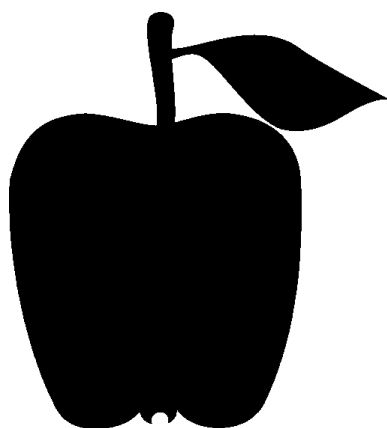


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

MAY 7, 1996



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More Thoughts on Apple Thinning

Robert Belding, Ph.D., Pomology and Winfred P. Cowgill, Jr., Hunterdon County Agricultural Agent

Fruit thinning is truly one aspect of fruit growing where experience, the weather, and luck are equally important. As reported in the 1996 Apple Plant Growth Regulator School in PA, it is important to retain detailed records of your own experiences to refine your thinning program, including: variety; fruit size or stage of bloom; amount of thinner applied per acre; amount of adjuvant applied per 100 gallons; number of gallons applied per acre; nozzling used; weather conditions before, during, and after the application; and finally, the quality of the thinning job. Also, an assessment of return bloom the following spring is an important indication of the success of your thinning program. Over a several-year time frame, this will allow you to adjust your program to fit your cultivars and needs.

Excessive moisture and cloudy weather during and directly after application affects activity of thinner. Reduced sunlight either weakens trees and allows greater thinning activity, or reduces photo-degradation of chemical thinners allowing longer-than-normal activity.

Chemical thinners should be applied as dilute sprays, wetting all leaf and fruit surfaces to drip. Overuse of carbaryl is detrimental to IPM mite control programs and should be avoided when possible.

Goal - Thinning Red Delicious and Rome Beauty

Timing - 9 to 11 mm average fruit diameter (3/8 to 7/16) (14-21 days after full bloom)

Chemical and rate - NAA (5 ppm) plus a surfactant or Sevin 50WP 1-2 lb

Note - Use of NAA on spur type strains of Red Delicious often results in undeveloped pygmy or nubbin fruit being retained on the tree.

Goal - Thinning Golden Delicious and Gala

Timing - 9 to 11 mm average fruit diameter (3/8 to 7/16) (14-21 days after full bloom)

Chemical and rate - NAA (8-10 ppm) plus a surfactant or Sevin 50WP - 2 lb (Golden Delicious only)

Goal - Thinning Stayman

Timing - 9 to 11 mm average fruit diameter (3/8 to 7/16) (14-21 days after full bloom)

Chemical and rate - NAD (25 ppm) plus a surfactant or Sevin 50WP - 2 lb

Goal - Thinning BriteMac, Cortland, Empire, Gravenstein, Grimes

SEE THINNING ON PAGE 2

Fruit Weed Control

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

◆ Apple

Summer annual grasses have emerged in some orchards. Seedlings are very small, but will grow rapidly during warm days. Inspect each block before applying herbicides. Switch from 2,4-D to Roundup or Gramoxone Extra if Surflan, Devrinol, or Solicam is used for residual grass control. Sinbar will burn down **annual grasses** up to 1-2 inches tall. The switch from 2,4-D to Roundup or Gramoxone can be delayed until emerged **annual grasses** reach 2 inches in height if Sinbar is used for grass control. Consult the [Commercial Production Recommendations](#) for rates and additional information.

◆ Peach

Summer annual grasses have emerged in some orchards. Seedlings are very small, but will grow rapidly during warm days. Inspect each block before applying herbicides. Switch from 2,4-D to Roundup or Gramoxone Extra if Surflan, Devrinol, or Solicam is used for residual grass control. Sinbar will burn down **annual grasses** up to 1-2 inches tall. The switch from 2,4-D to Roundup or Gramoxone can be delayed until emerged **annual grasses** reach 2 inches in height if Sinbar is used for grass control. Consult the [Commercial Production Recommendations](#) for rates and additional information.

