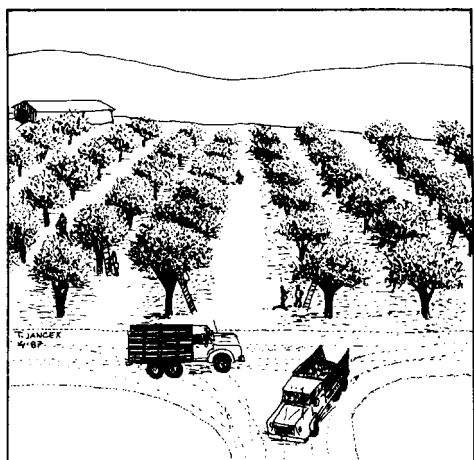


# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

MAY 29, 2001



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## Tufted Apple Bud Moth Control

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

Orchardists having experienced fruit damage cause by the **tufted apple bud moth** (TABM) recognize how difficult this pest is to deal with. Last year, several late-season peach varieties had unacceptable levels of TABM damage. If you have a history of TABM damage, now is the time to deal with it.

TABM has 2 generations per year. Eggs from the first generation are starting to hatch in the southern part of New Jersey and I expect that eggs in the central and northern areas will start hatching in about a week. Controlling the first generation larvae dramatically reduces problems caused by the second generation. However, growers should be aware that TABM has developed resistance to the OP insecticides and may require higher rates, combinations of insecticides, or different products.

For peach, TABM options are limited. Growers can use Lannate/Azinphosmethyl combinations, Spintor SC, pyrethroids, or any of the labeled *Bacillus thuringiensis* (*B.t.*) products. For apples, one can use any of the options above for peach or Confirm, Intrepid, or Danitol. Consult the current *Commercial Tree Fruit Production Guide* for further information. Remember that Spintor and Confirm are not effective against the **Oriental fruit moth**.

Time insecticide applications using a degree-day model for best results. If using complete sprays, the first spray should go on between 530-585 DD from biofix (predicted for 6 June in southern counties). The second spray for this first generation should occur at 805-855 DD (predicted for sometime between the 11<sup>th</sup> and 15<sup>th</sup> of June).

Alternate row middle sprays are: spray 1) 475-505 DD (30 May); spray 2) 610-640 DD (5-6 June); spray 3) 750-775 DD (11-13 June), and spray 4) 885-910 DD (about a week later).

Realize that these are anticipated spray dates based upon computer projections. Unexpected changes in the weather will alter these dates. As always, read and follow the label. Work with your IPM Program Associate and read future issues of this newsletter to get a better handle on timing **TABM** sprays. □

## White Peach Scale

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

The **white peach scale**, normally considered a peach pest in southern states, has been found in damaging levels in several New Jersey peach orchards during the last 2 growing seasons. If you know you have this pest, then I'm confident you applied a pre-bloom program against this pest. If you recently discovered this insect in your orchard or want to be sure you did a thorough job cleaning it up, now is the time to spray in southern counties, and a week later up north.

White peach scale eggs are starting to hatch and the crawler stage is present. This is the stage that is controlled with OP insecticides. For scale crawlers, apply 2 applications of either Imidan 70WP (2-3 lbs/A) or azinphosmethyl 50WP (1.75-2 lbs/A) 7-10 days apart. Use enough water to assure good coverage. Pyrethroids are ineffective against scale and actually make scale problems worse. Remember, read and follow the label. □

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## Study Summary of Strawberry on Fumigated Soil

*Relative Performance of Strawberry Cultivars and Native Hybrids on Fumigated and Nonfumigated Soil in Michigan, James F. Hancock, Peter W. Callow, Sedat Serce, and Annemiek C. Schilder, Michigan State University*

