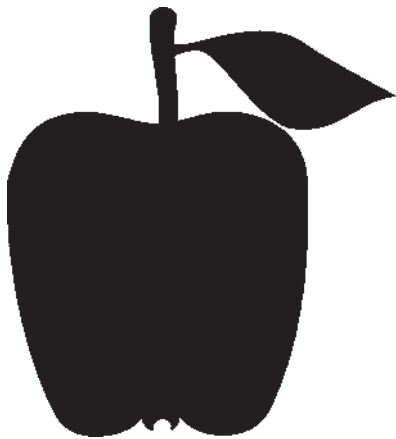


# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

AUGUST 17, 2004



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### Apple Maturity Update for North-Central New Jersey

*Win Cowgill, Agricultural Agent*

Growers should be observant as we approach Gala and McIntosh harvest in North-Central Jersey. Apple maturity appears to be running 14-18 days or more ahead of last years harvest dates.

From observations and maturity tests on the below selected cultivars conducted Monday August 16<sup>th</sup>, we will continue 12-14 days ahead unless the average daily temperatures drop dramatically for September ripening apples.

Peach cultivars harvested to date have been running 10-14 days ahead of last year's dates as well.

#### Summer Apples

**Golden Supreme-** is a chance seedling of high quality and was evaluated in the 1995 NE183 cultivar trial at the Rutgers Snyder Farm. A bright skinned yellow apple with an attractive pink cheek, it is ready for harvest at the Rutgers Snyder farm on 3-year-old B9 stock in a Super Slender Spindle system. Last year we harvested it on September 16, it will be harvested this week.

Hunterdon-Snyder Farm	Pressure	Brix	Starch-Iodine
Golden Supreme (Non Retain)	18	12%	5

#### McIntosh

Growers in Central and North Jersey should watch their Mac's closely for early maturity development and drop. It is too late to treat MacIntosh blocks with Retain. Applications of NAA can be used instead for stop drop. Many blocks are colored nicely and appear to be running a good 2 weeks earlier than last year. Some central Jersey Mac harvests have begun as color and sugars are present.

Hunterdon-Glenn Gardener	Pressure	Brix	Starch-Iodine
Rogers Red Mac (non Retain)	18	10.4%	2.6
Hunterdon-Snyder Farm	Pressure	Brix	Starch-Iodine
Rogers Red Mac (Retain)	17	12%	3

#### Gala

Background color has historically been one of the best indicators of maturity for Gala. Fresh market Galas should be harvested when the background color is turning from a yellow to a cream color. SI index

*SEE APPLE MATURITY ON PAGE 2*

# 'Workamper' Labor on Our Farm

Leslie and Ron Blair, Blair's Berry Farm,  
Rochester, Vermont

Reprinted from *Vermont Vegetable and Berry News*, August 15, 2004, University of Vermont Extension [www.uvm.edu/vtvegandberry](http://www.uvm.edu/vtvegandberry)

During the summer of 2002 we had a couple of customers come to our berry farm who were volunteering for the Forest Service as 'workampers'. They gave us a copy of *Workamper News*, a bi-monthly magazine that matches up businesses and workers who travel in their RVs, working as volunteers in exchange for a camp site and the necessary hookups (power, water, septic, telephone). They recommended the program very highly. We advertised in the winter issue of the magazine and received about a half dozen inquiries and resumes. After speaking to the applicants on the phone, we asked two couples to come work with us in the summer of 2003. It went so well that we put in a third camp site, anticipating more business with the growth of the farm. We have three couples with us this summer (one of these was also with us last year).

Workampers are generally retired, and the ages of our workers have ranged from 55 to 70 years old. Each couple works as a unit. Their priority job is taking care of customers (you-pick as well as those buying pre-picked berries from our shop), and when they're not busy with customers they do some picking, sorting, weeding, and other crop tending as well as keeping the shop clean. Some workampers want extra hours for hourly pay and some don't. That's one of the things that helps both parties decide whether or not it's a good match. In our case, we offer the site from May to October in exchange for 8 weeks of work, approximately 5 hours per day, 5 days a week per person. We have offered only a small amount of additional per-hour work. Two of our sites are gravel and one is a grassy pad. The cost of putting in the sites can be considerable and depends upon what you need to do to get power, water, and septic set up for each of them. And of course there are various state regulations to be dealt with.