Established ORCHARDS that are NONBEARING due to cold injury still require weed control to prevent the establishment of perennials, to avoid mouse damage next winter, and to maintain the orchard. Substitute Prowl 3.3EC for the more costly residual **annual grass** herbicides. Use Karmex 80DF for residual **broadleaf weed** control. Use 2,4-D as the postemergence (knock-down) herbicide unless **annual grasses** have emerged, then switch to Roundup or Gramoxone plus nonionic surfactant. □

THINNING FROM PAGE 1

Golden, Idared,

Jonathan, McIntosh, Opalescent, Paulared, Spartan, Summer Rambo

Timing - Early 7-14 days after full bloom

Chemical and rate - NAD 40-50 ppm or NAD 25 ppm plus a surfactant or Sevin 50WP - 1 lb

Apple thinning research in North Jersey the past two growing seasons has focused on evaluating ACCELTM, and ACCELTM combinations against our standard materials NAA and NAD. We have also gathered data on the efficacy of Vydate as an apple thinner in NJ (caution: we still have not obtained the Vydate label yet for apple thinning in NJ). We have also continued to monitor and work with growers on the NAA program for multiple applications discussed in last week's newsletter.

Crop Load - growers should evaluate their pollination results this season, as they determine what thinning treatments to utilize. Cool wet cloudy weather has been the case in many blocks as the king flowers were in bloom.

In our work in 1995 on the cultivar McIntosh, the most effective treatments were a single application of NAA, or NAD or the combination SevinTM plus ACCELTM. All were applied at the 9-mm stage and provided good thinning results.

Timing - there is a broad window when chemical thinners can be applied, some more than once. The window for thinning is from full bloom until the 24-mm stage.

◆ Thoughts & observations on apple chemical thinning:

- ✓ As discussed last week NAA can be applied from bloom until 10- to 12-mm stage.
- ✓ Accel is showing more promise as a tool to increase fruit size and should be combined with Sevin to obtain adequate thinning. Accel is most effective the earlier it is applied (petal fall - 8 mm). Hard-to-size cultivars like Empire seem to benefit the most.
- ✓ Sevin can be tough on **mite** predators, so with cultivars where other materials are effective, use them.

Research in Michigan indicates that NAA and ACCEL should not be combined for use on Red Delicious, or excessive pygmy fruits may result. According to Dr. Richard Marini, VPI, as reported in his 1995 fruit newsletter, the Sevin XLR Plus formulation may be less toxic to **mite** predators and therefore should be the formulation of choice for chemical thinning if Sevin is used.

Research in Virginia by Marini and Barden indicates that Ethephon can be used successfully as an apple thinning treatment from 18-24 mm. In some years this has proven to be a rescue treatment when adverse weather has not allowed for the application of traditional chemical thinners.

Based on Dr. Richard Marini's observations of growers over a ten-year time frame, "Growers who *consistently* do the best thinning are those who make the most effort! This involves measuring fruit, adjusting chemicals and rates for individual blocks during different years, making two or three applications if necessary, and keeping detailed records for future reference."

For additional information on apple chemical thinning programs, refer to the Thinning Section of the [1993 Commercial Tree Fruit Production Recommendations](#) or contact Win Cowgill at 908-788-1339 or <cowgill@aesop.rutgers.edu>. □

Fire Blight Management

Post Bloom to Terminal Bud Set

Ken Petersen, IPM Program Associate

From the *Maryblight* ver 4.3 manual. Used with permission from Paul Steiner, Plant Pathologist University of Maryland- College Park

The 6 to 8 week period after petal fall is a very important time for fire blight management decisions. During this time: (1) blossom blight symptoms appear if infections occurred during bloom; (2) canker blight symptoms appear within the first 3 weeks after bloom in orchards with a history of fire blight; (3) the risk for shoot blight increases and continues until shoot growth ceases; and (4) severe storms (wind, hail) are more likely to contribute to trauma blight.

Control measures taken here will do much to limit the amount of disease in the current year and the amount of inoculum available for the next season. This is also true for trauma blight incidents should severe weather occur. With the exception of late secondary flowering, the focus of the control effort must now shift from preventing blossom blight to limiting the damage caused by canker blight and to reducing the potential for serious damage with shoot and trauma blight events.

◆ Antibiotic Sprays

Antibiotic sprays after primary petal fall are not recommended except where a significant amount of secondary flowering extends the blossom blight infection period. Antibiotic sprays should only be used for blossom blight control because streptomycin is an ineffective protectant for shoot blight and is a questionable control measure for trauma blight. The number of antibiotic applications per season should not exceed four to reduce the potential for selecting resistant populations of fire blight, and streptomycin should *never* be used after symptoms of fireblight appear in the orchard.

