



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

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“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”, and (6) see how mechanical sidewall shearing is conducted on tall spindle trees.

Pest Management Notes....

Codling moth egg hatch insecticide timing is now, we have accumulated 200-250 DD50°F after first sustained trap catch. Look for the best spray conditions. The degree-day model even for sites with biofix set May 20 are predicting egg hatch sprays should be applied by June 4. Don't let this timing get by you. The hot, dry weather has been great for CM this spring. Trap counts were high after last week's heat. You will need to plan a second application of an effective worm insecticide 10-14 days after the first depending on rainfall. Don't rely on Sevin in thinning sprays for control. The forecast predicts we will gain another 75 DD50°F by Jun 9. So 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.

Plum Curculio – any insecticide applied before the weekend rainfall is likely gone. We have accumulated about 215-240 DD50°F after petal fall in McIntosh, so this spray for CM should include an insecticide effective for PC that will last through 308 DD50°F, through the remainder of the week.

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).

Dr. David Rosenberger just sent out a field report that Fontelis plus captan combinations may be causing leaf spotting on some cultivars under some conditions, perhaps because of the carrier in Fontelis. He suggests that growers avoid Fontelis-captan mixes until we get this issue clarified, and the same would go for Fontelis-sulfur mixes.

Fire Blight! The models predicted an “extreme” risk of blossom blight **through Jun 4** in all parts of the region for any new plantings in bloom! If you applied streptomycin on May 31 or earlier, the risk remained at “Extreme” over the weekend. If you applied streptomycin on Jun 1, the risk was only predicted by Cougarblight on NEWA to be “caution” meaning to watch the 5-day forecast. If your last application of streptomycin was June 2 or later, the risk is “low” with the current cool temperatures. At this point, you could see blossom blight, canker blight and shoot blight symptoms in orchards where fire blight is established. So it is time to look over your orchards for FB infections, and cut them out at least 12 inches behind the visible infection into 2-3 year old wood and save them in a cool location for pick up so we can test them for streptomycin resistance. Look over your orchards and new plantings to see if blossoms continue to open. **Please call me if you see any fire blight (585-747-6039 or email dib1@cornell.edu) so we can check it for streptomycin resistance and document losses.**

Stone fruit crops are still susceptible to plum curculio after all that rain we got over the weekend. They should continue to be protected using Actara, Avaunt, Baythroid. Or use Imidan on all but sweet cherries. Maintain fungicide protection for these ripening crops using SI fungicide like Indar, Orbit, Elite, alternating with Pristine for resistance management. We expect cherry fruit fly when cherries start to color. **In peaches and nectarine**, be sure to follow up with second spray for oriental fruit moth using Assail, Imidan, or a mix that will control both PC and OFM.

Blueberries are at fruit set so be aware of wet weather and protect berries from anthracnose using Switch alternating with Pristine. Include an insecticide if you have a history of cranberry fruit worm or cherry fruitworm. Hang yellow sticky traps on edges to monitor for blueberry maggot. **Raspberries** are starting to bloom – protect from botrytis grey mold during bloom using Captevate, Elevate, Cabrio, Switch, Pristine, or Rovral.

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

Chemical thinning: Yesterday I evaluated blocks of Gala and Linda Mac in Wayne County that still needed more thinning. I also talked with a few growers who were thinking of spraying at the 18-20mm fruitlet stage. Last 10-12mm sprays were applied during the weekend for those growers who reapplied after the rains. Please re-evaluate the impact of thinners on crop-load before making the decision to apply more chemical thinners. We will update you as soon as we get the next round of fruit measurement results after the 10-12mm sprays applied last week in Western NY.

For today and tomorrow the carbohydrate model suggests a low carbohydrate deficit. Growers should apply standard rates or increase chemical thinner rates by 15-30% depending on the NEWA location that you use. Cooler temperatures are forecasted for today and tomorrow Wednesday June 5 (Table 1). Since the weather forecasts change regularly and that affects the apple carbohydrate thinning model, **we suggest that growers check the model each day** but especially immediately before spraying to get the best estimates of thinning effect.

