

scaffolds

Update on Pest Management
and Crop Development

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

August 3, 2009

VOLUME 18, No. 19

Geneva, NY

FLAPS
DOWN

ORCHARD
RADAR
DIGEST
(Art Agnello,
Entomology,
Geneva)



MODEL BUILDING

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

❖❖ Geneva Predictions:

Roundheaded Appletree Borer (RAB)

Peak hatch roughly: July 13 to August 5.

Dogwood borer (DWB)

Peak egg hatch roughly: August 9.

Codling Moth

Codling Moth development as of August 3: 2nd
generation adult emergence at 26% and 2nd
generation egg hatch at 3%.

2nd generation 7% CM egg hatch: August 5, (= target date for first spray where multiple sprays needed to control 2nd generation CM)

Location	Biofix	DD (as of 8/2)
Albion	5/15	1136
Clifton Park	5/21	1173
Geneva	5/18	1140
Lafayette	5/21	1065
Lyndonville	5/27	1011 (as of 8/1)
Sodus (inland)	5/14	1083
Walworth	5/15	1069 (as of 7/31)
Waterport	5/27	1098
Williamson	5/14	1130

Redbanded Leafroller

Peak catch and approximate start of egg hatch:
July 17.

Spotted Tentiform Leafminer

Third optimized sample date for 2nd generation
STLM sapfeeding mines: August 4.

❖❖

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GENERAL INFO

- ❖ Events reminder

PEST FOCUS

INSECT TRAP CATCHES

UPCOMING PEST EVENTS

[NOTE: Consult our mini expert system for arthropod pest management, the

NEWA Apple Insect Models Degree Day Calculator:
http://newa.nrcc.cornell.edu/newaModel/apple_pest

Find accumulated degree days for the current date with the
Degree Day Calculator:

<http://newa.nrcc.cornell.edu/newaLister/dday>

Powered by the NYS IPM Program's NEWA weather data and ACIS, Northeast Regional Climate Center] ❖❖

LAST,
AT
LAST

ROUNDING OUT THE
FIELD
(Art Agnello, Entomology,
Geneva)

❖❖ Most of the season's pest control decisions are likely to be completed this week and next. As you prepare to make what will possibly be your final turn through the orchard for crop protection purposes before starting to concentrate on harvest activities, try to keep alert to any late-breaking pest developments that might be expected during this less-than-typical summer. Forecast weather trends fortunately appear to be moderate in terms of heat and rain, which should not overly promote increased insect activity beyond a 'normal' level. However, here's a quick rundown of some of the more important August pests to keep in mind during this homestretch.

Apple Maggot

Adult numbers have been high in the orchard sites where we're trapping for them this year. In historically high-pressure orchards, mid-August is the most active period for flies to be out and laying eggs. As always, localized trapping can pay off in the event that some blocks are under greater pressure than others, even on the same farm, so please continue to monitor traps in representative blocks.

Internal Lepidoptera

This complex of fruit-feeding larvae continues to pose a threat in several problem sites. The second flights are under way, although not necessarily too heavy, but it still pays to stay on top of the situation in your specific orchard. Some spots with fruit damage are known, but in general, most orchards look to be in good shape.

Conditions are still favorable for good August flights, particularly for codling moth. Most areas of the state will reach the initiation of 2nd generation egg hatch soon, which signals the timing for control sprays against the smallest larvae. This is an appropriate window for management sprays of oriental fruit moth as well, so prudence would dictate a critical evaluation of your late-season fruit protection status, to be sure you are adequately covered until the PHI for the various respective varieties.

For now, we're recommending that problem sites be kept covered with at least another spray, and we'll see what the tail end of the pre-harvest period looks like. Options include Asana, Assail, Baythroid, Delegate, Imidan, Leverage, Proaxis or Warrior in peaches. In apples and pears, you

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Dept. of Entomology
NYSAES, Barton Laboratory
Geneva, NY 14456-1371

Phone: 315-787-2341 FAX: 315-787-2326
E-mail: ama4@cornell.edu

Editors: A. Agnello, D. Kain

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can use Asana, Assail, Avaunt, Baythroid, Calypso, Danitol, Delegate, Guthion, Imidan, Leverage, Proaxis, or Warrior; most of the non-OP materials will additionally give control of white apple leafhopper. This is also the suitable time for Cyd-X or Carpovirusine applications against codling moth. For control of OFM, alternate row middle applications will not be as effective as whole orchard sprays in high pressure blocks. Assess the pressure in your specific situations, check the pre-harvest intervals, and determine whether a full or border spray might be in order.

