

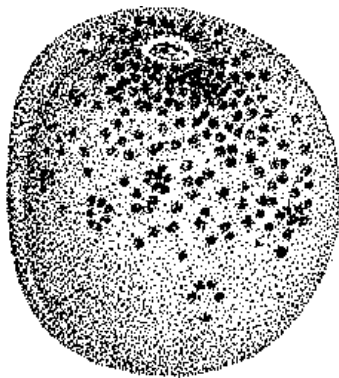
PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

JUNE 17, 1997

Fruit IPM

Dean Polk, IPM Agent, Fruit



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◆ Peach

✓ **Oriental Fruit Moth (OFM):** Adult counts show that we are still between generations. Flagging from larval tunneling was noted this past week in Gloucester County on poorly sprayed young trees. Flagging tips had dried up, indicating that the larvae had already emerged and either are pupating or emerging as new adults. We frequently observe that young trees have flagging, or other indications of skipped sprays. Growers should be aware that 2 to 3 year old trees will serve as a population source if left unsprayed as OFM is allowed to build up.

✓ **Catfacing Insects:** Almost all the catfacing insects found are tarnished plant bug adults in southern counties, but about 50:50 adults vs. nymphs in northern counties. Most sample sites show little to no fresh catfacing injury, exceptions being non-sprayed areas surrounded by woods. Some fruit was seen on 6/16 with bleeding spots on the suture. This is not catfacing, but rather a physiological injury accompanied by gumming around the pit.

✓ **Tufted Apple Budmoth (TABM):** The third alternate middle spray will be due in southern counties by mid to late week. The first few treatment targets have come every 8 days since treatments began. Growers who are in a budmoth area, and are treating every 10 days should tighten up their schedule.

✓ **Rusty Spot:** New rusty spot lesions are still visible, and are present in all counties. Infections seem to be most severe on Loring and Encore. While Encore is not a variety listed as susceptible in the 1997 Commercial Tree Fruit Production Guide, growers should add that to their 'list to treat' in future years.

◆ Apple

✓ **Tufted apple budmoth (TABM):** See timing listed under peach, above.

✓ **Codling moth:** Since the first treatments have been applied, insect pressure remains low in most areas. Exceptions to this are the farms in the far northwestern corner of the state. While trap counts are from 0 to 5 on most farms, counts of up to 23 moths per trap reflect considerably higher populations in those locations. Sprays should not be stretched, or rates reduced under these conditions.

✓ **Spotted Tentiform leafminer (STLM):** Larvae are in the tissue feeder stage, pupating and starting to emerge in southern counties. Emergence is slightly behind in northern counties. This is the start of the second adult flight. This flight should peak in 1 to 2 weeks, with larvae

SEE IPM ON PAGE 2

emerging into sap feeding mines at about the same time. Most growers already applied a pre bloom or petal fall spray to control the first generation. Insecticide from this spray is largely worn out, leaving the next emerging generation without insecticide residue with which to control it. Therefore mine counts can become more critical for this generation compared to the first generation. The total mine count (1st + 2nd generations) should not be allowed to exceed .5 to 1 mine per leaf. If the mine count reaches this level, then a treatment should be applied when the majority of larvae are still in the sap feeding stage, or visible only from the underside of the leaf. Provado (6 oz/A), Vydate (2.5-3 pt/A), or Lannate are suggested.

✓ **Apple scab:** An apple scab infection was recorded late last week (Fri-Sat). Additional infections are predicted to occur this week on 6/17, 18, and 19. Northern counties may see extended wetting periods into 6/20. Conditions should also be favorable for **Fire Blight** infections for most of the same period.

Tree Fruit Pest Degree Day Accumulations Since 1st Catch - 6/16/96

Site	Biofix/1 st Catch Date & DD - OFM		Biofix/1 st Catch Date & DD - TABM		Biofix/1 st Catch Date & DD - CM	
Hammonton - At. Co.	3/25	done	5/2	695	5/9	441
Hardingville - Glou. Co.	3/30	done	4/30	731	4/30	514
Bridgeton - Cumb. Co.	4/7	done	5/1	723	5/2	495
Princeton - Mercer Co.	4/17	done	5/12	584	5/5	445
Oldwick - Hunt. Co.	4/21	done	5/17	506	5/16	360
Hackettstown - War. Co.	4/28	done	5/22	429	5/9	397
Spray target after biofix/1st catch	200, 400 DD after biofix (1 st generation)		Alt Mid Appl. at 490, 625, 763, 898 (1 st brood), and 2228, 2415, 2605, 2795 (2 nd brood)		250 DD plus 2 weeks later (1 st generation), 1250-1300 DD plus 2-3 weeks later (2 nd generation)	

