

OUTPUT

ONSCREEN
(Art Agnello,
Entomology,
Geneva)



Codling Moth

1st generation 3% CM egg hatch:
June 10 (= target date for first spray
where multiple sprays needed to
control 1st generation CM).

1st generation 20% CM egg hatch:
June 17 (= target date where one
spray needed to control 1st genera-
tion codling moth).

ORCHARD RADAR DIGEST

❖❖ Beginning with today's issue, we will once again be publishing pest predictions generated by the Univ. of Maine's Orchard Radar model estimation service, provided to us by Glen Koehler for Geneva. This pest management tool uses commercially available weather data as an input for apple pest occurrence and development models taken from many established university and practitioner sources. It's offered as another perspective on what's happening in the orchard to compare against our own record-generated advisories and, of course, personal observations from the field. We'll be printing only some of the short-term arthropod events; the full Orchard Radar product range covers disease and horticultural events as well. The public sites available for anyone to use are located at: <http://pronewengland.org/AllModels/DecisionModels.htm>. Growers interested in exploring this service for their specific site may wish to contact Glen personally (gkoehler@umext.maine.edu).

Geneva Predictions:

Roundheaded Appletree Borer

RAB adult emergence begins: May 29; Peak emergence: June 19.

RAB egg laying begins: June 8. Peak egg laying period roughly: June 28 to July 12.

Lesser Appleworm

1st LAW flight, 1st trap catch: May 11.

Mullein Plant Bug

Expected 50% egg hatch date: May 18, which is 5 days before rough estimate of Red Delicious petal fall date.

The most accurate time for limb tapping counts, but possibly after MPB damage has occurred, is when 90% of eggs have hatched.

90% egg hatch date: May 23.

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Obliquebanded Leafroller

1st generation OBLR flight, first trap catch expected: June 10.

Oriental Fruit Moth

1st OFM flight starts, and first treatment date, if needed: May 1.

San Jose Scale

First adult SJS caught on trap: May 18.

Spotted Tentiform Leafminer

1st STLM flight, peak trap catch: May 10.
1st generation sapfeeding mines start showing: May 22.
Optimum sample date is around May 23, when a larger portion of the mines have become detectable.

White Apple Leafhopper

1st generation WALH found on apple foliage: May 14.❖❖

ban 4E and, more recently, Lorsban Advanced; the Lorsban 50W formulation is no longer available. Gowan is licensed to formulate this a.i. as Lorsban 75WG, and there are also naturally a number of generic formulations available (such as Govern 4E, Nufos 4E, Pilot 4E, Warhawk, and Whirlwind). The label on each product is the law. There are different versions of the label in the channels of trade. The labels also vary as changes are made on the different labels at different times. As a result, each of the products can have its own particular set of use requirements and restrictions, including the maximum number of applications that may be made per season.

This situation is far from static, and in some cases the products that will be marketed from the next production “run” will have additional differences from those in your shed today. For instance, all new Lorsban 75WG from this point on will be changed to just one application per season, and the foliar petal fall use will be eliminated, so growers must be certain to refer to and follow the LABEL for the specific product being used.

READ
THE
LABEL

LORSBAN
LITERACY
(Art Agnello,
Entomology, Geneva)

continued...

❖❖ A reference to Lorsban use restrictions in one of last week’s articles generated an interesting discussion among some of us regarding the complicated state of affairs of the various Lorsban/chlorpyrifos labels available for use this season, so I thought it might be helpful to point out some of the significant differences among these products that growers will want to keep in mind before deciding on which to apply.

In the beginning was (and still is) the Dow AgroSciences patent on the a.i., chlorpyrifos, marketed under their label currently as Lors-

scaffolds

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This newsletter is available online at:
<http://www.nysaes.cornell.edu/ent/scaffolds/>

According to the most recent information we've been able to gather from labels and company representatives, the following summarizes some of the specifics for use of this product on tree fruits; our thanks to Paul David (Gowan Co.) and Brian Olson (Dow AgroSciences) for their help.

