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Weekly Update on Pest
and Crop Development

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

May 25, 1992

VOLUME 1

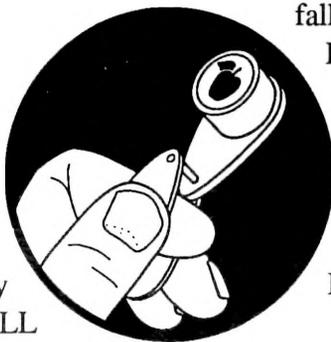
Geneva, NY

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APPLES

PETAL FALL
(Art Agnello)

❖❖ A few points
to keep in mind for your petal fall
insecticide sprays:



fall will effectively control this insect. Foliar damage in apples usually looks worse than it actually is, but young (i.e., not into full bearing) trees with serious infestations can sustain some permanent damage.❖❖

MITES

1) To minimize the hazard to honey bees, apply pesticides only after ALL petals have fallen in the block and when no bees are actively foraging on blooming weeds (evening is better than early morning).

2) Do not use Lannate on early McIntosh, Wealthy, or Dutchess because of possible injury to fruit and foliage.

3) Postbloom use of any synthetic pyrethroid insecticide has on occasion encouraged the build-up of mites and woolly apple aphid. If a pyrethroid (Asana, Ambush, Pounce) was used in any of the prebloom sprays, do not apply another pyrethroid at petal fall. Try to limit use of these materials to one application per season to delay resistance development and extend their useful field life.

4) When choosing an insecticide for this application, keep in mind its range of activity, both adverse and beneficial. For example, if Sevin is applied for thinning, it will also help to control plum curculio and white apple leafhopper (even at the 1 lb rate). Carzol acts not only against European red mite, but will also control white apple leafhopper.

5) Be aware of the destructive effects of any spray materials on beneficial mites and insects (refer to Table 4 on p. 12 in the 1992 Cornell Recommends.)

6) Do not use Vydate or Sevin during the first 30 days after bloom without taking into account their thinning effects.

7) There have been reports of gypsy moth caterpillar populations causing concern. Fortunately, nearly any material you might be applying at petal

❖❖ European red mite adults are now in evidence, and summer eggs should be present in apple blocks around the state; hatch should be occurring at any time. Some bona fide treatable populations may have already been noted. Now is the time to keep one eye on the thermometer and the other on mite numbers, because a little warm weather can quickly boost numbers into the problem category. Until about June 30, we recommend a threshold of 2.5 motile stages (anything except eggs) per leaf. You can determine the mite densities on the foliage by actually counting them if you want to, but this is more effort than required. Your time is probably better spent using the presence/absence technique:

Examine intermediate-aged leaves (from the middle of the fruit cluster) for motile stages. Check at least 50 leaves (5 per tree), for the presence of any number of mites; no treatment is recommended if <62% of the leaves examined are infested. A sequential sampling table (p.58) and chart (p.185) are provided in the 1992 Recommends.❖❖

WHITE APPLE LEAFHOPPER

❖❖ WALH nymphs are numerous in some blocks; growers using Sevin in their thinning sprays will get some control at the 1 lb rate. *Carzol used for mites* now will also do the job, but will be harmful to your predator mites; this first generation is generally not worth the trade-off.❖❖

SAN JOSE SCALE

❖❖ The San Jose scale is a pest of tree fruit that attacks not only apple, but also pear, peach, plum, and sweet cherry. The tiny SJS adult males emerge in the spring from beneath scale covers on the trees, usually during bloom, and mate. The first of this year's adults in Geneva were reported on May 21. The females produce live crawlers within 4-6 weeks of mating; these are bright yellow, very tiny insects resembling larval spider mites. About 24 hours after birth, the crawlers have walked or drifted to new sites and settled in by inserting their mouthparts into the tree and secreting a white waxy covering that eventually darkens to black.

SJS infestations on the bark contribute to an overall decline in tree vigor, growth, and productivity. Fruit feeding causes distinct red-purple spots that decrease the cosmetic appeal of the fruit. Control measures for SJS are recommended when the scale or their feeding blemishes have been found on fruit at harvest during the previous season. Insecticidal sprays are most effective when directed against the first generation crawlers, specifically timed for the first and peak crawler activity, which are usually 7-10 days apart.

The most reliable method of determining first appearance of the crawlers in your specific area is by putting sticky-tape traps on the tree limb near encrusted areas and checking them at least twice a week, starting next week. Alternatively, a degree-day accumulation of 310 (50°F base) from the date of first adult catch has also been shown to be reliable if the degree-days are known with some accuracy.

Effective materials for SJS control include Lorsban 50WP, Guthion, Imidan and Pennacp-M. These sprays may also help in the control of OBLR, apple maggot, and codling moth. Coverage and control are generally better if the pesticide is applied dilute and in every row. SJS is frequently a problem in larger, poorly pruned standard size trees that do not receive adequate spray coverage. Dormant or delayed-dormant sprays of oil, oil plus Ethion, or 1/2-inch green applications of Lorsban 4EC or Supracide will help prevent populations from getting established. Early season pruning is

important for removing infested branches and suckers, as well as for opening up the canopy to allow better coverage in the tree tops where SJS are often concentrated.❖❖

STONE FRUITS

GREEN PEACH APHIDS

(Art Agnello)

❖❖ Although apparently not as serious a problem as they can be some years, these greenish, smooth-looking aphids are occurring in some blocks around the state. They cause curled leaves that may turn yellow or red in severe cases. The young aphids begin to hatch about the time of peach bloom and remain on the trees for 2-3 generations, until early summer, when they seek other hosts (mainly vegetable truck crops). Green peach aphids suck the sap from the new fruits and twigs, and are also found on plum, apricot, cherry, and many ornamental shrubs. These insects are difficult to control; Lannate is recommended before excessive leaf curling occurs, in order to maximize the spray's effectiveness. Also, keep an eye out for black cherry aphid in your cherry trees. If colonies are building up on the foliage, recommended materials include Imidan (tart cherries only), malathion, Sevin, and Pennacp-M.❖❖

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This newsletter available on CENET, in the TNEWS bulletin board under FRUIT.