**Abstract.** The performance of four California and 11 eastern cultivars of *Fragaria ananassa* Duchesne in La-marck, and 12 elite F1 hybrids of *Fragaria ananassa* with *F. virginiana* Miller in their immediate background was evaluated in a producer's field with and without methyl bromide-chloropicrin fumigation. Averaged across all genotypes, plants in nonfumigated soils had 43% fewer runners, 18% smaller fruit, and 46% lower yields than did plants on fumigated soil. They also had an average of 27% fewer crowns, 49% more root discoloration, significantly fewer fine roots, and showed symptoms of the **black root rot syndrome**. The most commonly isolated pathogens from discolored roots were *Pythium* sp., *Rhizoctonia* sp., *Idriella lunata* P.E. Nelson & K. Wilh., and the **root-knot nematode** (*Meloidogyne hapla* Chitwood). The performance of all genotypes was enhanced by fumigation, although the *F. virginiana* hybrids performed comparatively better than the other cultivars on nonfumigated soils.

Source: *HortScience*, Vol. 36, No. 1, February 2001. Submitted by Jerome L. Frecon, Agricultural Agent. □

## Fruit IPM

Dean Polk, Fruit IPM Agent

### Peach

✓ **Oriental Fruit Moth (OFM):** All first generation treatments for this pest should have been completed. Some small amounts of flagging can be found in southern counties, but this is difficult to find. Larvae will develop over the next several weeks, and adults will start to emerge for the second flight.

✓ **Blossom Blight:** Brown rot blossom blight can be found in roughly a third of scouted blocks. In many cases it is not at serious levels. However, where significant amounts are present, and humid or rainy conditions persist, growers should consider moving away from sulfur and using some form of a Captan combination fungicide program.

✓ **Tufted Apple Budmoth (TABM):** The first generation of TABM should be ideally controlled with 4 alternate middle applications spaced at about 490, 625, 763, 898 DD after biofix. The first of these sprays will be due in southern counties on about 6/1, and about 6/9-10 in central counties. These timings are for OP, carbamate, and pyrethroid insecticides. Growers with known TABM problems should use a Lannate combination during these times.

✓ **Catfacing Insects (CFI):** Pressure from these insects has increased. Up to 16 catfacing insects, all tarnished plant bugs (adults and nymphs) have been found in various groundcovers. A small amount of fresh injury was also seen. Where tarnished plant bugs, as well as other CFI are present, insecticide treatments are still advised, even in mating disruption blocks.

### Apple

✓ **Apple Scab:** Scab is still the primary disease target. Primary inoculum is still present, and we had two infection periods over the weekend with 2.5 to 2.8" of rain. This is enough precipitation to wash most fungicide residue off the trees, unless a systemic or locally systemic material is used. These are the times when Flint and Sovran may show an advantage. Do not stick to alternate middle sprays only during times of significant precipitation. In past years we have seen many cases of scab infections being established on the side the tree that did not receive a full fungicide program.

✓ **Codling Moth (CM):** The first treatment for codling moth should have gone on in southern counties on or about 5/23 - 5/25, in central counties on or about Monday to Tuesday of this week, and in northern counties on or about Thursday to Friday of this week. An additional application should immediately follow in 10 days to 2 weeks (full cover), or 7 days (alt. middle).

SEE IPM ON PAGE 3

**Pear**

✓ **Pear Psylla:** Second generation adults are now emerging. These adults will lay eggs for production of nymphs. Watch for hatching eggs or early stage or 'soft shell' nymphs and treat when present.

✓ **Fabraea Leaf Spot:** Recent weather has been ideal for leaf spot infections. This can be a devastating disease if left uncontrolled. Include Ferbam, Ziram, or Manzate in the fungicide program. If using an EBDC material, make sure to use the reduced rate in combination with another fungicide.

**Blueberry**

✓ **Leafrollers, green fruitworms, and spanworms:** Some injury is present in about 41% of samples. Most samples where injury is present show only low levels where less than 5% of clusters have any feeding. No fields have been found which require treatment.