Table 1. Forecasted temperature conditions and predicted carbohydrate balance for five locations for Tuesday June 4 and Wednesday June 5 in the Western NY fruit region (based on the apple carbohydrate thinning model at <http://newa.cornell.edu>).

Weather Station	Day	Max Temp. (°F)	Min Temp. (°F)	Predicted Carbohydrate Balance (g/day)
Appleton North	Today June 4	62	51	4.97
	Tomorrow June 5	64	50	-3.25
Appleton South	Today June 4	62	47	40.95
	Tomorrow June 5	64	50	30.82
Williamson (DeMarree)	Today June 4	62	46	40.51
	Tomorrow June 5	64	50	29.33
Kendall (Zingler)	Today June 4	65	47	40.38
	Tomorrow June 5	69	48	27.68
Knowlesville	Today June 4	68	46	41
	Tomorrow June 5	73	47	26.34

Planning ahead for the next couple of weeks: (1) you should start thinking about strategies to enhance return bloom in varieties that tend to be biennial. In the next few weeks, fruits will be 1" (25 mm) in diameter and there won't be risk of thinning by NAA or Ethrel. NAA or Ethrel treatments can be applied the next 30 days after fruits are 1" and will improve flowering the next year. I will also be suggesting repeated applications of NAA on pears during the flower bud initiation and formation period this year, (2) hand thin peaches as soon as you have the time and labor the next weeks! The rule of thumb for fresh is to leave fruit 6-8 inches apart. Depending on final size required, process fruit should be 3-6 inches apart when thinning is completed. Remember that the longer unwanted fruits remain on the tree, the greater the negative effect they will have on fruit and leaf size, (3) consider the use of Pro-Gibb (gibberellic acid) to delay harvest and increase firmness and size of sweet cherries this year. The best time for this application is when fruit is light green to straw color (about 3-4 weeks before harvest), (4) tart cherry blocks look good and a few growers have called me to evaluate tart cherry tree health this week. I recommend that you take leaf samples to evaluate zinc and other macro and micro elements in early July this season. I will remind you about

this later!, and (5) early and more precise hand thinning will be critical especially for those Gala blocks with excessive crop. Remember to attend the hand thinning precision meeting planned in **Wayne County on Monday June 10.**

Fertigation. After planting the uptake of nitrogen and tree growth can be improved with frequent low doses of nitrogen fertilizer delivered at least twice weekly through the trickle system (fertigation) for the first 10-12 weeks of the season. With fertigation, the nitrogen which is dissolved in the water, moves rapidly with the water to the root zone and is readily available to the tree growth during the first two years to speed development of the canopy. The source of nitrogen which is most readily available during the first year is calcium nitrate but other formulations of nitrogen which are liquid (URAN's or CAN's) also are effective. With young non-bearing apple trees we suggest 40-60 lbs. of nitrogen per season. Utilizing the weekly application strategy for the first 10 weeks of the season will require 4-6 lbs. N per acre per week. With mature trees we suggest from 20-40 lbs. of Nitrogen per season which would be 2-4 lbs. N per acre per week.

Calcium: Just a few final basic reminders when spraying Ca (regardless of the Ca source) this season: (1) Complete coverage of the fruit is essential because Ca spray deposited on leaves do not benefit the fruit, (2) Effectiveness of Ca sprays increases with increasing Ca concentrations, but is limited by Ca-associated damage. Follow label instructions, (3) Avoid spraying when temperatures are above 80°F, particularly when humidity is high, (4) Do not reapply Ca salts unless it has rained since the last application, (5) Sprayer calibration is critical as errors are magnified at higher Ca concentrations, and (6) Apply caution if you are applying Ca as part of a complex mix, to ensure that active compounds are not negatively affected. Check labels for compatibility, and if in doubt look for precipitation. Do not mix CaCl₂ with Solubor™.

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. Copyright 2013. All rights reserved. No part of this material may be reproduced or redistributed by any means without permission. Cornell Cooperative Extension provides equal program and employment opportunities. **-END-**