

PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

APRIL 16, 1996

Fruit IPM

For Week Ending 4-11-96

Dean Polk, Agricultural Agent

◆ Apple

More on Mite Control: As mentioned last week, I suggest not planning on mid to late season mite control, since Omite is not labeled (and Kelthane may be close behind). I neglected to point out another option for early season control. Vendex may be used in 1 to 2 early applications at petal fall and first cover. Data from New York has shown good results. However, one should remember that this is a mite control only, and the extra expense at petal fall and first cover does nothing for leafminers or leafhoppers.

Spotted tentiform leafminer (STLM): Trap captures have not increased due to the cool weather. Adults are still laying eggs on developing leaf tissue for larvae to emerge over the next several weeks. Options include Vydate @2.5 to 3 pt/A applied at tight cluster to pink, Provado @5 to 6 oz/A applied at petal fall, or Agrimek. Agrimek will cost from \$47 to \$50 per application, but it will also control European red mite.

Redbanded leafroller (RBLR): The first flight continues as moths deposit eggs for the first brood. Larvae should first be visible around late pink to bloom, and are easily controlled with the petal fall treatment (Guthion or Imidan, or B.t for organic growers).

Apple Scab: Orchards in southern counties are at the 1/2" green to early tight cluster stage, while those in northern counties are at green tip to 1/2" green. As of this writing we had what in some parts of the state was the first scab infection period. Overwintering inoculum levels are normally low prior to tight cluster. If temperatures warm up over the next week, increased inoculum levels will be present. Copper applications for scab control are not advised after the 1/2" green stage. Applications which include a half rate of Manzate, Dithane or other EBDC plus another fungicide (Captan if oil is not an issue, or an SI) are suggested. Ferbam and Ziram may also be used in such a combination and are oil compatible, but are not first class scab materials.

◆ Peach

Oriental fruit moth (OFM): Very few heat units (degree days - °D) have accumulated since biofix in Camden Co. One moth was caught in southern Gloucester Co. on 4/15. No sprays are needed until 200 °D have accumulated after biofix.

Catfacing insects (CFI) including tarnished plant bugs (TPB) and stink bugs (SB): A number of growers have talked about applying

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Blueberry Pests

Sridhar Polavarapu, Ph.D., Entomology and IPM

Blossom weevil: Adults have begun emerging from their overwintering sites. Damaged flower buds have been seen in abandoned fields in Atlantic and Burlington Counties. Only a few adults have been found feeding on flower buds. The bulk of the adult population will emerge in the following 7-10 day period. Please remember that the threshold to treat for blossom weevil is an average of 5 or more adults per bush or at least 1 out of 5 (20%) flower clusters damaged. Adult populations are well below the thresholds in all scouted fields so far.

Red banded leafrollers (RBLR): Adults of RBLR have been caught in pheromone traps in both Burlington and Atlantic Counties. A large proportion of the larval stage of the first generation occurs during flowering period, when only Bt insecticides can be used to control this insect. Control of this first generation larvae is important to minimize chances of RBLR outbreaks in the succeeding generations. The combined treatment threshold for leafrollers, spanworms, and gypsymoth larvae is an average of at least 1 larvae per 100 leaf and flower clusters. □

Proceedings of Blueberry Open House

Jerome L. Frecon, Gloucester County Agricultural Agent

The 1994-1995 Proceedings of Blueberry Open House was published recently. It contains 21 talks on blueberry production and marketing presentations at annual meetings of blueberry growers in New Jersey. The publication is dedicated to Mr. Phil Marucci and contains information on production statistics, WPS standards, mechanical harvesting, clamshell packaging, extending shelf life, pest management, breeding, electronic weather gathering, fertility and disease, and insect biology.

For copies contact Dr. Gary Pavlis, Rutgers Cooperative Extension of Atlantic County, 6260 Old Harding Highway, Mays Landing, NJ 08330-1533, (609) 625-0056. □

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insecticide at the pink bud stage. This is largely a waste of time. Catfacing insects are just about the only insects that are active at this stage. These insects are also known as true bugs and have piercing, sucking mouthparts. Most overwinter as adults in the ground cover. As the weather warms, adults continue to feed, largely on weeds. When the ground is disturbed insects will often fly into the trees and feed on expanding buds and flowers. Feeding prior to shuck split results in bud, flower, or fruit drop, but does not cause visible injury to the fruit (since the flower drops). The most important treatment for these pests, particularly TPB is the petal fall spray. Most organophosphates (Guthion, Imidan) work well against this complex.