1997 EQIP Program

Jerome L. Frecon, Gloucester County Agricultural Agent

The deadline for application to the Environmental Quality Incentives Program has been extended to June 13, 1997. Even if the deadline is missed, applications should still be made because money approved for fiscal 1998 may be based on need in 1997. This "new" program for cost sharing conservation practices should be examined by all growers, even those not designated in a high priority area.

Some of the projects available for cost sharing are:

1: New Integrated Crop Management Systems; these

◆ Blueberry

✓ **Leafrollers and other Lep:** A few larvae are still present. Localized feeding signs can be found in some spots where fruit has been webbed together, and "chunks" taken out of the fruit. Redbanded leafroller pupae were seen this past week in Atlantic County. Adults will be emerging in the near future, mating and laying eggs for the second brood. Obliquebanded leafrollers are now emerging as adults as indicated by the increased trap counts.

✓ **Cranberry fruitworm (CBFW):** Peak trap catch occurred during the last of May to the first of June (see trap counts and graph). The first larvae should have already hatched and should be in the fruit. Larval feeding was noted at 2 sites during the past couple of days.

✓ **Sharpnosed leafhopper (SNLH):** There are 2 generations per year of this pest. Since this is the vector for blueberry stunt disease, its presence should be minimized. The first SNLH were captured on yellow sticky boards this past week in Burlington County.

✓ **Aphids:** Active colonies are present in almost half our samples. Infestation levels are low and average 2 to 3% of the terminals being infested. Most aphids are in small colonies at this point.

SEE TRAP AVERAGES ON PAGE 3

include: a) Complete ICM systems that consist of integrated pest management, nutrient management, and crop rotation. Pest scouting, soil testing, use of cover crops and manure analysis should be primary components; b) ICM can be focused on soil quality involving organic matter and nutrient management. Soil testing, cover crops and other organic applications management should be the primary components.

2. Applications of Erosion Control Practices; these can be a combination of sheet % rill and ephemeral of true gully erosion control.

3. Planting of Permanent Vegetation; vegetation can be planted to reduce wind damage to crops, reduce erosion from cropland, and increase diversity and wildlife habitat.

4. Establish Vegetative Filter Strips and or Riparian Buffers; these can be established along water courses to filter runoff.

5. Restoration of Previously Converted Cropland Areas to Wetlands; cropland previously drained through ditches or tiles that will be restored to their former hydrology, and native vegetation enhanced to create a more diverse habitat.

6. Installation of Pesticide Containment Facilities; Pesticide containment facilities to provide safe locations for pesticide storage as well as mixing and loading. Security and location of the facilities will be important. □

Trap Averages

South Jersey Tree Fruit

Week Ending

Week Ending	RBLR	STLM	TBM-A	CM	AM	OFM	TBM-P	LPTB	PTB
5/2	30.8	885	0.06	0.04	—	56.9	0.08	—	—
5/9	25.3	1177	4.5	1.0	—	39.5	3.0	—	—
5/16	7.0	822	30.2	2.6	—	12.9	50.6	0.7	—
5/23	2.8	478	33.8	9.3	—	18.3	40.4	28.1	0.02
5/30	0.8	270	43.4	3.7	—	9.6	50.2	19.1	0.05
6/6	0.0	96	34.1	1.9	—	5.8	40.0	30.2	0.2
6/13	0.1	390	32.6	2.2	—	2.6	44.4	21.4	0.04

North Jersey Tree Fruit

Week Ending

Week Ending	RBLR	STLM	TBM-A	CM	AM	OFM	TBM-P	LPTB	PTB
5/2	40.2	1080	0.0	0.01	—	3.3	0.0	—	—
5/9	22.2	980	0.0	0.3	—	26.2	0.0	—	—
5/16	10.7	902	1.0	1.3	—	6.0	0.1	0.1	—
5/23	2.0	157	1.9	1.2	—	4.1	0.6	0.9	—
5/30	2.4	252	5.8	2.6	—	6.7	2.6	0.5	0.1
6/6	0.3	26	3.0	3.1	—	4.8	2.3	5.3	0.6
6/13	0.05	268	8.4	3.5	—	4.2	6.8	21.6	1.5

Blueberry

Atlantic Co.

