

EASTERN MICHIGAN APPLE HARVEST REPORT

REPORT #8 – October 13, 2010

Bob Tritten and Debbie Clark
Michigan State University Extension

APPLE HARVEST SUMMARY

Apple harvest is winding down very quickly at most farms across the region. This week many growers have finished their apple harvest or are waiting on Braeburn and few other miscellaneous varieties to mature then they will be done. Growers in the Romeo/Almont area had a nice crop of apples this year, and are most likely are about a week to ten days away from finishing harvest. This has been a very difficult season for many of our pick-your-own farms across the region. Most now have run out of fruit that customers can harvest on their own. Many of these farms have had to revert to customers picking out of bins, accompanied with a wagon ride and possibly a pumpkin.

Over the last two weeks I can't tell you how many growers have made a comment about how short their crop picked out as they moved through the harvest season. Even growers who knew that they had a short crop of McIntosh and Empire commented that varieties harvested after those were even shorter than those earlier harvested varieties.

In summary growers have pretty much finished up with Idared's and a few late maturing strains of Red Delicious. Northern Spy's, Crispin and Fuji have all been harvested for the most part. Law Rome harvest is also currently taking place, and growers are waiting for Braeburn, Winesap, Enterprise and Granny Smith to finish off. Braeburn are just a few days away from being physiologically mature.

One final note for apple growers is the presence over the last week or so of some late season leafrollers that have been feeding on apples. These are small larvae that in a normal season would not have developed this late in the year. This is unusual; however there has been a lot of unusual things happen this year in the east Michigan apple industry.

This is the final Apple Harvest Report for the 2010 apple harvest season. I trust that you found these reports to be useful in terms of deciding which varieties to pick and has allowed you to move through harvest in an orderly manner. I will be sending you one more email asking for your input and suggestions and to help us evaluate this effort. Look for an email from me in the next couple of weeks that will help provide directions for the future. I hope that you will take advantage of that opportunity, as your feedback is always valuable to me.

Table 1 Apple maturity at a glance

Variety	Color (Range)	Firmness (Range)	Starch (Range)	Brix
Red Delicious	92% (91-92%)	15.5 lbs (14.7-16.3)	4.3 (3.1-5.5)	14.0%
Idared	81% (74-86%)	15.5 lbs (14.0-16.8)	4.5 (4.1-4.8)	13.6%
Fuji	76% (65-90%)	17.5 lbs (15.0-20.5)	6.6 (5.0-7.0)	16.5%
Rome Law	89% (80-95%)	16.8 lbs (14.9-18.6)	5.3 (4.0-6.0)	12.8%
Winesap	91% (85-95%)	16.4 lbs (13.1-19.6)	3.0 (2.0-4.0)	14.3%
Braeburn	75% (70-81%)	19.1 lbs (17.9-20.4)	3.6 (3.5-3.9)	13.8%
Enterprise	74% (60-90%)	15.8 lbs (12.5-18.8)	2.6 (2.0-3.0)	13.2%
Granny Smith	25% (15-35%)	17.1 lbs (15.6-20.1)	2.7 (2.0-3.0)	12.9%

INDIVIDUAL VARIETY RESULTS

Red Delicious were sampled for the fifth week of the fall harvest season, one week longer than what I typically sample Red Delicious. Most blocks of Red Delicious have now been harvested, and growers are now picking later maturing strains. Red Delicious have been very slow to move this year. Some of the results that I will discuss in a minute on this variety are from different strains than were sampled over the last four weeks, so the data is difficult to compare from week to week. Red Delicious are picking very easy, and there is some drop. There is also about 30% to 40% water core at this time. All the fruit tested had internal ethylene levels greater than 0.2 parts per million (ppm). The color remains good at 92% and background color is a solid 1.0. The fruit is still fairly firm at 15.5 lbs, and the starch maturity has moved as an average from 3.8 last week to 4.3 this week. The brix has also improved to 14.0%. Remember that not all the blocks tested this week were the same ones that have been tested more consistently over the run of sampling for the year. Again, Red Delicious are ready to harvest, with the exception of a few later sites and later maturing strains. Because of the drop issues I am encouraging growers to go ahead and harvest those fruit immediately.

