

EASTERN MICHIGAN APPLE HARVEST REPORT

REPORT #7 – October 6, 2010

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APPLE HARVEST SUMMARY

Apple harvest is wrapping up later this week on farms where the crop load was reduced by spring frost. This early harvest season and light crop is making it difficult for many growers marketing their fruit via pick-your-own having varieties available well into October. Many farms have either run out of pick-your-own fruit or are about to over the next weekend. This has required many pick-your-own farms to revert to picking apples out of bins. We have also had many of these same apple growers with a short crop already reaching out to other fruit production areas in the state to buy apples. Most is fruit coming from the Sparta and Belding area. For the few apple growing regions (i.e. Romeo and Almont) and growers that are lucky enough to have a full crop of apples this season, the end of harvest is about ten days to two weeks away. Even at these farms harvest crews have been reduced and as growers can see the end of harvest.

Apple growers are currently working away at harvesting many varieties at the same time. This list includes Red Delicious, Northern Spy, Idared, Crispin and now Fuji. Law Rome are very close to being ready. In sampling done this week Braeburn have continued to move toward maturity as have Winesap. I sampled Enterprise and Granny Smith for the first time of the season, and while they are not ready they are much closer than I thought they would be for this time of the season.

Table 1 Apple Maturity at a glance

Variety	Color (Range)	Firmness (Range)	Starch (Range)	Brix
Red Delicious	94% (92-95%)	15.9 lbs (15.3-16.3)	3.8 (3.5-4.5)	13.3%
Northern Spy	47% (31-73%)	17.9 lbs (17.7-18.0)	4.9 (3.8-6.0)	12.5%
Idared	81% (74-85%)	15.5 lbs (15.0-16.4)	3.4 (2.0-4.3)	12.8%
Crispin	5% (4-5%)	17.4 lbs (15.8-19.0)	6.1 (5.7-6.4)	13.6%
Fuji	67% (58-75%)	16.5 lbs (15.4-17.5)	5.8 (4.6-7.0)	14.2%
Rome (Law)	85% (70-90%)	19.2 lbs (16.6-21.6)	4.8 (3.0-6.0)	13.3%
Winesap	78% (65-88%)	16.8 lbs (16.6-17.0)	2.1 (1.0-3.0)	13.0%
Braeburn	71% (67-74%)	19.1 lbs (19.0-19.1)	2.7 (2.5-2.9)	12.5%
Enterprise	63% (50-75%)	16.8 lbs (15.1-19.1)	2.1(2.0-3.0)	12.7%
Granny Smith	7% (0-20%)	16.7 lbs (14.6-18.5)	3.0(3.0-3.0)	12.4%

INDIVIDUAL VARIETY RESULTS

Red Delicious were sampled for the fourth week of the fall harvest season with another good amount of samples being taken. Red Delicious have moved very slowly over the last four weeks, I have seen a slow and gradual progression in its maturity. This week all of the fruit (100%) are showing internal ethylene levels greater than 0.2 parts per

million (ppm). Color remains about the same at 94%, and the background color has improved as well. The pressure remains firm at 15.9 lbs and starch index averaging 3.8, up from 3.0 last week. The brix is averaging 13.3%. Red Delicious are now eating much better than they did last week and are ready now for long term and CA storage, and could wait a bit longer for short term storage. One concern I have about Red Delicious is that they are picking very easy and I am starting to see a bit of drop in them. Also water core is also a concern as about 30% of fruit that I sampled as I was collecting fruit this week had water core.

Northern Spy were sampled for the fourth week of the season as well. Spy's always produce a lot of internal ethylene, and that trend has continued. The color on Spy has remained about the same at 47% and the background color improved to 3.8. The fruit are still very firm at 17.9 lbs, and the starch index has jumped from 3.1 last week to 4.9 this week. The brix is 12.5%. Northern Spy's indeed are ready for harvest at this time.

Idared were sampled for the fourth week of the season as well. Ida's continue to show a fair amount of internal ethylene greater than 0.2 ppm, now at 97%. The fruit remain well colored at 81% and background is 1.9. The fruit remains firm at 15.5 lbs and starch index has moved to 3.4. Idared is another variety that has ripened very slowly this year compared to most others. While Idared are nearly ready for harvest for long term storage and CA storage at this time, growers could wait about five days or so longer to harvest Idared's. Many blocks of Ida's have a poor finish due to frost/freeze problems.