You can clip and save this page for convenience, but please refer to the LABEL for complete details:

LORSBAN 4E (This is a Restricted Use Pesticide)

Crop	Application Timing/Type	Rate	Maximum Applies	PHI	Pests labeled (primary)
Apple	Dormant/Delayed dormant; canopy OR trunk spray	½–4 pt/A	1 per yr TOTAL* (Pre- or Postbloom)	—	Tarnished plant bug, OBLR, Rosy apple aphid, San Jose scale
	Postbloom, trunk spray ONLY	1½ qt/ 100 gal	1 per yr TOTAL* (Pre- or Postbloom)	28 d	Borers (American plum, dogwood, roundheaded and flatheaded appletree, tilehorned prionus, broad-necked root borer, apple bark)
Cherry	Dormant/Delayed dormant; canopy OR trunk spray (avoid sweet cherry foliage)	½–4 pt/A	1 per yr Prebloom	—	Borers (American plum, lesser/peachtree), San Jose scale, European red mite
	Postbloom, trunk sprays ONLY	1½–3 qt/ 100 gal	3 per yr TOTAL*	21 d	Borers (American plum, lesser/peachtree)
Peach, Nectarine	Dormant/Delayed dormant; canopy OR trunk spray	½–4 pt/A	1 per yr TOTAL*	—	Borers (American plum, lesser/peachtree), San Jose scale, European red mite
	Postbloom, trunk spray ONLY	3 qt/ 100 gal	1 per yr TOTAL	14 d	Peachtree borer, lesser peachtree borer
Pear, Plum, Prune	Dormant/Delayed dormant; canopy OR trunk spray	½–4 pt/A	1 per yr TOTAL*	—	Pear psylla adults, San Jose scale, European red mite

*Per the restriction, apply no more than the allowed application(s) of any chlorpyrifos-containing product per year. The application(s) can be either a pre-bloom dormant/delayed dormant spray to the canopy or to the trunk.

LORSBAN ADVANCED (This is a Restricted Use Pesticide)

Crop	Application Timing/Type	Rate	Maximum Applies	PHI	Pests labeled (primary)
Apple	Dormant/Delayed dormant; canopy OR trunk spray	1½–4 pt/A	1 per yr TOTAL*	—	Tarnished plant bug, OBLR, Rosy apple aphid, San Jose scale
Cherry	Dormant/Delayed dormant; canopy OR trunk spray (avoid sweet cherry foliage)	1½–4 pt/A	1 per yr Prebloom	—	Borers (American plum, lesser/peachtree), San Jose scale, European red mite
	Postbloom, trunk sprays ONLY	1½–3 qt/ 100 gal	3 per yr TOTAL*	21 d	Borers (American plum, lesser/peachtree)
Peach, Nectarine	Dormant/Delayed dormant; canopy OR trunk spray	½–4 pt/A	1 per yr TOTAL*	—	Borers (American plum, lesser/peachtree), San Jose scale, European red mite
	Postbloom, trunk spray ONLY	3 qt/ 100 gal	1 per yr TOTAL*	14 d	Peachtree borer, lesser peachtree borer
Pear, Plum, Prune	Dormant/Delayed dormant; canopy OR trunk	½–4 pt/A	1 per yr TOTAL*	—	Pear psylla adults, San Jose scale, European red mite

*Per the restriction, apply no more than the allowed application(s) of any chlorpyrifos-containing product per year. The application(s) can be either a pre-bloom dormant/delayed dormant spray to the canopy or the trunk.