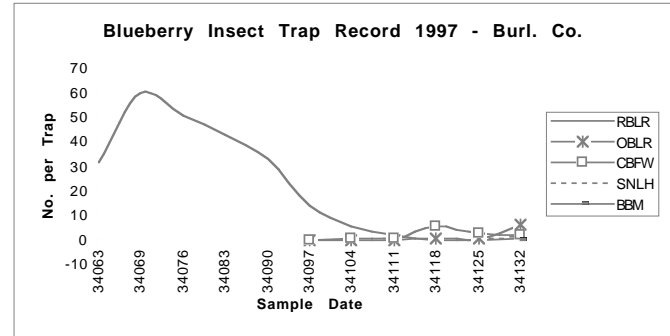
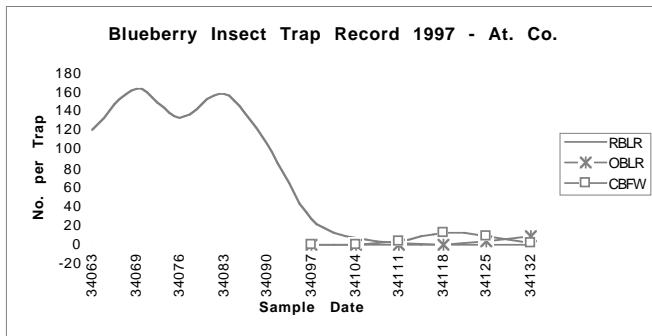
Week Ending

Week Ending	RBLR	OBLR	CBFW	SNLH	BBM
5/2	107	—	—	—	—
5/9	27.5	0	0	—	—
5/16	7.4	0	0.5	—	—
5/23	1.5	0	2.6	—	—
5/30	0.5	0.5	12.0	—	—
6/6	0	3.1	8.1	—	—
6/13	0.2	8.3	2.2	0.0	0.0

Burlington Co.

Week Ending

Week Ending	RBLR	OBLR	CBFW	SNLH	BBM
5/2	33.4	—	—	—	—
5/9	14.0	0.2	0	—	—
5/16	5.6	0	0.3	—	—
5/23	1.8	0	0.9	—	—
5/30	0.06	0.4	5.6	—	—
6/6	0	0.4	2.9	—	—
6/13	0.8	6.1	2.2	1.5	0.0



'97 Commercial Tree Fruit Production Guide

Jerome L. Frecon, Gloucester County Agricultural Agent

The 1997 Commercial Tree Fruit Production Guide is now available from county extension offices, or the Rutgers Cooperative Extension Publications Distribution Center, Dudley Road, P.O. 231, Cook College, New Brunswick, NJ 08901, telephone (908) 932-9762. The 134 page guide is published as a totally revised update to the 1993 Commercial Tree Fruit Production Recommendations for New Jersey and 1994-96 Insecticides/Fungicide Recommendations. The 1997 Guide contains the following chapters: (1) Be Safe With Pesticides; (2) General Orchard Information; (3) Weed

Control in Orchards; (4) Peaches and Nectarines; (5) Sweet and Sour Cherries; (6) Plums; (7) Apples; (8) Pears; (9) Tree Fruit Pests and Controls; (10) Spray Records; Individual chapters contain both standard and IPM spray schedules by commodity.

Easy to read Pesticide Safety Tables with information on days wait between last application, and the toxicity of pesticides are also included.

Blank spray record forms are also contained for growers needing forms to keep accurate records.

The 1997 Commercial Tree Fruit Production Guide supersedes all previous spray schedules because of up-to-date information and is a must for any tree fruit grower. Copies are available for \$10.00 payable to Rutgers Cooperative Extension. The entire Guide is also available free of charge on the World Wide Web Home page of Rutgers Cooperative Extension. The address is: <http://www.rce.rutgers.edu>. □

New Peach Cultivars for the Friday Breeding Programs in Michigan

Jerome L. Frecon, Gloucester County Agricultural Agent

I receive many inquiries from growers across the U.S. and abroad about the Friday varieties. Even though they are widely promoted and sold by many nurseries, there is limited experience with their performance. Dr. Bill Shane at Michigan State University and the Southwest Michigan Research and Extension Center has some experience with them and the originators Mr. Paul Friday, and his cousin Jim Friday are well respected fruit growers with a wealth of experience testing peach cultivars.

