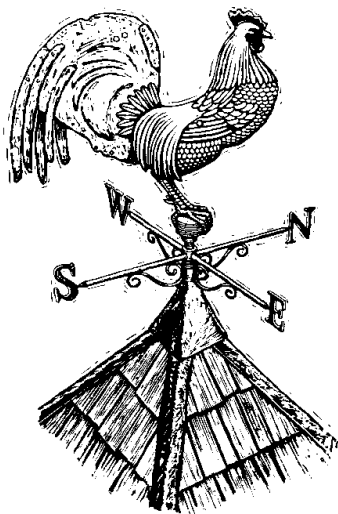


# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

MAY 21, 1996



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## Wide Spread Freeze Damages Fruit

*Winfred P. Cowgill, Jr., Hunterdon County Agricultural Agent and William H. Tietjen, Warren County Agricultural Agent*

The cold temperatures on Monday, May 13 and May 8 have damaged fruit crops across the midwest, northeast and northern New Jersey. Mark Longstroth of Michigan State University indicated a severe classic radiation freeze with temperatures in the fruit growing districts from 31° to 20°F and dew points around 20. Tree fruit orchards were in the 27° to 25° range. Good high sites were generally above 27°. Tart cherries were approaching full bloom and suffered 10-25% damage (2-5% of Michigan's total). Peaches did suffer but many of the poorer sites had already lost their fruit buds to a radiation frost on Feb. 3 with temps from -13° to -20°. Plums and pears seemed to escape heavy damage. Apples lost their king bloom and some of the side bloom. Poorer sites were virtually wiped out.

Rob Crassweller, Penn State University, reported central and western PA were hit hard by the frost. He estimated that this area lost 80% of the fruit. Growers around Bedford, PA also report heavy damage. George Green, Penn State University, reported some amount of damage in the Biglerville, Pa. area, but as of Friday it did not look too extensive.

Richard Hefleblower, University of Maryland, reported that last Tuesday morning, May 14, much of our apple growing area suffered temperatures in the upper 20s. Apples were around 7-9 mm in size. Some browning of fruitlet observed.

Ken Petersen, RCE IPM, reports: "In northwestern NJ/Orange County NY we had temperatures as low as 22 °F in some isolated locations (mostly poor sites in valleys). In these spots, growers that didn't have their wind machine running or fires burning, had almost 100% loss to both apples and peaches. On any lateblooming varieties, the inside of the flower was frozen/black and will not bloom".

Peter Shearer and Jerry Frecon, Rutgers Cooperative Extension, report that there was little or no fruit injury in southern New Jersey.

Temperatures in northern New Jersey ranged from 22° F-35° F. The injury to fruit is site and cultivar specific. Growers from northern Hunterdon county appear the worst hit. In addition to cold injury many north Jersey growers have had poor pollination conditions and fruit set is extremely variable. Decisions on chemical thinning of apples must be made block to block.

Growers who expect serious crop loss should contact the USDA Farm Service Agency today to document the loss. This is necessary since a preliminary report will be submitted to the state office on Friday. □

# Growers Needed for Farmers' Markets

Ramu Govindasamy, Ph.D.,  
Marketing

## Six More New Jersey Communities To Host Farmers' Markets

Based on last year's success in nearly 20 Northern New Jersey communities, additional towns will hold weekly markets during the 1996 growing season. To make the markets successful, growers of fruits and vegetables are needed to participate. Extensive publicity campaigns are underway to assure that large crowds will greet growers when markets open. The six new towns planning first year markets and their schedules are:

Town	Day	Hours	Season
Summit	Sunday	10 am-3 pm	June 16 to Oct. 27
Westfield	Thursday	2 pm-7 pm	June 13 to Oct. 31
Hoboken	Tuesday	3 pm-8 pm	June 18 to Oct. 29
Highland Pk	Friday	Noon-7 pm	June __ to Oct. __
Highlands	Saturday	8 pm-2 pm	June 15 to Oct. 12
Parsippany	Saturday	9 pm-2 pm	June 22 to Oct. 26

Prominent market site locations have been selected with ample room for growers to set up and residents to park while they are shopping. Fees to participate are modest and are used to promote and manage the markets.

All participating North Jersey Farmers' Markets can be easily reached from major highways including the Garden State Parkway, New Jersey Turnpike, Interstates 78, 80 287, and 280.

This a joint project of the North Jersey Farmers Market Council, Department of Agriculture, Rutgers Cooperative Extension Service, USDA Natural Resources Conservation Service, and participating communities.