LORSBAN 75WG

Crop	Application Timing/Type	Rate	Maximum Applies	PHI	Pests labeled (primary)
Apple	Dormant/Delayed dormant; foliar	2–2.67 lb/A	1 per yr 2 TOTAL*	—	Tarnished plant bug, OBLR, Rosy apple aphid, San Jose scale
	Dormant/Delayed dormant through petal fall; foliar	2–2.67 lb/A	1 per yr 2 TOTAL*	—	Codling moth, European apple sawfly, European red mite, green fruitworm, OBLR, plum curculio, rosy apple aphid San Jose scale, tarnished plant bug, potato leafhopper, oriental fruit moth, redbanded leafroller
	Postbloom; trunk spray	2 lb/ 100 gal	1 per yr 2 TOTAL*	28 d	Borers (American plum, dogwood, roundheaded and flatheaded appletree, tilehorned prionus, broad- necked root borer, apple bark)
*Do not use more than 2.67 lb of Lorsban 75WG (2 lb ai chlorpyrifos) per acre per season as a dormant/delayed dormant application. Do not make more than 2 applications per year. In any given year, if a single foliar application of chlorpyrifos has been made at or prior to petal fall, then only 1 subsequent (apple tree trunk) application can be made in the same year.					
Cherry	Dormant/Delayed dormant; foliar (avoid sweet cherry foliage)	2–2.67 lb/A	1 per yr prebloom	—	European red mite, San Jose scale
	Postbloom (sour cherry ONLY); foliar sprays	1.33–2 lb/A	8 per yr	14 d	Borers (American plum, lesser peachtree, shothole), OBLR, European fruit lecanium scale, San Jose scale, plum curculio, cherry fruit fly
	Postbloom; trunk sprays	2–4 lb/ 100 gal	3 per yr	21 d	Borers (American plum, lesser/ peachtree)
Peach, Nectarine	Dormant/Delayed dormant; foliar	2–2.67 lb/A	1 per yr TOTAL	—	European red mite, San Jose scale
	Postbloom; trunk spray	4 lb/ 100 gal	1 per yr TOTAL	14 d	Peachtree borers
Pear, Plum, Prune	Dormant/Delayed dormant; foliar	2–2.67 lb/A	1 per yr	—	European red mite, San Jose scale, pear psylla adults



PHENOLOGIES

Geneva:

	<u>4/20</u>	<u>4/27 (Predicted)</u>
Apple(McIntosh):	half inch green	tight cluster
Apple(Red Delicious):	quarter inch green	tight cluster
Apple(Empire):	half inch green	tight cluster
Pear (Bartlett):	bud burst	green cluster
Sweet cherry:	late bud burst	white bud
Tart cherry (Montmorency):	early bud burst	bud burst – white bud
Plum (Castleton):	bud burst	green cluster
Peach (Red Haven):	bud burst	pink
Apricot (Harrowblush):	pink	bloom

Highland:

Apple (Ginger Gold):	early pink
Apple (McIntosh/Red/ Golden Delicious):	tight cluster
Pear (Bartlett/ Bosc):	early green cluster
Peach (early):	first bloom
Peach (late):	pink
Plum (Stanley):	early white bud
Apricot (late):	full bloom

PEST FOCUS

Geneva:

Redbanded leafroller 1st catch 4/16. **Spotted tentiform leafminer** 1st catch today, 4/20.

Highland:

Pear psylla egg hatch observed.

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations (Geneva 1/1–4/20/09):	149	53
(Geneva 1/1–4/20/2008):	189	93
(Geneva "Normal"):	173	77
(Geneva 1/1–4/27 Predicted):	233	98
(Highland 3/1–4/20):	176	64

<u>Coming Events:</u>	<u>Ranges (Normal ±StDev):</u>	
Green fruitworm peak catch	103–213	41–97
Redbanded leafroller 1st flight peak	230–370	103–189
Spotted tentiform leafminer 1st oviposition	143–273	58–130
Green apple aphid present	111–265	38–134
Rosy apple aphid nymphs present	134–244	56–116
Pear thrips active in pear buds	118–214	50–98
Comstock mealybug crawlers in pear buds	215–441	80–254
European red mite egg hatch	231–337	100–168
Obliquebanded leafroller larvae active	158–314	64–160
Oriental fruit moth 1st catch	223–327	94–166
Pear psylla 1st egg hatch	174–328	60–166

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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