The Paul Friday peaches were bred and developed by Mr. Friday at his farm in Coloma, Michigan and sent out with the designation PF and a number. The lower numbers signified the earliest ripening fruit and the highest the later ripening selections. Later, names were given to each variety and trademarked as Flamin Fury and the numbers remained the same. Occasionally an A or B will be added to a number if a better cultivar was selected in the same season. Some nurserymen and growers get the numbers confused and plant earlier selections and are then disappointed when the variety does not ripen in the expected season. Many growers ask me, "what do you think of the Flamin Fury peach?" My standard answer is that each one is a different variety.

The following are the Flamin Fury varieties I have tested to date. I have other Paul Friday and Flaming Fury varieties planted but they have not borne fruit for evaluation.

Flamin Fury #1 = This variety has borne fruit two years and ripens very early before Candor on about July 1-4 in southern New Jersey. It is small medium firm, clingstone with a dark but bright red color over about 80% of the skin surface. The flavor is OK, yellow fleshed and juicy. The tree is healthy and has had no bacterial spot on the one site where it has fruited.

I have seen it in one grower's orchard where it is a little larger, but still less than a good 2 1/4 inch peach.

Flamin Fury #5B = This variety bore fruit for the first time in 1996. It ripens with Candor and close to Harrow Diamond. It is a beautiful 90% bright red skinned variety with good 2 1/4 to mostly 2 1/2 fruit. Pubescence is light, flavor is good. The flesh was not quite as firm as later Flamin Fury selections but I may have misjudged maturity. The tree was healthy, strong and productive with no bacterial spot.

Flaming Fury #12A = This fruit has been observed

on two test sites for 4 years. The fruit has 70% to 80% dark red skin color, very similar to Redhaven. It ripens with Redhaven but has better firmness and flavor. The size is comparable to Redhaven but the fruit ripens more uniformly and usually finishes up before Redhaven is complete. The flavor is good and the yellow flesh semi-free just like Redhaven. The tree does not appear to be quite as strong growing as Redhaven, particularly on my second test site. In 1996 it had a small amount of bacterial spot. While this is a nice peach I don't see it as good as some other varieties like Jon Boy, Newhaven, Redhaven Special, Early Loring, and Topaz that will fruit in southern New Jersey.

Flamin Fury #15 = This variety has been observed on one test site for four years. There is some question whether this should be 15B. It has a beautiful dark red skin over 90% of the surface, and ripens just after Redhaven near Jim Dandee, Salem and just before Ernie's Choice.

The flesh is yellow, firm, juicy, of good quality, and frees readily from the stone when it is dead ripe. The fruit size is equal to Jim Dandee and better than Redhaven but the crops have not been as heavy in my test block. The tree is strong, healthy and free of bacterial spot. Unless 15 crops better and produces larger fruit, I prefer Jim Dandee. I have also fruited a variety designated *Flamin Fury 15A* for one season that looks very similar to 15.

Flaming Fury #17 = This variety has fruited four years on two test sites in southern New Jersey and ripens very close to Loring in Harrow Beauty season. Quite a few plantings have been made and some growers are complaining the variety ripens with Redhaven and they had planted it as a Loring replacement. The fruit is not as large as Loring or Bounty which generally ripens in the same season. The color is not better than Bounty or Harrow Beauty and the fruit is not as firm or as resistant to bacterial spot as Bounty or Harrow Beauty. Trees of Flamin Fury #17 had quite a bit of spot in 1995 on both test sites. While this is a nice variety with good flavor, I would recommend Bounty and even Harrow Beauty as a better variety for southern New Jersey. The tree is otherwise strong, vigorous and healthy.

Flamin Fury #23 = This variety has fruited four years on one test site and ripens in an ideal season when we need a good replacement for MA Blake and Redkist, just after Loring.