Brown Rot: The first brown rot sprays are due at the pink bud stage. Temperatures have been cool and not conducive to rot infection. However brown rot blossom blight can occur at temperatures ranging from 41° to 86°F. Ideal infection temperatures are around 77°F. Infection is also dependent on the length of wetting. Only 3 to 5 hr at 68° can cause infection. At the pink stage, blossom blight is most critical if anthers and other flower parts are exposed, since this is where infection will start. Therefore, varieties that have short petals are the most critical to protect at this stage. A short petal variety at pink should be treated just as it would be treated at bloom. Captan 2 lb/A plus a systemic material (usually an SI like Nova or Orbit) has given excellent control in past years. Benlate is also suggested if there are no records of Benlate resistance. Benlate resistance is known to occur in several southern counties, but not in northern counties.

◆ Blueberry

Insect traps have been placed and pest scouting is underway. Some cranberry weevil (blueberry blossom weevil) has been seen on field edges near woods. Only .1 weevil per bush was noted on 4/12.

Insect Trap Captures

Tree Fruit - Southern Counties

Week Ending	4/4	4/11
RBLR	1.1	0.5
STLM	20.4	7.0
TABM-A	0.0	0.0
CM	—	—
AM	—	—
OFM	0.1	.03
TABM-P0.0	0.0	
LPTB	0.0	0.0
PTB	—	—

Tree Fruit - Northern Counties

	4/4	4/11
RBLR	—	22.0
STLM	—	7.0
TABM-A	—	0.0
CM	—	—
AM	—	—
OFM	—	0.0
TABM-P	—	0.0
LPTB	—	0.0
PTB	—	—

Biofix Dates & Degree Days Since Biofix as of 4/15

	Cam Co.	Glou. Monroeville
OFM	4/5 - 4	4/15 - 0

Mound Peach Tree Planting - After Tree Care

Jerome L. Frecon, Gloucester County Agricultural Agent

Many of you have planted your trees. I am concerned at the number of trees I see that are planted too deep or have soil mounded very high on the trunk. In most soils this could spell serious problems. Fruit tree roots need oxygen for adequate growth. The proper depth is just below the bud union or where the tree was planted in the nursery. Planting the tree too deep or mounding the soil too high above the union may limit root growth, top growth and tree longevity. These problems may be more exaggerated if the soil is heavy, poorly drained or poorly aerated. Deep planting is less of a problem if the soils are very sandy, deep and well drained or aerated. Many growers have probably seen less immediate problems from deep planting in southern New Jersey because they have loamy sandy or sandy loam soils.

Many growers mound soil particularly on sandy soil after planting because they believe it improves anchorage and soil drainage away from the tree. I believe it does immediately improve anchorage but soil drainage would be much improved by planting the trees on a slight 3-9 inch "berm" at the proper depth. The more sandy and better aerated the soil, the lower the berm should be. Well drained, droughty soils will result in more tree stress if the berm is too high.

Mounding soil around the trunk of a peach tree will not cause or increase scion rooting. A peach trunk does not have adventitious buds like an apple. New roots will be developed on the shank of a peach seedling or rootstock because it has growing points, adventitious buds and root hairs. These will all develop into good strong roots for better anchorage. If the tree root system does not get proper aeration because of deep planting this environment will impede the development of this system.

Pruning - Most growers train to an open center system by heading the tree at 30 to 36 inches.

Buds below this cut will push out and develop shoots to form the basis of the scaffold system. Some trees will have many shoots below this heading cut. These side shoots will be cut back to at least 2 buds.

Some growers will make these cuts immediately after planting because this gives the tree the immediate boost it needs to start growth quickly. If it is difficult for you to determine if the trees have viable buds to initiate growth, it may be better to wait until the buds start to "pip" or leaf out. Unfortunately some trees are "piped" prior to planting which might increase transplanting loss. If the trees are large and unbranched, caution is recommended in not cutting before the buds pip.

When these cuts are made it is a wonderful idea to spray with an interior white, water based latex paint - 50% paint and 50% water and 1 tablespoon Benlate 50W per gallon. The fungicide can also be sprayed without the paint. Other fungicides can also be sprayed. The wounds need protection particularly in old orchard sites or brush piles infected with *Cytospora* or *Leucostoma* sp canker.

If the cuts made are not left with a collar or are made with a stub beyond the bud they should be recut with a collar and near flush to the bud. Poor cuts will not heal and are a source of entry of the "canker fungus".

