

MSU Fruit Team Apple Maturity Report 2010
Grand Rapids Area Report Number 6
October 8, 2010

General Comments:

Harvest is 90 to 95% complete for the greater Grand Rapids area. This will be the final report for the 2010 season. Water core is present in many varieties this year. Fruit size has been mostly very large due to light fruit set. Keep in mind that typically larger fruits do not hold up as well in storage.

Summary of Grand Rapids apple maturity samples taken October 1 and 5, 2010:

Variety	Ethylene (ppm)	Color % (range)	Firmness lbs. pressure (range)	Starch (range)	Brix (range)
Jonagold	91.4	90.5% (75 – 95)	14.7 (11.2 – 19.1)	8	15.2 (13 – 16)
Rome	0.0453	93% (90 – 95)	20.6 (17.2 – 23.2)	3	12.1 (12 – 12.5)
Fuji	160	70.5% (50 – 85)	17.9 (14.5 – 20.9)	3.2 (2 – 5)	13.8 (13 – 14.5)
Granny Smith	0.0698	15% (5 – 25)	18.7 (16 – 21.3)	2.8 (2 – 5)	11.8 (10 – 14)
Braeburn	0.605	51% (20 – 70)	19.4 (17.1 – 22)	3.2 (3 – 4)	11.8 (11 – 14)

Jonagold

Harvest is complete for Jonagold except for those with u-pick operations. Any Jonagolds left hanging are well into the mature range and are only fit for short term CA or refrigerated storage.

Ida Red

There are a few blocks with Ida Red still to be harvested in the region. No maturity samples have been taken in the last 7 days as the blocks sampled from are harvested. Ida Red is most likely in the short term storage category for CA storage as the predicted harvest date for optimum harvest was September 28th.

Rome

Data from sampled blocks indicate that Romes are ready for long-term CA storage and many are being harvested now. The readings over the last week have been slow to indicate maturity for Romes – at least slower than other varieties have been moving this year. The internal ethylene in the Romes tested this week was still very low with no fruits over 0.2 ppm. Pressure readings are still very high for Romes at an average of 20.6 pounds – very similar to last week. Starch clearing is still a steady 3 which indicates maturity. Brix readings are 12.2% which is up from 11.8% last week. Bleeding

Fuji

The predicted date for Fuji was October 13, 2010, which should be just about right according to the sample data from fruits collected over the last week. Internal ethylene in Fuji's sampled was extremely high, yet the high pressure (17.9 pounds) and moderate starch clearing (3.2) indicates they are on the immature side of harvest. Color has improved from last week to this week at an average of 70.5%. The brix reading is 13.8 on average which is pretty good for Fuji.

Granny Smith

Were sampled for the first time October 1st and again on October 5th. While there are no fruits with internal ethylene over 0.2 ppm, there is a movement towards that over the two dates sampled. Color is only 15%, but a definite improvement from just a few days ago – some fruits are developing a nice blush. Pressure readings are very high which is very normal for Granny

Smith. Starch clearing is 2.8 and brix is 11.8 – both indicate Granny Smith is on the immature side. By early next week, they will probably be ready for some early harvest for any long term CA storage. By later next week they should start to eat a little better.

Braeburn

The predicted date for Braeburn harvest was predicted to be October 13, 2010, which should be just about right on target according to fruits first sampled on October 5th. Internal ethylene readings are showing that 80% of fruits sampled are over the 0.2 ppm mark that indicated maturity. Color is still fairly poor at only 51% overall. Firmness is excellent at 19.4. Starch clearing is just starting to show signs of mature fruits at 3.2. Brix levels are 11.8 which a little on the low side for Braeburn. They probably need another 4 or 5 days to really come into the right numbers for indicating long-term CA storage.

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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