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Update on Pest Management
and Crop Development

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

July 16, 2007

VOLUME 16, No. 18

Geneva, NY

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BETWEEN
FLIGHTS

ORCHARD
RADAR
DIGEST



Codling Moth

Codling moth development as of July 16:
2nd generation adult emergence at 13%
and 2nd generation egg hatch at 1%.

Oriental Fruit Moth

2nd generation second treatment date,
if needed: July 18.

Spotted Tentiform Leafminer

Second optimized sample date for 2nd generation
sap-feeding mines, if needed: July 14.



Geneva Predictions:

**Roundheaded Appletree Borer and
Dogwood Borer**

RAB peak egg hatch roughly: July 5 to July 25.



IN THIS ISSUE...

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PEST FOCUS

LAYOVER

MODEL BUILDING

Insect model degree day accumulations:

Codling Moth (Treatment period for the 2nd generation starts at 1260 DD base 50°F after biofix):

Location	Biofix	DD (as of 7/16)
Highland	May 14	1244
Clintondale	May 14	1070
Geneva	May 17	1032
Sodus	May 17	910
Ithaca	May 24	865
Lansing	May 24	963
Albion	May 25	1018
Williamson	May 25	935
Appleton (South)	May 25	984
Appleton (North)	May 25	940
Waterport	May 28	1013

Obliquebanded Leafroller (% estimated egg hatch in DD base 43°F after biofix: 90% hatch – 810 DD; 100% hatch – 950 DD):

Location	Biofix	DD (as of 7/16)
Highland	6/1	1219
Clintondale	6/4	1024
Albion	6/7 (est'd)	1074
Sodus	6/9	876
Appleton (South)	6/10 (est'd)	967
Williamson	6/10 (est'd)	934
Geneva	6/11	937
Lansing	6/11	904
Ithaca	6/11	820

[NOTE: Consult our mini expert system for arthropod pest management, the Apple Pest Degree Day Calculator:

<http://www.nysaes.cornell.edu/ipm/specware/newa/appledd.php>

Find accumulated degree days between dates with the Degree Day Calculator:

<http://www.nysaes.cornell.edu/ipm/specware/newa/>

Powered by the NYS IPM Program's NEWA weather data and the Baskerville-Emin formula]



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This newsletter is available on the World Wide Web at: <http://www.nysaes.cornell.edu/ent/scaffolds/>

WHAT A WORKOUT!

**SWEATING THE
DETAILS**
(Art Agnello,
Entomology,
Geneva)

Obliquebanded Leafroller

❖❖ According to our developmental models, the first summer brood should be closing in on completing its hatch throughout the state this week. Orchards with historically high OBLR pressure should have received a first application of a suitable material during the first week of July, and this week would be an advisable time to make a second application against the larvae of this brood. Spintor 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. 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 dogged you in the past.

Apple Maggot

Trap catches in the state are building slowly, probably owing to the high temperatures and relatively low rainfall, which maintains a hard soil surface that obstructs adult emergence. If you aren't monitoring in specific orchards and haven't yet applied a protective spray against AM (and aren't using SpinTor for OBLR), prudence would suggest some attention to this pest. Hanging a few volatile-baited sphere traps on the edge of susceptible plantings can provide a world of insight on when (and whether) immigrating flies are posing a threat. Growers on a SpinTor program should be somewhere between the first and second spray of this material for leafrollers, which will provide protection against moderate AM pressure. For those not using OP cover sprays, Assail and Calypso will both provide excellent control of apple maggot as well as internal leps.

Western Flower Thrips

This formerly rare pest has been a recent cause of damage to nectarines and peaches in the Hudson Valley. Originally limited to western North America, this is now a cosmopolitan species that is a key pest in the greenhouse production of flowers and vegetables. Apparently, drought conditions and high temperatures encourage damaging populations that can affect stone fruit crops, particularly nectarines and peaches. The following information is taken from the PA Tree Fruit Production Guide: "...just prior to and during harvest,...adults move from alternate weed or crop hosts to fruit. [They] feed on the fruit surface in protected sites, such as in the stem end, the suture, under leaves and branches, and between fruit. Feeding ...results in silver stipling or patches. Silvering injury is particularly obvious on highly colored varieties. Because Lannate has a short preharvest interval (4 days), it can be used to control thrips during harvest." Also, SpinTor can be used within 14 days of harvest. An application after the first harvest may prevent subsequent losses; however, an additional application may be needed if thrips pressure is severe.

Mites

European red mite eggs are present on the foliage right now, and with our sultry temperatures, the period from egg deposit to hatch and multiply is a very short one. A few orchards we have seen are in ERM trouble so far, but also keep in mind the potential for two-spotted mite, which can reach alarming levels in a hurry under high-temperature conditions. Inspect your leaves using the 5 mite/leaf form on p. 73 of the Recommends, and be aware that two-spot populations increase more quickly than ERM, so be conservative in your interpretations. Zeal and Kanemite are good options to keep in mind if treatment is needed; Acramite tends to be more effective against TSSM than ERM, and Nexter works better against red mites than it does on two-spots, but the main advice is to get out there and look at your foliage.

continued...

Woollies, again

Just a repeated advisory to check your canopy sites for aerial colonies of woolly apple aphid, which have been multiplying steadily in many orchards. These are difficult to control at any time (Diazinon, Thionex, and Assail, in decreasing order of efficacy, are options), and worse when they've been allowed to proliferate to the 'finger-staining' stage.



PEST FOCUS

Geneva:

Redbanded leafroller 2nd flight beginning.

Highland:

Apple maggot increasing in baited sphere traps. Significant **Japanese beetle** feeding damage of apple foliage. **Pear rust mite** 'bronzing' damage of pear foliage observed.

