



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

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Fruit FAX will be sent out on Tuesdays for the remainder of the season so make sure your paper is loaded, the ink is still full in your fax machine and your email mailbox is not so full it cannot accept any more messages.

“Hand Thinning for Precision Crop Load Management” – Monday June 10, 3-5pm. Workshop hosted by grower Paul Wafler. Travel to 10748 Slaght Rd., Wolcott, NY 14590 and look for the Cornell signs.

Come and bring your employees to learn: (1) the benefits of early hand thinning for Honeycrisp and Gala with Dr. Robinson, (2) how more precise hand thinning techniques can be accomplished in trellised orchards, (3) a procedure to reduce a fruit number per tree to a targeted and profitable number, (4) the benefits of precision irrigation management, (5) about the new “Apple Irrigation Model”, (6) see how mechanical sidewall shearing is conducted on tall spindle trees.

The mailing address for the Premier Apple Marketing Forum registration form was inadvertently left off the form that was in the last issue of the Fruit Notes, the corrected version is attached. We apologize for any confusion this may have caused.

Dear Young Growers and Mentors,

The 2013 International Fruit Tree Association’s Summer Study Tour will be visiting Pennsylvania this July 16 and 17 with the theme of ‘Heritage and Innovation’. In an attempt to make it more feasible for young specialty crop farmers to attend, generous sponsorship has made a limited number of scholarships available. If you or someone you know is interested in applying for a scholarship to attend the IFTA Study Tour in Gettysburg, please click on the link below, scroll down, and complete the form and return it to Catherine Lara by email cyl1@psu.edu or fax 717-334-0166. The contact information is also listed at the bottom of the application.

<http://extension.psu.edu/plants/tree-fruit/events/international-fruit-tree-association-study-tour-in-pennsylvania>

Pest Management Notes....

The whole region has had 2-3 inches of rainfall in June so far. Many of you applied insecticides for codling moth before the rain and now we ask, how soon do we have to spray again? **Codling moth egg hatch** is progressing but rainy weather will cause some mortality. Dr. John Wise conducted research a few years ago to see how rainfast insecticides for codling moth are and how soon after a spray they need to be replenished depending on how much rain. I would print the whole chart which is very interesting, but the bottom line, **none of the insecticides can survive 2-3 inches of rainfall**. If you would like to read the whole research report, see the excellent publication at http://msue.anr.msu.edu/news/rainfast_characteristics_of_fruit_crop_insecticides. So look for the next application window without rain and reapply the insecticides for codling moth ASAP in high pressure sites! At least the pheromone dispensers will keep on working where they have been installed! Early next week will be the critical timing for CM egg hatch sprays at the 350 dd50°F for low pressure sites where biofix was set for May 20.

There is still some risk of plum curculio and with no insecticide residue, high pressure orchards especially around the perimeters should be renewed.

Keep looking for scab – and maintain captan applications which with a little hot weather will help to shut down the lesions from primary season. We have finished primary scab season, but, if you can see scab lesions on leaves at this point, you will need to protect from secondary infection of fruit and leaves. If scab is not resistant to dodine, and you have scab coming through in some of your orchards, treat it with 3 pt. of Syllit plus Captan 80 W at 2.5lb/acre in 2 sprays on a 7-day interval (max of 3 applications and 9 pt. per acre per season). Dave Rosenberger prefers Syllit or Inspire Super for orchards with scab problems. There is no longer any processing apple restriction on Syllit. Maintain fungicide protection for powdery mildew through terminal bud set – Rally at 8 oz.acre, Topguard, or sulfur (when temperatures are not exceeding 85F).