**Insect Trap Counts**

**Tree Fruit - Southern Counties**

Week Ending	AM	CM	LPTB	OFM	PTB	STLM	TABM-A	TABM-P	OFM-A
1-Apr				0.00					
8-Apr				0.00					
13-Apr				0.20		725.00			6.00
19-Apr				2.02		1040.00			43.00
27-Apr				63.82		1466.67	0.00	0.00	132.00
4-May		0.29		64.79		1213.33	0.29	0.27	117.50
11-May		2.88	1.00	43.69		1280.00	7.56	6.53	123.00
18-May		5.50	51.50	25.52		405.00	10.94	13.75	46.50
25-May		2.10	107.25	5.56		55.00	25.00	17.31	26.55

**Tree Fruit - Northern Counties**

Week Ending	AM	CM	LPTB	OFM	PTB	STLM	TABM-A	TABM-P	OFM-A
11-May		3.02		58.27		1213.33			
18-May		6.77		28.49		252.00	1.88	4.62	16.5

**Atlantic Co. Blueberry Trap Averages**

WEEK END	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
8-Apr		133.00				
15-Apr		197.50				
22-Apr		195.75				
29-Apr		215.60				
6-May		188.80				
13-May		108.67				
20-May	4.79	16.63	0.00			
27-May	6.00	1.94	0.33			

**Burlington Co. Blueberry Trap Averages**

WEEK END	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
8-Apr		—				
15-Apr		—				
22-Apr		25.00				
29-Apr		107.00				
6-May		125.50				
13-May		41.43				
20-May	4.30	4.14				
27-May	4.56	0.67				

✓ **Aphids:** Aphid populations have increased since last week, with 77% of our samples showing aphid activity. Most samples show 5 to 10% of young terminals infested. High populations are in the 20 to 30% infested terminal category. Colony size has also increased.

✓ **Plum Curculio (PC):** PC adult presence has been decreasing over the past several weeks. No adults were found this past week in our sampling. About 22% of our samples did show some PC injury. There should be no additional fruit injury found for the remainder of the season on most varieties. A minor chance exists for late season injury on Elliott.

✓ **Cranberry Fruitworm (CBFW):** Trap counts increased significantly over the past last week. Traps checked in the Pemberton area on Monday showed increased catches from the previous week. One site in northern Atlantic County averaged 60 moths per trap. This should be close to the flight peak, and should not significantly change the timing of insecticides for this pest.

## Grape Information

The following websites have some excellent information for grape growers.

The Lake Erie Regional Grape Program has completed its new website which can be found at:  
<http://lenewa.netsync.net/public/IPM/Home.htm>

Also check out the Pennstate Wine Grape Network newsletter at:  
<http://winegrape.cas.psu.edu/grapevine/index.html>

Mark Chien, the speaker at our June 5 meeting, is the webmaster of this site.

*Submitted by Jerome L. Frecon, Agricultural Agent. □*

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## Twilight Wine Grape Growers Meeting

**Tuesday, June 5, 2001, 6:15 P.M.**

**Heritage Tree Fruit, LLC., Richwood, NJ**

**Agenda** - A tour of the Heritage's Grape Plantings and New Winery will be taken as we discuss the following topics:

**6:15 P.M.** - Welcome and Remarks by Bill and Penni Heritage, Heritage Tree Fruit, and Jerome L. Frecon, Agricultural Agent, Rutgers Cooperative Extension.

**6:30 P.M.** - Review and Discussion of Establishing and Training Young Vines by Mark Chien, Wine Grape Agent, Penn State Cooperative Extension.

**6:45 P.M.** - Trends in Wine Grape Varieties and Rootstocks by Dr. Joe Fiola, Specialist in Small Fruits and Viticulture, Rutgers Cooperative Extension.

**7:00 P.M.** - Canopy Management of Wine Grape Vines by Mark Chien

**7:20 P.M.** Insect Management Update on Grapes by Dr. Sridhar Polavarapu, Specialist in Entomology, Rutgers Cooperative Extension.

**7:45 P.M.** - Weed Management Update in Grapes by Dr. Brad Majek, Specialist in Weed Science, Rutgers Cooperative Extension.

**8:00 P.M.** - Everything You Need to Know about Starting a Winery, by Jerome Frecon and Joe Fiola.

**8:10 P.M.** - Update on Worker Protection Standards for Growers by Dr. George Hamilton, Specialist in Pest Management, Rutgers Cooperative Extension.