The fruit has a bright, yet dark red skin color over 80% of the surface. It has a medium firm, yellow flesh, free from the stone and of excellent quality. The fruit size is good, better than Redkist and equal to Ruston Red and Blake both in the same season. The tree is healthy and strong but did have some bacterial spot in 1996. I would recommend this variety because of the season in which it ripens.

Pyramite 60W: It's a Go

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

Pyramite 60W insecticide/miticide just got clearance from the NJDEP and is now registered for use on apple and pear in New Jersey. It performed extremely well in my miticide trials against **European red mite (ERM)** on apple last year and is looking good so far this year. For example, earlier this past May, we applied 4.4 oz/acre of Pyramite at 100 GPA with an airblast sprayer to full size standard Red Delicious trees when **ERM** levels were about 48 mobile forms per leaf. Two weeks later, mobile forms were not detected. Control should last up to 45 days when label rates are used and applied with good coverage.

Work conducted in Medford, OR, showed Pyramite 60W was effective against **pear psylla** at 8.5 and 10.7 oz/acre. It also controls **ERM, twospotted spider mite, and pear rust mites** on this crop.

Pyramite 60W suppresses mite predators, making this miticide a questionable IPM material. However, BASF, the manufacturer of Pyramite, indicates that mite predators will rebound following application. Large scale research plots conducted in grower orchards this year will help us understand Pyramite's long term effect on mite predators.

◆ Rates

Use 4.4 oz/acre on apple against **ERM**, 6.6 oz/acre or higher for **twospotted mites (TSSM)**. For **pear psylla**, label rates range from 6.6 to 13.2 oz/acre. As with all miticides and psyllicides, good coverage provides better control.

The pre-harvest interval (PHI) for apple is 25 days; 7 days for pear. It has a 12-hr re-entry interval for both crops. It can be applied twice per season with an interval of 30 days between applications. □

Confirm 2F Section 18 Granted for Tufted Apple Bud Moth

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

The USEPA granted a Section 18 registration for use of Confirm 2F against **Tufted apple budmoth (TABM)** on apple in New Jersey. Work conducted by Dr. Larry Hull, Penn State, demonstrated that this insecticide is very effective against organophosphorus- and carbamate-resistant **TABM**.

Apply Confirm at 18 fluid ounces per acre in a minimum of 100 gallons of water per acre. Make one or 2 applications against the first generation larvae. Repeat this for the second generation. Given the delay in obtaining this Section 18 registration, consider one application (if there is still time) applied at peak egg hatch (see Mr. Dean Polk's IPM notes in this newsletter). Make applications for the second generation at 20-30% egg hatch (2350-2450 DD after biofix) followed by a second application at 60-70% egg hatch (2670-2740 DD). Work closely with your field man or Rutgers IPM people to get the timing down.

This material will provide suppression of **codling moth** but not **apple maggot** or **plant bugs**. If **apple maggot** or other pests are present, apply a suitable insecticide listed in the 1997 New Jersey Commercial Tree Fruit Production Guide.

Confirm 2F has a 14-day pre-harvest interval. □

FLAMIN FURY FROM PAGE 4

Flamin Fury 27A = This variety has fruited for two years on one test site. It ripens just after Cresthaven with Harcrest, Jerseyqueen and Jerseyglo. It has large to very large fruit with a bright red skin color covering 80 - 90% of the surface. The flesh is very firm, yellow, and of very good quality. The tree is vigorous but spraeadin and had some bacterial spot in 1997. The bud density is not as heavy as some other varieties like Harcrest. Because of the season in which it ripens it is a very promising variety.

The *Flamin Fury* varieties mentioned have not gone through a severe winter in New Jersey where temperature may be below zero in late January and then in the 30' to 50's two weeks later, and then drop again. For this reason I do not have a good sense of how they will produce year in and year out in our climate.

The Jim Friday peaches will be discussed in a future newsletter. □

Fruit Meeting Calendar

June 22-24, 1997 - "International Dwarf Fruit Tree Summer Orchard Tour", Leominster, Massachusetts. Contact: Mr. Charles Ax, 14 South Main Street, Middleburg, PA 17842, 717-837-1551.

June 25-26, 1997 - "State Horticultural Association of Pennsylvania Summer Educational Orchard Tour"— Orchards in Berks County, PA (approx. 65 miles from Southern NJ). Contact: Maureen Irvin, 697 Mountain Road, Ortana, PA 717-677-4184. Call to register by June 2.

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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.