RUTGERS COOPERATIVE EXTENSION AT THE NEW JERSEY AGRICULTURAL EXPERIMENT STATION

PLANT & PEST ADVISORY

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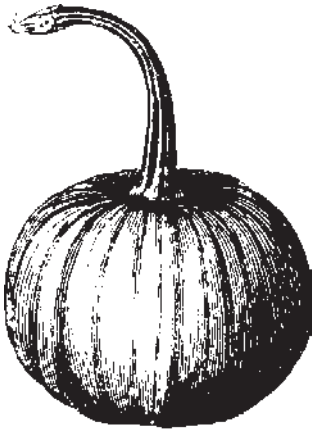

INSIDE

Final Apple Maturity Update for 2004

Win Cowgill, Agricultural Agent

Apple maturity continued to slow with lower average daily temperature. Cool night temperatures continue to enhance red color development. We are still running ahead of last years harvest for most varieties. Reds, goldens and empires have been harvested in Hunterdon County.

Fuji is surprisingly far along (early) running between 4.5 and 6 on the Starch Iodine index at two locations in Hunterdon County with good sugar content (brix). Spot picking of Fuji by color can be done at any time.

This is the last Apple Maturity Report for 2004. With this issue we begin publishing the Plant and Pest Advisory newsletter Fruit edition monthly until next spring. We are including in this report the major fall apples as well to get a baseline on maturity. **Note: please observe** the different harvest dates for each cultivar as you compare the maturities in the charts below.

Macoun- in general has excellent color. Harvest is well underway; Retained fruit is a little behind.

Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch
Macoun	10/04	Yes	16	13	3.5

Red Delicious- is being still being harvested from Retained blocks in Northern NJ.

Warren-Hackettstown	Strain	Date	Retain	Pressure	Brix	Starch
Red Delicious	Red Chief	10/04	Yes	17	11	2.6

Mutsu/Crispin- a large green excellent eating apple. Yellow and or red blush is developing.

Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch
Mutsu	10/04	?	19.6	13.5	3.2

Cameo-is mature enough to be skimmed at most locations by red color. *Washington State recommends the following harvest criteria; at least 15 lbs pressure, 3.5-4.5 SI and 13% sugar.* Cameo was a chance seedling found in Washington State that has been extensively planted. The fruit is firm, crisp and characterized by a highly appealing subacid aromatic flavor. It matures one week before Fuji in normal years, and stores well. It is gaining a following at retail outlets in Northern NJ. Spot picking of the reddest fruit has begun.

SEE MATURITY UPDATE ON PAGE 2

Looking for Stinkbugs

George Hamilton, Ph.D., Specialist in Pest Management

The **Brown Marmorated Stinkbug**, *Halyomorpha haly*s is an invasive stinkbug that was first found in Allentown, PA in 1996. Since then it has spread throughout several Pennsylvania counties and into Hagerstown, MD and the northwestern part of New Jersey. This stinkbug has a large host range that includes peaches, plums, pears, raspberries and many ornamental plants including maple trees. Damage to host plants from the Brown Marmorated Stinkbug is typically small necrotic areas but ranges from leaf stippling, cat-facing on tree fruits, seed loss, and transmission of plant pathogens. In the fall it aggregates just like the Asian ladybird beetle and box elder bug and enters homes and buildings to overwinter where it becomes a nuisance.

In order to help us determine how widespread this insect is in New Jersey, New York and Pennsylvania, the Northeastern Integrated Pest Management Center provided us with funds to create a web site (http://www.rce.rutgers.edu/stinkbug/) that educates people about the stinkbug and allows them to report potential sightings. In addition, we created and a refrigerator magnet that provides pictures for identification and information on how to report a sighting. The state specific magnets have been distributed in New Jersey, New York and Pennsylvania. In New Jersey, you may obtain one at your local County Rutgers Cooperative Extension Office.

