

SCAFFOLDS Fruit Journal, Geneva, NY

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Update on Pest Management and Crop Development

June 8, 2015

COMING EVENTS

	43°F	50°F
Current DD* accumulations		
(Geneva 1/1-6/8):	847	531
(Geneva 1/1-6/8/2014):	818	486
(Geneva "Normal"):	885	476
(Geneva 1/1-6/15, predicted):	1036	670
(Highland 1/1-6/8/15):	1078	684

Upcoming Pest Events – Ranges (Normal +/- Std Dev):

American plum borer

1st flight peak.....594-966 323-585

Black cherry fruit fly 1st catch702-934 380-576

Cherry fruit fly 1st catch755-1289 424-806

Codling moth 1st flight peak.....555-983 302-580

European red mite

summer egg hatch737-923 424-572

Obliquebanded leafroller

1st flight peak.....834-1226 485-771

Oriental fruit moth

1st flight subsides.....839-1115 492-692

Pandemis leafroller flight peak...	883-1189	507-733
Pear psylla 1st summer adults....	737-885	428-526
Pear psylla 2nd brood hatch	967-1185	584-750
Redbanded leafroller		
1st flight subsides.....	596-896	334-558
Rose leafhopper		
adults on multiflora rose.....	689-893	366-498
Rose leafhopper adults		
on apple	809-1053	440-622
San Jose scale 1st flight peak.....	555-739	297-415
San Jose scale		
1st flight subsides.....	864-1238	515-769
Spotted tentiform leafminer		
2nd flight begins.....	994-1166	592-728

*[all DDs Baskerville-Emin, B.E.]

Pest Focus

Geneva: 1st Peachtree Borer trap catch today, 6/8.

Highland: 1st Obliquebanded Leafroller trap catch
5/29.

Insect model predictions for Highland/Geneva

Plum curculio emergence complete at 308 DD50
(currently @ 337) [H]/(currently @ 257) [G].

Codling moth larval emergence @ 220 DD50 (currently
@ 391) [H]/ (currently @ 304) [G].

Obliquebanded Leafroller larval emergence @ 350
DD43 (currently @ 185) [H]/ (currently @ 106) [G].

San Jose Scale crawler emergence @ 400 DD50 after
1st flight (currently @ 366) [H].

TRAP CATCHES (Number/trap/day)

Geneva

	5/29	6/1	6/4	6/8
Redbanded Leafroller	1.7	0.2	0.0	0.0
Spotted Tentiform LM	0.5	0.2	0.0	0.0
Oriental Fruit Moth	0.7	0.2	0.0	0.0
Lesser Appleworm	0.2	0.0	0.0	0.1
Codling Moth	1.5	0.7	0.0	0.9
San Jose Scale	0.0	0.0	0.0	0.0
American Plum Borer	0.3	0.0	0.2	0.0
Lesser Peachtree Borer	2.8	0.5	0.0	0.1
Peachtree Borer	0.0	0.0	0.0	0.2*
Dogwood Borer	0.2*	0.3	0.3	1.0

Pandemis Leafroller	-	1.3	0.2	4.1
Obliquebanded Leafroller	-	0.5*	0.0	2.6
Highland (Peter Jentsch)				
	5/18	5/26	6/1	6/8
Redbanded Leafroller	5.1	0.6	0.0	0.0
Spotted Tentiform LM	7.7	0.4	0.1	5.3
Lesser Appleworm	1.1	0.6	0.2	0.0
Oriental Fruit Moth	1.4	1.3	1.6	1.6
Codling Moth	4.7	5.1	4.6	5.0
San Jose Scale	19.9	2.3	0.0	0.0
Dogwood Borer	0.7*	1.4	1.0	2.4
Obliquebanded Leafroller	-	-	7.8*	10.0

* = 1st capture

ORCHARD RADAR DIGEST

[Box Text: THE CALM]

[H = Highland; G = Geneva]:

Roundheaded Appletree Borer

RAB Peak egg laying period roughly: June 19 to July 4 (H)/June 22 to July 7 (G).

Dogwood Borer

First DWB egg hatch roughly: June 19 (H)/June 22 (G).

Codling Moth

Codling moth development as of June 8:

1st generation adult emergence at 35% (H)/24% (G) and 1st generation egg hatch at 0% (H,G)

1st generation 3% egg hatch expected: June 16 (H)/June 19 (G).

Obliquebanded Leafroller

1st generation OBLR flight, first trap catch expected: June 2 (H)/June 5 (G).

Where waiting to sample late instar OBLR larvae is not an option (= where OBLR is known to be a problem, and will be managed with insecticide against young larvae), early egg hatch and optimum date for initial application: June 17 (H)/ June 20 (G).