Degree day forecast for hatch of second gen. **spotted tentiform leafminer** = 7/7.

Degree day forecast for hatch of second gen. **codling moth** = 7/17.

Degree day forecast for insecticide application against second gen. **San Jose scale** crawlers = 7/17.

**INSECT TRAP CATCHES
(Number/Trap/Day)**

	Geneva, NY				Highland, NY		
	7/9	7/12	7/16		7/2	7/9	7/16
Redbanded leafroller	0.0	0.0	0.8*	Redbanded leafroller	2.0	3.9	0.3
Spotted tentiform leafminer	24.3	47.3	11.9	Spotted tentiform leafminer	36.8	62.3	67.0
Oriental fruit moth	0.1	0.7	0.5	Oriental fruit moth	2.6	6.6	3.3
Lesser appleworm	0.5	0.0	0.0	Codling moth	0.4	1.4	2.4
San Jose scale	7.4*	292	158	Lesser appleworm	0.1	0.9	1.6
American plum borer	0.0	0.0	0.0	Obliquebanded leafroller	0.9	0.1	0.0
Lesser peachtree borer	0.8	0.3	0.1	Variegated leafroller	0.1	0.0	0.1
Obliquebanded leafroller	0.1	0.2	0.0	Apple maggot	0.1	0.2	0.6
Dogwood borer	-	0.4	-				
Peachtree borer	0.1	0.0	0.0				
Apple maggot	0.0	0.0	0.6				

* first catch

EVENT LINEUP

COUNT-DOWN

Cornell Fruit Field Day

❖❖ Cornell University will host the 2007 Fruit Field Day and Equipment Show at the New York State Agricultural Experiment Station in Geneva, NY, on Wednesday, July 25, from 8:00 a.m. to 5:00 p.m. This is one of several events that commemorates the 125th anniversary of the Experiment Station, which opened its doors on March 1, 1882.

Fruit growers, consultants, and industry personnel are invited to tour field plots and laboratories and learn about the latest research and extension efforts being carried out by researchers on the Geneva, Highland and Ithaca campuses. The focus will be on all commodities key to New York's \$300 million fruit industry: apples, grapes, raspberries, strawberries, peaches, pears and cherries.

During lunch, equipment dealers will showcase the latest techniques to improve sprayer deposition and reducing drift. Representatives from various companies will advise growers on the latest technologies.

The event will be held on the Experiment Station's Fruit and Vegetable Research Farm South, 1097 County Road No. 4, 1 mile west of Pre-emption Rd. in Geneva, NY. Signs will be posted. Attendees will be able to select from tours of apples, stone fruits, small fruits, and grapes, as well as a tour of the Experiment Station's labs and greenhouses. Admission is free and lunch is provided courtesy of industry sponsors. Pre-registration is requested (see form.)

For sponsorship and exhibitor information, contact Debbie Breth at 585-798-4265 or dib1@cornell.edu. More information will be posted to <http://www.nysaes.cornell.edu/hort/fieldday/> in the very near future.

For additional information, contact Nancy Long at 315-787-2288 or NPL1@cornell.edu Register on line at: <http://www.nysaes.cornell.edu/hort/fieldday/index.html> ❖❖

GENERAL INFO

Come see the latest research and extension advances

CORNELL FRUIT FIELD DAYS and EQUIPMENT SHOW 2007

NYS Agricultural Experiment Station, Geneva, NY



July 25 from 8 am - 5 pm

**FOR MORE INFORMATION:
CONTACT NANCY LONG BY CALLING:
315-787-2288 or NPL1@cornell.edu**

**ADVANCE REGISTRATION IS
REQUESTED**

Please mail this registration form by July 20 to:
Nancy Long, NYS Agricultural Experiment Station
630 W. North Street, Geneva, NY 14456;
or fax your registration to Nancy at:
315-787-2488 by July 20 or register on line at:
<http://www.nysaes.cornell.edu/hort/fieldday/>



RTS, 5 & 20

1. Main Campus	11. Robbins Farm
2. Crittenden farm North	12. McCarthy-North
3. Darrow A Farm	13. South Crittenden Farm
6. Denton Farm	14. Trickle Farm
7. Fruit & Vegetable Research Farm- South	15. Fruit & Vegetable Research Farm- North
8. Loomis Farm	16. Wellington Farm (PGRU)
9. Lucey Farm	17. Gates East & West
10. McCarthy Farm (PGRU)- South	

Name _____

Address _____

City _____ State _____ Zip _____

Phone: _____ Email: _____

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1-7/16/07):	1839	1219
(Geneva 1/1-7/16/2006):	1882	1225
(Geneva "Normal"):	1816	1168
(Geneva 1/1-7/23/2007, Predicted):	2025	1357
(Highland 3/1-7/16/07):	2035	1432

<u>Coming Events:</u>	<u>Ranges (Normal±StDev):</u>	
Comstock mealybug 1st flight subsides	1818-2132	1216-1418
Codling moth 2nd flight begins	1555-2283	999-1529
Redbanded leafroller 2nd flight peak	1535-2041	974-1368
STLM 2nd gen. tissue feeders present	1504-2086	913-1182
Apple maggot 1st oviposition punctures	1528-2078	1021-1495
American plum borer 2nd flight begins	1415-1917	1020-1250
Dogwood borer flight peak	1552-2042	976-1376
Lesser appleworm 2nd flight begins	1385-2005	903-1323
Obliquebanded leafroller 1st flight subsides	1619-2125	1037-1429
Oriental fruit moth 2nd flight peak	1378-2086	865-1415

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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