



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

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Pest management notes...

Fire Blight! There was a region wide high to extreme risk of blossom blight for inland sites all week long requiring 2 sprays of streptomycin to get adequate protection between showers. Sites along the lakeshore had an infection predicted for Tuesday-Thursday requiring 1 treatment of streptomycin for adequate control. In sites just inland from the lake, if you sprayed Monday, you needed another treatment on Wednesday. There have been a few bouts of hail in the region which required a quick treatment of streptomycin following the hail to try to protect wounds made by the hail where there are established fire blight cankers. The weather man says it will be much cooler for a couple days removing the risk of blossom blight infection conditions but the wind will be the next challenge for any spraying you are trying to accomplish.

Blossom blight symptoms should be showing up from the early infections in inland sites where an infection occurred on May 8. If you see any infections, please call Debbie (585-747-6039) to come and collect the sample to test for strep resistance. It will benefit you in knowing how to manage FB on your farm and it will contribute to the information needed to pursue a SEC 18 label for Kasumin for NY. There is no regulatory action taken against your farm if strep resistance is detected.

Scab/mildew – we have had a long scab infection event starting on May 21 throughout the week. This should finish up with the primary scab spores this week and it will take about weeks for the last of the primary lesions to appear. So until you know there is no primary infection, maintain scab protectant fungicide for at least 2 more weeks. And include fungicide for powdery mildew: Rally at 8 oz./a, Sulfur, Topguard, Flint/Sovran, Fontelis.

Petal fall insects: Plum curculio adults are actively cutting fruit to lay eggs, but the cool weather for a couple days will slow them down. Obliquebanded leafrollers are present in orchards where control was cut back last season. Research and experience has shown that controlling these larvae will help to prevent a larger generation in July and then again in August. The best insecticides where OBLR are present include Proclaim, Rimon, or Intrepid at petal fall. Delegate, Altacor, and Belt all offer very good efficacy against not only OBLR, but also the internal leps. I prefer to wait until codling moth egg hatch and OBLR summer generation to bring these out. You will need to include Imidan, Calypso, Avaunt, or Actara for plum curculio and European apple sawfly. If rosy apple aphids have not been controlled, Actara or Calypso will also control this pest. Codling moth biofix has been set for May 15 in high pressure sites inland, and May 17 for high pressure sites closer to the lake. We had great conditions for mating (CM that is!) this week. We have accumulated 100-123 DD50F since biofix. If no Rimon at petal fall, we want to apply the first CM spray at 200-250 (looks like the first week of June) using Assail, Calypso, Delegate, Altacor, Belt, Imidan at a high rate, or high rate of Voliam Xpress or Voliam Flexi.

Pear psylla: Now is the time we start to knock back the pear psylla nymphs using abamectin if it still works on your farm, or use Calypso for control of psylla, plum curculio and Comstock mealybug but you will need to use the high rate of Calypso for psylla. Agri-flex is also a good choice for psylla but you may need to add another small dose of Actara for plum curculio. We have already discussed that Syngenta suggests you will need an additional ounce of Actara in Voliam Flexi for plum curculio pressure. You will need to add 2 oz./acre of Actara for PC control using Endigo. But watch the total seasonal application of Actara; only 11 oz./acre/season are allowed in NY.

Horticultural notes... Here are some of the main remarks presented at this week's petal fall meetings in Orleans and Wayne County (May 22-23).

Crop Assessment: (1) Most varieties evaluated in most orchards had a moderate to good set (with the exception of Empire, see below our comments) with a king fruit and 2 or more set lateral flowers, (2) kings on early varieties (Gingergold, Zestar, Idared and Jersey Macs) were at 9-11mm, midseason bloom varieties (McIntosh, Empire, and

Fuji) were at 8-9, Gala and Red Delicious were at 7-8mm, and late blooming varieties Golden Delicious and Rome were at 5-6 mm, (3) a complete set of seeds was seen in the majority of the cultivars evaluated, (4) fruit shape appeared to be normal, (5) leaves were growing rapidly and were hardened off with an average cuticle thickness. (6) We recommend an intensive block by block scouting to make good thinning decisions, and aggressive thinning when heavy bloom and good set are evident.