Fire Blight! I have been looking for fire blight and had no trouble finding it in new plantings and grower nurseries. The best control in new plantings, and where infections are in or next to the central leader, is to remove the whole tree – **do not try to start it over**. Canker blight infections are oozing and the infections need to be removed! But you will need to wait for some dry weather now before you start. In mature, large trees, cut back at least 1 foot into wood that is at least one year older than the infected portion – put some of it in a trash bag and hold it in a cool spot and call Debbie (585-747-6039) so we can arrange pickup for testing for streptomycin resistance. Until you can respond to the infections in the planting, apply copper to keep some of the inoculum at bay – but it will not cure systemic infections. In the meantime, unless you get a clear hailstorm, do not apply streptomycin where existing infections are apparent because this is the recipe for resistance. Although it will take 7-10 days to get Apogee to work to reduce shoot blight, it might still be worth it if we get a rainy summer. In processing and non-bearing orchards, low labeled rates of copper can be effective in reducing but not eliminating fire blight shoot infections but must be applied on a protectant basis. For new plantings that are still in bloom, streptomycin mixed with copper or oxytet is still an option to prevent blossom blight. The risk of blossom blight is low right now but will start to increase risk starting on Sunday when we get some warmer temperatures.

Horticultural notes... updates about chemical thinning (from Mario)

Chemical Thinning: An update about fruit measurement studies will be sent next week. Some growers sprayed hard to thin cultivars until four times (at bloom, petal fall, 10-12mm, and 18-20mm fruit size stages) and put on last sprays on Wed or Thursday. In the meantime (after the heavy rains and while waiting for warmer temps) walk your orchards and assess carefully the results of thinning. Cut fruit and count seeds. I recommend you wait until Monday (or earlier if weather permitting at your site) for a last thinning spray on cultivars with still a heavy set (Fuji, Gala).

Calcium Sprays to Reduce Bitter Pit (the following information was prepared by Mike Fargione and includes Steve's recommendations about calcium use). It is time to begin foliar calcium applications to large-fruited apple cultivars like Fuji, Jonagold, Cortland, Red Delicious, Golden Delicious and especially, Honeycrisp. Steve Hoying gave an excellent talk on bitter pit control at this year's Fruit Growers' School, and some of his main points were: (1) Bitter pit can be more prevalent when there is excess tree vigor, winter injury, large fruit, low crop load, excessive pruning, variable water availability and supply, and nutritional imbalances including high nitrogen levels and low calcium/potassium and calcium/magnesium ratios, (2) Control of bitter pit on susceptible cultivars requires foliar application of calcium because calcium is relatively immobile in the tree and may be deficient in fruit even when it is found in adequate amounts in the soil or other tree parts, (3) Most calcium is taken into the fruit by mid-July. From then to harvest, calcium within the fruit is diluted as the fruit increases in size. Thus, sprays must begin after petal fall to be most effective, (4) Bitter-pit sensitive cultivars should be treated with 3 to 4 cover sprays of 1 to 2 lbs. of CaCl₂ (78%) or its equivalent per 100 gallons (dilute basis) at 14 day intervals beginning 7 to 10 days after petal fall. Two additional sprays of 3 to 4 lbs. per 100 gallons should be made at 4 and 2 weeks prior to harvest. This recipe provides 7.5-13.4 lbs. of actual calcium per acre for an orchard that requires 300 gallons dilute /acre, (5) The source of the calcium is not as important as getting sufficient amount on the fruit and at the correct time. Growers generally use CaCl₂ (calcium chloride), but you can substitute other sources as long as you get the proper amount of elemental calcium to the fruit (other sources may be much more expensive but easier to work with as long as you adjust for their lower elemental calcium content), (6) If nitrogen levels are low, use calcium nitrate for the first 2 sprays and then calcium chloride for the remaining sprays. In orchards well supplied with nitrogen, applications of calcium nitrate may result in poor-colored fruit that do not store well, (7) Calcium sprays must contact the fruit for uptake to be effective. Therefore, water volumes capable of wetting the entire tree are required. Do not concentrate sprays more than 3X, (8) Calcium products should be compatible with most wettable powders. CaCl₂ and calcium nitrate are not compatible with magnesium sulfate (Epsom salts), Polyram, certain wettable sulfur formulations, and may inactivate Apogee. If there is doubt concerning compatibility of calcium with pesticides in foliar sprays, consult the manufacturer of the pesticide or use other sources of calcium known to be compatible.