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Update on Pest Management
and Crop Development

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

August 6, 2012

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Geneva, NY

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AUGUST
GUESTS

ORCHARD
RADAR
DIGEST



EVENT
REMINDERS

FIELD
DAYS

CORNELL
FRUIT PEST
CONTROL FIELD DAYS

Codling Moth

Codling moth development as of August 6: 2nd generation adult emergence at 95% and 2nd generation egg hatch at 76%.

❖❖ The N.Y. Fruit Pest Control Field Days will take place during Labor Day week on Sept. 5 and 6 this year, with the Geneva portion taking place first (Wednesday Sept. 5), and the Hudson Valley installment on the second day (Thursday Sept. 6). Activities will commence in Geneva on the 5th, with registration, coffee, etc., in the lobby of Barton Lab at 8:30 am. The tour 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. On the 6th, participants will register at the Hudson Valley Laboratory starting at 8:30, after which they will view and discuss results from field trials on apples and other fruit crops. No pre-registration is required for either event. ❖❖

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INSECT TRAP CATCHES

UPCOMING PEST EVENTS

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DOWN
BY THE
RIVER

HUDSON VALLEY PEST
MANAGEMENT
UPDATE
(Peter Jentsch,
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Obliquebanded leafroller (OBLR)

❖❖ The first adult of the 2nd generation has been observed in pheromone traps at the Hudson Valley Lab; we will use this as a biofix for predicting degree-day management events. The modeling date for larval emergence is expected to begin on 17 August, based on weather forecasts for the region. At this crossroads it would be wise to get into the orchard to break open clusters of Red Delicious and Cortland to look for feeding injury and pupae. If unmanaged OBLR populations present in orchard blocks have caused feeding damage to fruit this season, it may be prudent to monitor larval emergence of the 2nd generation, and include appropriate insecticide inputs as needed. The link to NYS-labeled materials that are effective against this insect can be found at: <http://treefruitipm.info/PesticidesForPest.aspx?PestID=36&GrowthStageID=12>

Codling Moth (CM)

Moths from the second generation are actively flying, and egg hatch continues to be heavy. Additional applications for the second generation should be considered if this pest is present in the orchard. Materials such as Assail, Calypso, the pyrethroids (or pyrethroid pre-mixes), and Imidan, used against the apple maggot, may have controlled susceptible CM populations if used at the appropriate rates and under favorable weather conditions. Some materials, such as Actara, have no activity against CM. If a codling moth insecticide, such as Altacor, Belt, or Delegate, is specifically needed, a second spray, 10–14 days after the initial spray and timed at the hatching larvae of the second generation, should be applied at this time. This application would also be effective against OFM. The link to NYS materials effective against CM can be found at:

<http://treefruitipm.info/PesticidesForPest.aspx?PestID=24&GrowthStageID=12>

Spotted Wing Drosophila (SWD) Update

The first SWD trap detections occurred in Hudson Valley small fruit plantings (Marlboro, NY) on 23 July, with fewer than 2 flies per trap. Although this is a very low level of adult capture, blackberries were found infested with eggs believed to be spotted wing drosophila (SWD), on 30 July (Image 1). Increasing numbers of SWD adults have also been captured in blueberry in Milton, and in apple and peach orchards in Highland and Warwick, NY. Effective insecticides against the SWD in bushberries and caneberries include: Spinetoram [Delegate WG] (EPA # 62719-541) under a 2(ee), Spinosad [Entrust, Entrust SC] (EPA # 62719-282, 62719-621) with 2(ee), bifenthrin alone or in the Triple Crown formulation (EPA NO 279-3440), phosmet [Imidan 70-W] (EPA # 10163-169); and, for strawberries, Spinetoram [Delegate WG] (EPA # 62719-541) under a 2(ee) registration.



Image 1. Egg-laying and egg 'respiratory horns' observed in 'green' pre-mature fruit with newly hatched larva in drupes.

continued...

Stink Bug Update

We are seeing increased stink bug activity in organic vegetables (tomatoes and pepper), apples and pears. We have observed feeding damage and increasing stink bug populations both on commodities and in traps. Both nymphs and adults of Brown Marmorated (BMSB) and Green Stink Bug are showing up along the edge of vegetable fields and orchards, with increasing black light trap captures of these two species being observed over the past two weeks. Significantly higher populations have been seen this year compared with 2011. This may be due to drought conditions during the middle to latter part of the season that favor stink bug development.

