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Update on Pest Management  
and Crop Development

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

August 1, 2005

VOLUME 14, No. 20

Geneva, NY

ABOVE  
GROUND  
LEVEL

ORCHARD  
RADAR  
DIGEST



### Highland Predictions:

#### **Codling Moth**

Codling moth development as of August 1: 2nd generation adult emergence at 66% and 2nd generation egg hatch at 27%.

2nd generation 30% CM egg hatch: August 2 (= target date where one spray needed to control 2nd generation codling moth).

#### **White Apple Leafhopper**

2nd generation WAL found on apple foliage: July 31.

### Geneva Predictions:

#### **Dogwood Borer**

Peak hatch roughly: July 29.

#### **Codling Moth**

Codling moth development as of August 1: 2nd generation adult emergence at 39% and 2nd generation egg hatch at 8%.

2nd generation 7% CM egg hatch: July 31 (= target date for first spray where multiple sprays needed to control 2nd generation CM).

2nd generation 30% CM egg hatch: August 9 (= target date where one spray needed to control 2nd generation codling moth).

#### **Oriental Fruit Moth**

[NEWA Apple Pest DD calculations: OFM 2nd summer generation estimated egg hatch as of August 1 = >90%.]

#### **White Apple Leafhopper**

2nd generation WAL found on apple foliage: August 1.

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## INSECT BITES

LYING IN THE WEEDS  
(Art Agnello, Entomology,  
Geneva)

❖❖ Now that the various crops are most of the way to being made, it's normal to begin paying less attention to the potential pests threatening them, but there are still one or two to be aware of, including some that have been covered in previous issues.

### European Red Mite

I've been surprised to see and hear of fewer mite outbreaks during this hot and dry period than I would have expected, but we're not quite done yet. Keep an eye on your foliar populations, using the 7.5 motiles-per-leaf threshold that we recommend during August as a hedge against the need for any late season miticide applications. Twospotted spider mite has also shown up in several spots, and this species has a tendency to increase its numbers even more rapidly than ERM.

### Apple Maggot

This week traditionally sees the heaviest flight of this pest in commercial orchards, so diligent attention to either your protective sprays (in blocks that are perennially high-population areas) or monitoring traps (in blocks that are hard to predict) would be advised.

### Comstock Mealybug

In pears especially, this is the period of greatest migration of 2nd generation nymphs into the fruit calyx, where they will be concealed until exposed at the packinghouse by the inspector's knife. Blocks with a history should receive a protective spray of Actara, Assail, Diazinon, or Provado.

### Woolly Apple Aphid

If you failed to prevent their migration from the lower trunk areas in June, there will be aerial colonies evident in canopies now. This is a difficult pest

to control completely, but now will be better than later in the month. The best material we have available (still) is Diazinon; Thiodan/Thionex is another, albeit less effective, option.

### Oriental Fruit Moth

The earliest feeding injury from the second generation larvae is starting to become noticeable in problem blocks (apples and peaches). Check the Recommends for recommended materials in the respective crops if you elect to apply a designated spray for these internal worms.

### Dock Sawfly

This one 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

continued...

### scaffolds

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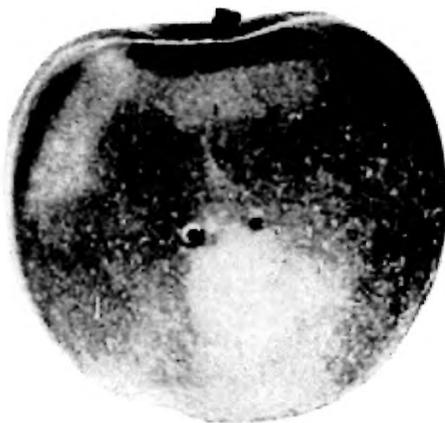
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European corn borer, cutting open these apples reveals a bright green worm with a light brown head, not feeding but lying inactive, in the burrow extending in from each hole. These are larvae of the dock sawfly, *Ametastegia glabrata*, a highly sporadic 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

