



Horticultural and Pest Management Notes,
produced by Lake Ontario Fruit Program, CCE

From FAX: 585-798-5191 D. Breth & M. Miranda S. Jul 9, 2013

Mark Your Calendars and register to attend the 2013 Geneva Field Day.

Aug 1, 8:00 a.m. to 5:00 p.m.

This is the year the LOF Summer Tour is run by the Geneva Faculty to show research plots and results. The field day will be composed of two concurrent day-long tours, one of tree fruit presentations and another tour of grapes, hops and small fruit presentations. During lunch, equipment dealers and representatives from various companies will showcase their latest products and technologies to improve fruit crop production and protection. The event will be held on the Experiment Station's Fruit and Vegetable Research Farm South, 1097 County Road No. 4, one mile west of Pre-emption Road in Geneva, NY. Signs will be posted. Attendees will travel by bus to the research plots to hear presentations by researchers on the work being conducted. Details of the stops will be featured in this week's **Fruit Notes**.

The cost of registration is \$30 per person (\$40 for walk-ins) for all-day attendance. Lunch will be provided. Pre-registration is required for the \$30 rate, register on-line at: <http://is.gd/ffd2013>.

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If you would like to sponsor or exhibit commercial products at the field day during lunch, contact Debbie Breth at 585-798-4265 or dib1@cornell.edu.

Pest Management Notes.... And the rains keep coming. Yuck!

Summer disease management notes from Dave Rosenberger: "This time of year, I would probably be using either Topsin M plus Captan, Flint plus captan, or Inspire Super plus captan. Inspire Super might be OK alone, but I think that it will prove to be a bit weak on black rot when used alone. For sooty blotch and flyspeck, my data suggests that Inspire Super will be as good as or better than Pristine. Pristine in my tests where both products were used alone (no captan) was better than Inspire Super for rot control under high pressure, and that is why I prefer to see Inspire Super applied with captan rather than alone. If growers will be tank-mixing fungicides with plant growth regulators, then captan in that mix may lead to some leaf spotting under the hot conditions and/or when applied to lush foliage after a week of rain. An alternative would be to Ziram instead of Captan where there are concerns about phyto potential from Captan in spray mixes. However, I suspect that, for rot control, one would need 2 lb of Ziram to provide control equivalent to 1 lb of Captan 80W. Thus, in summer sprays where Captan or Ziram are used in combinations with Topsin M, Inspire Super, Flint, or Pristine, I would suggest that Captan-80 in those combinations should be applied at 2 or 3 lb/A whereas Ziram should be applied at 4 to 6 lb/A to get the same levels of rot control. Lower rates of contact fungicide (Captan, Ziram) should suffice where black rot pressure is low to moderate, but higher rates will be needed anytime that bitter rot is a significant threat because Topsin M provides virtually no control of bitter rot, activity of Inspire Super is questionable, and neither Flint nor Pristine are 100% effective against bitter rot when used alone.

I still question whether using Inspire Super during summer will push scab populations to greater levels of DMI resistance, but Kerik has two years of data suggesting that it will not. Certainly, for growers who have orchards with fully DMI-resistant scab, Inspire Super should be considered as a top-notch material for sooty blotch and flyspeck control. Growers who feel that they are still getting scab control out of Rally or Inspire Super may want to use other alternatives during summer."

Codling moth trap counts will begin the next flight. Although the internet was down and so I cannot see the trap counts until later today. See Fruit Notes for more information. For those of you with a heavy population, continue to maintain insecticide coverage for the eggs that are hatching but I some will not survive the rains. But we already

can see fruit infestation in some of the high pressure sites, already losing the battle! If you had high populations last season and trap counts continue to be high, you will need to be on a 2 week schedule until trap counts come back down to the suggested threshold of 5 moths per week. Delegate, Altacor, Belt, and Voliam Xpress (12 oz./a) are still the best choices if you have high CM pressure. **Obliquebanded leafrollers** are still flying and locations with high pressure where first egg hatch sprays were applied will need a second application. Use insecticide or CM and OBLR.