Should you come across this insect or similar looking stink bug please visit the web site and file a report or call Rutgers Pest Management Office at 732-932-9802. ❑

MATURITY UPDATE FROM PAGE 1

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Cameo	10/03	no	15.3	13	3.8
Hunterdon-Oldwick	Date	Retain	Pressure	Brix	Starch
Cameo	10/04	yes	15.6	12.5	3.6
Morris-Harding Twp.	Date	Retain	Pressure	Brix	Starch
Cameo	10/04	Yes	14.4	11	3.2

Fuji

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Fuji (Sun)	10/3	yes	16.6	13.5	4.5
Hunterdon-Pittstown 1	Date	Retain	Pressure	Brix	Starch
Fuji	10/4	no	15.3	13	6
Hunterdon-Oldwick	Date	Retain	Pressure	Brix	Starch
Fuji	10/4	No	15	12	4.8

Suncrisp (NJ55)

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Suncrisp	10/3	Yes	17	16	4.8

Stayman

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Stayman	10/3	No	18	11.5	2
Hunterdon-Glen Gardener	Date	Retain	Pressure	Brix	Starch
Stayman	10/3	no	20	10.5	1
Hunterdon-Oldwick	Date	Retain	Pressure	Brix	Starch
Stayman	10/3	yes	15.7	11	1
Warren-Blairstown	Date	Retain	Pressure	Brix	Starch
Stayman	10.3	no	15.4	10	1
Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch
Stayman	10/3	yes	17.7	11	1
Morris-Harding Twp.	Date	Retain	Pressure	Brix	Starch
Stayman	10/4	yes	16.6	11	1

Granny Smith- is further ahead in maturity than expected. Red cheeks have already developed on the fruit observed.

Morris-Harding Twp.	Date	Retain	Pressure	Brix	Starch
Granny Smith	10/4	Yes	16.4	11	2.5

Rome Beauty

Hunterdon-Oldwick	Date	Retain	Pressure	Brix	Starch
Rome	10/3	no	18	10.5	2.5

Enterprise- disease resistant cultivar, red large fruited, very hard late apple maturing 3 weeks after red delicious. It stores well and has potential for processing, excellent for baking. It is field immune to **apple scab**, **fire blight** and very resistant to **cedar apple rust**. It was developed by the PRI program of Rutgers, Purdue, and Illinois.

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Enterprise	10/3	No	16	9	1

How to read the charts on fruit maturity

Starch Index (SI) is a measure of how much starch has converted to sugar in the flesh of the apple. 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. Apples 'eat' best at an SI of 6 or higher.

Brix is a measure of sugar content of fruit. A brix of at least 12 percent should be present for acceptable eating quality, 13-14 is better.

SEE PRESSURE ON PAGE 3

Wine Grape Harvest Report

Mark L. Chien, Wine Grape Agent, Penn State University Cooperative Extension

Reprinted from electronic newsletter, Penn State Cooperative Extension, September 30, 2004.

Boy, what a year. In many parts of Pennsylvania, it was the wettest summer on record. Usually that doesn't bode well for wine quality, but I learned that crunch time for quality is post veraison and if the weather is good in this critical period, well, good wines can happen. Despite the fourth hurricane remnant bearing down on us, the quality of the vintage appears to be very good so far. We have had some gorgeous weather, sprinkled around Frances and Ivan. The sun and low humidity helped to dry out a lot of the **botrytis** and **sour rot** started by those early rains. Yet, my impression of the fruit, especially late reds (vinifera) is that it is very fragile, worn down by a difficult season and not able to take much more weather.

As the fruit begins to break down, I suggest scouting it often and playing the weather game, along with monitoring the effects of bird and bee activity. Scouting in the morning and afternoon would not be a bad idea. Use your nose as much as your eyes. If sour rot becomes too pervasive, it might be time to pick. Wine makers should be involved in all of these decisions. The condition of the fruit can change rapidly. You have to be prepared to respond to these changes by being ready to pick. Tasting reds with visitors from California yielded good flavor development, but the fruit just isn't there yet. Patience will help, but it's all a matter of balance and compromise.

I have also heard from some growers that sugars have hit a wall. I experienced this in Oregon and don't really have an explanation, it can happen even when conditions seem ideal for photosynthesis and what appears to be a healthy and active canopy. The fact is, sugar isn't that important among the essential harvest criteria and a good wine maker can capitalize to bring the alcohol into balance.

Pick on flavor. In parts of Virginia that have been drier, picking decisions are being made purely on grape quality. Here, we are likely to be pushed by disease and birds. Let them hang as long as you can stand. Canopies looked very good late in the season with only downy and some powdery really showing up. It was a tough year for both and, again, the growers did a fine job under difficult conditions. We need an easy year for a breather, not just from tractor hours, but to let the inoculum's load drop.