LESSER PEACHTREE BORERS

❖❖ Remember to get your trunk and scaffold sprays on peaches and cherries during the first week of June if borers are a problem in your blocks. This pest increases the severity of Cytospora canker infections in peaches and is often found within the canker; by feeding in the callous tissues, it interferes with the tree's natural defenses against the disease. Infestations can be determined by the presence of the insect's frass, which resembles sawdust, in the gum exuded from the wound. In peaches, you can use Lorsban, Thiodan, Asana, Ambush, Pounce, or PennCap-M for this application. In cherries, use Lorsban 4E, Thiodan 50WP, Asana, or Ambush 25WP as a trunk spray ONLY; do not spray the fruit. ❖❖

Hudson Valley Lab, Highland (Dave Rosenberger):
Tree Phenologies - Apple petal fall dates:

McIntosh — May 18-19

Delicious and Golden Delicious — May 21

Rome Beauty — May 23

Apple scab ascospore maturity, Highland, NY,
from leaves collected May 21:

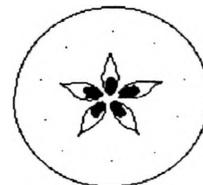
<u>Immature</u>	<u>Mature</u>	<u>Discharged</u>	<u>Tower shoot</u>
12%	25%	63%	>584 spores

A tremendous number of spores were discharged during the wetting periods last weekend (May 16-17). May 15-17 we had a heavy Mill's infection period with 39 hrs of wetting, an average temperature of 55°F, and 0.51 inches of rain. An additional wetting period of approximately 7 hrs, 68°F occurred May 18. The latter was of concern primarily for fire blight infection.

An alarming number of growers who opted to use only contact fungicides did not have adequate fungicide coverage for several major infection periods which occurred April 22-24 when trees were just beyond half-inch green. As a result, scab infections became evident on the lower sides of the second and third cluster leaves late last week.

These lesions provided abundant secondary inoculum for redistribution during the heavy Mill's infection period May 15-17 when we had 39 hrs of wetting with an average temperature of 55°F. Orchards where scab is evident should have been sprayed as soon as possible after the May 15-18 rains using the high label rates of Rubigan or Nova in combination with a contact fungicide. These orchards (where the horse almost died! [see May 11 issue of Scaffolds]) should be retreated again two more times with an SI fungicide at 7-10 day intervals. Although we formerly recommended Syllit in these situations to reduce sporulation of existing lesions, I will no longer recommend Syllit at this time of year because of uncertainties about resistance. The only potentially safe way to use Syllit at this time of year would be to use it in combination with mancozeb (as was formerly done with Benlate) or in combination with an SI fungicide. However, these strategies have not been adequately tested to warrant recommendation at this time.

The period 10-20 days after petal fall is the time when ascospores of the fly speck fungus appear to mature on bramble canes around orchards. When I checked brambles on May 21, a few asci had developed but ascospores were not yet mature. Ascospores of fly speck are likely to mature within the next week. Observations I have made over the past 5 years lead me to believe that most fly speck infections on fruit in northeastern United States result from infections during late May and early June even though symptoms may not appear on fruit until late-August or September. Remember that fly speck develops best under conditions of high relative humidity. Orchard cultural practices (pruning, mowing) that increase air movement and reduce relative humidity in the tree canopy will help to reduce the incidence of fly speck.



PHENOLOGIES (Geneva)

Apple, Pear, Cherries, Plum: Fruit Set
 Peach: Fruit Set (shucks on)

PHEROMONE TRAP CATCHES
Number/Trap/Day, Geneva NY

	5/14	5/18	5/21	5/25
Green Fruitworm	0	0	0	0
Redbanded Leafroller	14.5	2.8	2.3	2.9
Spotted Tentiform Leafminer	1080	373	133	45
Oriental Fruit Moth (apple)	130	72.8	56	35
Oriental Fruit Moth (peach)	1.2	0.3	0.5	0.3
Lesser Appleworm	0.5	0.1	0.5	0.1
Codling Moth	0	2.0	13.7	28.4
San Jose Scale	0	0	2.8	6.1
Lesser Peachtree Borer (cherry)	0	0	0.2	3.3
Lesser Peachtree Borer (peach)	0	0	0	1.5

UPCOMING PEST EVENTS

Current DD accumulations (Geneva 1/1-5/25): 43°F 510 50°F 279

Coming Events:

	Ranges:	
Codling moth 1st flight peak	547-1326	307-824
Obliquebanded leafroller pupae present	612-860	330-509
Pear psylla hard shell nymphs present	536-628	286-325
San Jose scale 1st flight peak	612-761	348-449
Tarnished plant bugs present in strawberries	573-720	322-408

Note: For current information in your area of the state, check PEST STATUS under FRUIT on CENET.

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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