The ideal situation is to make cuts at planting and then core back in late May or early June to make good cuts and select the 3 to 4 scaffold branches to build the opening. □

New Nematode Resistant Peach Rootstock

Robert Belding, Ph.D., Pomology

Peach nursery culture is evolving in a big way with the announcement of a new trademarked clonal peach rootstock by University researchers in South Carolina and USDA scientists in Georgia. **Guardian-81** (formerly BY520-9) is reported to be resistant to **ring nematode**, the major contributor to **peach tree short life**. Peach rootstocks have traditionally been grown from seeds which are less expensive but have less control over the plant's genetics. Clonally propagated stocks, like those used in apple production which are genetically consistent, are now in production for peaches.

The ring nematode feeds on the peach tree roots leaving them weak and susceptible to death by bacterial canker and cold weather. Nematode resistance provides more vigorous, longer tree life, with reduced cost/need for nematicides.

Seedlings of Guardian parentage have been available for testing; however, seedlings vary in nematode response and vigor. All of the seedlings tested from the Guardian genetic line have performed better than traditional seedling rootstocks. Advanced testing of these rootstocks are being done on a national level with the NC-140 regional rootstock project, New Jersey has two peach rootstock tests located at the Snyder Farm and Cream Ridge. I have seen dramatic differences in first-year tree death on severely infested nematode sites in North Carolina. The Guardian rootstocks were significantly better in both survival and vigor.

Researchers are continuing to test the current Guardian rootstock selections that are more acceptable for nurseries and will not experience the variation now associated with bulk seed. Four Tennessee nurseries have now been licensed for production and distribution of the Guardian rootstock. I plan on broader testing and would like to hear of your experience with local plantings. □

Weed Control

Bradley A. Majek, Ph.D., Weed Science

◆ Grape

Apply residual herbicides to established vineyards before growth begins. Use Surflan or Devrinol or Solicam for **annual grass** control. Solicam also suppresses **perennial grasses** and **yellow nutsedge** when sprayed at the maximum labeled rate for the soil texture. Tank-mix with Karmex or Princep to control most **annual broadleaf weeds**. Add Gramoxone and nonionic surfactant to kill emerged seedling weeds. Spot treat with Roundup to control established weeds. Consult the [Commercial Production Recommendations](#) for rates and additional information. □

Wildlife News

Roger Locandro, Ph.D., Agriculture and Natural Resources

Newly proposed Wildlife Regulations are designed to enhance the deer harvest and aid in continued relief to crop damage. One of the most significant changes will be the proposed multiple, bonus antlerless deer harvest report tag. In areas of high crop damage and projected need for herd reduction, hunters will be able to continue to harvest antlerless deer until they harvest a buck.

Fall Turkey season has also been proposed for 1997. New Jersey turkeys responding to the optimum habitat and growing conditions have rapidly populated a large part of the state. There was evidence of wild turkeys at Liberty State Park last fall! ****CALL FOR ACTION**** Extension faculty should begin documenting damage by turkeys (photos, measurements, dates, places and interviews will help).

According to a Congressional Foundation, American Sportsmen support 1.3 million U.S. jobs, provide \$28.8 billion U.S. salaries, \$4.5 billion in state and federal tax revenues with a combined economic multiplier effect of \$104 billion! □

New Peach Series from Michigan

Jerome L. Frecon, Gloucester County Agricultural Agent

Many growers in Southern New Jersey have been looking at the Flaming Fury series of peaches developed by Paul Friday of Coloma, Michigan. The peaches have been heavily promoted by Mr. Friday and various nurseries. The first varieties of this series were planted in my test blocks in 1991. Additional varieties of this series have been planted each spring. Originally designated with a Paul Friday test number, those varieties with the best horticultural characteristics have been patented and trademarked with the name Flaming Fury and a numerical designation that corresponds with the test number. For example, Paul Friday #1 has been named Flaming Fury #1. While naming varieties in this manner may have some benefits, it can also be confusing to the grower and marketer. Many growers have asked me, for example, what do you think of that Flaming Fury peach? My standard reply is, which one?

While I have evaluated seven Flaming Fury varieties, I am not in a position to recommend them at this time. I simply have not seen them enough. I have evaluated them enough to state that each Flaming Fury variety has different horticultural characteristics. No doubt some varieties will be excellent while others may not be as great. Will the grower and marketer remember the good Flaming Fury varieties or the bad Flaming Fury varieties? If he remembers the good this will help both the sale of trees and fruit; if he remembers the bad, this may hinder both. The fruit on most varieties appears to be of good color and reasonable firmness. Detailed observations of these varieties are included in [Research Report No. 5 - Peach and Nectarine Cultivar Evaluations](#).

