

PLANT & PEST ADVISORY

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Review of the 2004 Peach Season

Jerome L. Frecon, Agricultural Agent

A review of the past year always helps understand some of the things we must avoid in 2005. We had a good winter in New Jersey during 2003-2004 with constant but not excessively cold temperatures so that few fruit buds of any type were damaged. Bloom on peaches was close to normal, maybe 3 days early in mid-April. Flower numbers were both dense and heavy on most varieties. We did have one or two nights with low temperatures during bloom that injured a few peach blocks in low spots.

A significant number of growers bloom thinned peaches because of the mandate to produce fruit that is 2 3/4 inches in diameter on most varieties from Sentry throughout the season. Growers used either chemicals alone or in combination with rope thinners and even quite a bit of hand and brush thinning. Many growers were disappointed in Wilthin because of the heavy bloom and recommended rates that don't seem to do much thinning. With a heavy bloom it always seems like too little is removed. A few growers also tried to do more selective pruning for better size. Unfortunately we had a period of high temperature in May that not only hastened degree-day development but shortened the stage one of peach growth and fruit development. If a peach block had not been bloom thinned it appeared stressed and the shortening of this period with the high temperatures hurt fruit size. This reduction on fruit size also seemed to be exaggerated in peach blocks experiencing a delay in hand thinning to late June. Some blocks of mid season and late varieties did not size well even with ample soil moisture throughout the season.

Because of the advancement in degree-days peaches began to mature about ten days early. Fruit flavor was exceptionally good on early fruit and size was acceptable because this fruit was targeted for early and hard thinning. Problems began immediately with Sentry. This is a major variety and usually has acceptable size because it does not bloom or set up heavily. However it did set heavily and either because growers were waiting for size or because we expected better firmness too many blocks softened quickly and could not be harvested. Prices were not strong and did not cover production and marketing costs on many farms until mid to late August. There was too much 2 1/2 inch fruit that was hard to move but not enough 2 3/4 fruit and larger. There were many areas of southern New Jersey that had heavy rain but there were areas like Hammonton that had normal rainfall. Unfortunately with the cloudy days and excessive rainfall fruit sugars and flavor did not improve

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Blueberry Mulching

George Perry, Commercial Horticultural Agent,
Penn State Cooperative Extension

Reprinted from *Berry Notes, Volume 16, 2004* –
University Massachusetts Cooperative Extension.

Mulch plays a very important role in blueberry production in Pennsylvania. The Highbush blueberry plant is grown on upland soils in most locations of Pennsylvania. Highbush blueberry is naturally adapted to a lowland, acid soil so amendments must be made to the soil for a successful planting on upland locations. Highbush blueberry roots thrive in an open, porous soil which is high in organic matter, well drained and supplied with adequate moisture. Blueberry roots are in the upper 18 inches of the soil. Upland soils are generally drier, higher pH and lower organic content than low land soils. It is important to maintain a constant moisture content near the surface of the soil and optimum soil acidity, one of the most successful ways is using mulch. Annual mulching has been found to reduce weed growth, lower soil temperatures in summer, help maintain uniform soil moisture and develop a better soil structure, prevent heaving and subsequent root injury, control soil erosion and reduce the costs of cultivation.

The following research material is from Blueberry Science by Paul Eck. The favored mulching material is sawdust, preferable a well composted softwood sawdust (Moore and Pavlis, 1979). Pinebark is also excellent and compacts less than sawdust. Four to six inches of mulch are needed initially, with annual additions of one inch of sawdust to maintain the depth. If fresh sawdust is used, an additional 50 to 100 percent N may be necessary for the first few years to compensate for increased microbial activity. Well-composted sawdust requires less supplemental nitrogen. Other organic materials that have been used, not as effective as sawdust, include corncobs, straw and leaves. Manure and stable bedding must be well composted before they are safe to use and even than are not as desirable as sawdust since they may increase soil pH.