We highly recommend the program. We've been enjoying all of our workampers and find them to be very congenial and hard working. All of the information you need is available on line at [www.workamper.com](http://www.workamper.com) or call (501)362-2637. □

## APPLE MATURITY FROM PAGE 1

with the Gala Starch chart can be a guideline as well.

Some strains are already showing good red color development. Sugars are present with brix development at 10-11.4% but size can improve some yet.

Hunterdon- Glen Gardner	Pressure	Brix	Starch
Crimson Gala (non Retain)	26	10%	1
Hunterdon- Snyder Farm	Pressure	Brix	Starch
Treeco-42 Gala (non Retain)	23	11%	1
Treeco-42 Gala (Retain)	23	10.5%	1
Brookfield Gala (non Retain)	26	11%	1

Gala strains traditionally come into maturity around Labor Day for North-Central New Jersey growers. Maturity development has slowed but still appear to be 10 days ahead of last season. Growers need to be conscious of gala maturity this year if they have plans to hold it for any length of time. Multiple pickings must be used on Gala to get consistent fruit quality and size.

Hunterdon- Snyder Farm	Pressure	Brix	Starch
Honeycrisp (Retain)	20	11.4	1
Hunterdon- Pittstown	Pressure	Brix	Starch
Honeycrisp (Non Retain)	18.5	10	1

Honeycrisp is beginning to develop red color; it may be a good color year for New Jersey Honeycrisp with another night of temperatures in the fifties last night.

**Note:** Growers should note that the New England growers were demanding \$40 a box wholesale in 2003 and received it. The apple commanded \$2.00 pound retail last season. Do not sell this apple too cheap; demand the premium price it deserves.

## Cortland

Cortland is an apple that has increased in popularity with newer strains being highly colored. Cortland is usually picked one week after Macs (remember Macs can be picked over 3 weeks if stop drop is used. Normally around mid September at the Rutgers Snyder Farm. They do not starch test well but SI testing can be used as guideline, target a starch of 5-6.

Hunterdon- Pittstown	Pressure	Brix	Starch
RedCort (Non Retain)	17	9.5	1

Retain®: Reminder Retain® should be applied 28 days before anticipated harvest and with a 21 day Pre Harvest Interval (PHI). If blocks were not treated with Retain®, it is not too late this season to apply for late September apples like Red Delicious and Empire. □

## SYMPTOMS FROM PAGE 3

magnesium to the soil by means of dolomitic lime or Epsom salts. But make note of where you saw the deficiency, so you can check that area again next year. If the condition persists in drier seasons as well, some form of supplemental magnesium might be needed. (to see the pictures associated with this article, please go to the Crop Update Web Page at <http://lenewa.netsync.net/public/update.htm>).

Submitted by Jerome L. Frecon, Agricultural Agent. □

# Gala Fruit Size

Terence Robinson and Lailiang Cheng, Department of Horticultural Sciences, Cornell Cooperative Extension

Reprinted from *Fruit Notes, Volume 04 Issue 16, Lake Ontario Fruit Program, Cornell Cooperative Extension*

Gala fruit size has a very large impact on grower returns. Large size fruit (80 or 88 count) sell for \$25 per box while medium size Gala fruit sell for \$14 per box. Small Gala's are almost unsaleable. This study which began in 2003 is designed to evaluate management factors that influence Gala fruit size. Four factors are considered in this study (pruning, thinning, fertilization and irrigation).

In 2003 pruning had the greatest effect on fruit size while irrigation had no effect. Thinning treatments had an intermediate effect while fertilization had a small effect. The stubbing back pruning strategy reduced cropload significantly and resulted in a 13 g increase in fruit size. The more moderate spur pruning treatment had less effect on cropload and resulted in only a 4g increase in fruit size. Among thinning treatments the Promalin/Carbaryl/BA-Carbaryl combination of 3 sprays gave the greatest reduction in cropload and the greatest fruit size. Promalin reduced cropload, but did not increase fruit size while BA when compared to NAA did not increase thinning but did increase fruit size. Even when fruit size was adjusted for cropload BA had a significant effect on adjusted fruit size. Fertilization had a lesser influence on yield and fruit size than pruning or thinning. High Nitrogen fertilization increased yield by increasing fruit number per tree but also resulted in slightly softer fruit. Irrigation in the wet year of 2003 had no effect on any of the measured parameters of yield, fruit size or fruit quality. Combinations of the 4 management factors improved fruit size of Gala in an additive manner. The best treatment which combined stubbing back pruning with the Promalin/Carbaryl/BA-Carbaryl thinning treatment and high Nitrogen fertilizer and had fruit size in excess of 210g.

