

MSU Fruit Team Apple Maturity Report 2010
Grand Rapids Area Report Number 3
September 8, 2010

General Comments:

We continue to see quite a bit of variability in maturity on the same tree in Gala and Honeycrisp. This is a big week for Gala harvest and growers should not wait too long for color as Gala maturity is moving fast. Honeycrisp are starting to be color picked and they are just starting to come into the harvest window.

Summary of Grand Rapids apple maturity samples taken September 3 & 7, 2010:

Variety	Ethylene (ppm)	Color % (range)	Firmness lbs pressure (range)	Starch (range)	Brix (range)
Gala	1.74	74% (40-99%)	15.7 (12.5- 20.8)	7.6 (6-8)	13.85 (12-16.5)
Honeycrisp	16.7	63.4% (20-90%)	14.5 (11.8-18.1)	4.95 (2-8)	13.9 (12-16.5)
Linda Mac	0.152	71.5% (60-90%)	14.2 (12.1-16.2)	3.9 (3-5)	12.8 (12-13.5)
Ruby Mac	0.96	90% (90-90%)	13.9 (10.6-16.5)	6.7 (6-8)	13.2 (11-15)
RubyJon	0.626	90.5% (85-95%)	14.9 (12.2 – 18.8)	4.2 (2 – 7)	13.25 (12 – 14.5)
Jonagold	0.146	21.6% (0-50%)	16.5 (12.3 – 20.5)	2.87 (1-6)	12.6 (11.5-14)
Fuji, Sept.Wonder	0.94	70% (50-90)	14.75 (12.8-17.7)	4.9 (4-6)	13.1 (12.5-14)

Gala

Gala are moving very quickly in their maturity and growers are advised to watch their individual blocks very carefully – even those with Retain are moving quickly. Most fruits have quite high ethylene present, but amounts are quite variable block to block. Starch index has gone up just slightly at 7.6 this week compared to 7.5 last week. This indicates they are mature. Brix has improved from 11.9 last week to 13.85 this week across samples. Pressure readings are averaging 16 which in the firm range – very similar to last week.

Honeycrisp

Is moving into the mature range. Some early color picking is being done. Growers should not be too eager to pick Honeycrisp just to get a jump on the market. Next week will probably be a big week for Honeycrisp. Ethylene has jumped quite high this week compared to last, but this is not that unusual for Honeycrisp. Color is improving averaging 63% red color this week compared to 53% last week. The range of color is still wide – as low as 20% and as high as 90%, which is also typical for Honeycrisp. Firmness readings are OK, but not excellent at 13.9 pounds. The average went up this week probably due to wider sampling across several blocks compared to last week. Starch readings are still low, but made a pretty big jump from 1.3 last week to nearly 5 this week. Brix level is acceptable, but on the low side at 13.9.

McIntosh

There was quite a bit of fruit drop in Macs from the windy weather that moved through over the weekend. Macs are ready for long-term storage according to pressure and ethylene readings and are quickly moving out of that ideal stage. Color is on the poor end. Ethylene continues to be higher than expected this early and well over the 0.25 ppm that indicate maturity. Pressure readings are good about 14 pounds pressure this week compared to 16.4 pounds last week.

Brix reading is up from 12.2 last week to around 13 this week. We tested the newer strains of Macs this week and you can see that data in the table above.

RubyJon

Are moving closer to maturity, but not quite there yet. They surprisingly eat pretty well. Ethylene had increased considerably this week compared to last and is averaging 0.626 across several blocks. Color is excellent as usual for RubyJon at 90.5% red color. Firmness has decreased this week to 14.9 pounds – down from 15.9 pounds last week. Starch readings still indicate immaturity, but are moving in the right direction at 4.2 this week compared to 2 last week. Brix has improved from 11.1 last week to 13.25 this week. Some early harvest of Ruby Jon might be started by the end of the week because color is not an issue, but the mature window has not quite opened for RubyJon just yet.

Jonagold

Tested for the first time this week. They are still immature. Ethylene is still below 0.25 ppm, Color is rather poor (depending on cultivar). Firmness is excellent at 16.5 pounds. Starch readings show immaturity still at 2.87. Brix are on the low side at 12.6.

Fugi – September Wonder

Tested for the first time this week. They are more advanced in their maturity that expected. Ethylene is high at 0.94. Color is not that bad at 70%. Firmness is good at 14.75 pounds. A starch reading at 4.9 indicated they are getting close to harvest. Brix is low at 13.1 which isn't all that unusual for Fugi. Hopefully Brix levels will improve over the next week or so. Early Fugi are still about a week away from optimal harvest time.

More detailed reports from other district MSU Extension Fruit Educators will be posted on www.apples.msu.edu – under the Apple Maturity section.

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