Ohio Fruit ICM News

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Comments from the Editor

Plasticulture strawberry harvest just ended for our research plots, but we picked the first few summer red raspberries off of our plots of Nova and Prelude. I also managed to get a few serviceberries before the birds.

Just a quick update on trap reports and an article on secondary apple scab I wanted to get out before the weekend.

Fruit Observations and Trap Reports

North Central Ohio Tree Fruit IPM Program

Report Prepared by Cindy Crawford (Erie County Adm Assoc.)

Ted Gastier – West District IPM Scout (Sandusky, Ottawa, Huron and Richland Counties)

Date -6/1/09

Apples

Spotted tentiform leafminer – 7.7 (down from 22.2) Redbanded leafroller – 0 (same) Codling Moth - 12.2 (up from 11) Oriental Fruit Moth – 9.2 (down from 23.2) Lesser appleworm – 0 (same as last week) San Jose scale – 0 (same as last week)

Peaches

Redbanded leafroller- 0 (same) Oriental Fruit Moth – 6 (up from 4) **Lois McDowell** – East District IPM Scout (Erie and Lorain Counties)

Date -6/1/09, 6/2/09

Apples

Spotted tentiform leafminer – 22.2 (down from 53.4) Redbanded leafroller – 0 (down from .1) San Jose scale – 0 (down from 1.33) Codling Moth – 14.9 (up from 13.3) Oriental Fruit Moth – 3 (down from 5.88) Lesser Appleworm – 15.5 (up from 10.5)

Peaches

Redbanded Leafroller- 0 (same) Oriental Fruit Moth – 0 (down from 10.8) Lesser Peachtree Borer – 2 (down from 11)

Dealing with Secondary Apple Scab by Dave Rosenberger, Plant Pathology, Highland (Source: Scaffolds Fruit Journal Vol. 18 #1)

Primary scab lesions have appeared on early terminal leaves in some orchards in the Hudson Valley. These scab infections occurred during the first half of May, with most probably occurring between 1 and 9 May just after trees reached full bloom. Prebloom weather was relatively dry with good spray windows ahead of the three or four primary scab infection periods that occurred during April. At the Hudson Valley Lab, we recorded no leaf wetting between 23 and 30 April. McIntosh trees in the Hudson Valley reached full bloom around 30 April. Hot weather in late April (four consecutive days with highs >85°F) caused rapid flower development and leaf expansion. Terminal shoots in some blocks had developed two or three leaves by 2 May.

How did scab get through our fungicides? Early May was punctuated with a few misty rains that finally culminated with significant rainfall on 5–6 May when we received 1.2 inches of rain. Leaf wetting periods were recorded on 14 of the first 16 days in May. The intermittent wetting that occurred from 1 to 4 May probably allowed scab to become established on some newly emerged terminal leaves because the drizzle on those days provided enough wetting for scab infections but not enough rainfall to redistribute residues from mancozeb sprays applied at pink (26–29 April). The accumulation of 135 hr of wetting between 1 May and 9 May favored establishment of scab infections despite intermittent dry periods. Some orchards may have been inadequately protected through the substantial rains that occurred 5 through 8 May. (Note: The old-fashioned string wetness recorders that we use registered about 75% more wetting hours between 1 and 9 May than the less-sensitive electronic NEWA stations in Clintondale and Marlboro.)

Several crop consultants have reported that orchards sprayed with Captan in early May generally have little or no scab, whereas orchards protected primarily with mancozeb fungicides did not fare as well. These observations fit well with data showing that mancozeb has greater residual activity through heavy rains than does Captan, whereas Captan apparently redistributes more effectively than mancozeb fungicides under light rain and drizzle conditions. Combining mancozeb and captan in the same tank can ensure protection against both extremes.

I have not seen good test comparisons for all possible combinations involving other fungicides, but a research trial last year showed that Flint redistributes better than mancozeb fungicides. Therefore, I suspect that early May applications that involved combinations of Flint plus mancozeb or Sovran plus mancozeb would have performed just as well as Captan-mancozeb combinations under our light-rain conditions in early May.

How do we get rid of it? Where scab has appeared on early terminal leaves, growers have several options for attacking the problem. Where SI fungicides are still effective, secondary spread can be shut down by making back-to-back applications about 7 to 10 days apart using combinations of either Nova plus captan or Inspire Super plus captan. (Mancozeb could be substituted for captan in these mixes if summer oils will be applied with Agri-Mek in the near future.) If, however, an SI was used at petal fall and normal scab lesions still appeared on terminal leaves, then probably the SI fungicides are no longer reliable in that orchard.