In a companion thinning study with Gala, BA/Sevin gave slightly greater thinning and had a 10g greater increase in fruit size than did NAA/Carbaryl. Comparing all 20 treatments in this experiment, the inclusion of BA in a seasonal thinning program gave significantly more thinning and greater fruit size than the inclusion of NAA. Even when fruit size was adjusted for cropload BA gave larger adjusted fruit size. Promalin applications did not increase thinning of Gala or improve fruit size. ATS gave more thinning and greater fruit size than Promalin. The application of Carbaryl at petal fall did not improve thinning or fruit size. It also had no effect on fruit quality. The strategy of applying multiple low doses of BA was compared to a single application of BA/Sevin at the 10 mm stage. The multiple application strategy resulted in less thinning than a single application of BA with or without Sevin. Fruit size was no better with the multiple applications of BA than with a single application at 10mm fruit size.

The best treatment in this experiment was the seasonal program of ATS at full bloom followed by carbaryl at PF and then BA/Carbaryl at 10mm fruit size. This treatment resulted in a 46g increase in fruit size compared to the unthinned control and the largest increase in adjusted fruit size when the effect of cropload was removed (21g increase in adjusted fruit size).

Submitted by Jerome L. Frecon, Agricultural Agent. □

## HARVEST FROM PAGE 4

bring in dry fruit, so it's best not to pick right after a rain and, if possible, in the afternoon after morning dew has dried. Grape bins and lugs should have drain holes if the fruit is wet or there is a threat of rain. Wet fruit is significantly lower in sugar. Try to work closely with the wine maker in determining the harvest date. The wine maker will have to deal with imperfections in the cellar, so he or she should know exactly what to expect. We might also get some unpredictable yields as well, often the case in wet years, so try to alert the winery as soon as possible if deliveries will be short or long. They have lots of preparations to make and you can help them. Remember, the wine makers are your friends and business partners. If they do well, so will you. In a rainy vintage, we all need to work a little harder to get good results. It is a test of patience and fortitude, but those who stick with it are often rewarded. I've tasted some wonderful wines, white and red, from 2003, a most difficult year. Those who did the job in the vineyard were able to make good wines. I hope that we get the sunshine we need during the next six weeks, but don't count on it and be ready just in case.

**Wet Season = Magnesium deficiency?** from Hans Walter-Peterson, Cornell Cooperative Extension Lake Erie Regional Grape Program As I have discussed at many meetings and in articles, potassium and magnesium compete with each other for uptake by grapevines. Potassium moves through the soil to the roots primarily by diffusion, meaning it moves from areas of high concentration to low concentration. This diffusion movement requires adequate soil moisture, so in dry years it is not uncommon to see potassium deficiency. Conversely, in wetter years like this year and last, potassium deficiency is difficult to find, while magnesium deficiency tends to become more common.

If you have areas where you see symptoms, you may want to check on the levels of potassium and magnesium in the soil by taking a soil sample. Ideally, you should take another sample in an area where vines are not expressing that symptom for comparison purposes. If there are adequate amounts of both in your sample, don't worry about adding more

SEE SYMPTOMS ON PAGE 2

# Rain and Wine Grape Harvest

Mark Chien, Wine Grape Agent, Penn State University Cooperative Extension

*Reprinted from electronic newsletter, Penn State Cooperative Extension.*

We seem to be rather stuck in this pattern of rain, and not just showers, but monsoons, which is problematic for harvest. We need some sunshine in this last push before harvest and if we don't get it, I have concerns about wine quality for this vintage. I remember last year, we had a few days of sunny weather post-veraison but then it just basically rained until October. I think all growers in the region need to be prepared for a wet harvest.