Botrytis, which showed up early this season on leaves and inflorescence, has been a problem on some of the tight whites but I haven't seen too much in reds. Again, good spraying and just enough dry weather are helping a lot. Grapes in fragile condition need to be handled gently at all points of processing. Care in picking, whether by hand and machine, and at the winery, will help the wine quality in the end. Harvest grapes, red or white, should not be left sitting for very long, especially if they are in large harvest bins (1/2 ton or over), they will juice and oxidize and affect wine flavors. Get them into the tank or barrel as quickly as possible.

We need to retain leaves as long as possible. **Downy** is the biggest threat now to defoliate vines. A post harvest spray of copper (several compounds) or one of the phosphorus acid products will help. Also, for powdery on leaves, an application of sulfur (if the weather cooperates) can also help. The late varieties, especially the reds, need to acclimate gradually into dormancy. Anything you can do to assist this process will help their survivability into the winter.

I welcome your comments about the vintage, especially if you still have fruit out there and are waiting for Indian summer to arrive to pick them at the peak of ripeness. Good luck with the rest of harvest!

Submitted by Jerome L. Frecon, Agricultural Agent. ❑

Editor's Note: This is the last weekly issue of the Fruit edition of the Plant and Pest Advisory for the 2004 season. The remaining issues will be monthly.

Pressure from page 2

Pressure- flesh pressure is taken after the skin is peeled off; two pressures are taken on each apple. Pressure is one of the truest measures of ripening. Pressure declines rapidly as the fruit matures (gets softer).

Note: This report takes approximately two days to prepare in collecting and testing samples and in preparation of the text and data. Six to eight apples of each cultivar are collected at each location.

A note of thanks to all who make this report possible beginning with all the growers who participate, M. Compton and P. Black assisted in obtaining fruit samples. This week M. Maletta and I used the 'team' apple testing approach in the lab. ❑

Basic Vineyard Establishment and Operation Shortcourse

Mark L. Chien, Wine Grape Agent, Penn State University Cooperative Extension

This one-day workshop targets individuals who are exploring winegrape growing opportunities in the mid-Atlantic region (especially VA, PA and MD), or those who desire a "refresher" course. Topics covered include economics, site selection, varieties, and vineyard establishment, including materials and methods. Various aspects of established vineyard management (canopy management, pest management, pruning and training, cold injury avoidance, etc.) are discussed at an introductory level. Classroom principles are reinforced with a review of the AHS AREC research vineyard. As with recent years, the workshop will be team-taught by Tony Wolf (Virginia Tech), Joe Fiola (University of Maryland), and Mark Chien (Penn State University).

When: Friday, 29 October 2004; 8:00 am - 5:00 pm

Where: AHS, Jr. Agricultural Research and Extension Center, Virginia Tech, Winchester, VA.

Information: Tony Wolf, 540-869-2560 x18 (vitis@vt.edu) or Pat Peacock 869-2560 x11

Registration: *Pre-registration is required and registration is limited to first 60 persons:* $125 per person, to include morning coffee/danish, soft-drinks, catered lunch, handouts, and to cover our invited speaker expenses. Check to be made payable to "Virginia Vineyards Association" and mailed to "Grapes", Virginia Tech, 595 Laurel Grove Rd. Winchester, VA 22602. Check must be received by 22 October 2004 to guarantee lunch. **Please Note:** This course typically fills quickly. Registrants are confirmed or denied in the order that registrations are received.

Submitted by Jerome L. Frecon, Agricultural Agent. ❑

Funding Round to Close October 29 for EQIP Applications

New conservation practices eligible for 2005 funding

Tony Kramer, State Conservationist for USDA, Natural Resources Conservation Service (NRCS) in New Jersey announced that the application period for the Environmental Quality Incentives Program (EQIP) will close at the end of October. Applications submitted to NRCS by close of business on Friday, October 29, will be included in the application review for Fiscal Year 2005 EQIP funding.

Mr. Kramer stressed that the funding outlook for EQIP and other conservation program is very positive. Landowners are encouraged to sign up so New Jersey can be in a position to acquire these funds. He also noted that new applicants are welcome, and farmers who have existing contracts may be eligible for funding for new conservation practices.