◆ Cutting Out Infections

The cutting procedure is likely to be most effective in those orchards where the incidence of blight is low or where small outbreaks are localized within the orchard. By detecting symptoms early and promptly removing them before extensive necrosis develops, the number and distribution of inoculum sources can be reduced. This is important because of the rapid increase in the amount of inoculum that occurs with fire blight. Also the removal of inoculum sources must be very thorough to be effective. Where the incidence of fire blight is high and extensive cutting is required, effective reduction in the inoculum potential for the current season is not likely to be accomplished within a reasonable time. Thus, during severe epidemics, the primary focus of the cutting effort should be to salvage as much of the tree structure and fruiting surface as possible. Pruning tools should be cleaned between each cut with a 10% bleach or 70% alcohol solution to prevent the spread of the bacteria.

According to research done at the University of Maryland and Washington State University, the most effective way to prune out fireblight is to make all cuts at an internode and into wood that is at least two years old, deliberately leaving a 4 inch branch stub above the supporting limb. Normally a small canker will develop on this stub, but this "ugly stub" can then be removed during the dormant season when the risk for inoculum spread is gone.

If you have any questions about fireblight and its control contact your County Agricultural Agent or IPM program. □

Brazil May Quarantine US Apples

Peter W. Shearer, Ph.D., Tree Fruit
Entomology

Brazil is threatening to impose a quarantine on US apples unless measures are taken to insure that exports into Brazil are free of **apple maggot**.

Apple maggot is native to North America and is found in most apple producing areas of the US. This pest is currently not known to occur in Brazil.

The US Dept. of Agriculture, Animal & Plant Health Inspection Service and the State Departments of Agriculture from most apple producing states are working with the Minister of Agriculture and Agrarian Reform, Plant Protection and Inspection Service of Brazil to create a systems approach to insure that **apple maggot** infested fruit do not end up in Brazil.

Recommendations for the proposed systems approach are based upon procedures that have been used commercially for over 20 years for both domestic and international fruit movement without incident. This includes: effective monitoring of the pest, efficient and timely pesticide controls, sampling or fruit cutting, and phytosanitary certificates. Details for the US apple certification protocol to ship apples to Brazil are still being explored but should be worked out by early summer. □

Regional Update:

North Jersey Frost

Bill Tietjen, Warren County Agricultural Agent

Growers across northern portions of Warren County and east to Bergen County reported an unexpected widespread frost on May 7. Lawns were white and rain drops on vehicles frozen. Extent of fruit damage not determined. However, there was frost injury to exposed vegetable and bedding plants at roadside markets. □

Blueberry Pests

Sridhar Polavarapu, Ph.D., Entomology and IPM

✓ **Leafrollers:** Larvae of both Oblique-banded leafrollers (OBLR) and Redbanded leafrollers (RBLR) are appearing in many fields in both Burlington and Atlantic Counties. RBLR pheromone trap catches have peaked in Atlantic County. Peak emergence of larvae of RBLR and OBLR is expected in the following 5-7 days in both Atlantic and Burlington Counties.

✓ **Humped green fruitworm:** Several fields in Atlantic County have these green caterpillars, which have a distinct hump on the dorsal side. Larvae are green, with longitudinal stripes running along the length of the insect. Larvae feed on tender young leaves, blossoms, and developing fruit. This insect is rarely seen on bushes after petal fall.

✓ **Gypsymoths:** Gypsymoth larvae are beginning to appear in some fields. Larvae are more abundant in border rows near woodlands. Most of the larvae are in early larval stages (First and second instars). Gypsymoth larvae will reach two inches in length when fully grown. Larvae are more susceptible to B.t. insecticides when they are in early larval stages.

✓ **Spanworms:** Spanworm larvae have been found occasionally in some fields in both Atlantic and Burlington Counties. They can easily be recognized by their "looping" habit of walking, distinctive colors and line patterns. Larvae feed on expanding leaves and blossoms early in the season, and later feed on leaves and tender shoots. Pupa-tion occurs in the soil. In most years, spanworm populations do not reach damaging levels that justify insecticide treatment.

