

scaffolds

Update on Pest Management
and Crop Development

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

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VOLUME 3

Geneva, NY

DISEASES

EXPECT SPECK

MORE ON
FLYSPECK
(Dave
Rosenberger)



❖❖ Last week I wrote: "This is not the year to skimp on summer sprays." Later in the week I heard details of some of the summer spray programs that are being used in the Hudson Valley, and I decided the warning above was worth repeating. This year will be the opposite extreme from last year when flyspeck was almost rare in commercial orchards.

I can almost guarantee that low rates of Benlate or Topsin M (low = < 3 oz/100 gal dilute spray) applied on extended intervals (> 18-21 days) will not provide adequate control of flyspeck in the Hudson Valley this year. With the wet summer weather we are having, I believe that Benlate should have been applied at a minimum of 3 oz/100 gal dilute spray on not more than a 3-week interval. For Topsin M, the rate should have been 4 oz/100 gals. As discussed last week, both of these should have been combined with either ziram or captan.

For growers who cut and stretched fungicides earlier in the year, there is no need to panic. Based on trials we conducted over the past few years, I believe that many of the infections which occurred earlier in the season can still be suppressed by maintaining good protection with Benlate from now until harvest. Concerned growers should apply Benlate 50W at a minimum of 3 oz/100 gal along with Captan 50W at 1 lb/100 gal in their next spray. (Topsin M will not perform as well as Benlate where eradicant/suppressant activity is needed or where there will be a long preharvest interval.) Where summer sprays were really stretched, a full-cover

spray of Benlate-Captan should be made in mid-August and again 14-21 days later in order to maintain suppressant activity through harvest for varieties which will not be harvested before September 20. Complete coverage of fruit is essential in these late-season sprays.

The scary thing about flyspeck is that infections can occur throughout the season but remain invisible until just before harvest when fungicide protection runs out. In blocks where apples have been well protected all season, spray programs can usually be terminated with a Benlate-Captan spray in early to mid August with little risk of finding flyspeck on late-harvested varieties. However, if late varieties were not adequately protected during summer, then suppressed infections will "pop out" in mid-September unless an additional fungicide spray is applied in early September to maintain the suppressant activity.

How can you tell if your fruit are carrying suppressed but viable infections? The following assay has worked well in our laboratory trials:

Take a clean 5-gallon bucket with a tight-fitting lid and run a layer of absorbent paper toweling down one side of the bucket, across the bottom, and up the other side. Fill the bucket with fruit you wish to evaluate for flyspeck. These can be either randomly sampled or selected from areas where flyspeck is most likely to be a problem. Add about one-half cup of water to the bucket, put on the lid, and store the bucket at 70-75 degrees for 10-14 days. The paper toweling will absorb water and act as a wick to keep humidity in the bucket at 100%. Developing flyspeck infections will become visible within 14 days.

continued...

We are still uncertain about how to interpret results of this assay. However, if fruit develop a lot of flyspeck, then an early-September spray of Benlate may be warranted to maintain suppression of the colonies which developed under the ideal incubation conditions provided in the bucket test.

We used this assay to evaluate fruit from plots in one of our spray trials. Treatments were applied to mature trees on M.26 rootstock spaced 10 feet apart within the row. Each plot had McIntosh adjacent to Golden Delicious, with Cortland on the other side of the McIntosh. About a week after petal fall, we collected blackberry canes that were heavily colonized by flyspeck and hung a 12-inch section of cane in the top of each Golden Delicious tree to guarantee that we would have uniform flyspeck inoculum in all plots. Fruit were harvested for flyspeck assays on July 26. After incubation, the incidence of flyspeck on unsprayed fruit was 86% for Golden Delicious, 39% for McIntosh, and 15% for Cortland. The difference in incidence between cultivars probably represents differences in exposure to inoculum rather than differences in cultivar susceptibility.

One spray treatment was Dithane 75DF 12 oz/100 gal (with Nova) applied on April 24, May 4, 14, 26, and June 8 followed by Captan 50W 1 lb/100 gal on June 23 and July 15. In this treatment, incidence of flyspeck was 3% on McIntosh and 28% on Golden Delicious. Incidence of flyspeck was only slightly lower in another treatment where a higher rate of Dithane (1 lb/100 gal) was used with Nova in the early season sprays. The addition of inoculum in this block created more disease pressure than most growers have in the middle of large orchards, but inoculum levels in border areas might be comparable to those in our test.

