



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

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Mark your calendar for the new dates for petal fall thinning meetings for May 22 & 23.
More details will follow.

The weather man said it would come – an advective freeze warning for Monday and Tuesday nights! Those of you with strawberries in bloom, in inland, low lying areas should be prepared for frost protection. Warmer weather will come back on Wednesday with showers; high temperatures will go back into the 70's and lows in the 50's.

Critical temperatures: For everything in bloom and approaching petal fall, the critical temperature for 10% kill is 28°F and for 90% kill, 24-25°F. Stone fruit at petal fall through shuck fall the crucial temperature for 10% kill is 28°F. Strawberries with blossom buds still closed, 22°F, at popcorn – 26.5°F, and with open blossoms – 30°F. Remember the ground temperature is a lot cooler than the temperatures measured at 4-5 ft. off the ground. Some blueberries are in full bloom and can tolerate 28°F, in early bloom, the critical temperature is 25-28°F.

Pest management notes...

Apple scab: It is time to renew fungicide coverage for the showers and expected scab infection for tomorrow. We are still in peak of primary scab season so do not stretch intervals. Most locations have only had .5 to 1.5 inches of rain in May.

Fontelis has received a SLN registration from DEC for use in NY – in apples and pears for scab and mildew, use 16-20 oz./a, under high disease pressure at 7 day intervals with no more than 2 consecutive sprays. No more than 61 oz/acre per season. In stone fruit, use 14-20 oz./acre for brown rot and many other diseases. This is a new class of chemistry that we hope will provide an alternative to SI (DMI) resistance. You must have a copy of the label in your possession. This label will be posted, but those of you who get email Fruit FAX, it is also attached.

Fire Blight ? The forecasted temperatures will increase the risk of blossom blight on late blooming varieties for late this week. Stay tuned.

Shoot growth is more than 3 inches in many varieties in inland sites. It is getting late to start **Apogee application at 1-3 inches of shoot growth for shoot blight control.** This is recommended where you have established cankers in the orchard and where streptomycin resistance has been documented.

Plum curculio have been actively migrating into the orchards with the warmer weather last week. Early blooming apple varieties in inland sites are at petal fall and are susceptible to plum curculio now. In apples, you can target oriental fruit moth and plum curculio using Calypso or Acatara. Other options include Avaunt, Imidan, or a pyrethroid like Baythroid, Danitol, or Warrior. **Codling moth** across the region are still trying to stay warm; we have caught 2 moths in only one high pressure site inland. **Oriental fruit moths** are not quite as sensitive to the cold and our high trap count was in the 90's for the week.

European apple sawfly has been causing more damage in the region in recent years. If your consultant has reported this kind of spiral ring of russet damage in past seasons, it is very critical to remove bees and get a timely petal fall spray on for EAS, using one of the same insecticide choices for plum curculio ASAP! Get started on your petal fall sprays if you have a history of this pest ASAP! If renewing fungicide today for tomorrow's showers get those bees out and treat the early blooming varieties with insecticide plus fungicide.

Oriental fruit moth timing is now in peaches that are past petal fall using Actara, Assail, Avaunt, Danitol or other pyrethroid! Liz brought me a nectarine with a plum curculio feeding hole through the shuck. They need to put on their winter coats for another day, then they will be ready to start laying eggs, threatening damage to young fruitlets

especially in apricots and sweet cherries at shuck split. The best options for control include Actara, several pyrethroids, and Imidan (but not on sweet cherries).

Include fungicide for brown rot on stone fruit. Do not use Bravo (chlorothalonil) past shuck split on stone fruit. Switch to Pristine, Cabrio, Indar, Gem, or Quash in cherries and apricots. Captan, Elevate, and Tilt are also options in peaches. Plums, use Captan, Gem or Quash for brown rot infections of fruitlets.

Berries?

Renew fungicide for mummyberry and anthracnose on blueberries in bloom using Indar, Pristine, or Switch depending on which fungicide choice you made last spray.

Apply fungicides for botrytis on strawberries (Elevate, CaptEstate, only 1 spray of iprodione, Switch, Scala, or Pristine) at first bloom and 7-10 day interval. The first bloom and full bloom sprays are most critical and will take care of most gray mold in strawberries.

Horticultural Notes from Mario and Terence...

Apple Thinning: The snowball bloom across our region on almost all varieties will require an aggressive thinning program. Growers should begin this effort at bloom or petal fall. If weather prevented you from applying a bloom spray on Gala (Maxcel 96 oz/acre) it can still be done today in WNY. If you are not ready for bloom thinning then focus on applying a petal fall spray. Thinning at petal fall has the advantage of allowing some assessment of pollination before making the decision about aggressiveness of thinning. As with bloom thinning, the objective is to remove a portion of the crop before competition between fruits reduces fruit size. In addition, after petals have fallen and beehives have been removed from the orchard, Carbaryl can be used as a thinner. Five important varieties to focus on at petal fall are Gala, Empire, Honeycrisp, Macoun and Fuji. Terence's suggestion for Gala and Empire is to spray @ 5-6mm fruit diameter (two to three days after petal fall) with NAA 6oz/acre + Sevin 2pt/acre. For Honeycrisp and Macoun use a higher rate of NAA 8oz/acre + Sevin 2pt/acre at the same timing. For Fuji use Maxcel 96oz/acre + Sevin 2pt/acre. Many other varieties will also benefit from a petal fall spray of either Sevin alone or a combination of NAA+Sevin or Maxcel+Sevin. This is a year to spray "the whole farm" with a petal fall thinning spray.

Pear Chemical Thinning: Traditional pear thinning with NAA is best done at 5-6 days after petal fall, which is in the next few days. Later timings do not work as well and limit pear fruit size improvement. However, NAA gives only mediocre thinning. Much better thinning responses have been achieved with Maxcel applied when fruits are 10-12 mm in diameter. This will be later this week. The rates we use for Bartlett are 150ppm (96 oz/100gal) and 75ppm for Bosc (48 oz/100 gal). We do not include Sevin with the Maxcel since it is not labeled on pears.

Suggested Promalin use if you got a significant frost event at your site this week: Apply 2pt Promalin per acre using 100 gallons of water per acre within 24 hours of the frost event. This Promalin spray can be tank mixed with fungicides or insecticides. The spray should improve fruit set where flowers were damaged but not totally killed. This spray is most useful with a hard frost (lower than 28°F) when there is significant flower damage. If the frost event was marginal (29-31°F) and caused damage to only a small portion of the flowers then the Promalin spray is not likely to be needed since there will still be many more flowers still alive than are needed for a full crop. The Promalin spray following a frost has worked on the 3 varieties we tested (Gingergold, Jonagold, and Gala on M.9) and the variety tested (Taylor Spur Rome on M.26) in North Carolina in 2012 and is used in Europe on all varieties. In our experiment where fruit load was reduced dramatically by the frost of 2012, the application of Promalin improved fruit set more than enough to pay for the spray and in some cases by 10X the cost of the product.

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.