Assess Empire's fruit set very carefully this year: Perhaps the biggest surprise to us is the low set observed in Empire this year (a very frost sensitive cultivar). Empire's kings were not present in many sites we visited and were damaged during early spring due to a few frost events we had at quarter inch-green to half inch green (4/21), and bloom (5/14) on cold sites. Apparently, Empire was more damaged in the West side of Rochester than in Wayne County. For unknown reasons, Red Delicious has a better set and will require a more aggressive thinning. We recommend that growers scout Empire blocks very carefully this year before making thinning decisions.

Thinning recommendations: We have a huge crop which will require an aggressive thinning effort to ensure large fruit size. The most successful thinning programs include a 2 or three spray program beginning with a petal fall spray followed by a 12mm spray and if needed a 18mm spray. We encouraged growers to apply the last petal fall sprays next to the lake right after finishing the meetings this past Wednesday and Thursday. Most of the petal fall sprays should have been applied between Friday May 17 (inland sites) and Monday May 21 (lake sites). The next spray should be applied when fruitlets are about 11-12mm. (1) For hard to thin varieties, a full rate of thinner is either 3oz NAA + 1pt Sevin/100 gal TRV dilute basis or 64 oz Maxcel + 1pt Sevin/100 gal TRV dilute basis, and (2) For easy to thin varieties a full rate of thinner is either 2oz NAA + 1pt Sevin/100 gal TRV dilute basis or 48 oz Maxcel + 1pt Sevin/100 gal TRV dilute basis.

Carbohydrate Model to guide Thinning Decisions: The carbohydrate model is now available on the web at the NEWA website (<http://newa.cornell.edu>) under the crop management tab. Run the model before each thinning spray and adjust thinner rate based on the recommendation in the last column of the output. The four very simple steps are: (1) Go to the NEWA Apple Carbohydrate Thinning Model Page, (2) Choose a station and click "Continue", (3) Enter your green tip (@ April 16-17) and full bloom dates (@ May 7-8) and click "Calculate", (4) Move the scroll bar on the right to find today's date on the table. The last column gives the recommended adjustment in thinning rates for today based on the model. The model is limited by the accuracy of the forecasted temperatures and sunshine, which change daily. This Memorial Day weekend the temperatures are predicted to be low with a mild or no carbohydrate deficit. Inland sites are moving rapidly to the thinning window of 10-12mm with early blooming varieties. Mid- and late blooming varieties will enter the window Monday-Wednesday of next week. Cool temperatures and sunnier days forecasted for this weekend will require an increase of chemical thinner rates by 30% if you decide to thin this weekend at inland sites. We suggest that most thinning sprays be applied next Monday-Wednesday. Look for another update on Monday, May 27 after we evaluate the thinning effect on fruit growth on orchards thinned at bloom and at petal fall.

Chemical Thinning for Young Trees: For newly planted trees where you desire to totally eliminate the crop try a heavy rate of Maxcel (64 ounces) + Sevin (2pts) + Oil (1pt) /100 gallon TRV dilute. For 2nd year trees where we want a small crop use only hand thinning and the Cornell young tree thinning guide to adjust cropload. For 3rd year trees use Sevin alone + follow-up hand-thinning. For 4th year trees use 1/2 of our suggested full rate of NAA + Sevin. For 5th year trees use 75% of a full rate of NAA + Sevin. For 6th year trees use a full rate of NAA+Sevin or Maxcel+Sevin.

Nutrition: Due to the light crop last year, most blocks had snow ball bloom this year, and a potentially heavy crop. Depending on how good a thinning job you will be doing in the next week, this potentially heavy crop will have an impact on nutrient management this year. In a heavy crop year, providing enough nitrogen to the trees is important for encouraging a little more vegetative growth to support the crop as heavy cropping decreases tree growth. Remember that foliar nitrogen application at early cover sprays is a good way to supply nitrogen to the young fruitlets and spur leaves. We recommend using foliar urea application at first/second covers at a rate of 5 lb. per 100 gallons on blocks that have marginal N status last year.