The above mentioned lepidopteran species (caterpillars) are the most important pests on blueberries during bloom. Insecticide treatments are recommended only if combined populations of caterpillar pests (including RBLR, OBLR, Gypsymoths, Humped green fruitworm, and Spanworms) are above an average of one larva per 100 flower and leaf clusters. B.t. insecticides such as Agree, Dipel, and Javelin are the only choice available during bloom if treatments are required. □

Production & Marketing Publications

Jerome L. Frecon, Gloucester County Agricultural Agent

The following is a list of tree fruit publications received by my office. Some of these may be of interest to you. The list may not be complete. No endorsement is implied by listing these, and no discrimination is intended by omitting others.

Good Fruit Grower
10518 Street, Suite 217
Yakima, Washington 98901
\$55 per year
published semi-monthly January through May and monthly June through December

American Fruit Grower
Meister Publishing Company
3733 Euclid Avenue
Willoughby, Ohio 44094
\$14 per year
published monthly (A western edition can be purchased)

Great Lakes Fruit Grower News
P.O. Box 128
Sparta, Michigan 49345
\$18 per year - 3 years
published monthly

Peach Times
National Peach Council
12 Nicklaus Avenue
Columbia, SC 29223
\$20 per year (includes membership)
published quarterly

New Jersey Horticultural News
New Jersey State Horticultural Society
P.O. Box 116
Clayton, NJ 08312
\$25 per year (includes membership)
published quarterly

Pennsylvania Fruit News
State Horticultural Association of PA.
Loganville, PA 17342
\$30 per year for educators and \$50 for growers (includes membership)
published monthly

The Grower
Vance Publishing Company
10901 W. 84th Terrace
Lenexa, Kansas 66214-1631
\$12 per year
published monthly

Fruit Varieties Journal
American Pomological Society
102 Tyson Building
University Park, PA 16802
\$20 per year (includes membership)
published January, April, July, and October

Apple News
P.O. Box 1137
McLean, Virginia 22101
published bi-weekly
A service of the International Apple Institute and available to members

Produce Business
P.O. Box 810425
Boca Raton, Florida 33481-9932
\$48 per year
published monthly

Produce News
2185 Lemoine Ave.
Fort Lee, NJ 07024
published weekly

The Packer
Vance Publishing Company
10901 W. 84th Terrace
Lenexa, Kansas 66214-1631
\$55 per year
published weekly

Fruit IPM

Week Ending 5/10/96

Dean Polk, IPM Agent - Fruit

◆ Pest Events and Notifications

While those of you with fax machines receive this newsletter within 12 hr of its completion, most pest events occur on days other than the one we publish the newsletter. In order to "fill in the gaps" we have instituted broadcast fax warning systems from Gloucester and Hunterdon Counties. We also have an IPM hotline in Hunterdon County with recorded messages. These media are sent out or updated as pest events occur e.g. as scab, or fire blight infection periods are predicted or as degree day accumulations for insecticide sprays reach treatment points. The telephone number for the Hunterdon County IPM hotline is 908-788-1316. We encourage those of you without fax machines to get one.

◆ Apple

✓ **Rosy apple aphids (RAA):** Rosy aphid populations have increased some since last week. One farm had 4 colonies per tree as of 5/3. Our treatment threshold is 1 colony per tree. This grower was able to apply only 1 alternate middle spray of Lorsban pre bloom instead of the normal complete (both middles) spray. Provado is one of the more effective RAA treatments for post bloom applications. Provado use for aphids should be at the same rate as that needed for leafminer control - 2 oz/100 gal or 5 to 6 oz/A, depending on tree size. Other materials that are effective for aphid control are diazinon 50W @ 3lb/A, and the pyrethroids which are not suggested since they will kill mite predators. Cygon 400 @ 2.5 pt/A will also control low RAA populations. Lorsban 50W @ 2-3 lb/A will suppress established RAA populations. While these materials may be used against aphids, growers should remember that they are also effective for other orchard pests. **Provado** controls leafminers, leafhoppers, and aphids; **Diazinon** controls primarily aphids, sawfly, leafhoppers, leafrollers, plum curculio, and codling moth; **Cygon** controls primarily aphids and leafhoppers; **Lorsban** controls primarily aphids, leafrollers, plum curculio, and codling moth. If using diazinon or Lorsban for aphid control, then reduce the normal organophosphate insecticide to 75% of a full dose. Do not reduce normal OP rates when also using Provado or Cygon.

