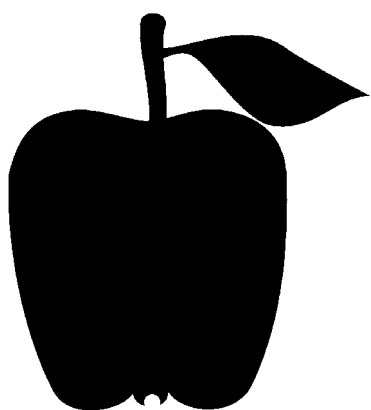


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

SEPTEMBER 18, 2007



INSIDE

Apple Maturity Update for North-Central New Jersey ... 1

Massachusetts and New England Harvest Report ... 3

Wine Grape Information for the Region ... 4

Farmers Market Establishment Series: Competitor & Contributor Review ... 4

Apple Maturity Update for North-Central New Jersey

Win Cowgill, County Agricultural Agent

Apple maturity is moving quickly with the warm sunny days and very cool night temperatures. Excellent red color is occurring throughout northern New Jersey except on JonaGold.

Harvesting at the correct maturity for increased profits.

I guess you can call this paragraph "Win's soapbox." Apples harvested prematurely will not have the best flavor for retail sales. Picked too soon, green immature apples will be starchy and not have the full flavor components developed, or the best sugar acid balance. For retail sales most cultivars should be 5-6 on the starch chart and at least 13% Brix (sugar). Note: harvesting prematurely costs you dollars as apples are rapidly sizing, they will add an additional 5% or more in size if allowed to develop.

McIntosh - Many blocks in North Jersey have been harvested. Those treated with Retain are being harvested now. The past 3 nights have seen temperatures in the high 30's and low 40's. This fruit has colored nicely with sugars developing and ranging between 10.8 -12.4 brix.

Warren-Hackettstown-Date Retain Pressure BrixStarch-Iodine

McIntosh	MacSpur	9/16	yes	13.9	10.8	6.4
----------	---------	------	-----	------	------	-----

Morris-Harding Twp.- Date Retain Pressure BrixStarch-Iodine

McIntosh	Rogers Red	9/16	Yes	13.6	12.4	6.6
McIntosh	Red Max	9/16	Yes	13.7	11.8	6.3

Jonagold - is normally ready at this time but the 3 blocks observed had not developed enough red color. We would like to see a 6 on starch for retail sales and 14-16% brix. We are harvesting Jonagold today at Snyder.

Hunterdon Strain Location Date Retain Pressure Brix Starch

Jonagold-DeCoster	Union Twp.	9/17	Yes	16.7	13.4	4.9
-------------------	------------	------	-----	------	------	-----

Morris Strain Location Date Retain Pressure Brix Starch

Jonagold	Harding Twp.	9/16	yes	17.6	13.2	3.7
Jonagold	King Oldwick	9/17	yes	15.8	11.6	5.4

Warren-Hackettstown-Date Retain Pressure BrixStarch-Iodine

Jonagold		9/16	yes	16.7	12	6.9
----------	--	------	-----	------	----	-----

SEE APPLE MATURITY ON PAGE 2

APPLE MATURITY FROM PAGE 1

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. Cortlands have been harvested across central NJ and are ready for spot picking in northern counties.

Warren	Strain	Location	Date	Retain	Pressure	Brix	Starch
Cortland	RedCort	Hackettstown	9/16	Yes	14.1	10.4	2.6
Morris	Strain	Location	Date	Retain	Pressure	Brix	Starch
Cortland	RedCort	Harding Twp	9/16	yes	15.7	11.6	1.3
Hunterdon	Location	Date	Retain	Pressure	Brix	Starch	
RedCort	Union Twp.	9/17	Yes	15.8	13.4	2.5	
Cortland	Oldwick	9/17	Yes	15.1	12.4	3.6	

Early Fuji Strains - there are at least 6 strains of early Fuji. This is of significant interest to our NJ PYO growers because of the large Asian population in NJ. It has grown to be 10% of NJ's total. There is a significant marketing opportunity to this group with Fuji and the early Fuji strains. Daybreak Fuji was ready at the Morris location.

Morris	Location	Date	Retain	Pressure	Brix	Starch
Daybreak Fuji	Harding Twp.	9/16	yes	12.8	13.1	7.5



DayBreak Fuji- Photo Credits- Jon Clements, UMASS-Extension

Macoun - Macouns have good sugar but still not have full flavor. All are too starchy as indicated by SI testing. None of the blocks tested were mature enough for ideal harvest of this cultivar. Jon Clements, Extension Fruit Specialist UMass says "harvest when they taste good!" But that means 5-6 on the starch chart. Samples tested ranged from 2.9- 3.4. *Harvesting prematurely does not let the consumer experience the full flavor of Macoun!*

Hunterdon	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Oldwick	9/17	Yes	15.4	12.6	3
Warren	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Hackettstown	9/16	yes	16.1	10.8	3.3
Morris	Location	Date	Retain	Pressure	Brix	Starch
Macoun	Harding Twp	9/16	yes	16.8	12.2	2.9