In a long term experiment on a commercial Highbush blueberry planting in Arkansas, (Moore and Pavlis, 1979) found that plants continuously mulched with sawdust out yielded plants mulched only for the first year, first two years, or first three years after planting. They also observed that straw mulch was effective, but deteriorated more rapidly than sawdust. The incorporation of peat moss in the soil at planting also resulted in higher yields in following years.

In addition to its use as a mulch, composted sawdust has been found beneficial when applied in the planting hole, particularly in conjunction with the mulch (Brooks, 1972). In these studies fertilizer applications had to be increased threefold to produce vigorous growth. (Cummings, 1981) was able to overcome the harmful

effects of high pH by incorporating sawdust into the soil in which Rabbiteye blueberries were grown. Black plastic has been successfully used as a mulching material in establishing plantings (Bell and Kroon, 1979). Care must be taken when fertilizing under black plastic since fertilizer placed close to the plant crown can cause severe burning. It is probably preferable to work the required fertilizer into the soil before laying the plastic. (Mainland and Lilly, 1984) concluded that black plastic mulch offers a practical method for controlling weeds and encouraging fruiting at an earlier age. They found that a single application of 925 Kg/ha of a 10-10-10 fertilizer incorporated into the soil before laying the plastic provided adequate nutrition for two years, the effective life of the plastic.

A blueberry mulch research plot was conducted over five years by the Extension agent in southeast Pennsylvania. The plot was replicated three times with three mulches: corn cobs, wood chips and sawdust. The plot had four cultivars: Bluejay, Bluecrop, Patriot and Spartan. After five years it was determined there was no significant yield difference. The best mulch of the three is the one you can obtain at the lowest cost. Remember sawdust or wood chips from red maple and beech should not be used. Sawdust or wood chips from those two trees may injure or retard blueberry plant growth.

Source: *Vegetable & Small Fruit Gazette, Vol. 7, No. 5, May 2003*

Submitted by Jerome L. Frecon, Agricultural Agent. □

2004 IN REVIEW FROM PAGE 1

until late in the season. As the peach season finished up movement was good, prices were strong, fruit size and flavor were better. The crop as a whole appeared to be about 50 to 70% of what was estimated at the beginning of the season. This could be attributed to too much small fruit, some soft fruit, and fruit that did not get harvested because of poor prices in the early and mid season, and heavy drop late in the season due to lack of sunlight and heavy winds and rainfall.

Nectarine finish was good and both white-fleshed and yellow-fleshed nectarines brought consistently better prices. Some growers were also able to use their white-fleshed fruit and nectarines to sell the yellow-fleshed varieties. Some growers are interested in planting more late nectarines but we do not have any decent varieties after Fantasia. We also need a better yellow-fleshed variety in Summer Beaut season.

We will continue to find firmer yellow-fleshed varieties and fruit that is genetically larger particularly before John Boy. Of course we must continue to look at ways to produce large crops of large fruit. Our acreage is down sizing so hopefully this will help our markets handle the fruit we produce at decent prices to cover production costs and make a profit. I have never pretended to understand market forces on peaches but know the peach industry is facing many of the same problems in other states. Production costs are too high and prices too low. □

Tuesday February 1, 2005
Wine Grape Program
Mid-Atlantic Fruit and Vegetable Conference
Hershey Lodge and Convention Center
Hershey, PA

* qualifies for category credit

** qualifies for core credit

Wine Grape Session 101 - Pest Management and Keynote Speaker
Morning Session Chair - Mr. Bill Tietjen, Rutgers Cooperative Extension of Warren County

- 9:00 - 9:50 Vineyard Sprayer Opportunities, Challenges and Problems*- Dr. Andrew Landers, Ag Engineering, Cornell University
- 9:50 - 10:20 Experimentation to Monitor and Control Grape Rootborer* - Mr. Martin Keen, Lancaster, PA
New Jersey Pesticide Applicator Units for this session will be provided at the NJSHS Booth.
- 10:20 - 10:30 Move upstairs to Aztec Room
- 10:30 - 12:00 Looking Beyond the Peel Why Health and Nutrition are Basic Ingredients
For The Successful Grower by Ms. Laurie Richards, public speaker and formerly of National Pork Producers Council.
- 12:00 p.m. Adjourn for lunch and Trade Show.