✓ **Spotted tentiform leafminer (STLM):** Sap feeding mines are present in southern counties. Mine counts reached 2 to 3 mines per leaf late last week in a yet to be sprayed Gloucester County orchard. Many parasitic wasps were also present in this same orchard. Delaying the petal fall insecticide can provide added control with the increased parasite activity which results. Trap counts have peaked and egg laying and hatch continues at a heavy pace. While recommendations for the new

materials, Pravadol and Agrimek have been geared towards the petal fall spray, the cooler than usual spring has resulted in a retarded development for many normal insect events. If growers have not yet initiated STLM controls there is still time to do so in early 1st cover applications. These treatments include Provado @ 6 oz/A or Agrimek @ 10 oz/A.

✓ **Tufted apple budmoth (TABM):** The first adults were caught in Cumberland County on 5/4, in Hammonton on 5/3, and in Gloucester County on 5/2. Sporadic captures have been seen in northern counties, but do not include any of our Skybit/weather monitored sites. These first captures are 2 to 3 weeks behind what we see in most seasons.

There are 2 generations of this pest per year. Partially grown larvae overwinter on the orchard floor. Mating and egg laying start shortly after adults emerge, but don't really "kick in" until the end of May. Eggs are laid on the tops of leaves in flat "fish scale" like masses of 80 to 150 eggs. After hatch, larvae spin down to a protected area and feed between leaves and fruit or between several fruit. Leaves are webbed directly to the fruit, and much of the feeding occurs between these leaves and the fruit surface.

Since established larvae are in protected places, it is extremely difficult to contact them with spray material. The timing of sprays and the use of adequate volume is very important. The most critical sprays are timed for egg hatch in at least 100 gal/A on mature M7 size trees or larger. Research in PA has shown that TABM sprays can be timed by using a degree day model in association with a biofix of first moth capture with pheromone traps. Alternate middle sprays for the first brood should be applied at 490, 625, 763, and 898 °D₄₅ (base 45) after first adult catch. °D accumulations have started and are reported in the degree day box below.

✓ **White apple leafhopper (WALH):** Overwintered leafhopper eggs continue their hatch. Untreated populations should increase over the next couple of weeks. This insect *should not* be treated on a preventative basis. I suggest using the threshold levels discussed in the last newsletter of 3 leafhoppers per leaf.

✓ **Codling moth (CM):** The first codling moth was caught in northern counties, and levels are very low. No catches have been recorded at any of the weather monitored (Skybit) sites.

✓ **Apple scab:** The first visible infections were seen in Camden County with .2% of the foliage showing active lesions. An additional scab infection period is predicted as of this writing (Mon. evening and into Tues., and possibly again on Wed.). Growers treating on an alternate row schedule need to keep a record of total precipitation between middles. Scab can often occur when too much time or precipitation falls between alternate row sprays. Allow a maximum of 1.5" of rain per side with EBDC materials. Do not allow over 5 days to elapse between middles at this time of year.

SEE IPM ON PAGE 6

✓ **Fire blight:** There is a 60% chance of additional infections taking place with predicted rains this coming Wed. Any trees in bloom should be covered with streptomycin (Agri-Strep or Agrimycin). Depending on tree phenology, strep sprays should be good for about 5 days. Please see the summary on fire blight below adapted from the Maryblyt manual.

◆ **Peach**

✓ **Oriental fruit moth (OFM):** First flight OFM trap captures have peaked in southern counties, but moths continue to lay eggs. While the first of 2 treatments was due in most southern counties by 5/1-2, treatments are due in northern counties from 5/8 (Hunt.) to 5/11 (Morris). The second of 2 treatments will be due in southern counties about 5/12 - 5/14.

✓ **Catfacing insects:** Very few catfacing insects have been caught to date. Some tarnished plant bug adults have been caught in sweep samples (highest counts at 5 TPB/50 sweeps), but none have been seen in trees. One note on the high tarnished plant bug count: These were found in an orchard with a diverse ground cover; quite a few weeds were present during the previous year providing good overwintering sites. A few stink bug adults have been seen in traps for other insects, thus indicating they are flying into trees during warm days. Guthion and/or Imidan are suggested for control. PennCap is not recommended for application this early, since it is extremely toxic to bees.

✓ **Green peach aphid (GPA):** GPA adults are now present. Well developed colonies are present, and were scouted in the Hammonton area. Colony numbers are below treatment levels.

