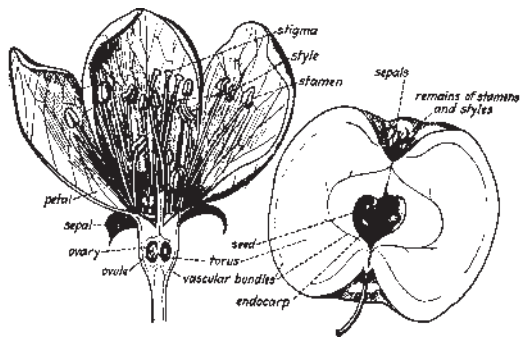


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

SEPTEMBER 7, 2004



Apple Maturity Update for North-Central New Jersey

Win Cowgill, Agricultural Agent

Growers should be observant as apple maturity continues to well ahead of last year's harvest dates, 12 –14 days for us at the Rutgers Snyder Farm in Hunterdon County. In general as I have sampled fruit it has been loose on the drop and some drop has been observed on most varieties.

Please note the harvest date on each cultivar.

McIntosh

Growers in Central Jersey have completed Macintosh harvest for the most part with excellent red color this year. North Jersey should watch their Mac's closely for maturity development and drop.

Warren-Blairstown	Date	Retain	Pressure	Brix	Starch-Iodine
Macintosh	9/06	no	13.6	11	4
Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch-Iodine
Macintosh-MacSpur	9/06	Yes	13.8	11%	4.3

HoneyCrisp

Honeycrisp has pretty much been harvested in central and North Jersey except for Sussex County and Northern Warren, growers should watch for drop, HC was droppy this year.

Cortland

Cortland is an apple that has increased in popularity with newer strains being highly colored. Cortland is usually picked one week after Macs (remember Macs can be picked over 3 weeks if stop drop is used), normally around mid-September at the Rutgers Snyder Farm. They do not starch test well but SI testing can be used as a guideline, target a starch of 5-6. Cortlands tested had sugar but the starch test shows they are not quite ready, however they are loose; growers should apply NAA as a stop drop if they do not plan to harvest in the next 3-4 days.

Warren-Hope	Date	Retain	Pressure	Brix	Starch
Cortland	9/03	Yes	17.4	13	1
Warren-White Twp-M	Date	Retain	Pressure	Brix	Starch
Cortland	9/03	No	14.7	11.2	1
Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch
Cortland	9/06	No	16	11	1

SEE APPLE MATURITY ON PAGE 2

INSIDE

Apple Maturity Update for North-Central New Jersey 1

The Organic Way - How Nutrient Flow Affects Soil and Plant Health 2

Fruit IPM 3

New Jersey's 2005 Deer Fence Program Eligibility Criteria 4

Peach & Plum Variety Meeting 5

Calendar of Events 5

The Organic Way- How Nutrient Flow Affects Soil and Plant Health

Elsa Sánchez, Assistant Professor of Horticultural Systems Management, Penn State University

Reprinted from The Vegetable and Small Fruit Gazette, August 2004, Volume 8, No. 9, Pennsylvania State University Department of Horticulture.

Organic growers manage soils for long-term soil and plant health. It is often recommended that soils, compost and manures be regularly tested to determine nutrient availability, soil pH, cation exchange capacity, base saturation and/or percent organic matter. This is recommended so that management decisions for improving soil and plant health can be made taking these factors into account. Soil testing is an important tool for managing nutrient flow and long term soil and plant health.

Nutrient flow is the movement of nutrients from one place to another. In farming systems nutrients either move into or out of the system. For example, applying compost to a field causes nutrients to flow into the system and harvesting crops cause nutrients to flow out of the system.

There are three basic scenarios for nutrient flow. In the first scenario more nutrients flow *out* of the system than *into* the system. Nutrients used by crops are not fully replaced by inputs like compost, manures and green manures. In the short term successful crop production can be accomplished with this type of nutrient flow, but over the long term nutrients will be less available and soil health, yields and quality will suffer.