EQIP in New Jersey has been expanded to include the new conservation practices of Advanced Nutrient Management, Advanced Pest Management, Grass-Based Livestock Systems, and Agricultural Runoff Management to voluntarily meet New Jersey stormwater management regulations. In addition, some expanded components for existing irrigated acres will be cost shared. Agricultural producers who want to take advantage of these or other conservation systems on their operations should apply now for EQIP cost share funding in 2005.

EQIP is a voluntary conservation program administered by USDA-NRCS. Through EQIP, farmers whose applications are approved may receive financial and technical help with structural and management conservation practices on agricultural land. Sign-up for this program is continuous, but funding rounds are set throughout the year to select projects for funding. Additional program information is available at http://www.nj.nrcs.usda.gov, the NJ NRCS website.

To sign up for EQIP, contact any USDA Service Center. USDA Service Centers and office locations are listed in the telephone book under the US Department of Agriculture and can also be found on the NRCS-NJ website.

Hackettstown - serving Sussex, Morris and Warren: (908) 852-2576 ext. 3

Frenchtown - serving Hunterdon, Somerset, and Union: (908) 782-4614 ext. 3

Freehold - serving Mercer, Middlesex and Monmouth: (732) 462-1079 ext. 3

Hainesport - serving Burlington, Camden, and Ocean: (609) 267-0811 ext. 3

Woodstown - serving Gloucester and Salem: (856) 769-1126 ext. 3

Vineland - serving Atlantic, Cape May, and Cumberland: (856) 205-1225 ext. 3

New Jersey's 2005 Deer Fence Program Eligibility Criteria

The fence is anticipated to be high tensile-woven wire 6 1/2 feet in height with two strands of high tensile wire to be placed above the mesh at one-foot intervals. Under this program, up to 30% of the line posts will also be provided. The life expectancy of the fencing is 20 years.

Fence will be bid between galvanized mesh, high tensile tight-lock mesh and high tensile hinge block.

Each eligible applicant shall receive *up to* 5,000 linear feet of fencing and *up to* 30% of the corresponding line posts.

Eligibility Criteria

To be eligible to receive deer fencing and posts under this collaborative effort, an applicant must satisfy the following criteria:

- The applicant must be a New Jersey farmer having documented proof of a minimum of $40,000 in sales of agricultural commodities produced by the applicant on a New Jersey farm OR a New Jersey certified organic farmer having documented proof of a minimum of $20,000 in sales of agricultural commodities produced by the applicant on a New Jersey farm.
- The applicant must be the owner of the land upon which the fencing will be erected or the applicant must rent preserved farmland or farmland that is enrolled in an Eight-Year Farmland Preservation Program.
- The applicant must have a federal identification number.
- The applicant must attend at least one seminar sponsored by Rutgers Cooperative Extension on the proper installation procedures for deer fencing. Proof of attendance must be provided to the Department.
- The fencing installation procedures used must adhere to standards that ensure the fencing provides effective exclusion of deer incursions. Fact sheets such as Rutgers Cooperative Extension fact sheet #FS889 "High Tensile Woven Wire Fences for Reducing Wildlife Damage" as well as manufacturers specifications for installation provide information regarding proper installation procedures.
- Fencing must be installed within one year from the date of issue or returned to the NJDA for redistribution. Any fencing that is returned will be assessed for damage. Failure to install the deer fence within the one-year agreed time frame or failure to install the deer fence according to installation standards that ensure the fencing provides effective exclusion of deer incursions shall prohibit the applicant from receiving deer fencing under any future NJDA or NJDEP programs. In addition, the applicant will be required to reimburse the NJDA for any fencing that cannot be redistributed to other farmers.
- If additional fencing is required, the farmer will be added to the NJDA list for future consideration if additional funding is secured.

Ineligible Applicants/Projects

- Nonprofit organizations
- Fencing erected to contain equine, livestock, poultry or other animals

Distribution of Fence

Fence distribution will take place at the Rutgers Snyder Research & Extension Farm (Hunterdon County) and at the Rutgers Agricultural Research & Extension Center (Cumberland County). Forklifts will be available onsite to load the fencing material. Distribution dates will be determined.

Application Deadline

Applications must be postmarked by NOVEMBER 30, 2004 and returned to:

New Jersey Department of Agriculture
Division of Agricultural & Natural Resources
PO Box 330
Trenton, New Jersey 08625-0330
or by facsimile at (609) 633-7229

Additional Information

Contact the New Jersey Department of Agriculture at (609) 292-5532. ❑

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PLANT & PEST ADVISORY

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