

# EASTERN MICHIGAN APPLE HARVEST REPORT

## REPORT #1 – September 2, 2009

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### APPLE HARVEST SUMMARY

Welcome to the first Apple Harvest Update Report for the 2009 apple harvest. As we move through harvest I hope you find these reports to be helpful in terms of providing up to date maturity information.

I will keep the report format similar to what it has been in the last few years, mainly composed of three sections. The first is an opening to share updates on apple harvest and a summary, the next is a table that lists all of the details of this week's results of testing, and thirdly some detailed information about each variety that is being tested for maturity.

Here is how it all works, each Monday as I visit at least five orchards across southeast Michigan to collect samples. That same day I deliver samples to the Post Harvest Physiology lab at MSU where Dr. Randy Beaudry and his students analyze them starting that afternoon and continuing into Tuesday. The data is then emailed back to me late Tuesday afternoon or evening. I then get up very early on Wednesday morning, average and compile all the data and eventually put this report together. Also part of this report will be the thoughts of my colleagues from across the state, as we participate in an apple maturity conference call each Wednesday morning at 8:00 am. This quick turn around time of key information is important to me and I hope that you find it helpful and useful as you move through harvest.

This report is emailed each Wednesday, hopefully around the noontime. I also post this information on two websites. One of the websites that I have used in the previous season has been hosted by my colleague Bill Shane from southwest Michigan. The link to that site is as follows <http://web1.msue.msu.edu/fruit/ripeapple.htm> . The same information is also posted on a new website here in Michigan, and that link follows as well [www.apples.msu.edu](http://www.apples.msu.edu) . Click on the Maturity/Storage link on the left side of the site. Lastly I post this same information on a weekly basis on the Fruit Pest Management Code-A-Phone. That number is 810-732-1005.

If at any time throughout the growing season you find this information is not useful in its current format, or if you have any suggestions about the content, don't hesitate to either email or call me. I will always include a contact email link, and that follows [tritten@msu.edu](mailto:tritten@msu.edu) . You can also phone me at 810-732-2177.

### APPLE HARVEST SUMMARY

Most apple growers have finished up Paulared's and Gingergold's in the last week or so, and are now waiting for Mac's and Gala's to ripen. This year many growers are also beginning to "eyeball" Honeycrisp as well. I have tested all three of these varieties this week. I feel that McIntosh are much closer to being mature than most people think, and that the Gala are a week

to ten days away. I also feel that Honeycrisp harvest is also a week to ten days off. It is very apparent from the data that I have accumulated over the last two weeks that McIntosh is ahead of Gala this year.

Lastly, I have included and will continue to include the chart that was published and sent to you in July that were the predicted apple harvest dates for McIntosh, Jonathon and Red Delicious. In looking at those dates at this time, I would say that they are not accurate, at least for McIntosh. I think that my dates are more toward the normal harvest dates for each of our varieties. This has been an odd growing season with less than normal degree day accumulation, and has been very cold at all of our reporting stations across the region. The weather station data indicate that we are almost two weeks behind normal in terms of degree day totals. But all season long most of our fruit crops have been harvested just about on their normal harvest dates. It doesn't exactly make sense, but that's how it is.

Variety	Color (Range)	Firmness (Range)	Starch (Range)	Brix
McIntosh	63% (50-81%)	17.2 lbs (15.7-18.6)	4.2 (3.6-5.3)	11.8%
Gala	86% (62-95%)	21.5 lbs (19.2-24.5)	1.8 (1.0-3.0)	11.0%
Honeycrisp	48% (35-63%)	16.8 lbs (15.4-18.1)	2.0 (1.2-3.0)	12.6%

#### INDIVIDUAL VAREITY RESULTS

**McIntosh** has not developed very much internal ethylene at this time, with only 4% of fruit showing internal ethylene levels greater than 0.2 parts per million (ppm). The color has improved on McIntosh over last week, and is averaging 63%; most blocks are very well colored this year. Background color has dropped from 5.0 last week to 4.2 this week and is still a bit off or low. The pressure has dropped dramatically over one week on McIntosh from 20.6 lbs to 17.2 lbs this week. The starch index has moved from 2.8 last week to 4.2 this week, with brix testing at 11.8%. With a starch removal of 4.2, this and other indicators are telling me that McIntosh are fairly close to being ready for harvest for long term storage. For short term sales I think that about a week from now they will indeed be ready. I encourage growers to sample their blocks very closely, being sure to keep an eye on earlier maturing strains and sights. Several of them are ready for harvest at this time.

**Gala** were sampled for the second week of the season with a total of six blocks being tested. With 32% of the fruit is showing internal ethylene levels greater than 0.2 ppm. The color on most Gala blocks is very good, with an average this week being 86%, up from 67% last week. The background color is 1.7, and pressure is still very firm at 21.5 lbs. The starch is 1.8, indicating that they are not ready for harvest at this time. I would estimate that Gala's are about a week to ten days off from being ready for harvest for long term and controlled atmosphere storage.

**Honeycrisp** were sampled for the second week of the season as well, with a much more extensive sampling being taken this week than last week. With 13% of the fruit showing internal ethylene levels greater than 0.2 ppm. The color is improving, but most fruit is poorly colored at this time. The background color is 3.5, with a firmness of only 16.3 lbs. The starch removal

index is at 2.0. All these are indications that Honeycrisp are not ready for harvest at this time. I am concerned the fruit firmness is low at 16.3 lbs. Also understand that when I collect the Honeycrisp samples for testing I pick only the fruit that is the reddest or ripest. I feel at this time that Honeycrisp are about ten days away from harvest. Stay tuned for more details in next week's report.

These 2009 predicted apple harvest dates for McIntosh, Jonathon and Red Delicious that were mailed to growers in mid July. As I indicated earlier I don't think that these dates are accurate for McIntosh this year, as fruit seems to be ripening much sooner than these dates indicate.

**Table 1. 2009 predicted peak harvest dates**

Full bloom date				Predicted harvest date			
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	3-May	5-May	6-May	4-Sep	24-Sep	2-Oct	Shane
Deerfield	4-May	9-May	6-May	5-Sep	29-Sep	2-Oct	Tritten
Romeo	9-May	12-May	13-May	12-Sep	3-Oct	8-Oct	Tritten
Peach Ridge	9-May	12-May	12-May	12-Sep	4-Oct	10-Oct	Schwallier
Ludington	17-May	20-May	20-May	21-Sep	11-Oct	17-Oct	Danilovich
NWMHRS	18-May	21-May	22-May	24-Sep	8-Oct	15-Oct	Rothwell

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

*Project Researchers – Dr. Randy Beaudry MSU Horticulture Department, and Bob Tritten  
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