In the second scenario more nutrients flow *into* the system than *out* of the system. This can be the case in systems where composts, manures and green manures are applied supplying nutrients beyond crop needs. Over time the system will contain an excess of nutrients or nutrient imbalances. Again, in the short-

SEE NUTRIENT FLOW ON PAGE 5

APPLE MATURITY FROM PAGE 1

Hunterdon-Pittstown	Date	Retain	Pressure	Brix	Starch
Cortland	9/6	no	16	10	1
Hunterdon-Snyder	Date	Retain	Pressure	Brix	Starch
Cortland	9/5	No	17	13	3
Cortland-Royal Court	9/6	No	15	13.2	2
Cortland-RedCourt	9/6	No	17	12	1

Jonagold

Hunterdon-Snyder	Date	Retain	Pressure	Brix	Starch
Jonagold	9/5	No	17	13	2
Warren-Blairstown	Date	Retain	Pressure	Brix	Starch
Jonagold	9/6	No	18	12.5	2

Macoun

Hunterdon-Snyder	Date	Retain	Pressure	Brix	Starch
Macoun	9/6	no	17	11.3	3
Warren-Hackettstown	Date	Retain	Pressure	Brix	Starch
Macoun	9/6	no	15	11.5	4

Johnathan

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Johnathan	9/5	no	17.5	13	3
Warren-Blairstown	Date	Retain	Pressure	Brix	Starch
Johnathan	9/6	no	15	12	3.4

Empire

Hunterdon-Snyder	Date	Retain	Pressure	Brix	Starch
Empire Tome	9/6	no	16	11	2.7
Hunterdon-Pittstown	Date	Retain	Pressure	Brix	Starch
Empire	9/6	no	16	9.5	1.7
Warren-Blairstown	Date	Retain	Pressure	Brix	Starch
Empire	9/6	no	17	11	2

Red Delicious

Hunterdon-Snyder Farm	Date	Retain	Pressure	Brix	Starch
Red Delicious-Ace	9/6	no	13	10	2
Hunterdon-Pittstown	Date	Retain	Pressure	Brix	Starch
Red Delicious-Red Chief	9/6	no	17	11	3
Warren-White Twp-P	Date	Retain	Pressure	Brix	Starch
Red Delicious-Red Chief	9/3	no	17.5	9	2.7
Warren-Blairstown	Date	Retain	Pressure	Brix	Starch
Red Delicious-	9/6	no	16	9.5	2.2

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 for September apples like Red Delicious and Empire, only October maturing apples such as Fuji and Stayman. □

Fruit IPM

Dean Polk, Fruit IPM Agent

Peach

Oriental Fruit Moth (OFM): All insecticide spraying should be done in southern counties, since all but Parade and extremely late varieties have been picked. The 4th brood is about 86% emerged in central counties, and about 1-2% emerged in northern counties. Therefore insecticides need to be maintained in northern counties. Be careful to observe the PHI on the material used.

Apple

Codling Moth (CM) and other internal worms: The 3rd generation is about 40% emerged in central counties and 2-3% emerged in northern counties. Treatments need to be applied for this and other internal worms in central

and northern counties. Codling moth treatments should have been completed in southern counties, but need to be maintained on late varieties until 2 weeks prior to picking for other internal worms. These include **corn borer** and **lesser apple worm**.

Sooty Blotch, Fly Speck and Rots: A number of blocks have several of these summer diseases showing up. Since most growers have been using a good spray program, actual incidence is rather low. However, summer diseases will get worse if fungicides are discontinued, especially on late varieties. Of course spray programs at this time of year need to be tempered with each grower's marketing method. If you press your own cider and process much of you apple crop, a certain amount of summer disease can be tolerated. If you fresh market your crop, then the opposite is true, especially if you have a good number of yellow skinned cultivars.