**8:30 P.M.** - Disease Management in Wine Grape Plantings by Dr. Joe Fiola.

**8:50 P.M.** - Adjourn and Refreshments.

NJ Pesticide Applicator and Core Units will be: 1A-1 Unit, CORE-1 Unit, and PP2 -1 Unit.

For further information, contact Jerome L. Frecon at RCE of Gloucester County at 856-307-6450. □

## Fruit Tour for New Jersey Growers

The 2001 summer tour, co-sponsored by the State Horticultural Association of Pennsylvania (SHAP) and the New Jersey State Horticultural Society, is scheduled for June 26<sup>th</sup> & 27<sup>th</sup>. This educational tour is open to all interested in tree and small fruit production. The tour will commence from the Hampton Inn in Swedesboro (Bridgeport), NJ at 1 p.m. on June 26, 2001.

**Stop 1** – Marino Bros. Sun Valley Orchards is located on Vestry Road, near Swedesboro in Gloucester County, NJ. Our focus will be their 400 acre peach operation. We will observe many plantings of Encore, Redhaven, Laurol, Flamin Fury23, Flamin Fury 27A, Flamin Fury 24-007, Salem varieties, and white peaches on trickle irrigation. We will also see modern hard fescue ground cover management, strip weed control, and high-density plantings of peaches. Most of Marino's plantings are less than 10 years old. Information at [www.sunvalleyorchards.com](http://www.sunvalleyorchards.com).

**Stop 2** – Mood's Farm Market and Store is located on Rt. 77 south of Mullica Hill, Gloucester County. The Moods produce 130 acres of tree and small fruit crops, sweet corn, and pumpkins. They also operate one of the last cider operations in the county. The focus of our tour will be their 15-acre U-pick sweet cherry operation, mostly Heldfingen and Ulster. A young planting of Heldfingen on Gisela will also be observed. We will also discuss and observe bramble plantings of Titan, Canby and Taylor red raspberries and discuss new varieties from the Rutgers breeding program. If the farm market is open we will visit it. Information on Moods is available at [www.moodsfarmmarket.com](http://www.moodsfarmmarket.com).

**Stop 3** – Duffields Farm Market, Bakery, and Delicatessen is located in suburban Washington Township, Gloucester County. The farm grows 35 crops on 130 acres. Their specialties are tomatoes, sweet corn, strawberries and peaches. The focus of our tour will be on marketing via their large indoor market with bakery and delicatessen, and their entertainment activities including parties, field trips, home agricultural lessons, pick your own, hayrides, festivals, and petting zoo. If it is not too late in the season we may also visit their U-pick strawberry operation. Information on Duffields is available at [www.duffieldsfarm.com](http://www.duffieldsfarm.com).

**Stop 4** – Rutgers Agricultural Research and Extension Center on Northville Road, in Upper Deerfield Township in Cumberland County, NJ. The focus of our stop will be a fruit meeting and tour through peach plantings with Rutgers Cooperative Extension Specialists and Agents. Emphasis will be on

*FRUIT TOUR ON PAGE 5*

disease, insect, weed and pest management research and the evaluation of new peach cultivars. Plantings of peach varieties, insect management, trickle irrigation and peach disease management will be toured. A barbecue will be served at the picnic pavilion before the tour. A twilight fruit meeting will held at 6:15 p.m. after dinner.

We will return to the Hampton Inn about 9:30 p.m.

## Day 2

**Stop 1** - Donio Farms is located along Old Forks Rd. and Third Street, west of Hammonton in Camden County, NJ. Our focus will be on their peach plantings. We will tour Rutgers Cooperative Extension research plots in ground cover management, turf cultivar evaluations, mating disruption and discuss the RCE Integrated Pest Management program. We will also tour and discuss young plantings of Sentry, Flamin Fury 17 and Easternglo nectarines and plasticulture strawberry planting of Chandler. Donio's wholesale most of their produce through Donio Inc. under the Top Crop label. We will travel by their facilities also.