Scouting for both native stink bug species and the invasive BMSB is recommended along borders of hedge-rows and woodlots. Native species will feed in lower fruit, while BMSB tend to be most numerous in the tops of the trees. In blocks where stink bug injury has occurred in the past, the pyrethroids, the pyrethroid/neonicotinoid pre-mixes, Lannate SP, and Actara (labeled in stone fruit only) are very effective near harvest. Note that products containing thiamethoxam have a 35 PHI in tree fruit. Some use guidelines are summarized below:

Material	PHI	Rate/A	Interval
Leverage 360 (beta-cyfluthrin/ imidacloprid)	7d	2.4-2.8 oz.	14d
Baythroid XL (cyfluthrin)	7d	2.0-2.4 oz.**	14d
** If apple maggot control is required, use:		2.4-2.8 oz.	
Danitol 2.4EC (fenpropathrin)	14d	16-21.3 oz.	-
Endigo ZC (lambda-cyhalothrin/ thiamethoxam)	35d	5.0-5.5 oz.	10d
Stone fruit: PC, cherry fruit fly & AM		5.5-6.0 oz.	
In stone fruit:	14d		7d
Actara (thiamethoxam)	35d	4.5-5.5 oz.	10d
In stone fruit 14d PHI & 7 day spray interval.			

Notes:

1. Three Tedders trap 'treatments' containing experimental #10 lures (replaced every two weeks), methyl decatrienoate 'Rescue Lures' (changed monthly), and Tedders traps with no pheromone, were placed on 4/20 along the perimeter of an apple and pear orchard
2. A single black light trap placed on 4/20
3. Trap treatments sampled and re-randomized weekly

INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

Highland, NY

	<u>7/30</u>	<u>8/2</u>	<u>8/6</u>		<u>7/30</u>	<u>8/6</u>
Redbanded leafroller	0.0	0.0	0.0	Redbanded leafroller	0.6	1.8
Spotted tentiform leafminer	12.1	35.0	40.3	Spotted tentiform leafminer	32.4	39.2
Oriental fruit moth	0.4	0.0	0.0	Oriental fruit moth	1.1	0.4
American plum borer	0.8	1.0	0.8	Codling moth	1.0	1.3
Lesser appleworm	0.0	0.1	0.0	Lesser appleworm	5.1	3.1
San Jose scale	15.5	20.0	12.0	Tufted apple budmoth	0.3	0.0
Codling moth	0.3	0.2	0.4	Fruittree leafroller	0.0	0.0
Lesser peachtree borer	0.0	0.3	0.0	Variegated leafroller	1.7	1.4
Peachtree borer	0.0	0.0	0.0	Obliquebanded leafroller	0.0	0.1
Obliquebanded leafroller	0.0	0.0	0.0	San Jose scale	14.7	3.8
Apple maggot	0.5	0.2	1.1	Sparganothis fruitworm	0.0	0.1
				Apple maggot	1.2	1.9

* first catch

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–8/6/12):	2887	2030
(Geneva 1/1–8/6/2011):	2600	1830
(Geneva "Normal"):	2406	1622
(Geneva 1/1–8/13/12 predicted):	3072	2167
(Highland 1/1–8/6/12):	3065	2126
(Highland 1/1–8/6/11):	2766	1893

<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Oriental fruit moth 3rd flight peak	2662–3236	1831–2243
Apple maggot flight subsides	2772–3258	1907–2283
Redbanded leafroller 3rd flight begins	2594–2976	1768–2070
Redbanded leafroller 3rd flight peak	2717–3207	1881–2225
Spotted tentiform leafminer 3rd flight peak	2561–3021	1740–2104
Codling moth 2nd flight peak	1931–2735	1278–1892
Codling moth 2nd flight subsides	2845–3493	1922–2472
Obliquebanded leafroller 2nd flight peak	2593–3011	1758–2098
Lesser appleworm 2nd flight peak	2131–3105	1422–2156
Lesser appleworm 2nd flight subsides	2794–3488	1918–2422
San Jose scale 2nd flight subsides	2639–3349	1785–2371
American plum borer 2nd flight subsides	2927–3353	2018–2372
Lesser peachtree borer flight subsides	2996–3446	2017–2433
Peachtree borer flight subsides	2478–3126	1672–2180

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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