Insect Trap Captures

Tree Fruit – Southern Counties

WeekEnd	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
30-Jul	2062	5	4	1	11		16	11	22	10
6-Aug	1814	4	7	1	13	15	14	6	45	10
13-Aug	519	6	3	0	10	12	8	7	24	3
20-Aug	453	6	2	0	12	8	10	5	52	1
27-Aug	697	4	1	0	12	75	20	4	33	3
3-Sep	453	2	0	0	7	100	19	3	17	11

Tree Fruit – Northern Counties

WeekEnd	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM- P	LPTB	PTB
6-Aug	452.3	3.4	11.3	0.4	0.0	12.3	21.8	6.5	4.2	5.3
13-Aug	483.8	4.8	4.2	0.1	0.0	1.5	15.1	4.0	4.9	5.6
20-Aug	725.6	2.9	3.5	0.0	0.0	0.5	17.4	2.6	5.0	6.4
27-Aug	747.50	6.7	2.1	0.0	0.0	0.0	14.3	6.6	11.0	7.5
3-Sep	273.8	4.2	0.9	0.0	0.0	1.5	19.4	3.6	7.7	0.9

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. □

Peach & Plum Variety Meeting

Thursday, September 9, 2004

7 - 9 PM

Gloucester County Office of Government Services
1200 North Delsea Drive
Clayton, NJ

Many of you have had a discouraging peach season so it has been hard to get you excited about new varieties. However, we picked some beautiful and large late season varieties I wanted you to see (35 pickings and varieties from August 22-September 8). Some of them include: Autumn Star, August Flame, August Lady, September Flame, Pretty Lady, Arctic Pride, Arctic Snow, Flamin Fury 24B Lucky, Snow Giant, Jersey Star, Snow King, Snow Fire, Lauro, Encore, NJ H48-133, Opale, Zephyr, Topaze,, Zee Jr., Flame Prince and many selections from the USDA-ARS program at Byron Georgia, the NJAES Fruit Breeding Program and the Fruit Acres Program in Michigan. I also have a fabulous plum that has been growing in the Richwood block for 6 years. It always has between 15-25% sugars and has recently been named Ruby Queen.

We're going to meet at 7:00 PM here in our office of Government Services in Clayton. Phil Baugher of Adams County Nursery will be here as well as Dr. Joe Goffreda of the NJAES, Gail Lokaj of Rutgers Cooperative Extension and Paul Friday. Paul & Joe will be bringing samples too.

For further information, contact Jerry Frecon at 856-307-5450 Ext 1. □

NUTRIENT FLOW FROM PAGE 2

term successful crop production can be accomplished, but this also can lead to long-term problems including salt build-up, poor soil structure and low yields and quality.

In the final scenario the amount of nutrients flowing *out* of the system is about equal to the amount flowing *into* the system. This is the best scenario for long-term soil and plant health and the goal for organic farms. Managing nutrient inputs can be challenging on organic farms because composts, manures and green manures have variable amounts of nutrients and release nutrients over a long period of time. Regular soil and compost testing provides a simple way to keep nutrient flow balanced.

References:

Magdoff, F. and van Es, H. 2000. *Building Soils for Better Crops 2nd Edition. Sustainable Agriculture Network Handbook Series Book 4.*

Howell, J. 2004. *Interpreting Soil Test Results and Estimating Nutrient Availability In: Organic Vegetable Production. NRAES – 165.*

Submitted by Rick VanVranken, Atlantic County Agricultural Agent. □

Calendar of Events

September 9, 2004, 7:00 p.m. - Peach and Plum Variety Meeting, Auditorium, Gloucester Office of Government Services, 1200 North Delsea Drive, Clayton, N.J. Contact Jerry Frecon at RCE of Gloucester County for additional information at 856-307-6450, ext. 1.

September 15, 2004 6 to 9 pm - 3rd Annual Farm Safety/Health Twilight Program, Hunter Family Farm, Cinnaminson, NJ. Contact: Donna at RCE of Burlington County at 609-265-5050.

September 23, 2004, 8:00 a.m. - 1:30 p.m. - Core Credit Day. Location: Rutgers Cooperative Extension of Atlantic County.-6260 Old Harding Hwy., Mays Landing, NJ. Contact: For registration and other information contact Jenny Carleo at RCE of Atlantic County at 609-625-0056.

October 14, 2004, 6:30 to 9:30 p.m. - Farms and Farmers in South Jersey: Planning for Agriculture in your Community. Location: Mid Atlantic Food System Education Center, Pennsville School District Office - 30 Church St., Pennsville, NJ. Contact: Jerry Frecon at RCE of Gloucester County at 856-307-6450, ext. 1 for more information.

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