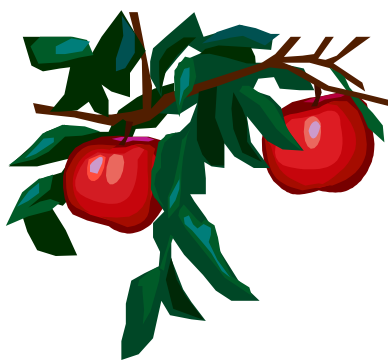


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

SEPTEMBER 27, 2005



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Apple Maturity Update for
North-Central New Jersey 1

Apple Maturity Update for North-Central New Jersey

Win Cowgill, County Agricultural Agent

We continue to be in a drought situation in Northwest NJ, receiving only 0.16 inches from yesterday's hurricane Katrina's leftovers bringing our August and September totals to just over 2 inches, mostly in August. That puts us 6 inches down to date for just that two-month period. Growers that have irrigation should be running it on their tree fruit.

The continued drought in northern NJ has stressed trees; some fruit size reduction has occurred. Trees that go into the winter drought stressed have more potential for winter injury and at this point we are concerned for the reduction of fruit buds in peaches and spur bud health in apples. Drought stressed trees also have fruit that is very loose even if Retained.

Harvesting at the correct maturity. Picked too soon, green apples will be starchy and not have the full flavor components developed, nor the best sugar acid balance. For retail sales most cultivars should be 5-6 on the starch chart and at least 13% Brix (sugar).

Jonagold- is ready at several locations. Starches ranged from 6.5 to 7.6 and brix 13-14% brix.

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
JonaGoRed	Snyder	9/25	no	14.4	13	7.6
Jonagold	Snyder	9/25	no	14.6	12.8	7.6
Jonagold	Pittstown	9/26	yes	16.9	12.9	6.5
Warren	Location	Date	Retain	Pressure	Brix	Starch
Jonagold	Blairstown	9/25	no	14.9	12.4	7.5
Jonagold	Hackettstown	9/25	no	16.1	14.2	7.0

Macoun- Macouns are slow to color this year, the color is off in fruit picked to date. Jon Clements, Extension Fruit Specialist UMass says "harvest when they taste good!" But that means 5-6 on the starch chart and a brix of 13% are better.

SEE APPLE MATURITY ON PAGE 2

APPLE MATURITY FROM PAGE 1

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Pittstown 1	9/26	No	15.9	11.3	3.5
Macoun	Snyder	9/27	yes	15.6	12.2	2.4
Warren	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Hackettstown	9/25	yes	15.8	12.8	1
Macoun	Blairstown	9/25	no	14.1	11.8	3.6
Morris	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Harding Twp	9/26	yes	13	12.9	3.9
Macoun	Myersville	9/26	yes	16.4	12.7	3.6

Cortland is an apple that has increased in popularity with newer strains being highly colored. Cortland is usually picked one week after Macs. They do not starch test well but SI testing can be used as guideline. For Cortland target a starch of 5-6. This year starch indexes are running low on Cortland but most samples tested are ready to pick.

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
RedCort	Pittstown 1	9/26	no	15.6	11.8	2
Warren	Location	Date	Retain	Pressure	Brix	Starch
Cortland	Hackettstown	9/25	yes	16	12.2	2.1

Empire-Was not ready for retail sale type harvest in any sample tested. We would look for starch of 5-6, brix of 13-14%, pressure 16 lbs.

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Empire	Snyder	9/25	no	16.4	10.6	4.3
Empire	Oldwick	9/26	yes	18.8	14	3.4
Empire	Pittstown 1	9/26	no	16.9	12	3.3
Warren	Location	Date	Retain	Pressure	Brix	Starch
Empire	Blairstown	9/25	no	16.3	11.8	3.9
Empire	Hackettstown	9/25	yes	17.3	11.5	2.4
Morris	Location	Date	Retain	Pressure	Brix	Starch
Empire	Harding Twp	9/26	yes	15.3	12.9	3.5

Red Delicious- Was not ready for retail sale type harvest in any sample tested.