Fire blight – Wow! am I hearing about a lot of new orchards with fire blight. Although I do not usually suspect strep resistance in old orchards, it is a higher probability that new infections in new plantings can be resistant to strep. Please call me to collect a sample so we can continue to document the extent of strep resistance which should help our case with EPA to get some type of registration for Kasumin! Maintain copper sprays, not strep, in these new plantings. Cutting our fire blight in this kind of weather is conducive for further infection. In new high density plantings, remove the tree. If you are approaching a reasonable amount of growth where you are fighting fire blight, use Apogee to harden off the shoots.

Horticultural notes... (from Mario)

Excess moisture and soil nutrient availability and uptake: implications for analysis and fruit quality (the following info prepared by Dr. Cheng). The combination of high amount of rainfall and warm weather has promoted the mineralization of soil organic matter in orchard soils with high organic matter, releasing more nitrogen. The high availability of nitrogen combined with plenty of water have been encouraging vigorous shoot growth. In addition, K and Ca uptake should have been good with plenty of water. However, it should be kept in mind that vigorous shoot growth out competes fruit growth for Ca, and K accumulation in the fruit negatively affects fruit Ca level. If the weather stays wet for the rest of the growing season, plenty of water supplies will size the fruit, thereby diluting the fruit Ca level. So, providing enough Ca to fruit is critical for minimizing bitterpit development and other physiological disorders this year, especially for susceptible cultivars such as Honeycrisp, Cortland, Jonagold, Mutsu, and Northern Spy. In addition to having proper soil pH, a foliar Ca spray program is essential for these bitterpit susceptible cultivars. We have been recommending the following Ca spray program: 3 to 4 cover sprays of 1 to 2 lbs of calcium chloride (78% CaCl₂) or its equivalent per 100 gallons (dilute basis) at 14-day intervals, beginning 7 to 10 days after petal fall, followed by 2 additional sprays of 3 to 4 lbs of calcium chloride (78% CaCl₂) per 100 gallons at four and two weeks prior to harvest. It's important to keep in mind that complete coverage of fruit is essential and more frequent spray is more important than exact timing of spray.

For orchard soils with coarse texture or low organic matter, a lot of the nutrients have been leached out of the root zone, particularly for nitrogen and boron. For these blocks, providing a minimum level of nutrient supply is essential. You can achieve this by multiple application of a small amount of nutrients at each time. Sandy soils and soils with low organic matter are often low in K, and the high rainfall provides an opportunity to apply some K fertilizers, particularly if the trees have a heavy crop this year and last year's leaf K was marginal.

The effects of the wet conditions on leaf analysis results remain to be seen, but we think the vigorous shoot growth will have a dilution effect on leaf nutrient levels, similar to the situation of a light crop year where leaf nutrients tend to be lower compared with a normal crop year. However, we think most blocks have a full crop this year. We don't know how much similarity we'll get between a light-crop induced vigorous shoot growth and wet conditions-induced vigorous shoot growth.

Return bloom sprays: Apply your second (or third) return bloom spray of NAA or ethephon as soon as you have the opportunity this week. We recommend 7.5 ppm NAA (3 ounces per 100 gal or 6 ounces per acre) or 150 ppm Ethrel (0.5 pints per 100 gal or 1 pint per acre). Do not use Ethrel on early-ripening cultivars including Honeycrisp and Macoun because it may stimulate early ripening. Instead use NAA on these varieties. For late ripening varieties, Ethrel and NAA seems to perform similarly. You can also alternate Ethrel and NAA sprays or spray 1 or 2 sprays of Ethrel followed by 2-3 sprays of NAA. With pears we also suggest 4 applications of 5-7.5 ppm NAA starting in mid June to stimulate flower bud initiation. (We have not tested Ethrel on pears but it is likely to stimulate pre-mature ripening with Bartlett.)

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 still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.

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