General comments
Harvest is proceeding rapidly in southwest Michigan with many Honeycrisp orchards finished, and harvesting commencing for Golden Delicious. Labor availability has been adequate to good.

Honeycrisp No new samples were tested this week. The generalized predicted harvest date for Honeycrisp for Berrien County for 2010 is September 3rd, compared to last year’s predicted date of September 20, and the longterm normal date of September 13th.

Empire (6 sites sampled, 3rd week of sampling) Many Empires are harvested. Background color is showing some white highlights. Firmness is averaging 17.4 lb about 2 lbs lower than last week’s 19.4 lb, starch conversion is averaging 4.7 up from 2.8 of last week, and brix is 11.5 slightly higher than last week’s 11.1. Six of seven samples are still in the excellent firmness range, with starch conversion now in the mature range. The 2010 predicted harvest date for Berrien County is September 9, compared to the predicted date of September 29th for 2009 and the longterm predicted date of September 22nd.

Jonathan (7 sites sampled, 3rd week) Flesh firmness average is 17.4 lb, compared to last week’s 18.9 lb. Starch conversion average is 5.2, with a wide range of 2.1 to 7.5. Last week’s average was 4.2. The brix average is 12.6, the same as last week. The 2010 predicted peak longterm CA harvest date for Berrien County is Sept 15 and the normal date is September 22. Starch conversion now tests in the mature to overmature range with firmness still in the excellent range for 5 of 7 sites.

Jonagold (6 sites sampled, 3rd week) Flesh firmness is averaging 17 lb compared to 19.2 lb for last week, starch conversion average jumped to 6.3 a big jump over last week’s 3.6, and brix is averaging 13.2, about the same as last week. Fruit firmness is in the excellent range for longterm CA for 5 of 6 sites. Starch conversion for all sites is in the mature to overmature range. The 2010 predicted date for Berrien County is Sept 15 and the longterm normal is Sept 22. As predicted last week, the firmness has dropped quickly since last week.

Golden Delicious (11 sites sampled, 3rd week of sampling). Flesh firmness is averaging 18.9 lb about the same as last week. Starch conversion average is 2.6, compared to 2.3 for last week, and brix is averaging 13 compared to last week’s 12.1. Most sites still have excellent firmness with a few testing in the mature range for starch conversion. The 2010 predicted date for peak harvest for longterm CA storage is September 19th.
**Red Delicious** (10 sites sampled, 3rd week of sampling). Flesh firmness is averaging 17.6 lb down about 0.5 lb from last week. Starch conversion average is 4.0 compared to last week’s 3.4, and brix is averaging 11.1 compared to 10.6 for last week. Firmness ranges from excellent for longterm storage to midterm storage, with starch conversion generally in the mature range. The 2010 predicted date for peak harvest for longterm CA storage is September 21st and the longtime average is Sept 28th. Red Delicious maturity appears to be slightly running ahead of the predicted date for some sites.

**Idared** (6 sites sampled, 1st week of sampling). Flesh firmness is averaging 18.0 lb. Starch conversion average is 2.2, and brix is averaging 11.2. The 2010 predicted date for peak harvest for longterm CA storage is September 27th and the longtime average is Oct 5th. Idared firmness and starch conversion are all in the immature range.

**Fuji** (6 sites sampled, 1st week of sampling). Flesh firmness is averaging 20.3 lb. Starch conversion average is 2.9, and brix is averaging 12.1. The 2010 predicted date for peak harvest for longterm CA storage is October 12th and the longtime average is Oct 20th. Fuji firmness for all sites are in the excellent range and 5 of 6 sites are just barely in the mature zone for starch conversion. Background color for all samples are still green.

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Figures 1 & 2. Apple maturity trends for SW Michigan. Each dot is the average for an orchard based on a 10 apple sample. Samples were taken in Berrien and Van Buren counties.
Starch Removal Fruit Firmness (lbs)

Jonagold
SW MICH 2010

overmature
mature
immature

Fruit Firmness (lbs)

Jonathan
SW MICH 2010

excellent

Starch Removal

Empire
SW MICH 2010

excellent

Empire
SW MICH 2010

short term CA
mid-term CA
long term CA

Starch Removal

Jonathan
SW MICH 2010

mature
overmature

Starch Removal

Empire
SW MICH 2010

mature

Starch Removal

Jonathan
SW MICH 2010

immature

Starch Removal

Jonathan
SW MICH 2010

overmature

Starch Removal

Empire
SW MICH 2010

immature

Starch Removal

Jonathan
SW MICH 2010

immature

Starch Removal

Empire
SW MICH 2010

excellent
Starch Removal

**Yellow Delicious**

SW MICH 2010

- Excellent
- Acceptable
- Mid-term
- Short term CA

**Red Delicious**

SW MICH 2010

- Excellent
- Acceptable
- Mid-term
- Short term CA

**Fuji**

SW MICH 2010

- Long term CA
- Mid term CA
- Too soft for mid term CA

**IdaRed**

SW MICH 2010

- Excellent
- Acceptable for long term CA