In addition to the six new towns planning farmers markets in 1996, several other towns have openings for growers wanting to participate. For information and to sign up for the markets of your choice, please call Dr. Ramu Govindasamy (908) 932-9171 Extension 25, or Pete Nitzsche, Morris County Cooperative Extension (201) 285-8300 or Ed Ferdon at (201) 748-1265. □

# Fruit IPM

Week Ending 5/24/96

Dean Polk, IPM Agent - Fruit

## ◆ Apple

**Spotted tentiform leafminer (STLM):** Both sap feeding and tissue feeding larvae are present in southern counties. Only sap feeding larvae are susceptible to insecticide treatments. Fortunately, we have not seen populations which are above threshold levels that need insecticide treatments. All STLM larvae in northern counties are in the sap feeding stage.

**Tufted apple budmoth (TABM):** Adults have been caught in most areas of the state. The first insecticide applications are due in southern counties on or around June 1 to 2. Alternate middle treatments are due at 490, 625, 763, and 898 °D after first moth catch (biofix). Southern counties should be at the 490 mark around June 1. Use at least 100 gal of spray volume per acre on mature M7 size trees or larger. Guthion and Imidan do not work well against this pest in problem areas. If using Penncap as part of the TABM spray program, make sure there are no flowering weeds in the ground cover. Penncap is very toxic to bees. Clean orchard floors make it a lot easier to use this product. If 2,4-D has not been used, and broadleaf weeds are present, then frequent mowings are advised. This eliminates the weed flowers and minimizes bee activity.

**White apple leafhopper (WALH):** Populations are low in most orchards. First generation hatch has finished, and both nymphs and adults are present in southern and northern counties. The highest populations have been less than .5 nymphs per leaf.

**Codling moth (CM):** Based on adult trap captures (biofix points) and degree day (°D) accumulations, the first treatments for this insect will be due in southern counties around May 27 to 28. Since we only recently started catching CM in northern counties, sprays will be due in those areas from 1 to 2 weeks later.

**Apple aphids:** Aphids are starting to show up in several locations. From 2 to 3% of the terminals are infested with small colonies on some farms. This is not a concern at this time. We usually wait until 50% of the terminals are infested before a specific aphicide is justified. The repeated use of Lorsban 50W @1.5 lb/A in combination with another insecticide for TABM control has often suppressed aphid populations, and permitted growers to get by without the additional expense of Cygon for aphid control.

**Apple scab:** More active scab has showed up this past week. If using alternate middle sprays, do not let the "old side" to completely weather off before additional infections take place.

**Powdery mildew:** Mildew is present in several orchards in the Richwood, Gloucester County area. Both processing and fresh market varieties are affected. Sulfur @10 lb/Ac added to the regular fungicide program is the least expensive control on processing fruit. Since sulfur may russet the fruit, growers may not wish to use it on red delicious or other fresh market varieties. Neither captan nor the EBDCs control mildew. Benlate / Topsin and the SI materials do control this disease.

## ◆ Peach

**Oriental fruit moth (OFM):** The second of the 2 first generation sprays was due in southern and central counties this past weekend, and will be due in Hunterdon County this Tue. to Wed., and in Morris

County by this coming weekend (5/26-27).

**Catfacing insects:** Samples taken in Gloucester county on 5/20 showed as many as 5 to 12 tarnished plant bugs (TPB) per 50 sweeps in the orchard ground cover. Both nymphs and adults were found. The orchard floor consisted of many broadleaf weed species. This type of orchard floor is very favorable for TPB development. In addition, wooded areas bordered this orchard. These types of insects are often found in abundance in the orchard / woods interface area. Minimizing weeds can often minimize the levels of catfacing insects present, and in turn lead to decreased insecticide use.

**Brown rot:** Blossom blight is common in several orchards. Both sporulating blossoms and cankers were observed this past week. Where blossom blight is present, sulfur alone is not recommended. The presence of blight represents a higher than normal amount of inoculum present in the orchard, and thus requires better brown rot materials. Captan @4 lb/Ac is the minimum that should be used when blossom blight is plentiful. Indar is one of our most effective brown rot materials. One or two applications of this material may help to deactivate sporulation at this time of year.

**Peach scab:** Scab lesions on last year's wood are still sporulating. Any block that had scab last year will have sufficient inoculum to cause infections this year. Benlate @ 8 oz/A plus Captan @ 2 lb/A provides the best control in problem blocks, providing there is no resistance to Benlate.

### ◆ Blueberry

**Cranberry fruitworm (CBFW):** While traps were placed in both cultivated and abandoned fields 2 weeks ago, no CBFW adults have been caught as of 5/20. Emergence should take place in the very near future.

**Redbanded leafroller (RBLR), Obliquebanded leafroller (OBLR), and Green fruitworm (GFW):** A few leafroller larvae are still present in cultivated fields. Only 4% of our samples showed populations which may be worth treating. A small amount of green fruitworm damaged berries was also scouted. Green fruitworm damage can be distinguished by large, deep chewed-out areas in individual berries.