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Super Chief	Snyder	9/26	no	16.7	11.4	3.7
Oregon Spur	Snyder	9/25	no	16.3	10.6	2.5
Ace Spur	Snyder	9/25	no	16.3	11	3.3
Red Chief	Pittstown 1	9/25	no	16.4	10	2.5
Warren	Location	Date	Retain	Pressure	Brix	Starch
Red Chief	Blairstown	9/25	no	15.	13	4.6
Red Chief	Hackettstown	9/25	yes	16.6	11.2	2
Morris	Location	Date	Retain	Pressure	Brix	Starch
Red Delicious	Harding Twp	9/26	yes	17	11.6	3.9
Red Chief	Myersville	9/26	no	16.3	11.4	2.6

SEE FUJIS ON PAGE 3

Early Fuji Types- there are four to five new strains of early fuji types, all are getting close to maturity. I have four under extensive testing (30-50 trees each) at the Rutgers Snyder Farm. These include BeniShoegun fuji, September Wonder fuji, Auvil Early fuji, and EarliRed fuji. These are very interesting in looking at the early PYO market with a Fuji type. These are true Fujis as contrasted to the older Yataka Fuji which is not a true fuji.

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
September Wonder	Snyder	9/26	no	15.7	13.2	7.5

Pinova

Warren	Location	Date	Retain	Pressure	Brix	Starch
Pinova	Blairstown	9/25	no	15.6	14	7

Idared is a popular dual purpose apple.

Morris	Location	Date	Retain	Pressure	Brix	Starch
Idared	Harding Twp	9/26	yes	18.8	13.4	3.1
Idared	Myersville	9/26	yes	17.8	11.5	2.1

Golden Delicious

Morris	Location	Date	Retain	Pressure	Brix	Starch
Golden Delicious	Harding Twp	9/26	yes	18	12.6	4
Golden Delicious	Myersville	9/26	no	16.7	12.8	3.5

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Gibson gd	Snyder	9/26	no	16.6	14.4	4.5

Warren	Location	Date	Retain	Pressure	Brix	Starch
Golden Del	Blairstown	9/25	no	14.6	12	7
Red Chief	Hackettstown	9/25	yes	15.8	12.2	4.4

Liberty

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Liberty	Snyder	9/26	yes	19.1	12.4	3.9

What the numbers mean

Several growers have asked for a bit of information on what the numbers mean in our brix and starch iodine tests. The SI is a measure of how much starch has converted to sugar. The lower the number the more "immature" the fruit is. The higher the number the more "mature" the fruit is. We like to have an SI of between 5-6 to harvest for retail sales. Brix is a measure of sugar content of fruit. A brix of at least 12 percent should be present for acceptable eating quality. Pressure is also an excellent indicator of maturity and the "crunch factor". For most varieties I would like to see a pressure of at least 16 lbs at harvest. The exception is Honeycrisp. It has excellent crunch at 13-14 lbs pressure. Studies have shown that it has double the number of cells that give it its unique crunchy texture.

Retain®: Reminder Retain® should be applied 28 days before anticipated harvest and with a 21 day Pre Harvest Interval (PHI). If blocks were not treated with Retain®, it is too late this season to apply except for October maturing apples such as Fuji, Stayman, Braeburn. It is too late to apply to Empire and Red Delicious in NJ.

Note: Retain will not work well if applied to drought stressed trees!

Note: This report takes approximately two days to prepare in collecting and testing samples and in preparation of the text and data. A note of thanks to all who make this report possible beginning with all the growers who participate, M. Compton who assists in obtaining fruit samples, Jim Beyer and Carolyn Fegan research assistants at the Rutgers Snyder Farm. Thank you to Ed Dager for the Snyder weather data. Most importantly thank you to the growers for

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