✓ **European red mite (ERM):** Mites are present in peaches in a few areas. One Jerseyqueen block in Hammonton had over 4.5 mites/lf. Apollo, Carzol, and Vendex are labeled for control. Carzol (12 oz - 1 lb/A) is suggested only if temperatures are less than 80°. Vendex (1 - 2 lb/A) should not be used on high populations, and Apollo (3 - 4 oz/A) should be used on young populations during the early part of the season.

✓ **Brown rot:** A small amount of blossom blight is present on unsprayed blocks. Some treated blocks also have moderate levels. The key issue of blossom blight is

that it creates an increased inoculum level for additional brown rot infections. In addition, cankers that become established in the fruiting wood can girdle the twigs and decrease fruit yield at those points. If blossom blight is present, *sulfur alone should not be used*. Captan or captan combinations will do a better job with increased inoculum levels.

✓ **Peach leaf curl:** Some leaf curl is present in a few locations. Use of Bravo will arrest further development, but on the whole this disease is no longer a concern, since all major infections have already taken place.

✓ **Peach scab:** Now is the time to apply materials for scab control. Benlate @ 8 oz/A plus Captan @ 2 lb/A provides the best control in problem blocks, providing there is no resistance to Benlate. See last newsletter for what constitutes a "problem block" and about Benlate resistance.

✓ **Lesser peachtree borer (LPTB):** The first LPTB adults were caught this past week. More on this in the next newsletter.

◆ **Blueberry**

✓ **Cranberry weevil:** Very few adults were seen in scouted fields this past week. No additional injury was seen over treatment levels.

✓ **Redbanded leafroller (RBLR) and Obliquebanded leafroller (OBLR):** Leafroller larvae are present at various levels and are above provisional treatment levels in several locations. We use a treatment level of 1 larva (of all combined species) per 100 shoots. In Burlington County 19% of our samples are above this level, while in Atlantic County 15% of the samples are above threshold. RBLR adults continue their first flight with 2 farms in Atlantic County showing the highest levels at 129 and 181 moths per trap. Counts on other farms averaged 25 moths per trap. If treating for leafroller larvae, B.t.s are the only option at bloom. Since larvae are found in the tips of growing shoots in rolled leaves or newly expanding foliage, they are difficult to contact with spray material. For this reason ground applications are far superior to aerial applications.

◆ **Insect Trap Captures**

Week Ending	4/5	4/12	4/19	4/26	5/3
Tree Fruit - Southern Counties					
RBLR	1.1	1.9	16.3	47.9	43.0

**Insect Degree Day Accumulations as of May 5, 1996
Site & County
with Biofix Date plus Degree Days since Biofix**

Insect	Bridgeton Cumb.	Hammonton Camden	Hardingville Gloucester	Richwood Gloucester	Princeton Mercer	Oldwick Hunt.	Morristown Morris
OFM ₄₅	4/20 - 248 200 on 5/2	4/5 - 200 on 4/27	4/19 - 261 200 on 5/1	4/17 - 265 200 on 5/3	4/19 - 236 200 on 5/3	4/22 - 174 predict 200 on 5/8	4/24 - 120 predict 200 on 5/11
TABM ₄₅	5/4	5/3	5/2	5/2			
CM ₅₀							

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 generation and 2228, 2415, 2605, 2795°D after biofix - 2nd generation. CM - 250°D after biofix and again 2-3 weeks later.

STLM	20.4	48.1	1236	1282	1215
TABM-A —	—	0.0	0.0	8.4	—
CM	—	—	0.0	0.0	0.0
AM	—	—	—	—	—
OFM	0.1	.03	0.5	20.7	29.0
TABM-P	—	—	0.0	0.0	0.32
LPTB	—	—	—	0.0	0.05
PTB	—	—	—	—	—

Tree Fruit - Northern Counties

RBLR	—	22.0	41.5	63.6	34.6
STLM	—	7.0	355	506	417
TABM-A —	—	0.0	0.06	0.1	—
CM	—	—	—	0.0	0.2
AM	—	—	—	—	—
OFM	—	0.0	2.5	1.3	14
TABM-P	—	—	0.0	0.02	0.0
LPTB	—	—	0.0	0.0	0.0
PTB	—	—	—	—	0.0

Blueberry - Atlantic County

RBLR	—	14.4	51	106	79.2
OBLR	—	—	—	—	—
CBFW	—	—	—	—	—
SNLH	—	—	—	—	—
BBM	—	—	—	—	—

Burlington County

RBLR	—	3.8	8.8	51	23.9
OBLR	—	—	—	—	—
CBFW	—	—	—	—	—
SNLH	—	—	—	—	—
BBM	—	—	—	—	—

Abandoned Fields (both counties)

RBLR	—	1.0	7.0	23.7	23.5
OBLR	—	—	—	—	—
CBFW	—	—	—	—	—
SNLH	—	—	—	—	—
BBM	—	—	—	—	—

Calendar of Events

May 8, Wednesday, 6:30 pm

South Jersey Twilight Fruit Meeting
Rutgers Res. & Dev. Center, Upper
Deerfield Twp.