Idared were sampled for the fifth week of the season as well. Ida's have been very slow to move through their maturity window this year, just as have Red Delicious. Almost all the fruit (97%) are showing internal ethylene levels greater than 0.2 ppm. The fruit remains well colored at 81% and background is 1.6. Fruit firmness is fairly good for this late in the harvest season, now averaging 15.3 lbs. The starch index has moved from 3.4 last week to 4.5 this week, with a brix of 13.6%. For the most part Idared's have been ready to harvest over the last week or so, and most growers are now finished up on them. Also, understand that two of the samples that I took this week were from blocks that had already been spot picked and therefore I got some of the more later maturing fruit for these samples.

Fuji were sampled for the fourth of the season, with fewer samples being taken this week than the last two weeks, as many blocks of Fuji have now been harvested. All of fruit are showing internal ethylene levels greater than 0.2 ppm. The fruit remain well colored at 76% and the background color has now dropped to 2.1. Fruit remains firm at 17.5 lbs and the starch index has moved from 5.8 last week to 6.6 this week. The fruit

that remains is very sweet, with a brix of 16.5 %, up from 14.2% last week. All blocks tested indicate that Fuji are mature or over mature at this time.

Law Rome were sampled for the third week of the season, with a much smaller sample being taken this week due to the fact that many blocks have already been harvested. Close to 90% of the fruit are showing internal ethylene levels greater than 0.2 ppm. The fruit remain well colored at 89%. The background color has dropped to 2.2 and the fruit firmness has also dropped dramatically from 19.2 lbs last week to 16.8 lbs this week. The starch removal index has moved from 4.8 last week to 5.3 this week, and the brix is averaging 12.8%. With the internal ethylene levels being so high and starch index so high, all blocks of Law Rome are ready for harvest at this time.

Winesap were sampled for the third week of the season, with a smaller sample being taken this week due to many blocks being harvested. All the fruit tested are showing internal ethylene levels greater than 0.2 ppm. The fruit remain well colored at 91%, up from 78% last week. The background color is a solid 1.0 and the fruit firmness has dropped to 16.4 lbs, still good and firm. The starch index is now averaging 3.0, up from 2.1 last week. The fruit has also picked up a fair amount of sugar with a brix of 14.3%. A few blocks of Winesap require three to five more days before they are physiologically mature, so harvest is very close.

Braeburn were sampled for the third week of the fall harvest season with another fairly extensive sample being taken this week. Nearly all the fruit (97%) tested this week showed internal ethylene levels greater than 0.2 ppm, this was up from 80% last week. The fruit color has improved to 75% and the background color is now standing at 3.1. The fruit remain firm at 19.1 lbs, and the starch index has moved from 2.7 last week to 3.6 this week. The brix is 13.8%. Braeburn are still eating a bit green and need a few more days to mature. They are very close however at most farms. I believe that Braeburn will be mature over the weekend or early next week at most farms across the region.

Enterprise were sampled for the second week of the fall harvest season. The number of fruit that have internal ethylene levels greater than 0.2 ppm has jumped to 70%. The color has improved to 74% and background color dropped to 4.2. The fruit remain firm at 15.8 lbs and the starch removal has changed from 2.1 last week to 2.6 this week, with a brix of 13.2%. Enterprise, while not a major variety across this region, are needing about a week before they are mature.

Granny Smith were sampled for the second week of the season, and with a very limited sample taken this week. There are still low levels of internal ethylene, now standing at 20%. The color has improved dramatically on Granny Smith from 7% last week to 25% this week. The background color is still a solid 5.0, indicating that they remain green. The pressure is still firm at 17.1 lbs and starch removal is holding at 2.7. The brix has improved about a half of a percent and is now at 12.9%. If there has been any season over the last fifteen or twenty years that Granny Smith stand a chance to physiologically mature in Michigan, this may be it. At this time I feel that Granny Smith

are at least two weeks away from being ready for harvest. Growers need to keep an eye on the background color and the starch removal index. Unfortunately I will not be doing any more sampling on Granny Smith, so if you have questions about Granny Smith maturity, give me a call and I will share my thoughts as I see the few blocks of Granny's around the region fairly frequently.

The predicted apple harvest date 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

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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