Where some level of SI resistance is suspected or known to exist, the following are options:

- 1 Inspire Super plus Captan-80 at 4 lb/A (or the equivalent dose of a different captan formulation) will provide the "kick" of a more powerful 2nd generation SI plus the strong protection provided by Captan. Inspire Super can definitely suppress scab that is not controlled by Rubigan or Nova, but it will not provide complete eradication of scab in SI-resistant orchards. It's worth a try if no SIs have been used earlier this year, but I would choose a different option if other SIs were applied earlier and scab has still shown up in the block.
- 2 Dodine (available as Syllit 3.4F) can be very effective for shutting down scab epidemics if dodine-resistant scab is not present. However, applying Syllit is risky unless the absence of dodine resistance has been documented with a lab test. Growers who opt to try Syllit in blocks that were not recently tested for resistance should use it in combinations with mancozeb, Flint, or Sovran. (The label warns that Syllit is not compatible with Captan and also that it can cause russetting on Golden Delicious.) The Syllit label calls for using 4.5 pt/A for post-infection sprays. However, the original dodine formulation was Cyprex 65W and the standard post-infection recommendation for that product when scab appeared in orchards was two applications about 7 to 10 days apart using 2.25 lb/A or 12 oz of Cyprex 65W per 100 gal of dilute spray. That rate is

equivalent to roughly 3.5 pt of Syllit 3.4F per acre. The high label rate for Syllit (4.5 pt/A) might be advantageous in orchards that are slightly shifted for dodine resistance. However, I suspect that two applications of Syllit 3.4F at 3 to 3.5 pt/A, when combined with mancozeb, Flint, or Sovran, will get the job done in orchards where dodine is still effective.

- 3 Combining a stroby fungicide (Flint or Sovran) with Captan is, in a sense, the most logical approach to fighting scab outbreaks because no scab populations in the US have thus far been shown to have resistance to Sovran or Flint. Sovran and Flint will not "burn out" lesions the way that the SI fungicides did prior to SI resistance, so don't expect lesions sprayed with these compounds to develop the red "burnt out" appearance that has been associated with scab lesions inactivated by SI fungicides, benomyl, or dodine. Nevertheless, Sovran and Flint effectively shut down spore production in sprayed lesions, so using them reduces inoculum released from the existing lesions and thereby reduces the probability that some spores will escape fungicide coverage and cause fruit scab. Again, a mancozeb fungicide could be substituted for captan in the stroby combination sprays if oil will be applied with insecticides or miticides in the near future. Stroby/mancozeb combinations may also do better than stroby/captan combinations in areas that are under high pressure for rust diseases since rust galls will continue to release spores for several more weeks. However, where scab is the primary target, captan will almost always outperform mancozeb when it comes to protecting fruit and new leaves from apple scab.
- 4 Finally, one might opt to use full rates of captan alone (e.g., Captan-80 at 4–5 lb/A) on a 7–10 day schedule until summer heat reduces viability of the apple scab conidia. Captan is an excellent protectant, but it will not provide the antisporulant and/or post-infection activity that is available with the earlier options in the absence of fungicide resistance.

Fruit and developing leaves are still very susceptible to scab infections during the first part of June, so good fungicide coverage should be maintained for the next several weeks where primary scab has appeared. Risks from further scab infections will decline significantly in later June when terminal growth slows, fruit are larger, and weather gets hotter. Temperatures in the upper 80s significantly reduce the viability of scab conidia. However, scab on terminal leaves can become active again in late summer, so orchards with scab in early June may also need an extra fungicide spray during the last few weeks prior to harvest to prevent pinpoint scab from appearing on fruit after harvest.

Calendar - Newly added in *Bold*

June 6 Summer KY State Beekeepers Assoc. Field Day, Walter T. Kelley Company, Letchfield. Pre- registration is required. For more information contact Joe Taylor, KSBA at (270) 879-8654, shopteacher@gmail.com or shopteacher@gmail.com.

June 11, Illinois Summer Horticulture Field Day, Royal Oak Farm Orchard, Harvard, Ill. For more information call 309-530-7678.

- June 17, Beekeeping Field Day, OARDC (start at Fisher Auditorium), Wooster, 3-7 p.m., registration fee \$30 due by June 15. For more information contact Sherry Ferrell, OSU Honey Bee Laboratory, ferrel.6@osu.edu, or phone 330-263-3684.
- June 18, New Crop Opportunities Workshop, OSU South Centers, Piketon, 6-8 p.m., \$5 registration fee, (740) 289-2071.
- June 22-26, The 10th International Rubus and Ribes Symposium. Zlatibor, Serbia.
- June 23, National Pollinator Week Celebration, Secrest Arboretum, OARDC, Wooster, 2-4 p.m., free, (330) 263-3761.
- June 23-24 Southern Indiana Fruit Tour, Engelbrecht Orchards, Evansville, IN on June 23 and Reid's Orchard in Owensboro, KY on June 24. More information to follow.
- June 24, OPGMA Summer tour. Hosted by, Bachman's Sunny Hill Fruit Farm and Schacht Family Farm Market. The day begins at Bachman's and will conclude at Schacht's, aproximately 5 miles away. OPGMA will host a brief session focusing on food safety during lunch. For more information contact OPGMA, 614-487-1117, opgma.org, or opgma@ofa.org.

