

MSU Fruit Team Apple Maturity Report 2010

Grand Rapids Area Report Number 2

September 1, 2010

General Comments:

Apple maturity seems to be running just about right on target with the predicted harvest dates. On sandy sites, maturity is slightly advanced of predicted dates and on the heaviest clay sites, it is slightly delayed. We are noticing quite a bit of variability in maturity on the same tree in Gala and Honeycrisp. There is some harvest of earlier, redder Gala strains taking place – next week will be a big week for Gala harvest on the Ridge. Fruit size is very good for most sites. Labor availability is adequate.

Leaf drop in Gala and Golden Delicious is quite common. This is not all that unusual, but we normally see it in July. It is typically caused by internal stresses within the trees and not from diseases or insects. While the yellow leaves might look disturbing, there should be plenty of leaves left to provide photosynthates for the rest of the season.

Various annual predicted harvest dates for apple varieties in the Grand Rapids area

Variety	Normal date	2010 predicted harvest date	2009 predicted harvest date	2008 predicted harvest date	2007 predicted harvest date
Paulared	24-Aug	24-Aug	31-Aug	24-Aug	14-Aug
Gingergold	26-Aug	26-Aug	2-Sep	26-Aug	14-Aug
Gala	10-Sep	29-Aug	17-Sep	11-Sep	28-Aug
McIntosh	15-Sep	2-Sep	22-Sep	14-Sep	1-Sep
Honeycrisp	18-Sep	6-Sep	25-Sep	18-Sep	4-Sep
Empire	22-Sep	10-Sep	29-Sep	21-Sep	8-Sep
Jonathan	28-Sep	16-Sep	5-Oct	27-Sep	19-Sep
Jonagold	28-Sep	16-Sep	5-Oct	27-Sep	19-Sep
Golden Delicious	2-Oct	20-Sep	9-Oct	30-Sep	21-Sep
Red Delicious	5-Oct	22-Sep	12-Oct	3-Oct	26-Sep
Idared	10-Oct	28-Sep	17-Oct	9-Oct	2-Oct
Rome	15-Oct	3-Oct	22-Oct	14-Oct	7-Oct
Fuji	25-Oct	13-Oct	1-Nov	25-Oct	18-Oct
Braeburn	25-Oct	13-Oct	1-Nov	25-Oct	18-Oct
Goldrush	1-Nov	20-Oct	8-Nov	30-Oct	22-Oct

Summary of Grand Rapids apple maturity samples taken August 31, 2010:

Variety	Ethylene (ppm)	Color % (range)	Firmness lbs pressure (range)	Starch (range)	Brix (range)
Gala, Imperial	2.64	90% (65 – 95%)	16 (13.6 – 18.6)	7.5 (2 – 8)	11.9 (11.5 – 12)
Honeycrisp	0.613	53% (20–80%)	15.6 (13.1-17.7)	1.3 (1 – 3)	12.5 (12 –13)
McIntosh Strains	0.804	93% (85- 95%)	16.4 (13.6 – 20.1)	3.7 (3 -7)	12.2 (11.5 – 13)
RubyJon	0.183	91.5% (85-95%)	15.9 (13.6-18.1)	2	11.1 (10 – 12)

Gala

Color is OK on most Gala strains this year, but they still look more pink than their usual orange color. Gala are moving very quickly in their maturity and growers are advised to watch their individual blocks very carefully. Gala will be quite a bit ahead of Macs this year. It's predicted that Gala are in their optimum long-term storage harvest window right now. For blocks with

Retain, they will be ready 5 to 7 days later depending on when and how much Retain was used. Next week will be a big Gala harvest week. Most fruits have quite high ethylene present, but amounts are quite variable block to block. Starch index showing a lot of clearing at 7.5 which indicates they are mature. Brix is pretty low at 11.9 on average across samples. Pressure readings are averaging 16 which in the firm range.

Honeycrisp

Moving toward maturity. Still immature overall, but there are some fruits that look ready. Ethylene is present at 0.613 ppm; color is averaging 53%, but the range of color is wide – as low as 20% and as high as 80%, which is typical for Honeycrisp. Overall, color is mostly till poor. Firmness readings are on the low side for this early in the harvest window at 15.6 pounds pressure. Starch readings are very low and indicate immaturity. Brix level is on the low end of an acceptable range at 12.5. Initial first picking of Honeycrisp will start at anytime with the heaviest first picking about a week away.

McIntosh

They are just moving into the maturity window now. Ethylene is a bit higher than expected this early at 0.8 ppm. Pressure readings are very good and averaging 16.4 pounds overall, with a range from 13.6 to 20.1 pounds. Brix reading is pretty good at 12.2 and they eat much better this week than last week. The window for red strain Macs is just opening. There is quite a bit of fruit drop in McIntosh this year.

RubyJon

Tested for the first time this week. They are still immature.

For next week's sampling, we hope to add Empire, Jonagold and other Jonathan strains to our report.

STATEWIDE REPORT SUMMARY

Southwest: Gala firmness is good but not super flavorful. Background color is 'white'.

Honeycrisp moving along this week, and they look good despite the heat; about two weeks ahead of normal. Jonagolds are big due to light crop, and some are ready for long-term CA storage. Golden Delicious are still immature.

Southeast: Gala color is good (87%) and firmness still good, and some blocks are overmature—finishing up at this time. Honeycrisp has good color again despite heat, and light first picking underway. McIntosh color is good and some variability in starch.

West Central: Variability in Honeycrisp, but color looks pretty good. More details next week.

Northwest: Gingergold harvest is finishing up. Gala, Macs and Honeycrisp are being looked at, but still immature.

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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