Crispin or Mutsu were sampled for the third week of the season. Crispin maturity moved along very quickly over the last week, and is now ready for short term storage and for immediate sales. The amount of internal ethylene greater than 0.2 ppm has moved to 95%. The fruit has obtained a nice blush and background color is beginning to break. The fruit remain very firm at 17.4 lbs, and the starch index has jumped dramatically from 3.6 last week to 6.1 this week. The fruit also has a pretty good sugar level for this season, at 13.6%. Crispin and Mutsu indeed are ready for harvest for all sales at this time. There has also been a fair number of blocks that have developed bacterial spot over the last three weeks.

Fuji were sampled for the third week of the season, with a good number of samples being taken this week. There continues to be a fair amount of internal ethylene greater than 0.2 ppm, now at 95%. The color has improved to 67% and the background color has also continued to improve. The fruit remain very firm at 16.5 lbs, and the starch index has moved quickly from 4.3 last week to 5.8 this week. The brix has also improved on Fuji to 14.2%. Indeed Fuji are ready for harvest at this time, even for short term and immediate sales.

Law Rome were sampled for the second week of the season. This week there was quite a jump of internal ethylene greater than 0.2 ppm, and it is now at 70%. The fruit are well colored at 85% and background color is beginning to break. The fruit remain firm at 19.2 lbs, a drop of a half pound pressure from last week. The starch index for Law Rome's has moved from 3.0 last week to 4.8 this week. The brix has stayed about

the same at 13.3%. Law Rome's indeed are ready for long term and controlled atmosphere storage harvest at this time, and are just a few days away from intermediate storage harvest and then a few more days for immediate sales.

Winesap were sampled for the second week of the season. There is a fair amount of fruit with internal ethylene greater than 0.2 ppm in Winesap, now at 87%. The fruit are well colored at 78% and background color is beginning break at 3.0. Fruit remain firm at 16.8 lbs, almost a pound pressure drop from last week. The starch index has moved from 1.5 last to 2.1. Winesap are moving along very slowly and I would estimate at this time that they are about seven to ten days away from being ready to harvest.

Braeburn were sampled for the second week of the season with more extensive sampling being taken this week than last. There continues to be a good amount of internal ethylene levels greater than 0.2 ppm, now at 80%. The color is very good at 71% and background is beginning to break and is now at 2.4. The fruit remains very firm at 19.1 lbs, a half pound pressure drop over the last week. Starch index on Braeburn has moved slightly from 2.6 last week to 2.7 this week, indicating that it is moving along very slowly. It is also beginning to pick up a bit more flavor. Braeburn are not ready for harvest at this time and I would expect that they are about seven days off. More details in next week's sample.

Enterprise were sampled for the first week of the season. There are very few fruit with internal ethylene greater than 0.2 ppm and the color is fairly good at 63%. The background color is a solid 5.0 and pressure at 16.8 lbs. The starch index tested at 2.1 with a brix of 12.7%. Enterprise are one of the latest harvested apples in the season, and I would estimate that they are about two weeks away from being mature at this time.

Granny Smith were sampled for the first week of the season. There is no internal ethylene developing as of yet. The fruit still have a very green background color. Fruit were not as firm as what I thought they would be for this time of year, testing at 16.7 lbs. I was surprised to see the starch index at 3.0 and the brix at 12.4%. This is one season in the last 15 or so where Granny Smith should ripen fairly well. I would estimate however that we are two to three weeks away from the harvest of Granny Smith.

The predicted apple harvest dates table will continue to be included in this update.

Table 2. 2010 Predicted peak harvest dates

Full bloom date				Predicted harvest date			
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	24-Apr	28-Apr	29-Apr	30-Aug	16-Sep	21-Sep	Shane
Deerfield	26-Apr	29-Apr	30-Apr	31-Aug	19-Sep	26-Sep	Tritten
Romeo	29-Apr	30-Apr	1-May	1-Sep	18-Sep	24-Sep	Tritten
Peach Ridge	28-May	30-May	30-May	2-Sep	16-Sep	22-Sep	Schwallier
Ludington	1-May	1-May	3-May	4-Sep	14-Sep	21-Sep	Danilovich

NWMHRS	3-May	4-May	4-May	4-Sep	17-Sep	23-Sep	Rothwell
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If you have any questions regarding this Apple Maturity Report or apple harvest, don't hesitate to email me at tritten@msu.edu or call (810-732-2177). If you would like this information sent to you via email instead of fax or vice versa, please let me know and this can be accomplished very quickly. This same harvest information is also available on the East Michigan Fruit Pest Management Code-A-Phone (810-732-1005).

This Southeast Michigan Apple Harvest Report is produced by Bob Tritten and Debbie Clark, with the great support of Dr. Randy Beaudry and his staff from the Postharvest Laboratory at Michigan State University.

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