Rain at harvest creates untold complications. As a grower in Oregon, I've been through my share and it is not a pleasant memory. Basically, everything takes longer and is more expensive during a wet harvest. And, there is more risk. Safety is an issue on slick and muddy surfaces, both for footing and machinery traction. Extra precautions need to be taken on wet ground in all aspects of vineyard operations. Consider, too, that no one likes harvesting among wet vines, so the picking will go slower. Availability of labor will be an issue, as usual, but worse if it rains because growers who count on friends and relatives to pick their grapes may find those ranks thinning as the rain comes down harder.

I would like to stress the need to pick the grapes when they are ready, meaning, as fully ripe as the vintage will allow. This means not scheduling the harvest date a month in advance but rather letting the season dictate the harvest date. Patience is tested at harvest and can pay dividends in wine quality if your instincts about the weather are correct. Especially with red wine, the flavors, tannins and color need to develop and mature. To do this, temperature, time and light interact to produce those essential qualities. But if the sun never arrives; the grapes may deteriorate on the vine. It's clearly a gamble and each grower must rely on instinct and experience to call the weather. A matter of a few days of sunshine and warmth can make a tremendous difference in grape maturity. The 1999 Hardscrabble from Linden Vineyards in Virginia is a good example of this. Remember, in '99 Hurricane Floyd blew through the region and dumped up to 10 inches of rain in a day on some parts. Jim Law, the wine maker at Linden decided to let the grapes hang, despite continued uncertainty of the weather. There was enough sun to ripen the Cabernet Franc and Merlot and he made a brilliant wine. A wine making tour de force, better than anything California can do if climate challenge is part of the equation for success. I asked Kees van Leeuwen from Ch. Cheval Blanc how long they waited after a rain to pick. He surprised me by saying they would go in the next day and harvest. My experience is that grapes need at least 2-3 days after significant

rain (>1") to give up water from berries and regain flavors lost to dilution. Often you can get locked into a "two steps forward and one step back" pattern, or worse, two back and one forward. Once that happens, it is time to pick. Tasting is your key to knowing if the grapes have recovered to their condition before the rain hit. Maturity needs to be measured by the numbers, and later in the season, brix accumulation will be painfully slow, mere tenths of a brix a week, but flavor components will continue to develop. So try to be patient.

The challenge now is to get ripe and clean grapes into the winery. Toward that end, crop load will be the major factor that determines if all the fruit gets uniformly ripe on the vine. Thinning to low to very modest levels should have been done a month ago when it became clear that we were entering a risky vintage. If you haven't done that yet, then it would be a good idea to go through the vineyard now and drop any fruit that appears to be significantly behind the rest in color and maturity, both red and white. While you're out there, drop fruit that is either crowded or has any signs of botrytis or other flaws. Wine quality will improve immensely if you do this and the sooner the better. The later you drop, the less effect you will have on the speed of ripening. Crop regulation will also help with winter acclimation by removing a key source of late season stress.

Disease will likely be a big issue this harvest. Reports of early botrytis on clusters are an omen. I encourage growers with dense canopies to continue to pull leaves. Our best hope is to get some drier weather that will dry out the fruit and arrest the spread of botrytis. Keep the fruit zone open and continue to spray. I'm not sure if any fungicides will help with botrytis at this point, but downy and powdery are definitely still in play. We are down to the wire on materials because many of you have sprayed over a dozen times this year already so try to rotate in new materials and watch the pre-harvest intervals. Remember, we need to keep those leaves, not just to ripen fruit, but wood as well going into winter. Last year was a harsh reminder for many of the hazards of insufficient vine acclimation, especially on late varieties like Cabernet Sauvignon. If machine harvesters are being used, a pass through the vineyard ahead of harvesters is needed to drop diseased and unripe fruit.

Birds and bees will again be a problem, as they were last year. Nets are best for the birds, you all know that. They should be covering the reds by now. The only way I know to control birds without nets are will regular and intensive patrols on ATVs with shotguns and/or pyrotechnic devices. Constant vigilance is needed, but most of all at dawn and dusk. If starlings peck a berry, the juice that spills will lead to infections by secondary rot organisms and make a mess of wine quality. The bees are bad and I'm not sure what to do about them other than to put as many traps out as you can afford.

At harvest, you want to do everything you can to

**SEE HARVEST ON PAGE 3**

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