Oriental Fruit Moth

2nd generation OFM flight begins around: June 22 (H)/June 25 (G).

San Jose Scale

1st generation SJS crawlers appear: June 12 (H)/June 15 (G).

Spotted Tentiform Leafminer

2nd STLM flight begins around: June 10 (H)/June 13 (G).

[Section: INSECTS]

CRAWLERS AFOOT

(Peter Jentsch, Entomology, Highland;
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[Box text: ON A SCALE OF IMPORTANCE]

We should soon be seeing the emergence of crawlers of San Jose scale (SJS), *Quadraspidiotus perniciosus* (Comstock) from under the overwintered adult female scale covers on apple trees. The SJS has become a primary fruit pest in many orchards across the region over the past 10 years, as older chemistries such as PennCap-M and Lorsban, which once held this insect in check, have been removed from the pest management toolbox. With little in the way of residual insecticide in the orchard after the threat of plum curculio has passed, there is little to keep this insect from gaining a foothold in tree fruit blocks, which invariably leads to severe

economic injury if left unmanaged. Many producers find this insect very difficult to eradicate. Multiple applications targeting all three generations using products with different modes of action appear to work best. The pheromone-based model we now use targets the adult flight as a biofix, predicting SJS crawler emergence at 380-400 DD (base 50°F). This year, the first adults were observed in traps on 11 May, accumulating 365 DD to date. Therefore, we are expected to reach 380 DD or the onset of crawler emergence in the next 1-2 days.

We are quite fortunate to have a group of effective insecticides to assist us in managing this insect during key timing windows of the growing season. However, the window of opportunity for using materials such as Lorsban, Supracide 25WP and Movento for this generation has passed. Our options now include oil, contact insecticides, or insect growth regulators that will target the emerging crawlers.

The use of oil at 1% has been quite effective when used alone against SJS if complete coverage is achieved. However, your fungicide program will dictate the use of oil. The fungicide Captan may

cause phytotoxicity to foliage and fruit if penetrants such as oil are used in tank mixes or in close application schedules with oil. Centaur 0.7WDG, working as an insect growth regulator (IGR; IRAC Class 16), acts to inhibit the synthesis of chitin. Esteem 35WP, also an IGR (Class 7), functions as a juvenile hormone mimic, inhibiting metamorphosis from one stage to another. Movento 240SC (lipid biosynthesis inhibitor; IRAC Class 23) is also effective when applied preventively, as its systemic activity requires some time for it to become established in the woody tissues. All these insecticides are most effective when directed against the first appearance of crawlers, yet have no contact toxicity and tend to act very slowly. Assail and Admire Pro (Class 4) are both broad-spectrum neonicotinoids that can be effective when directed against emerging crawlers. The efficacy of some of these materials (e.g., Movento, Assail, Centaur) is improved by the addition of an adjuvant with penetrating properties; however, Esteem and Admire Pro can be used effectively without the use of a penetrant. Remember, rotating classes of insecticides for each generation will delay the onset of resistance. Making multiple applications of the same class or

same insecticide at a 14-day interval ***for the same generation is recommended.***

[Section: GENERAL INFO]

EVENT ANNOUNCEMENT

[Box text: ORGANIC APPLE WORKSHOP]

On Wednesday, June 10, NOFA-NY will be joining with Cornell to sponsor a Field Day Workshop entitled "Organic Production: Managing Productivity, Insects, Diseases and Weeds" at the NYSAES Loomis Farm, 3135 County Rd. 6 (Pre-Emption Rd.), Geneva, from 1:00–4:30 PM. Presentations by entomologists Arthur Agnello and Elson Shields, horticulturists Terence Robinson and Susan Brown, and plant pathologist Kerik Cox will focus on organic orchard practices informed by their ongoing research in the Station's 3-acre organic apple planting. Growth and productivity will be discussed, including new and upcoming disease-resistant varieties, rootstocks, training systems, pruning, weed control options, and nitrogen fertilization. Basic and advanced seasonal management approaches to insect control will be shared such as the use of entomopathogenic nematodes for biological control of plum curculio, and predatory mite seeding

for the control of European red mite. The group will also go over organic fire blight management techniques and results from last year's summer disease trials. Registration fees are \$15/person or \$25 for two or more people/farm.

Please pre-register online at:

<http://www.cvent.com/events/organic-apple-production-managing-productivity-insects-disease-and-weeds/event-summary-dd51400a20b0417e89d847bae3565cf2.aspx>

Pre-registration closes at 4pm on June 8th. [NOTE: This field day is free to Cornell faculty and CCE staff; please sign in at the event, as pre-registration is not necessary.]

This event is produced by NOFA-NY in partnership with the NYS Agricultural Experiment Station and support from the NYS Dept. of Ag & Mkts Specialty Crop Block Grant Program.

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