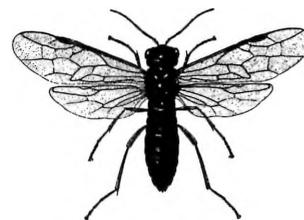


them and occasionally may be surrounded by a larger discolored halo. These holes may occur anywhere on the surface, but are most numerous around the calyx and stem

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.) ❖❖



GENERAL INFO

COME ONE,  
COME ALL

**SEPTEMBER  
FIELD TOUR - 1ST  
NOTICE**

❖❖ We're a little more than a month away from the annual N.Y. Fruit Pest Control Field Day, which will take place during Labor Day week on Sept. 8 and 9, as dictated by tradition. As we have done recently in order to accommodate participants who may wish to attend other area tours earlier in the week, the dates fall on the

Thursday and Friday of the week, with the Geneva installment taking place first (Thursday Sept. 8), and the Hudson Valley installment on the second day (Friday Sept. 9). Activities will commence in Geneva on the 8th, 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, miticides, and insecticides on tree fruits and grapes. It is anticipated that the tour of field plots will be completed by noon. On the 9th, 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. ❖❖

INSECT TRAP CATCHES (Number/Trap/Day)						
	Geneva, NY				Highland, NY	
	<u>7/25</u>	<u>7/28</u>	<u>8/1</u>		<u>7/25</u>	<u>8/1</u>
Redbanded leafroller	1.6	0.7	0.3	Redbanded leafroller	1.0	0.2
Spotted tentiform leafminer	10.0	5.7	6.1	Spotted tentiform leafminer	32.4	43.1
Oriental fruit moth	0.0	0.0	0.1	Oriental fruit moth	0.2	0.9
Lesser appleworm	0.0	0.0	0.1	Lesser appleworm	0.9	0.9
San Jose scale	63	100	22.5	Codling moth	0.1	1.1
Codling moth	0.0	0.0	0.0	Obliquebanded leafroller	0.7	0.5
American plum borer	0.4	1.3	0.4	Apple maggot	0.1	0.1
Lesser peachtree borer	0.9	0.5	1.3			
Peachtree borer	0.0	0.0	0.1			
Obliquebanded leafroller	0.3	0.0	0.1			
Apple maggot	0.3	0.0	0.0			

## PEST FOCUS

Geneva: Degree days (base 43°F) since **spotted tentiform leafminer** 2nd flight began (6/23) = 1218

Highland:

**Apple maggot** oviposition observed on early varieties - Ginger Gold and Pristine. **Stink bug** damage observed on apple. **San Jose scale** 2nd gen. crawlers emerging, adult males present. First of 2 Hudson Valley applications should begin for 2nd generation. Degree days (base 50°F) since first **codling moth** trap catch = 1526. Degree days (base 45°F) since first **oriental fruit moth** trap catch = 1972.

## UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–8/1):	2372	1636
(Geneva 1/1–8/1/2004):	2215	1431
(Geneva "Normal"):	2219	1506
(Geneva 8/8 Predicted):	2584	1798
(Highland 1/1–8/1):	2576	1813

<u>Coming Events:</u>	<u>Ranges(Normal± StDev):</u>	
Codling moth 2nd flight peak	2005–2835	1337–1977
Spotted tentiform leafminer 3rd flight begins	2277–2637	1518–1866
American plum borer 2nd flight peak	1953–2415	1305–1677
Apple maggot flight peak	2143–2579	1455–1763
Comstock mealybug 2nd gen. crawlers present	2234–2624	1658–1737
Obliquebanded leafroller 2nd flight begins	2270–2654	1525–1837
Oriental fruit moth 3rd flight begins	2337–2743	1597–1893
Redbanded leafroller 2nd flight subsides	2167–2687	1466–1862
Lesser appleworm 2nd flight peak	2315–3295	1554–2292

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**scaffolds**

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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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