**Mummy berry and other diseases:** The shoot blight phase of mummy berry was seen in a couple of locations. Blueberry Scorch virus symptoms are slightly more pronounced than last week in two areas of Burlington County.

### ◆ Insect Trap Captures

Week Ending	4/5	4/12	4/19	4/26	5/3	5/10	5/17
<b>Tree Fruit - Southern Counties</b>							
RBLR	1.1	1.9	16.3	47.9	43.0	13.7	4.0
STLM	20.4	48.1	1236	1282	1215	1334	744
TABM-A	—	—	0.0	0.0	8.4	5.9	5.8
CM	—	—	0.0	0.0	0.0	0.4	1.7
AM	—	—	—	—	—	—	—
OFM	0.1	.03	0.5	20.7	29.0	21.4	6.6
TABM-P	—	—	0.0	0.0	0.32	2.2	7.4
LPTB	—	—	—	0.0	0.05	1.8	20.8
PTB	—	—	—	—	—	—	—

## Farmer's Market at NJTP Service Area

Ramu Govindasamy, Ph.D.,  
Marketing

A Farmer's Market is anticipated to start in May 1996 at the Molly Pitcher Service Area (7S) on the New Jersey Turnpike, Cranbury Township, Middlesex County. The market will be set up outside, adjacent to the snack bar facility. Operating hours will be determined by the Farmer's needs. Anticipated time is 9:00 a.m. to dusk.

Farmers must be New Jersey Farms selling only fresh Jersey products. Approximately 75% by commodity of the Farmers' produce is required to be home grown. An annual fee may be charged, but will not exceed \$15.00.

Each Farmer is required to submit a proposal plan of operation, which will indicate how the Farmer will operate and what is necessary to efficiently run the operation at this particular Farmer's Market. The operating plan is subject to approval by the Turnpike Authority. If a Farmer does not comply with the rules and regulations set forth by the Turnpike Authority, the Farmer will be subject to removal from the Farmer's Market on the Turnpike.

For additional information, please contact Ramu Govindasamy at (908) 932-9171, Ext. 25. □

### FYI

The following address change is effective May 16, 1996:

U.S.D.A. - Farm Service Agency  
51 Cheney Road, Suite 2  
Woodstown, NJ 08079  
Phone: 609-769-1126 Fax: 609-769-0718

See IPM on page 4

# Calendar of Events

**May 22, Wednesday, 6:30 pm**  
 Twilight Fruit Meeting in Gloucester County  
 Zee Orchards, 708 Mullica Hill Road (Rt. 322 near #55 exit), Glassboro  
 Contact Jerry Frecon, RCE of Gloucester County, (609) 863-0110

**May 30, Thursday, 3:00 - 8:00 pm**  
 Twilight Fruit Meeting and Strawberry Breeding Showcase  
 Rutgers Fruit Research & Development Center, Cream Ridge  
 Contact Joe Fiola, Rutgers Fruit Res. & Dev. Center, (609) 758-7311

## IPM from page 3

### Tree Fruit - Northern Counties

RBLR	—	22.0	41.5	63.6	34.6	0.21	20.0
STLM	—	7.0	355	506	417	450	199
TABM-A	—	—	0.0	0.06	0.1	0.03	0.5
CM	—	—	—	0.0	0.2	0.21	0.3
AM	—	—	—	—	—	—	—
OFM	—	0.0	2.5	1.3	14	11	3.2
TABM-P	—	—	0.0	0.02	0.0	0.0	0.5
LPTB	—	—	0.0	0.0	0.0	0.0	0.4
PTB	—	—	—	—	—	—	—

