scaffolds

Update on Pest Management and Crop Development

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

May 14, 2012 VOLUME 21, No. 10 Geneva, NY

INSECTS

ON DECK

ORCHARD RADAR DIGEST

San Jose Scale

First adult SJS crawlers appear: June 10.

Spotted Tentiform Leafminer

1st generation sapfeeding mines start showing: May 9.

Optimum sample date is around May 10, when a larger portion of the mines have become detectable.

❖❖ Roundheaded Appletree Borer

RAB egglaying begins: May 28. Peak egglaying period roughly: June 21 to July 6.

Dogwood Borer

First DWB egg hatch roughly: June 17.

Codling Moth

1st generation, first sustained trap catch biofix date: May 5.

Codling moth development as of May 14: 1st generation adult emergence at 7% and 1st generation egg hatch at 0%.

Lesser Appleworm

Peak LAW trap catch: May 11.

Mullein Plant Bug

The most accurate time for limb tapping counts, but possibly after MPB damage has occurred, is when 90% of eggs have hatched. Expected 90% egg hatch date: May 9.

Obliquebanded Leafroller

1st generation OBLR flight begins around: May 30.

Oriental Fruit Moth

1st generation 55% egg hatch and first treatment date, if needed: May 19.

White Apple Leafhopper

1st generation WALH found on apple foliage: May 3.

IN THIS ISSUE…

AT A MINIMUM

CAN'T GET STARTED
(Art Agnello, Entomology, Geneva; ama4@cornell.edu)

❖❖ Considering how far "ahead" we started out about 6 weeks ago, it's notable how completely things seem to have stalled since late April, and we're still seeing lots of (admittedly) late bloom and pollination activity taking place, at least in western NY, so it looks almost like a complete catch-up in terms of timing. If it weren't for the extensive damage that's been done to most of the initial fruit buds, we might be tempted to shrug it off and return to business as usual. The truth is that the story on this year's crop is still being written, and we won't have a very clear picture for at least a couple more weeks. Any late-set fruitlets may or may not compensate for the early damage, depending on quality as well as quantity of the fruit produced, and the traditional insect pest patterns have been pretty much turned on their head. For instance, plum curculios have probably been hanging around in the trees with nothing to do for weeks; can they hold out indefinitely before giving it up as a missed opportunity? Who knows, but I think we'll all be seeing some new scenarios this season.

When the situation does clear up, it's certain that some growers will conclude that they will in fact have enough of a crop to warrant an insect management program, and others will be certain that they don't. The first group will need to make some judicious choices about the most economical way to proceed in order to protect the fruits on the trees, and probably their program will have to be customized by block and variety (even more than normal). For orchards with essentially no crop, there will still be a need for some maintenance efforts, as certain pests occur and multiply regardless of the presence of fruit. Following are some advised tactics to follow in this case, excerpted and adapted from Rick Weinzierl in the Illinois Fruit and Vegetable News:

Apples

Aphids: Examine terminals for rosy apple aphids and green aphids at about 2-week intervals. Treat if more than 30 percent of terminals are infested and natural enemies are absent. Controlling woolly apple aphid generally is advised where infestations are observed on greater than 50 percent of pruning scars.

White apple leafhopper and potato leafhopper: Scout for these after petal fall, especially on young trees where vigorous growth is important to bring the trees into productivity. Even a few potato leafhoppers feeding on leaves of new shoots can cause curling of leaves and stunted growth, so control is warranted on young trees when potato leafhopper is simply present.

San Jose scale: An application of Esteem about 500 DD base 50°F from March 1, or 310 DD after 1st male catch (May 4 in Geneva this year) might be considered in blocks where scale problems were severe last year. We'll provide our best estimate of when this should be occurring, or else use double-sided tape wrapped around twigs or branches in problem blocks to determine when crawlers are active in specific locations.

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scaffolds
is published weekly from March to September by Cornell University—NYS Agricultural Experiment Station (Geneva) and Ithaca—with the assistance of Cornell Cooperative Extension. New York field reports welcomed. Send submissions by 3 pm Monday to:

scaffolds FRUIT JOURNAL
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This newsletter available online at:
http://www.scaffolds.entomology.cornell.edu/index.html

Dogwood borer: Adults, which are clearwing moths, lay eggs in burrknot tissue or the graft unions on clonal rootstocks, and in interstems. Larvae tunnel in the burrknot tissue and adjacent cambium, sometimes girdling trees. Flight usually begins in mid-June in NY, but this year could be earlier. A coarse trunk spray of Lorsban any time from now on will prevent egg-laying by adults; alternatively, mating disruption using Isomate-DWB has proven to be an effective tactic.

Japanese beetle: If beetles are defoliating trees from June through August to the extent that desired growth or vigor is compromised, control them using one of the products recommended in the Tree Fruit Guidelines.

European red mite: If an application of oil went on before bloom and no pyrethroids will be used, it's unlikely that outbreaks will occur. However, keep an eye on the foliage nonetheless, particularly if the summer turns hot and dry. An uncontrolled mite population will adversely affect next season's fruit bud establishment, which occurs in late July to August. Thresholds are 2.5 mites per leaf in June, 5 mites per leaf in July, and 7.5 mites per leaf in August.