Wine Grape Session 102 - Variety Considerations, Experiences and Trends

Afternoon Session Chair - Dr. Gary Pavlis, Rutgers Cooperative Extension of Atlantic Co.

- 1:30 - 2:00 Choosing Varieties -Temperature and Site Considerations- Dr. Gary Pavlis, Rutgers Cooperative Research and Extension of Atlantic County.
- 2:00 - 2:30 Grapevine Varieties - Standards, Alternatives, and Potentials - Dr. Joseph Fiola, University of Md. Cooperative Extension
- 2:30 - 2:45 Industry Show and Tell
- 2:45 - 3:30 Varieties - Experiences, Challenges and Trends - Grower Panel
Moderator: Mr. Mark Chien, Penn State Univ. Cooperative Extension
NJ: Mr. Franklin Salek
MD: To be Announced
PA: To Be Announced
- 3:30 - 4:00 Varieties, Vineyards, Wineries, Contracts and Marketing Opportunities -
Mr. Mark Chien, Penn State Univ. Cooperative Extension
- 4:00 Adjourn

SEE PAGE 4 FOR SMALL FRUIT PROGRAM

Calendar of Events

January 10-14, 2005 – International Peach Symposium (5 Days) at the Sheraton Hotel, Av.Sta. Maria 11-47, Santiago, Chile, Ch. For more information see website: www.peach2005.cl

January, 11, 12, and 13, 2005 - New Jersey Vegetable Growers Meeting and Trade Show, Borgata Hotel Casina and Spa, Atlantic City, N.J. Contact: Mell Henninger 732 932-9711 Ext 120 or www.rce.rutgers.edu calendar of events for January.

January 19, 2005 – 8:30 a.m. – 4:00 p.m.
– Strategies to Manage Fire Blight, Apple Scab and Cherry Leaf Spot in 2005 at the Adams County Agricultural and Natural Resources Center, 670 Old Harrisburg Rd., Gettysburg, PA. Registration is required. For additional information contact: Sharon Baker, 717-334-6271 ext 348; slb37@psu.edu.

January 25, 2005 – New Jersey State Agriculture Convention (2 days) at the Trump Taj Mahal Hotel and Casino, Atlantic City, NJ Sponsored by the NJ Department of Agriculture, contact: Joan M. Elliott 609-292-8897 www.state.nj.us/agriculture/.

February 1-3, 2005 – Mid-Atlantic Fruit and Vegetable Convention at Hershey Lodge and Convention Center, Hershey, PA. For additional information contact: Jerry Frecon at 856-307-6450 ext 1, frecon@aesop.rutgers.edu or Bill Tietjen at 908-475-6505, tietjen@aesop.rutgers.edu and our web site <http://gloucester.rce.rutgers.edu/>.

February 21, 2005 – Adams County Fruit Growers Educational Meeting at Biglerville High School Auditorium, Biglerville, PA. For additional information contact: Tara Baugher at Penn State Cooperative Extension 717-334-6271 or 888-472-0261.

SEE CALENDAR ON PAGE 4

Wednesday, February 2
Small Fruit Program
Mid-Atlantic Fruit and Vegetable Conference
Hershey Lodge and Convention Center
Hershey, PA

Small Fruit - Magnolia Room ABC

Afternoon Session

- 1:30 Increasing Your Sales by Marketing Nutritional Benefits - Linda Brugler, Produce for Better Health Foundation
- 2:00 **Sprayers for Small Fruit Crops - Dr. Andrew Landers, Cornell University
- 2:30 How to Root Your Own Strawberry Plugs - Scott Walker, Jersey Asparagus Farm
- 3:00 Industry Show and Tell
- 3:15 Dormant vs. Plug Plants for Strawberry Plasticulture - Dr. Joseph Fiola, Univ. of Maryland
- 4:00 Cover Crops for Between Rows in Plasticulture - Peter Nitzsche, Rutgers Cooperative Extension
- 4:30 Adjourn

4:30 Annual Meeting of the New Jersey State Horticultural Society - Tower Suite 2nd Fl.