### Blueberry - Atlantic County

RBLR	—	14.4	51	106	79.2	24	4.1
OBLR	—	—	—	—	—	.02	0.4
CBFW	—	—	—	—	—	0	0
SNLH	—	—	—	—	—	—	—
BBM	—	—	—	—	—	—	—

### Burlington County

RBLR	—	3.8	8.8	51	23.9	14.7	2.8
OBLR	—	—	—	—	—	0	0
CBFW	—	—	—	—	—	0	0
SNLH	—	—	—	—	—	—	—
BBM	—	—	—	—	—	—	—

### Abandoned Fields (both counties)

RBLR	—	1.0	7.0	23.7	23.5	12	1.5
OBLR	—	—	—	—	—	0	0
CBFW	—	—	—	—	—	0	0
SNLH	—	—	—	—	—	—	—
BBM	—	—	—	—	—	—	—

## Insect Degree Day Accumulations as of 5/20

Insect	Site & County Biofix Date plus Degree Days Since Biofix						
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	Bridgeton Cumb.	Hammonton. Cam.	Hardingville Glou.	Richwood Glou.	Princeton Mercer	Oldwick Hunt.	Morristown Morris
OFM <sub>45</sub>	4/20 - 452 hit 200 on 5/2 hit 400 on 5/19	4/5 - 521 hit 200 on 4/27 hit 400 on 5/13	4/19 - 467 hit 200 on 5/1 hit 400 on 5/18	4/17 - 471 hit 200 on 5/1 hit 400 on 5/18	4/19 - 302 hit 200 on 5/3 predict 400 on 5/19	4/22 - 363 hit 200 on 5/9 predict 400 on 5/21 - 22	4/24 - 305 hit 200 on 5/14 predict 400 on 5/26
TABM <sub>45</sub>	5/4 - 239	5/3 - 251	5/2 - 267	5/2 - 267	5/13	5/20	
CM <sub>50</sub>	5/8 - 134	5/8 - 135	5/8 - 135	5/8 - 135	5/11	5/20	5/20

All reported accumulations based on Skybit Inc. data, except Hammonton. OFM base = 45, max = 90, TABM base = 45, max = 91, CM base = 50, max = 88.

Spray targets based on: OFM: 200 °D after biofix and again 200 °D later (first generation only)  
 TABM: (A.M. sprays) 490, 625, 763, 898 - 1st gen. and 2228, 2415, 2605, 2795 °D after biofix - 2nd gen.  
 CM: 250 °D after biofix and again 2 - 3 weeks later.

# *The Annual* "Cream Ridge Twilight Fruit Meeting and Strawberry Breeding Showcase"

**Date:** Thursday, May 30, 1996

**Time:** Registration begins at 3:30 p.m. - tours start promptly at 4:00 p.m.

**Place:** Rutgers Fruit R&E Center, 283 Route 539, Cream Ridge, NJ 08514

**Directions:**

Take Exit 7A off the New Jersey Turnpike to I-195 East. Take 2nd Allentown exit off I-195 (Route 539 South). Follow 539 South 6-7 miles. You will pass the Cream Ridge Golf Course - we are about 2 miles past that on the right - look for the Rutgers Fruit Research & Extension Sign.

**Audience:**

Commercial Tree and Small Fruit Growers, but all are invited as Rutgers Cooperative Extension provides information and educational services to all without regard to sex, age, race, color, national origin, or handicap.

- ◆ Small and Tree Fruit Research Plot Tours
- ◆ NJAES Strawberry Breeding Showcase
- ◆ Weed, Disease, and Insect Diagnostics
- ◆ "Jersey Fresh" Direct Marketing Update
- ◆ Twilight Update with Question and Answer Period
- ◆ Pesticide Recertification Credits
- ◆ Commercial Trade Exhibits
- ◆ Dinner Provided

Please RSVP by May 24, (necessary for dinner arrangements). If you have any questions, comments, or suggestions, and to RSVP, please contact:

Dr. Joseph A. Fiola, Program Coordinator  
Rutgers Fruit Research and Extension Center  
283 Rt. 539, Cream Ridge, NJ 08514  
609-758-7311 (FAX: 609-758-7085)  
E-MAIL: CREAMRIDGE@ASEOP.RUTGERS.EDU

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## Cream Ridge Twilight Fruit Meeting and Strawberry Breeding Showcase

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Number attending (for dinner): \_\_\_\_\_

## Apple Juice Prices

*Jerome L. Frecon, Gloucester  
County Agricultural Agent*

The price of apples for juice has been higher in 1995/96 than in the past. Prices have been as high as \$7.00 to \$8.00 per cwt. early in 1996. This may have tempted some growers to think it may pay to grow apples exclusively for the juice market. According to an article by Jerry White and Allison Demarree of Cornell University in The April issue of American Agriculturist, this could be a mistake.

According to calculations from their Fruit Farm Business Summary, cash costs for growing juice apples in New York would be \$1804 per acre. This includes bin rental at \$6 per bin, storage at \$4.50 per bin and apple marketing order and other apple marketing deductions. Marketing costs total nearly \$400 out of the total cash costs per acre. Total costs, including depreciation for buildings, machinery and operator's and other unpaid family labor would be \$2,060 per bearing acre. Under these assumptions the price required to break even would be \$7.22 per cwt. of juice apples.

The price of juice apples is greatly influenced by the quality and volume of the fresh market crop and the international price of apple juice concentrate. Mr. White and Ms Demarree point out some of the other factors that influenced this year's price like the short crop in the northern hemisphere and the demand for apple juice concentrate in the Pacific Rim countries. They also emphasized that if apple juice prices do stay this high, there will be a new supply of apples and the price will probably go down again, or back to normal levels. Some growers in southern New Jersey grow aloha apples for juice and don't have costs very similar to these. □

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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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