European Corn Borer

Recall that these moths have a final flight that extends to the middle of September, and that the offspring can inflict last-minute fruit feeding damage to later varieties. One or two late sprays of a B.t. product like Dipel can go a long ways toward minimizing this injury, and the 0-day PHI is compatible with any harvest schedule. Also, SpinTor or Delegate applied against late season leafrollers will provide incidental corn borer control (PHI = 7 days).

Mites

It can't be said often enough that mites are extremely good at exploiting any high temps to pump out a few more generations before they call it quits for the winter; twospotted spider mites are also possible, including in stone fruit plantings. A frequent (weekly) perusal of your foliage can pay off big dividends if they happen to build rapidly before the crop is fully mature.

Obliquebanded Leafroller

The second summer flight of OBLR is due to start within the next 1-2 weeks, which means that the first larvae will be out looking for something to nibble on by the 2nd to 3rd week of August. If you struggled to manage the 1st summer brood, you might also cast a judicious eye on your fruits while you're in there checking the leaves for mites, to determine whether a late application of SpinTor, Delegate, Proclaim, or a B.t. material such as Dipel, Deliver or Biobit might be of use in heading off late-season feeding damage.

Spotted Tentiform Leafminer

It's been a while since these were a regular pest problem, so the temptation has been to ignore them recently. Nevertheless, a few orchards, particularly in eastern NY, have seen populations crop up this season, which underscores the reality that they don't ever really go away. The second brood development has been slowed up by the cooler temperatures this year, which means that any sap-feeding mines necessitating treatment could start to show up this week. Two or more per leaf is the suggested threshold; possible control options include the neonics, pyrethroids, Agri-Mek or Delegate.

And don't forget...

Review the comments in last week's issue regarding management options for Comstock mealybug (particularly in pears) and woolly apple aphid, which are still both on the job. ❖❖

THE OLD
SAW
(FLY)

INTRUDERS ON THE
DOCK
(Art Agnello, Entomology,
Geneva)

❖❖ The dock sawfly always sneaks in during the waning days of summer. Following is a repeat of our annual write-up on this pest:

Before and during apple harvest in recent years, a number of growers and fieldmen have been unpleasantly surprised by the appearance of neat little (2 mm) holes bored into the side of their fruit, similar in appearance to those caused by a stem puncture. Although graders sometimes attribute this damage to apple maggot or European corn borer, cutting open these apples reveals a bright green worm with a light brown head, 3 pairs of true legs and 7 pairs of prolegs, not feeding but lying inactive, in the burrow extending in from each hole. These are larvae of the dock sawfly, *Ametastegia*

continued...

glabrata, a highly sporadic but nonetheless well documented apple pest that has been known to show up in our area since 1908.

Dock sawfly probably confines its feeding almost entirely to plants belonging to the buckwheat family (Polygonaceae), including numerous docks and sorrels, the knotweeds and bindweeds, or else wild buckwheat or alfalfa. In feeding on any of these plants, the larvae devour the leaf tissue and the smaller veins, eating out irregular holes in the leaves. Ordinarily, the midribs and the larger veins are untouched. This insect should not be confused with the related European apple sawfly, *Hoplocampa testudinea*, which has a whitish larva that lives and feeds in young apples, particularly prevalent in the eastern apple regions of N.Y.

Injury to apples by the dock sawfly is known to occur generally in the late summer and early fall, when the fruit is approaching maturity and the sawfly is searching for an overwintering site. The greater hardness of immature apples probably deters the larvae from burrowing into these, so although 4 generations per year have been identified, only the last one or two are of concern to apple growers. The injury to apples consists externally of the small round holes bored by the larvae, which after a few days show a slightly sunken, brownish ring around them and occasionally may be surrounded by a larger discolored halo. These holes may occur anywhere on the surface, but are most numerous around the calyx and stem ends, or at a point where the apple touches a leaf or another apple, since it is easier for the larva to obtain a foothold here. Inside, the injury is usually more serious, since the larva often burrows to the core and usually hollows out a pupal cell somewhat larger than itself. Apples may have three or four, or sometimes even eight, holes in them of varying depths, but contain only one or two worms.

