

# scaffolds

Update on Pest Management  
and Crop Development

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

July 18, 2016

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Geneva, NY

## DRY NUMBERS

ORCHARD  
RADAR  
DIGEST



### ❖❖ Geneva Predictions:

#### Roundheaded Appletree Borer

Peak RAB egg hatch roughly: July 8-27.

#### Dogwood Borer

Peak DWB egg hatch roughly: July 27.

#### Codling Moth

Codling moth development as of July 18: 2nd generation adult emergence at 13% and 2nd generation egg hatch at 1%.

2nd generation 7% CM egg hatch: July 25 = target date for first spray where multiple sprays needed to control 2nd generation CM.

#### Oriental Fruit Moth

2nd generation second treatment date, if needed: July 15.

## WITH POWDER ON TOP

MEALYBUGS IN OUR  
MIDST

(Art Agnello,  
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❖❖ The first generation of Comstock mealybugs likely came and went without much notice this year, since they tend not to cause very noticeable damage at that time of the season (late June), but for management efforts, we normally focus on the summer brood, which occurs sometime during the 3rd week of July in the Hudson Valley, and shortly thereafter in western N.Y. Now would be

a good time to note the presence of any potentially problematic populations in your pears, peaches, or even apples, as applicable, in order to be prepared for any needed management decisions. The following information is taken from the Comstock Mealybug IPM Fact Sheet (<http://hdl.handle.net/1813/43087>):

There are two generations of Comstock mealybug in New York, each taking 60 to 90 days to complete, depending on seasonal temperatures. The egg is generally thought to be the primary overwintering stage, but some nymphs and adult females from the second (summer) generation may also overwinter, with eggs being laid in the spring rather than the previous fall. Adult females and males emerge at the same time, from late June to mid-July for the first (overwintering) generation, and late August to mid-September for the second (summer) generation. Adult females are present for a total of 4–6 weeks, and oviposit for about one week after mating. Males survive for only a few days after emerging.

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## IN THIS ISSUE...

### INSECTS

- ❖ Orchard Radar Digest
- ❖ Comstock mealybug

### CHEM NEWS

- ❖ Magister SC miticide labeled in cherries
- ❖ Bifenthrin Sect. 18 approved for BMSB

### GENERAL INFO

- ❖ Wayne Co. Fruitgrower Tour

### PEST FOCUS

### UPCOMING PEST EVENTS

### TRAP CATCHES

The elongate, orange-yellow eggs are laid in jumbled masses along with waxy filamentous secretions in protected places such as under bark crevices, near pruning cuts, and occasionally in the calyx of fruit. The summer-generation eggs are laid from mid-June through late July, and the overwintering eggs from mid-August into October. The early larval instars of the CMB are similar to adult females (wingless and elongate-oval in shape, with a many-segmented body) except that they are smaller, more oval-shaped, lack the long body filaments, and are orange-yellowish because they have less wax covering. Later instars are similar in appearance, but become progressively browner and redder (Fig. 1).



Fig. 1. Comstock mealybug nymph

The overwintered eggs hatch from mid-April through May and the nymphs (crawlers) migrate from the oviposition sites to their feeding sites on terminal growth and leaf undersides of trees and shrubs. This hatch is completed by the petal fall stage of pears. Nymphs that hatch from these overwintered eggs are active from roughly early May to early July (i.e., as in the above-mentioned reports). As the nymphs approach the adult stage, they tend to congregate on older branches at a pruning scar, a node, or at a branch base, as well as inside the calyx of pears. Second- (summer)

generation nymphs are present from about mid-July to mid-September.

The Comstock mealybug poses two major concerns for the pear processing industry of New York: First, the emergence of crawlers and adult females from the calyx of pears at the packinghouse creates a nuisance to workers. Second, pears to be made into puree typically are not peeled or cored by processors who buy New York fruit, so infestations can potentially result in unacceptable contamination of the product (Fig. 2).



