.1	3.4	2.4	0.4	0.7

7/16	0.3	35.7	1.0	5.9	1.4*	0.1
7/23	0.2	36.9	3.8	3.2	0.8	0.0
7/30	0.6	32.4	1.1	5.1	1.0	0.3
8/6	1.8	39.2	0.4	3.1	1.3	0.0
8/13	4.3	28.4	0.6	8.6	1.3	0.2
8/20	3.8	15.9	0.3	3.5	0.6	0.4
8/27	5.5	28.4	1.5	2.1	0.5	0.5

Hudson Valley (Highland) Pest Trapping Results -
Avg/Trap/Day (continued)

DATE	VLR	SJS	OBLR	FTLR	SPAR	AM
5/14		0.4*				
5/21	0.4*	0.1				
5/29	9.4	0.1	1.1*			
6/4	1.1	1.0	2.3	0.3*		
6/11	0.9	23.6	0.9	0.9		
6/18	0.8	0.0	1.6	0.6	0.1*	
6/25	0.0	0.4	1.4	1.2	0.0	0.5*
7/2	0.0	0.4	1.4	1.2	0.3	0.5
7/9	0.0	497*	0.6	0.0	0.1	0.3
7/16	0.4	692	0.0	0.0	0.0	0.2
7/23	0.6	79.6	0.1*	0.0	0.0	0.2
7/30	1.7	14.7	0.0	0.0	0.0	1.2
8/6	1.4	3.8	0.1	0.0	0.1	1.9
8/13	1.0	1.1	0.2	0.0	0.0	1.4
8/20	0.7	1.2	0.1	0.0	0.0	0.6

8/27 0.6 2.1 0.0 0.0 0.3 0.6

These are the summary data for pheromone traps placed on three commercial farms in Wayne Co., plus an organic block at the Geneva Station:

Date	<u>Wolcott</u>			<u>Williamson-1</u>		
	CM	OFM	OBLR	CM	OFM	OBLR
4/13	0	0				
4/17	0	0				
4/20	0	0				
5/1	0	0.5				
5/4	0	0.5				
5/8	0	0				
5/11	1	1.5				
5/15	10	2.5				
5/17	0.5	1		0	148.5	
5/22	11.5	0		5	118.5	
5/25	10	0	0	2	1	0
5/29	8.5	0	0.5	7	0.5	1
6/1	2.5	0	3	17	0	2
6/4	0.5	0	0.5	0	0	0.5
6/11	0.5	0	3.5	2.5	2	12.5
6/14	0	0	1.5	1	0.5	3
6/18	1	0	3	1	1	5
6/25	0.5	0	10	8	26.5	2

6/28	0	0	2	9	0.5	1 0
7/2	0	0	2	1	1	3.5
7/5	0	0	2	0.5	6	5.5
7/9	0	0	1	0	7.5	3.5
7/12	0	0	0	0	1	0.5
7/16	0.5	0	0	0	1	0
7/19	0	0	0	0	1	0
7/24	1	0.5	1	1.5	15.5	0
7/30	5	0	0.5	5	22.5	0.5
8/6	2.5	0	3	0	5	1 1.
8/9	0	0	0	0	4	0
8/13	0.5	0	0	0	2.5	0
8/16	0.5	1.5	0	0.5	3.5	0
8/20	0	0.5	0	0.5	1	0
8/23	0	0	0	0	0.5	0.5
8/27	1	1	0.5	0	0	0
8/30	2.5	0	0.5	0	2.5	0

Date	<u>Williamson-2</u>			<u>Geneva-Org</u>		
	CM	OFM	OBLR	CM	OFM	OBLR
5/17	0	1.5				
5/22	2.5	2				
5/25	1.5	1	0			
5/29	1.5	1.5	0			
6/1	1	0.5	0.5			
6/4	0.5	0	0.5	2.5	0	2.5

6/7	0	0	2	0.5	0	2.5
6/11	0	2	16	-	-	-
6/14	0	0	2.5	2	0	5
6/18	0.5	0.5	3	0.5	0	2.5
6/25	2	1	3	2.5	0.5	2.5
6/28	0	1	0	1	0	1
7/2	0	0.5	3	-	-	-
7/5	0	0	1	1	1	2.5
7/9	0.5	1	0	0.5	0	0.5
7/12	0.5	0.5	0	0	0	0
7/16	0	0	0	-	-	-
7/19	0.5	1.5	0	1	0.5	0.5
7/24	0.5	2.5	0	1.5	3	1
7/30	2.5	2	0.5	3	1.5	1
8/6	1.5	3	0.5	3	4.5	1.5
8/9	1	0	0	0	9	0
8/13	2	1.5	0	0.5	1.5	0.5
8/16	0	0.5	0	0.5	0.5	0
8/20	0	1	0	0	0	0
8/23	0.5	2	0	0	0	0
8/27	0	1	0	0.5	0.5	0
8/30	1	0.5	0	0	0.5	0.5

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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

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