Not as widely planted in Southern New Jersey are the Fruit Acres Stellar Series developed by the late James Friday of Coloma, Michigan. They have been evaluated and introduced by Mr. and Mrs. Randy Borje, owners of Fruit Acres, and Mr. Wally Heuser of Summit Sales in Lawrence, Michigan. Each variety of the Stellar Series has a different horticultural name. Unlike the Flaming Fury series some varieties have white flesh. I have evaluated Blushing Star, Red Star, Starfire, and a number of other varieties with the Fruit Acres numerical designation. The first trees were planted in 1991 and subsequent selections have been planted the past two years. I have not seen the varieties long enough to make a recommendation. They each have reasonably good color and flesh firmness. The variety Blushing Star is very interesting because of its firm white flesh and attractive red skin color. Detailed observations of these varieties are included in [Research Report No 5 - Peach and Nectarine Evaluations](#). This report can be ordered by sending \$3.00 to Rutgers Cooperative Extension of Gloucester County, 1200 North Delsea Drive, Clayton, New Jersey 08012. Enclose check payable to Gloucester County Extension. □

Correction

To April 9th Newsletter Regarding Apple Chemical Thinning With Vydate L

Win Cowgill, Hunterdon County Agricultural Agent and Robert Belding, Ph.D., Pomology

Last week it was mistakenly reported that Vydate L has a label for chemical thinning in New Jersey. Vydate L IS NOT labeled yet for apple thinning in New Jersey. Based on our field trials in 1995 on apples, Dr. Robert Leavitt, Senior Development Representative for DuPont reports that a special 24-C label has been applied for with EPA to allow Vydate L to be utilized in New Jersey this season. We have not had a response yet from EPA. We will keep you posted via this newsletter if the label is granted for this season.

DuPont may be applying for a federal label for Vydate L for Apple Thinning in 1997 but until then each state must have a 24-C label in order to use this product.

In next week's newsletter we will outline chemical thinning strategies for Apple this season. We will also be conducting thinning trials in apple and peach this season to develop the best recommendations for New Jersey fruit growers. □

Note to Fax Recipients

We apologize for inadvertently faxing you the first issue twice.

If you have any problems with your fax transmission, such as cut off pages, etc., let us know by faxing a note to (908) 932-9838 or calling Cindy Rovins at (908) 932-9395.

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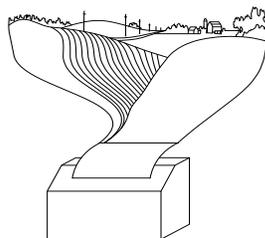
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Documents of Interest:

- ✓ Pesticide Labels
- ✓ Fact Sheets
- ✓ Forms



Twilight Fruit Meeting In Camden County

April 23, 1996, 7:00 p.m.
**Donio Farms, Old Fork
Road, Hammonton, NJ**

- *Update and Observations on Tree Fruit Insect and Disease Activity* by Gene Rizio, IPM Program Associate - Tree Fruit, Rutgers Cooperative Extension
- *IPM Tree Fruit Recommendations & Observations* by Dean Polk - Statewide IPM Agent, Rutgers Cooperative Extension
- *Update on Disease Control & Technology in Tree Fruit* by Dr. Norman Lalancette, Extension Specialist in Plant Pathology, Rutgers Cooperative Extension
- *Update on Insect Technology and Control in Tree Fruit* by Dr. Peter Shearer, Extension Specialist in Plant Pathology, Rutgers Cooperative Extension
- *Update & Comments on Crop Management, Fertilization, and Rutgers Cooperative Extension Programs* by Jerome L. Frecon, Agricultural Agent, Rutgers Cooperative Extension of Gloucester County
- *Update on Changes to Worker Protection Standards and Pesticide Safety* by Dr. George Hamilton, Specialist in Pesticides, Rutgers Cooperative Extension

Pesticide recertification units for category and core will be given at the close of meeting for those attending

Other Meetings will be:

- ✓ April 30, 1996 - Gloucester County Office Building, Clayton, N.J.
- ✓ May 8, 1996 - Rutgers Research & Development Center, Bridgeton, N.J.
- ✓ May 22, 1996 - Zee Orchards, Glassboro, NJ

For more information call Gloucester County Cooperative Extension (609) 863-0110.

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PLANT & PEST ADVISORY

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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact Rutgers Cooperative Extension of your County.

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