Fig. 2. Comstock mealybug adults in calyx of pear.

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### scaffolds

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Another problem, of concern to apple growers in the 1930s and 1940s, and again in the Hudson and Champlain Valleys in the early 1980s, is that the honeydew secreted by the crawlers is a substrate for sooty molds growing on the fruit surface. This problem also occurs on peaches in Ontario, Canada. These molds result in a downgrading of the fruit, and are therefore an additional cause of economic loss (Fig. 3).



Fig. 3. External sooty mold caused by Comstock mealybug infestation.

To date, the Comstock mealybug has been a problem to growers of processing pears because of the contamination and aesthetic reasons noted. An infestation generally requires one or more insecticide sprays during the growing season, directed against the migrating crawlers. Examine the terminal growth for crawler activity periodically throughout the summer. Crawler and adult female activity can be monitored best by wrapping white, double-sided carpet tape around low scaffold branches and inspecting for crawlers that have been caught on the tape. They can be recognized with a hand lens or, with some experience, by the unaided eye.

We expect summer crawlers to appear in problem blocks over the next 1–2 weeks, for which an application of a material such as Actara (pears only), Admire (pears only), Assail (apples & pears only), Centaur, Movento, or Portal would be advised to control this insect.



## MAGISTER MITICIDE REGISTERED FOR CHERRIES

Gowan Co. has been granted a registration for Magister SC miticide (EPA Reg. No. 10163-322) for use in cherries in NYS. The active ingredient, fenazaquin, has shown good results against European red mite, twospotted spider mite, and plum nursery mite, as well as some unique activity on powdery mildew. This product has a METI (mitochondrial electron transport inhibitor) mode of action, the same as Nexter, Portal, Kanemite, and Nealta and is in IRAC Group 21; therefore, rotation among products with different modes of action should be taken into consideration to avoid resistance issues. Magister has a 3-day PHI and a 12-hr REI; it has a high bee-poisoning hazard.

## BIFENTHRIN SECTION 18 FOR BMSB RE-AUTHORIZED

The US EPA has again granted New York State a FIFRA Section 18 specific exemption for the use of Bifenture 10DF Insecticide/Miticide (EPA Reg. No. 70506-227), Bifenture EC Agricultural Insecticide (EPA Reg. No. 70506-57), and Brigade WSB (EPA Reg. No. 279-3108) to control brown marmorated stink bug on apples, peaches, and nectarines in Columbia, Dutchess, Orange, and Ulster Counties in New York. Use in any other counties is prohibited. Bifenture 10DF, Bifenture EC, and Brigade WSB are restricted-use pesticides; aerial application is prohibited. Users must have a copy of the appropriate Section 18 exemption in their possession at the time of use. These products have a 14-day PHI. Copies of the Section 18 authorization letter and the approved labels are available in the regulatory section of the PMEP website: <http://pmep.cce.cornell.edu/regulation/sec18/2016/index.html>

**GENERAL INFO**

**WAYNE COUNTY  
FRUITGROWER  
TOUR**

Wednesday, August 3, from 9:00 am  
Registration and 1st stop at MackQuinLe Farms, Norris Rd/Rte 104, North Rose, NY (GPS: N 43.204284, W 76.933619)

Sponsored by agr.assistance, this large, informative and entertaining tour is in its 18th year, and will feature presentations on Gala production (orchard fertility & PGR use), fire-blight control, weed control, crop nutrient and biostimulant programs for new apple plantings and processing apple varieties, apple scab alerts, plus much more. Door prizes, lunch, some droll humor, a BBQ/clambake dinner with a live band, growers and industry representatives from NY and surrounding states — always a great way to spend a midsummer day. Free attendance.

Contact Lindsay LaMora (585-734-8904; [lindsaylamora@agrassistance.com](mailto:lindsaylamora@agrassistance.com)) for RSVP pre-registration and tour information.