SEE JONATHAN ON PAGE 3

Massachusetts and New England Harvest Report

Jon Clements, UMASS-Extension Fruit Specialist, and Win Cowgill, County Agricultural Agent

As the 2007 apple harvest progresses I don't see too much out of the ordinary. The weather is decent and most orchards got some much needed rain last week -- 3+ inches in Belchertown -- so that has reduced the stress on trees a bit. Macs, Gala, and Honeycrisp treated with ReTain have responded very well to the treatment, although Macs are starting to loosen and drop. ReTain has been very effective at keeping Honeycrisp on the trees, and has nearly halted maturity development in Gala. Gala not treated with ReTain are 5-6 on the SI scale, vs. 4 for ReTain-treated Gala.

Back on July 31 in Issue 14 of Healthy Fruit I predicted the end of McIntosh harvest (for Belchertown for CA storage) to be September 20. This was based on a model that factors bloom date and the average daily temperature for 30 days after bloom. I think it is right on this year, as Macs here have reached SI values of 5-6, which is at the end of where you want to be for fruit destined for long-term CA storage. Of course Mac fruit can still be picked for short-term storage and immediate sale until they are all gone. Recent cool weather has helped color development, which was a bit lacking until recently.

I was up in the Champlain Valley last week and even there color was not as good as I would like to see it. The pickable crop was heavy though, except in the quite a few orchards that had hail damage. Vermont and New Hampshire seem to have suffered the brunt of hail this year, although a few Massachusetts orchards also had some. Overall, I understand the New England apple crop looks pretty good and

harvest is going like gang-busters now especially since we have gotten some cooler weather.

Elsewhere, the lower Hudson Valley has a good crop of apples (they did not have as much of a dry spell in August as we did) and is generally about 4-5 days ahead of us; Western New York has a very good crop; the southeast (south of PA) and lower midwest in particular suffered from the Easter freeze and have light crops; Michigan has a good crop but harvest and maturity are early, with some varieties apparently out of 'normal order' because of the weather? The Washington apple crop is large (120+ million bushels) but overall the U.S. apple crop is 'moderate and manageable' according to industry sources. It should be a decent marketing year.

A reminder that most Honeycrisp in Massachusetts are ready to pick now having achieved SI values of 5 or above. Unfortunately there is no real good way to judge Honeycrisp maturity on the tree, so you have to go by color (if you have it) and taste. By now even green fruit are probably ready to go. Honeycrisp can still be stored at this stage, however, it is recommended that you keep the fruit at ambient temperature (cool, not in the sun) for a couple days after harvest before putting in cold storage. This is to prevent soft scald which can be a problem with this apple.

Note that Gala with no ReTain are being or have been harvested already, however, the ReTain-treated Gala are still on the trees and in fine condition. Mac harvest should be wrapping up this week into early next week. Note that I also publish apple maturity testing results on the UMass Fruit Advisor here: <http://www.umass.edu/fruitadvisor/clements/articles/2007apple/index.html>

And I publish updates and general ramblings about harvest and other orchard happenings on my blog: <http://jmcextman.blogspot.com>. ☐

JONATHAN FROM PAGE 2

Jonathan is an old-time favorite apple popular in the Midwest. It has colored nicely. Ready in Morris but not in Warren Co.

Warren	Location	Date	Retain	Pressure	Brix	Starch
Jonathan	Hackettstown	9/16	yes	16	12.2	4.6
Morris	Location	Date	Retain	Pressure	Brix	Starch
Jonathan	Harding Twp.	9/16	yes	17.6	12.8	6.1

Retain®: Reminder Retain® should be applied 21 to 28 days before anticipated harvest and with a 7 day Pre Harvest Interval (PHI). We are rapidly approaching the end of the window to apply Retain for late maturing apples in Northern 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. Rob Sancheis, Cathy Kloetzili, and Peggy Black for assisting with sample collection and testing. ☐

Wine Grape Information for the Region

Mark Chien, Wine Grape Educator, Penn State
Cooperative Extension

Harvest Information

For many of you harvest has already begun and hopefully it is going well thus far. I usually began planning and organizing for harvest about a month before it would start. Harvest is the culmination of the season and probably the most important time of year in the vineyard. So many elements that go into making good wine must come together during these critical few weeks and some, like the weather, will be out of your control. But the better prepared you are for those components of harvest that you can control; the more likely you are to have a successful vintage. I remember harvest as a chaotic but wonderful time - the beauty of ripe grapes in the autumn light while the birds and bees are out of control, disease is on the brink and the weather is ever so unpredictable. It's enough to drive even the most stable person insane. As much as you plan for every contingency of harvest there will always be events that occur outside of your plan. Be flexible, creative, pragmatic and intelligent in your responses to crisis or uncertainty. As always, safety of people supersedes all other requirements of harvest.

Good luck and have fun!

New Grower Workshops in VA and PA - please mark these dates on your calendar!