Our results suggest that the spray program involving Dithane followed by Captan (with 100% coverage from hand-gun applications) is providing only marginal control of flyspeck this year at the rates and intervals we tested. I suspect many growers have used even lower fungicide rates. Thus, the warning for the end of the 1994 season:

Flyspeck is alive and well and may be hiding in your orchard! ❖❖

MORE SABADILLA STUFF

SABADILLA
TOXICITY TO
HONEYBEES
(Dave Kain)

❖❖ In an article about botanical insecticides in the August 1 issue of Scaffolds, it was stated that sabadilla is not toxic to honeybees. Since then it was brought to our attention that this might not be the case. However, the information a number of us have been able to dig up is ambiguous. Some sources say that it is relatively non-toxic to honeybees and others say it is toxic. The confusion may lie in that sabadilla is toxic to honeybees on contact, but without any apparent residual activity. If anyone out there has the definitive answer to this question, we'd appreciate hearing from you. In the meantime, in the interest of playing it safe (especially given the current state of bee health), it would be best to consider sabadilla a hazard to honeybees and to follow all necessary precautions to prevent their exposure to the material.

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This newsletter available on CENET, on the Tree Fruit News bulletin board under FRUIT.

FIELD
DAYN.Y. FRUIT PEST
CONTROL
FIELD DAY

❖❖ This annual event, sponsored by the Departments of Plant Pathology and Entomology (Geneva), has been scheduled for Thursday, September 8 this year. All those interested are invited to attend this preliminary presentation of results of field trials on the control of diseases and insects attacking New York fruit crops. Results will be discussed from experiments on tree fruits and grapes. Registration begins at 8:00 a.m. in the foyer of Barton Laboratory, NYSAES, Geneva (Thursday, Sept. 8).❖❖

PEST FOCUS

Highland: 2nd flight **tufted apple bud moth** 1st catch
2nd flight of **sparganothis fruitworm and codling moth**; 3rd flight of **spotted tentiform leafminer** at peak numbers



INSECT TRAP CATCHES (Number/Trap/Day)

	Geneva NY			HVL, Highland NY		
	8/4	8/11	8/15	7/29	8/8	8/15
Spotted tentiform leafminer	798	391	884	0	<0.1	0
Redbanded leafroller	0	0	0	8.1	26	23
Lesser appleworm	0	0.4	1	1.5	2.2	0.9
Oriental fruit moth(apple)	0.3	3.4	12.9	0	0	0
Codling moth	13.7	9.9	7.1	0.5	0.5	0.4
American plum borer(plum)	2.7	1.6	1.4	0.9	1.5	3.9
American plum borer(cherry)	1.3	1.1	0.8	2.3	0.3	1.7
Lesser peachtree borer	1.2	1.1	0.6	0.4	0.5	2.9
Peachtree borer	1.2	2.2	0.6	0	0	0.8
Obliquebanded leafroller	0	0.1	0.06	0.4	1.5	2.9
Apple maggot	0	0.4	0.1	0.1	0.4	0.7
San Jose Scale	25.8	1.6	3.3	0.1	0	0

(Dick Straub, Peter Jentsch)

UPCOMING PEST EVENTS

	43°F	50°F
Current DD accumulations		
(Geneva 1/1 - 8/15):	2549	1845
(Highland 1/1 - 8/15):	3103	2207
Coming Events:	Ranges:	
Oriental fruit moth 3rd flight peak	2866-3267	1927-2326
STLM 3rd flight peak	2415-3092	1728-2195
San Jose scale 2nd flight subsides	2494-3191	1662-2302
Codling moth 2nd flight subsides	2782-3433	1796-2332
CMB 2nd gen. crawlers emerging	2106-2468	1447-1631
CMB 2nd gen. crawlers peak	2350-2649	1642-1736
Apple maggot flight peak	2168-2688	1495-1762
OBLR 2nd flight peak	2634-3267	1789-2228
Redbanded leafroller 3rd flight begins	2603-3113	1739-2196
Peachtree borer flight subsides	2230-3255	1497-2309

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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