**PEST FOCUS**

**Highland:** San Jose 2nd generation flight began this week.  
Codling moth 2nd generation flight continues with egg laying and hatch predicted for this week.  
Apple maggot trap captures increasing; AM threshold reached in some blocks.  
BMSB egg laying and hatch observed on Jalapeño Pepper.

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

|                             | Geneva, NY |      |      | Highland, NY                |       |         |
|-----------------------------|------------|------|------|-----------------------------|-------|---------|
|                             | 7/11       | 7/15 | 7/18 |                             | 7/11  | 7/18    |
| Redbanded leafroller        | 2.5        | 19.5 | 9.5  | Redbanded leafroller        | 21.5  | 14.5    |
| Spotted Tentiform Leafminer | 42.5       | 73.0 | 53.0 | Spotted Tentiform Leafminer | 119.5 | 60.5    |
| Oriental Fruit Moth         | 3.5        | 0.0  | 0.0  | Oriental Fruit Moth         | 10.0  | 3.5     |
| Codling Moth                | 0.0        | 0.5  | 4.5  | Lesser Appleworm            | 10.0  | 4.0     |
| American Plum Borer         | 0.0        | 0.0  | 0.0  | San Jose Scale              | 2.5   | 15,684* |
| Lesser Peachtree Borer      | 0.0        | 0.5  | 0.0  | Codling Moth                | 32.5  | 69.0    |
| Obliquebanded Leafroller    | 0.5        | 0.0  | 0.0  | Obliquebanded Leafroller    | 11.0  | 5.5     |
| Pandemis Leafroller         | 0.0        | 0.0  | 0.0  | Dogwood Borer               | 5.0   | 5.5     |
| Dogwood Borer               | 8.0        | 0.0  | 0.5  | Brown Marmorated Stink Bug  | 0.0   | 0.0     |
| Peachtree Borer             | 3.0        | 6.0  | 0.0  | Apple Maggot                | 2.8*  | 4.3     |
| Apple Maggot                | 0.0        | 0.0  | 0.0  |                             |       |         |

\* = 1st catch

## UPCOMING PEST EVENTS

|  | <u>43°F</u> | <u>50°F</u> |
|--|-------------|-------------|
| Current DD accumulations (Geneva 1/1–7/18/16): | 1898.3      | 1253.8      |
| (Geneva 1/1–7/18/2015):                        | 1764.6      | 1168.6      |
| (Geneva "Normal"):                             | 1918.3      | 1271.2      |
| (Geneva 1/1-7/25, predicted):                  | 2118.8      | 1425.3      |
| (Highland 1/1–7/18/16):                        | 2323.8      | 1550.2      |

| <u>Coming Events:</u>                        | <u>Ranges (Normal ±StDev):</u> |           |
|--|--------------------------------|-----------|
| Apple maggot 1st oviposition punctures       | 1605-2157                      | 1144-1544 |
| Apple maggot peak flight                     | 2116-2646                      | 1419-1831 |
| American plum borer 2nd flight peak          | 2005-2575                      | 1351-1777 |
| Codling moth 2nd flight peak                 | 1959-2709                      | 1302-1874 |
| Comstock mealybug 1st flight subside         | 1818-2132                      | 1216-1418 |
| Lesser appleworm 2nd flight start            | 1412-2090                      | 912-1392  |
| Obliquebanded leafroller 1st flight subsides | 1619-2045                      | 1051-1379 |
| Oriental fruit moth 2nd flight peak          | 1444-1960                      | 920-1316  |
| Oriental fruit moth 2nd flight subsides      | 2059-2537                      | 1372-1770 |
| Redbanded leafroller 2nd flight peak         | 1528-1986                      | 981-1331  |
| San Jose scale 2nd flight start              | 1629-1979                      | 1058-1336 |
| STLM 2nd gen tissue feeding mines present    | 1378-2035                      | 913-1182  |
| STLM 2nd flight subsides                     | 1998-2364                      | 1321-1633 |

all DDs Baskerville-Emin, B.E.

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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