More information in this issue.

- June 25, Organic Farming Education and Research (OFFER) Program Field Day, West Badger Farm, OARDC, Wooster, 1:30 p.m., free, (330) 202-3528.
- July 4-11, 83rd National Cherry Festival, Traverse City, MI. For more information www.cherryfetival.org.
- July 12-15 North American Farmers Direct Marketing Associations Advanced Learning Retreat, Hubers Orchard and Winery, Starlight, Ind. For more information www.nafdma.com.
- July 14 U.K. Nursery Crops Program –Air Blast Sprayer Calibration, Green Ridge Tree Farm, 6100 Bardstown, Rd., Elizabethtown, KY. Pre-registration is required. For more information contact Amy Fulcher at 859-257-1273 or afulcher@uky.edu.
- July 16, Irrigation Management Workshop, OSU South Centers, Piketon, 6-8 p.m., \$5 registration fee, (740) 289-2071.
- July 23 University of Kentucky Research and Education Center All-Commodity Field Day, Princeton, KY. For more information contact: Win Dunwell (270)365.7541 ext 209 or wdunwell@uky.edu
- Aug. 1 U.K. & KVS Grape Summer Field Day, Lover's Leap Vineyards and Winery, Lawrenceburg. For more in formation contact Chris Smigell 859-257-3598.

- Aug. 2-5, IFTA Annual Orchard Short Tour, Nova Scotia, Canada. For more information www.ifruittree.org.
- Aug. 6-9, 46th Annual National Blueberry Festival, South Haven, MI. For more information <u>www.blueberryfestival.com</u>.
- Aug. 11-12 NASGA 2009 Summer Strawberry Tour. Chicago, IL. For more information contact Kevin Schooley, 613-258-4587, or www.nasga.org.
- Aug. 13, Horticulture Field Day, OSU South Centers, Piketon, 6-9 p.m., \$10 registration fee, (740) 289-2071.
- Aug. 19, Ohio Grape and Wine Field Day, OARDC's Ashtabula County Agricultural Research Station, Kingsville, 1-4 p.m., free, (440) 224-0273.
- Aug. 19, OSU Extension Grape Twilight Tour, locations and program TBD, 5 p.m., registration fee (TBD); for details call OSU Extension's Ashtabula County office, (440) 576-9008.
- Aug. 20-21, Apple Crop Outlook and Marketing Conference, Ritz-Carlton Hotel, Chicago, IL. For more information www.usapple.org.
- Sept. 17, Growing Winegrapes Workshop, OSU South Centers, Piketon, 6-8 p.m., \$5 registration fee, (740) 289-2071.
- Sept. 22-24, Farm Science Review, Molly Caren Agricultural Center, London; 8 a.m.-5 p.m., Sept. 22-23; 8 a.m.-4 p.m., Sept. 24; tickets \$5 in advance from most Ohio agribusinesses and all county offices of Ohio State University Extension, \$8 at the gate, children 5 and under free; (614) 292-4278.
- *Nov.* 8-10, *Southeast Strawberry Expo*. Sheraton Imperial Hotel, Durham NC. More information to follow.
- Nov. 19, Wildlife Control Workshop, OSU South Centers, Piketon, 6-8 p.m., \$5 registration fee, (740) 289-2071.
- Dec. 8-10 Great Lakes Fruit Vegetable and Farm Market Expo. DeVos Place Convention Center, Grand Rapids, MI. For more information www.gleexpo.com.

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Jan. 4-5, 2010 Kentucky Fruit and Vegetable Conference and Trade Show. Embassy Suites Hotel, Lexington, KY. Contact John Strang 859-257-5685.

Jan 6-8, Illinois Specialty Crops and Agritourism Conference. Crowne Plaza Hotel and Convention Center, Springfield, Ill. For more information contact Diane Handley 309-557-2107, or handley@ilbf.org.

Jan18-20, OPGMA Congress, The Nia Center at the Kalahari Resort, Sandusky, OH. For more information www.opgma.org or opgma@ofa.org

Feb 5-12, NAFDMA's 25th Anniversary Convention, Lancaster PA. more information to follow.

NOTE: Disclaimer - This publication may contain pesticide recommendations that are subject to change at any time. These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. Due to constantly changing labels and product registrations, some of the recommendations given in this writing may no longer be legal by the time you read them. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned, nor is criticism meant for products not mentioned. The author and Ohio State University Extension assume no liability resulting from the use of these recommendations.

Ohio Poison Control Number

(800) 222-1222 TDD # is (614) 228-2272