Contact Jerry Frecon, RCE of Gloucester
County, (609) 863-0110

May 15, Wednesday, 5:30 - 8:30 pm

Second N. Jersey Tree Fruit Twilight Mtg.
Windy Brow Orchard

Route 519, South of Newton
Contact Bill Tietjen, RCE of Warren
County, (908)-475-6505

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

SECOND NORTH JERSEY TREE FRUIT TWILIGHT MEETING

May 15, 1996, 5:30 pm - 8:30 pm

Windy Brow Orchard

Route 519, Newton, New Jersey, (201-579-9300)

The meeting will begin at 5:30 pm with a wagon tour of the orchard which includes new plantings of apples and peaches. Hot dogs and rolls, etc. will be provided by our gracious hosts, Phil and Mary Ann Deacon prior to the meeting at 4:45 pm. Please **RSVP by NOON May 13** at 908-475-6505 if you plan to join us for dinner.

Agenda 6:30-8:30 pm

- ❖ *Insect and Disease Activity - North Jersey Fruit IPM Update*, Ken Petersen, IPM Fruit Program Associate
- ❖ *Integrated Pest Management Practices to Control Insects & Diseases of Tree Fruit*, Dean Polk, IPM-Tree Fruit Agent
- ❖ *Orchard Weed Management Update*, Dr. Brad Majek, Specialist in Weed Science
- ❖ *Tree Fruit Management Observations and Suggestions*, Dr. Robert Belding, Specialist in Pomology
- ❖ *Orchard Insect Pest Control Strategies*, Dr. Peter Shearer, Specialist in Entomology
- ❖ *Petal Fall and Early Cover Disease Control*, Dr. Norman Lalancette, Specialist in Plant Pathology
- ❖ *Protecting New Jersey's Groundwater*, Bill Tietjen, Warren County Agricultural Agent

NJ Pesticide Recertification Units will be offered.

Directions: Windy Brow Orchard is approximately 3 miles south of Newton on County Route 519

From points South: Take Route 206 North and make a left turn in Springdale onto County Route 618. (Note: if you pass the ABBEY XMAS Tree Farm, you missed the turn) Route 618 intersects with Route 519 at blinker light, make a right turn - orchard is less than one mile on right.

Rutgers Cooperative Extension - NJAES
U.S. DEPARTMENT OF AGRICULTURE
Rutgers - The State University of New Jersey
P.O. Box 231
Cook College
New Brunswick, N.J. 08903-0231

PLANT & PEST ADVISORY

FRUIT EDITION - CONTRIBUTORS

RCE Specialists

Robert Belding, Ph.D., Pomology
Joseph A. Fiola, Ph.D., Small Fruit & Viticulture
Norman Lalancette, Ph.D., Plant Pathology
Bradley A. Majek, Ph.D., Weed Science
Peter Oudemans, Ph.D., Plant Pathology
Sridhar Polavarapu, Ph.D., Entomology
Peter W. Shearer, Ph.D., Entomology
Craig A. Storlie, Ph.D. Agricultural Engineering

NJAES/Cook College

Joseph Goffreda, Ph.D., Breeding
Edward Durner, Ph.D., Plant Physiology
RCE County Agricultural Agents and Program Associates
Gloucester, Jerome L. Frecon (609-863-0110)
Hunterdon, Winfred P. Cowgill, Jr. (908-788-1338)
Morris, Peter J. Nitzsche (201-285-8300)
Warren, William H. Tietjen (908-475-6505)
Cream Ridge, Dean Polk (609-758-7311)
 Ken Petersen, Program Associate (908-788-1338)
 Gene Rizio, Program Associate (609-784-1001)
 David Schmitt, Program Associate (609-863-0110)

Newsletter Production

Jack Rabin, Assistant Director, NJAES
Cindy Rovins, Editor and Designer

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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.

Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label clearances.