Drs. Tony Wolf, Mardi Longbottom (VA Tech) and Fritz Westover (TX A&M), along with regional VA Tech extension personnel will offer a new grape grower workshop in the Roanoke, VA area on, Wednesday, November 14 and, Thursday, November 15. This two-day workshop will be a comprehensive overview of what is needed to develop a commercial vineyard in the Mid-Atlantic region and Virginia in particular. It will include a visit to a local winery. More information and registration will be available shortly.

A second workshop will be offered on Friday, November 16th from 8 a.m. to 5 p.m. at the Fruit Research and Extension Center in Biglerville, PA (north of Gettysburg). It will be an intensive one-day workshop for new wine grape growers. Anyone who is considering starting a vineyard or who has recently planted one should attend one of these workshops. They are packed with practical information that is necessary to establish a high quality vineyard. Part of the day at FREC will be spent in the teaching/research vineyard. If I have done a site visit with you this year and you have not yet attended one of these workshops then you must participate. More information and registration will be available soon.

Submitted by Jerome L. Frecon, Agricultural agent. □

Farmers Market Establishment Series: Competitor & Contributor Review

Jhilson Ortiz, Senior Program Coordinator
- Agriculture

The classification of competitor and contributor for neighboring stores is not mutually exclusive, nor constant. Case in point, when a big retailer established a store in town, the store's offerings were a good reason to consider the newcomer a competitor. However; client traffic and sales increased after the competitor moved in. For the first 6 months sales increased, but they started decreasing afterward due to competitive new products and pricing introduction.

When reviewing businesses in the surroundings of the prospective location, consider:

- Products and activities that neighboring stores have – A convenience store can become an ally, offering products that complement yours. Example of a good complement store would be a specialty store in meats, breads, etc.
- Business location – Businesses located in better-seen locations and sell the same or similar products will be troublesome, even if your products and prices are better
- Business goals – Not every competitor will draw away sales from your store. If you have the right mix of promotion, price, and service, the clients will come. A good example of product/price mixing (in promotion) is manifested in "bulk" sales such as produce baskets targeted to certain consumer groups based on family size and ethnicity
- Business distance – 5 miles distance between each store in a densely populated area should most likely not worry you. The number and concentration of consumers compensates the competition presence. You should worry when you and your competitor are selling to the same consumer group
- Keep consumers informed of your business and social activities with local paper contributions/publications about how your farm improves natural resources, hosts social meetings, and provides new products

And last, not all neighboring retailers will generate the same results. Consumers buy with time and convenience in mind. □



New Jersey Agricultural
Experiment Station

Plant & Pest Advisory
Rutgers School of Environmental
and Biological Sciences
ASB II, 57 US Hwy. 1
New Brunswick, N.J. 08901

FIRST CLASS
POSTAGE PAID
PERMIT #576
MILLTOWN, NJ 08850

PLANT & PEST ADVISORY FRUIT EDITION - CONTRIBUTORS

Rutgers Cooperative Extension (RCE) Specialists and Program Associate

George Hamilton, Ph.D., Pest Management
Norman Lalancette, Ph.D., Plant Pathology
Bradley A. Majek, Ph.D., Weed Science
Peter Oudemans, Ph.D., Small Fruit Plant Pathology
Cesar Rodriguez-Saona, Ph.D., Cranberry/Blueberry Entomology
Peter W. Shearer, Ph.D., Entomology
Daniel Ward, Ph.D., Pomology
Gail Lokaj, Program Associate in Pomology

Rutgers NJAES

Joseph Goffreda, Ph.D., Breeding

RCE Agricultural Agents and Program Associates

Atlantic County, Gary C. Pavlis, Ph.D. (609-625-0056)
Gloucester County, Jerome L. Frecon (856-307-6450)
Hunterdon County, Winfred P. Cowgill, Jr. (908-788-1338)
Morris County, Peter J. Nitzsche (973-285-8300)
Passaic, Elaine F. Barbour, Agric. Assistant (973-305-5740)
Warren County, William H. Tietjen (908-475-6505)
Fruit IPM, Dean Polk (609-758-7311)
Atanas Atanassov, Ph.D., Program Associate (908-788-1338)
Gene Rizio, Program Associate (856-566-2900)
David Schmitt, Program Associate (856-307-6450)

Newsletter Production

Jack Rabin, Associate Director for Farm Services, NJAES
Cindy Rovins, Agricultural Communications Editor

Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The pesticide user is responsible for proper use, storage and disposal, residues on crops, and damage caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact RCE in your County.

Use of Trade Names: No discrimination or endorsement is intended in the use of trade names in this publication. In some instances a compound may be sold under different trade names and may vary as to label clearances.

Reproduction of Articles: RCE invites reproduction of individual articles, source cited with complete article name, author name, followed by Rutgers Cooperative Extension, Plant & Pest Advisory Newsletter.

For back issues, visit our web site at:
www.rce.rutgers.edu/pubs/plantandpestadvisory