Thursday, February 3

Small Fruit - Magnolia Room ABC

Morning Session

- 9:00 * Update on Strawberry Disease Management - Dr. Michael Ellis, Ohio University
- 9:30 The Strawberry Plant - What You Should Know - Dr. David Handley, Univ. of Maine
- 10:00 Industry Show and Tell
- 10:15 Bramble Varieties and More - A Grower's Observation - Wayne Lockwood, Maryland Grower
- 11:00 Cover Crops to Precede Berries - Dr. Elsa Sanchez, Penn State Univ.
- 11:30 Autumn Olive - Weed or New Cash Crop? - Dr. Brent Black, USDA
- 12:00 Luncheon Buffet - Great Lobby and Confection Lobby (cash)

Small Fruit - Magnolia Room ABC

Afternoon Session

- 1:30 Bramble Insects - Dr. David Handley, Univ. of Maine
- 2:00 *Update on Bramble Disease Management - Dr. Michael Ellis, Ohio State Univ.
- 2:30 Strawberry, Bramble and Blueberry Pollination - Maryann Frazier, Penn State Univ.
- 3:00 Cultivators for Berry Crops - John Shenk, Shenk's Berry Farm; Ronald Beinlich, Triple B Farm.
- 3:30 *Pest Management Programs for Blueberries in 2005 - Dean Polk, Rutgers Univ.

Adjourn

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February 24, 2005 - South Jersey Fruit Meeting, Gloucester County Office of Government Services, 1200 North Delsea Drive, Clayton, N.J. Contact: Jerome L. Frecon, 856 307-6450 Ext. 1 or http://gloucester.rce.rutgers.edu/calendar_of_events.

March 2, 2005 - In-Depth Workshop on Internal Fruit Worms at Adams County Agricultural and Natural Resources Center, Gettysburg, PA. For additional information contact: Tara Baugher at Penn State Cooperative Extension 717-334-6271 or 888-472-0261.

March 19, 2005 - Grape Expectations - A Viticultural and Enological Symposium", Forsgate Country Club, Jamesburg, NJ. Contact: Dr. Gary C. Pavlis, Rutgers Fruit R & E Center, 283 Route 539, Cream Ridge, NJ 08514, Phone:609-758-7311, X10, Fax: 609-758-7085, E-Mail: creamridge@aesop.rutgers.edu.

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PERMIT #576
MILLTOWN, NJ 08850

PLANT & PEST ADVISORY FRUIT EDITION - CONTRIBUTORS

Rutgers Cooperative Extension Specialists and Program Associate

George Hamilton, Ph.D., Pest Management

Norman Lalancette, Ph.D., Plant Pathology

Peter W. Shearer, Ph.D., Entomology

Gail Lokaj, Program Associate in Pomology

NJAES/Cook College

Joseph Goffreda, Ph.D., Breeding

Rutgers Cooperative Extension 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)

Warren County, William H. Tietjen (908-475-6505)

Fruit IPM, Dean Polk (609-758-7311)

Meredith Compton, Program Associate (908-788-1338)

Gene Rizio, Program Associate (856-566-2900)

David Schmitt, Program Associate (856-307-6450)

NJAES Sustainable Agriculture Coordinator

Olga Wickerhauser

Newsletter Production

Jack Rabin, Associate Director for Farm Services, NJAES

Cindy Rovins, Crop Management Communications Editor

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Rutgers Cooperative Extension - NJAES
U.S. DEPARTMENT OF AGRICULTURE
Rutgers - The State University of New Jersey
Plant & Pest Advisory
18 College Farm Road
Cook College
New Brunswick, N.J. 08901-8551

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