



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

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Pest Management Notes...

Don't think I really need to remind you to take care of your newly planted orchards in bloom. We have extreme blossom blight risk for the next several days. Streptomycin or copper or combination will work – Kerik Cox says he had very good blossom blight control in his trials using the combination of streptomycin and Badge (copper). Don't try to pick off blossoms under these weather conditions.

Codling moth egg hatch reminder for 200-250 DD50F after first sustained trap catch. Egg hatch will begin in a couple days and insecticides should be applied in early high pressure sites by Monday - 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 are high. Don't rely on Sevin in thinning sprays for control. This weather should speed up plum curculio pressure and bring it to an end soon.

South west winds usually bring up potato leafhopper. Start looking especially in newly planted trees. Aphid colonies can explode in this weather. A neonic is a good choice for these pests.

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

An Update on the Progress of Thinning from Fruit Diameter Measurements: More fruit diameter measurements were submitted by cooperating growers, Extension educators, and consultants after the last Fruit Fax sent on Wednesday. The results show that petal fall sprays were effective and showed significant thinning on Gala and Honeycrisp in all regions of Western NY (Table 1). However, additional thinning is still needed. In the blocks where fruit size was measured on day 3 and day 8 after the thinning spray, Gala and Honeycrisp fruit set on mature trees was reduced by about 70% (Table 1), however the target is to reduce fruit set by 90%. This suggests another spray today or tomorrow Saturday at $\frac{3}{4}$ or full rates of Maxcel + Sevin on mature Gala trees and $\frac{3}{4}$ or full rates of NAA+Sevin on mature Honeycrisp trees. Half rates are recommended on young trees (see previous Fruit Faxes for recommended standard rates for hard and easy to thin cultivars).

Among all the orchards measured there is only one orchard (Honeycrisp at VanDeWalle Farms in Wayne County) where almost perfect thinning was achieved without the need of another thinning spray @ 10-12mm this week. Additional fruit measurements will be conducted today or tomorrow Saturday to validate this result at this site. For the rest of the sites (with a few exceptions), substantial chemical thinning on Gala and Honeycrisp was recommended. These results suggest what might be done in similar blocks with excellent bloom and set. Of course, you know best conditions on your farm and how individual blocks respond to thinners.

For today and tomorrow the carbohydrate model suggests a moderate carbohydrate deficit. Growers should apply standard rates or decrease chemical thinner rates by 15-30% depending on the NEWA location that you use. Moderate to high temperatures are forecasted for today and tomorrow Saturday June 1 (Table 2). If temperatures reach 90°+ then we suggest delaying thinning sprays until temperatures moderate. However on Sunday, Monday and Tuesday temperatures are predicted to be much cooler. 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. Summary effect of bloom and petal fall sprays in 19 fruit diameter studies conducted by cooperating NY growers, consultants, and CCE personnel in Western NY during May 2013.

Orchard	County	Variety	Initial Flower Bud Number/ Tree	Initial Fruitlet Number/ Tree	% Set After Bloom and/or Petal Fall Sprays	Current Fruit Number	Target Fruit Number	Target Fruit Set %
Russell	Niagara	Gala	191	955	22.6	216	93	9.7
Abbott	Onondaga	Gala	146	729	27.7	202	111	15.2
NYSAES	Ontario	Gala	886	4430	23.7	1051	300	6.7
RJO	Ontario	Gala	574	2870	28.8	827	131	4.6
Brown	Orleans	Gala	235	1175	32.8	385	135	11.5
Lamont	Orleans	Gala	470	2350	17.9	420	135	7
Smith	Orleans	Gala	488	2440	28.9	706	231	9.5
Woodworth	Orleans	Gala	470	2350	17.9	420	135	5.7
Reisinger	Schyler	Gala	388	1940	27.7	538	212	10.9
Fowler	Wayne	Gala	488	2240	9.6	215	56	2.5
Furber	Wayne	Gala	456	2289	48	1094	140	6.1
Abbott	Onondaga	Honeycrisp	210	1050	21.9	230	61	5.8
RJO	Ontario	Honeycrisp	501	2505	27.5	688	96	3.8
Bentley	Orleans	Honeycrisp	1072	5350	8.5	457	144	2.7
Lamont	Orleans	Honeycrisp	250	1250	20.8	280	80	6.4
Woodworth	Orleans	Honeycrisp	225	1125	19.7	222	65	5.8
Reisinger	Schuyler	Honeycrisp	153	765	18.9	145	63	8.2
Fowler	Wayne	Honeycrisp	412	2060	24	294	33	1.6
VandeWalle	Wayne	Honeycrisp	164	820	12.2	101	100	12.2

Table 2. Forecasted temperature conditions predicted carbohydrate balance for five locations for Friday May 31 and Saturday June 1 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 May 31	80	65	-47
	Tomorrow June 1	77	66	-50
Appleton South	Today May 31	80	65	-13
	Tomorrow June 1	77	66	-16
Williamson (DeMarree)	Today May 31	81	65	0.8
	Tomorrow June 1	79	64	-8
Kendall (Zingler)	Today May 31	88	68	-3
	Tomorrow June 1	89	67	-21
Knowlesville	Today May 31	90	69	-18
	Tomorrow June 1	89	68	-23