Peaches

The list of potential pests even in the absence of fruit is shorter in peaches: mainly peachtree borers, San Jose scale, Japanese beetle, and European red mite. In the absence of a crop, there is no reason to control plum curculio, stink bugs and plant bugs, or oriental fruit moth (unless there is sufficient larval tunneling in shoot tips to reduce new growth and compromise next year's crop).

Lesser peachtree borer flight usually is under way by the end of May, and often spans most of the summer; peachtree borer flight should begin by mid-June. Where control is needed, a trunk and lower scaffold branch spray of Lorsban provides control; however, both species can be effectively managed using Isomate PTB-Dual.

San Jose scale: As in apples, an application of a recommended product at the completion of crawler hatch in about mid-June might be considered in blocks where scale problems were severe last year.

Japanese beetle: Same as in apples, if beetles are defoliating trees from June through August to the extent that desired growth or vigor is compromised, control them.

European red mite: Again as in apples, if an application of oil went on went on before bloom and no pyrethroids will be used as cover sprays, it's unlikely that outbreaks will occur.

Fruited Blocks

An inspection of various blocks in the region today made it apparent that a number of orchards will have some portion of a normal crop, some will have less than that, and of course some will have none. Unfortunately, a reduced crop doesn't translate into very much of a reduced pest management effort, as it's still necessary to spray the whole tree to protect however many fruits are present. However, it is possible to be a bit more restrained and still confer some adequate control of the biggest threats.

Despite scant evidence of much insect activity or damage so far, it's reasonable to assume that plum curculio will still pose a threat to any fruitlets that are present, so a normal protective spray should be applied to any fruited blocks that have reached petal fall; if one was already applied more than a week ago, at least one more spray is needed, as the PC oviposition period is almost certainly not finished yet. An effective option would be Actara, Calypso, Imidan, or — particularly if no fruit is likely to be exported this year — use up that single application of Guthion you have this season, and you can obtain optimal control without having to spend a lot. The OPs will also give protection from sawfly, and the neonics could additionally cover rosy apple aphids, leafhoppers, and, in the case of Calypso, internal leps. In blocks with a history of OBLR, Intrepid or a B.t. at petal fall will head off feeding on young fruitlets that might otherwise add to your bottom line. We'll be doing our best to figure out the timing and potential hazards of all the usual suspects as this unseasonable season continues to unwind, but for the time being, there's no excuse for neglecting whatever remnants of a crop you may eventually be very interested in harvesting four months from now. ❖❖

PEST FOCUS

Highland: High populations of **rosy apple aphid** causing feeding injury to foliage. **Plum curculio**, **European apple sawfly** and **obliquebanded leafroller** fruit damage observed. **Pear psylla** nymphs, newly emerged adults and eggs observed.

INSECT TRAP CATCHES (Number/Trap/Day)

Geneva, NY

	5/7	5/11	5/14
Redbanded leafroller	9.3	4.5	2.0
Spotted tentiform leafminer	4.7	3.1	7.0
Oriental fruit moth	5.2	1.9	4.5
American plum borer	0.3*	0.0	1.5
Lesser appleworm	0.0	0.6	0.3
San Jose scale	0.3	0.0	0.1
Codling moth	1.2	0.9	2.2

Highland, NY

	5/7	5/14
Redbanded leafroller	1.3	0.4
Spotted tentiform leafminer	6.3	3.4
Oriental fruit moth	3.9	2.4
Codling moth	1.4*	4.6
Lesser appleworm	1.0*	3.4
Tufted apple budmoth	0.1	–
Fruittree leafroller	0.0	0.0
Variegated leafroller	–	0.0

* first catch

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–5/14/12):	598	323
(Geneva 1/1–5/14/2011):	400	202
(Geneva "Normal"):	440	229
(Geneva 1/1–5/21 predicted):	729	408
(Highland 1/1–5/14/12):	750	397
(Highland 1/1–5/14/11):	497	253

Coming Events:	Ranges (Normal ±StDev):	
European red mite 1st summer eggs	447–555	237–309
Oriental fruit moth 1st flight peak	352–550	178–294
Spotted tentiform leafminer sap-feeders present	343–601	165–317
Lesser appleworm 1st flight peak	355–773	174–440
Mullein bug hatch complete	508–656	264–358
Lesser peachtree borer 1st catch	482–684	251–379
Plum curculio oviposition scars present	485–589	256–310
Pear psylla hardshell present	493–643	271–361
San Jose scale 1st flight peak	554–746	294–418
American plum borer 1st flight peak	636–982	349–597
Obliquebanded leafroller pupae present	601–821	328–482
Black cherry fruit fly 1st catch	702–934	380–576
Codling moth 1st flight peak	574–1008	313–597
Rose leafhopper adult on multiflora rose	689–893	366–498

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.

This material is based upon work supported by Smith Lever funds from the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.