Since the dock sawfly does not feed upon any part of the apple tree, but must live on the above-mentioned succulent weeds, it becomes an apple pest only where these plants are growing in or

around the orchard. There is little danger from this insect in orchards where the food plants don't exist. Likewise, the possibility of the larvae coming into the orchard from neighboring meadows, ditch banks, or roadsides is slight, for the larvae are incapable of finding their way over any extent of bare soil. The adults, though active, are not strong fliers, and it is not possible for the insect to travel far in this stage. Now would be a good time to assess the weed situation in your orchard and make plans for such selective herbicide applications as may be appropriate regarding this insect. Even though common wisdom says this sawfly is a pest only every 10-12 years, this is only an average estimation, and it's not a bad idea to anticipate the unexpected when hardly any season is considered to be "average". ❖❖

(Information adapted from Newcomer, E. J. 1916. The dock false-worm: An apple pest. USDA Bull. 265, 40 pp.)

PEST FOCUS

Highland:
San Jose scale nymphs emerging.

FIELD DAYS

EVENT REMINDERS

***WAYNE CO. FRUITGROWER TOUR**
 Wednesday, August 12, from 11:00 am
 Registration and 1st stop at KC Bailey Orchards, Williamson

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 11th year, and will feature presentations on new apple plantings, pesticide storage regs, GAP programs, PGR and nutritional developments, equipment demos, and updates on fire blight, weed control, mating disruption, plus much more. Door prizes, lunch, high (and low) humor, BBQ/clambake dinner with a live band, growers and industry representatives from NY and surrounding states — tough to beat on a midsummer day.

Contact Lindsay LaMora (585-734-8904; lind-saylamora@agrassistance.com) for RSVP and tour information.

***SEPTEMBER FIELD DAY**

We're just over one month away from the annual N.Y. Fruit Pest Control Field Day, which will take place during Labor Day week on Sept. 9 and 10 this year, as dictated by tradition. These dates fall on the Wednesday and Thursday of the week, with the Geneva installment taking place first (Wednesday Sept. 9), and the Hudson Valley installment on the second day (Thursday Sept. 10). Activities will commence in Geneva on the 9th, 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 10th, participants will register at the Hudson Valley Laboratory starting at 8:30, after which we will view and discuss results from field trials on apples and other fruit crops. No pre-registration is required for either event.

INSECT TRAP CATCHES (Number/Trap/Day)

	Geneva, NY			Highland, NY		
	<u>7/27</u>	<u>7/30</u>	<u>8/3</u>		<u>7/27</u>	<u>8/3</u>
Redbanded leafroller	2.6	3.0	1.8	Redbanded leafroller	2.4	1.8
Spotted tentiform leafminer	5.5	3.8	3.0	Spotted tentiform leafminer	168	148
Oriental fruit moth	1.0	0.3	0.0	Oriental fruit moth	1.6	1.1
Lesser appleworm	0.1	0.0	0.0	Lesser appleworm	9.4	13.1
Codling moth	0.1	0.2	0.0	Codling moth	2.0	2.1
San Jose scale	139	1383	1713	Lesser peachtree borer	0.1	0.4
American plum borer	0.0	0.5	0.0	Obliquebanded leafroller	0.2	0.1
Lesser peachtree borer	0.0	0.3	0.0	Dogwood borer	0.1	1.3
Peachtree borer	0.1	0.0	0.1	Peachtree borer	2.0	3.2
Obliquebanded leafroller	0.0	0.0	0.0	Tufted apple budmoth	0.0	0.0
Apple maggot	1.3	2.5	2.4	Variigated leafroller	0.4	0.5
				Apple maggot	0.3	1.6

* first catch

UPCOMING PEST EVENTS

	<u>43°F</u>	<u>50°F</u>
Current DD accumulations (Geneva 1/1–8/3/09):	2138	1377
(Geneva 1/1–8/3/2008):	2359	1593
(Geneva "Normal"):	2309	1581
(Geneva 1/1–8/10 Predicted):	2329	1519
(Highland 3/1–7/20/09):	2359	1541
<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Apple maggot 1st oviposition punctures	1605–2157	1144–1544
Apple maggot flight peak	2101–2553	1418–1748
Codling moth 2nd flight peak	1921–2747	1275–1905
American plum borer 2nd flight peak	1976–2468	1337–1685
San Jose scale 2nd flight peak	1936–2336	1429–1759
Comstock mealybug 2nd gen. crawlers emerging	2234–2624	1505–1781
Spotted tentiform leafminer 2nd flight subsides	1982–2380	1307–1645
Spotted tentiform leafminer 3rd flight begins	2258–2652	1518–1838
Obliquebanded leafroller 2nd flight begins	2255–2655	1516–1838
Oriental fruit moth 2nd flight subsides	2046–2480	1361–1727

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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