**Stop 2** - Atlantic Blueberry Co. is east of Hammonton in Atlantic County, NJ. It is a growing, processing and packing facility of 1,300 acres.. At this time they will be hand harvesting Bluetta's and Weymouth but may be into some of their midseason varieties like Duke. We will tour their modern fresh packing operation and also their IQF processing facility. We will also learn about the Rutgers IPM blueberry program. Information on Atlantic Blueberry Company can be found at [www.atlanticblueberry.com](http://www.atlanticblueberry.com).

**Stop 3** - Tomasello Winery is located along Rte 30/White Horse Pike in Hammonton, Camden and Atlantic Counties. We will walk through some of their plantings around the sales and processing facility that are mostly Chardonnay. Tomasello Winery is the largest winery in New Jersey. We will tour their modern banquet and wine tasting facilities. We will also visit their tank and storage rooms and their new state-of-the-art bottling line if it is operating that day. Information on Tomasello Winery is available at [www.tomasellowinery.com](http://www.tomasellowinery.com).

**Stop 4** - Glossy Fruit Farm on Rt 206 east of Hammonton in Atlantic County. Glossy Fruit Farm is owned and operated by the Rizzotte family, which has been growing fruits and vegetables since 1887 in Atlantic County. They grow 120 acres of blueberries, 120 acres of sweet corn and 240 acres of other vegetables. Their blueberries are marketed through Jersey Fruit Coop and vegetables through Donio Produce under the Top Crop label. They are a member of the Jersey Fresh quality-labeling program and have a HAACP labeling program by Primus Laboratories. Our focus will be on their wholesale marketing

and modern farm market along Route 206, where a wide variety of fruits, vegetables and plants are sold. Information on Glossy Fruit Farm is available at [www.glossyfruit.com](http://www.glossyfruit.com).

We will return to the motel to pick up automobiles after the tour.

The tour guides for the tour are Jerry Frecon, Agricultural Agent with Rutgers Cooperative Extension of Gloucester County and area tree fruit agent in southern New Jersey, Gary Pavlis, Agricultural Agent with Rutgers Cooperative Extension of Atlantic County and grape and blueberry agent in Camden, Atlantic and Burlington Counties, and Dean Polk, Statewide IPM Fruit Agent with Rutgers Cooperative Extension.

## Registration

Registration should be made with the State Horticultural Association of Pennsylvania. The cost is \$65.00 per person. This price includes travel via air-conditioned bus both days, tour guides, refreshments, dinner on Tuesday evening, and lunch on Wednesday.

We have chosen the Hampton Inn in Bridgeport, NJ for overnight accommodations. The Hampton Inn is holding a block of rooms for our group for the evening of June 26<sup>th</sup> until June 5, 2001. For reservations at the Hampton Inn, call 856-467-6200, or Maureen Irvin at 717-677-4184 and specify that you are with SHAP in order to get a special room rate of \$84.00. This rate also includes a full breakfast buffet on Wednesday morning before our departure for the day. Directions to the Hampton Inn will be mailed with your confirmation upon receipt of your payment and registration form.

Please send the your registration, along with a check for \$65.00 payable to SHAP to: Maureen Irvin, SHAP, 697 Mountain Road, Orrtanna, Pa. 17353. Deadline for registration is June 1, 2001. □

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## Calendar of Events

**June 5, 2001**, 6:15 PM - Twilight Grape And Enology Meeting, Heritage Tree Fruit LLC. Rt. 609 Richwood-Elmer Rd., Richwood, NJ. Contact: Jerry Frecon at Rutgers Cooperative Extension of Gloucester Co. at 856-307-6450.

**June 26, 2001**, 6:15 PM - Twilight Fruit Research Meeting, Rutgers Agricultural Research and Extension Center, Northville Rd., Upper Deerfield Township, Bridgeton, NJ. Contact: Jerry Frecon at Rutgers Cooperative Extension of Gloucester Co. (Registration required) This meeting will be part of the State Horticultural Association of Pennsylvania Fruit Tour of southern NJ.

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