

# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

JUNE 27, 2006



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## Fruit IPM

Dean Polk, Fruit IPM Agent and David Schmitt and Eugene Rizio, Program Associates, Tree Fruit IPM

### Peach

✓ **Plum Curculio (PC):** Fresh egg scars and newly hatched larvae were present during early to mid week last week in central and northern counties. This is unusual and late injury for this time of year. However, this means that any insecticides that are used at this time of year in northern counties should still be effective for PC control. Please see ratings and rates in the *Tree Fruit Production Guide*.

✓ **Oriental Fruit Moth (OFM):** The second brood is about 77% hatched in southern counties, and is about 10% hatched in northern counties. Degree day spray timings are as follows for the second generation, updated since last week:

#### OFM Spray Timing

County Area	Application and Insecticide Type	
	Standard Insecticides	Intrepid
Southern	1 <sup>st</sup> trt past, 2 <sup>nd</sup> trt 6/24-26	1 <sup>st</sup> trt past, 2 <sup>nd</sup> past
Central	1 <sup>st</sup> past, 2 <sup>nd</sup> trt 6/26-27	1 <sup>st</sup> trt past, 2 <sup>nd</sup> trt 6/24-26
Northern	1 <sup>st</sup> trt 6/23-25, 2 <sup>nd</sup> trt 7/4-6	1 <sup>st</sup> trt past, 2 <sup>nd</sup> trt 7/2-4

✓ **Tufted Apple Budmoth (TABM):** Timings for first brood TABM control are in the following table, updated since last week. Larvae are 98-99% hatched in southern and central counties, and about 90% hatched in northern counties. All treatments should be completed in all counties. The next treatments will be due for the second generation by the end of July in southern counties and the beginning of August in northern counties.

#### TABM Spray Timing

County Area	Spray Type		
	AM	EM	Intrepid - EM
Southern	4 <sup>th</sup> trt past	2 <sup>nd</sup> trt past	2 <sup>nd</sup> trt past
Central	4 <sup>th</sup> trt past	2 <sup>nd</sup> trt past	2 <sup>nd</sup> trt past
Northern	4 <sup>th</sup> trt 6/24-25	2 <sup>nd</sup> trt past	2 <sup>nd</sup> trt past

✓ **Catfacing Insects (Tarnished Plant Bugs-TPB and Stink Bugs-SB):** Insect pressure is increasing in a number of blocks. By the end of last week stink bugs were beginning to appear in sweep net samples in the south. Many orchards have ground covers composed of flowering weeds and clover, which makes an ideal habitat for catfacing insects. These

SEE IPM ON PAGE 2

insects breed and multiply in the ground cover, and then find their way to the peach fruit. Damage may appear as water soaked areas, bleeding spots on the fruit, or depressed calloused tissue. Because there are pit injury and bacterial spot symptoms present in some orchards, be sure to distinguish between those symptoms and catfacing. Fresh catfacing injury will appear as single or multiple bleeding sites on the fruit surface. Cutting into the bleeding area will reveal a shallow injury. Injured pits will appear similar to catfacing injury, however if the fruit is cut the injured area will appear as a "water-soaked" area extending through to the pit. Bacterial spot often begins with multiple bleeding spots that will eventually heal over leaving blackened spots.

✓ **Brown Rot:** Thundershowers and overhead irrigation done around periods of warm temperatures and high humidity can provide good opportunities for brown rot infection. An improved fungicide schedule should be initiated 2 to 3 weeks prior to the first picking. Pristine (a combination of strobilurin and boscalid chemistries) along with the SI's Elite, Orbit, Bumper and Indar are rated the best for brown rot control on ripening fruit. Rotating different chemistries is the best strategy for resistance management. At minimum, use a combination with Captan and one of the above materials.

✓ **European Red Mites (ERM):** Mites are beginning to build in a number of peach blocks. In most cases, growers are going to want a quick knock down material. Be aware that Apollo and Savey can be slow acting and they have long REIs (21 and 28 days). Nexter and Acramite are the two best options at this time of year. Make sure to alternate these materials, use enough spray volume, and apply to both sides of the tree. Acramite does not work in alkaline water. Make sure the spray mix is neutral or slightly acidic when using Acramite.

### Apple

✓ **European Red Mites (ERM):** Mites in both peaches and apples have been showing up over the past few weeks. The treatment threshold for mites in apples for late June/early July is 5 motile mites/leaf. Very few orchards have reached this threshold. In addition to the miticides mentioned above for peach, apple miticides include several products: Envidor, Zeal, and Fujimite.

### Scouting Calendar

The following table is intended as an aid for orchard scouting. It should *not* be used to time pesticide applications. Median dates for pest events and crop phenology are displayed. These dates are compiled from observations made over the past 5-10 years in Gloucester County. Events in northern New Jersey should occur 7-10 days later.

Pest Event or Growth Stage	Approximate Date	2006 Observed Date
2nd Pear Psylla hatch	5/31+/- 1 days	May 29
SJS Crawlers-first generation	6/3+/- 7 days	May 26
Bacterial Spot-fruit symptoms appear	6/7+/- 20 days	May 30
Pit Hardening	6/16+/- 8 days	June 14
Peach Scab Symptoms	6/14+/-13 days	June 9
3rd Pear Psylla hatch	6/29+/- 0 days	Not yet observed

Nexter (formerly Pyramite) has begun to lose efficacy over the past few seasons, presumably due to building resistance. Fujimite is a similar chemistry to Nexter. If Nexter has performed poorly in your orchard then Fujimite may not be the best choice. Be sure to rotate chemistries by not using the same material more than once per season.

✓ **Codling Moth (CM):** Since we are between 1<sup>st</sup> and 2<sup>nd</sup> generations, very little activity is present except in orchards with a history of CM problems. We expect that the first sprays for the second generation will be due in southern counties by around 7/8 with standard materials, or around 7/6 with Intrepid. The following chart updates timings outlined in last week's newsletter.

#### Codling Moth Spray Timing

##### Application and Insecticide Type - 2<sup>nd</sup> Generation

County Area	OP's, Carbamates, Pyrethroids, Avaunt, Assail, Calypso	Intrepid
Southern	1 <sup>st</sup> trt 7/8, 2 <sup>nd</sup> trt 7/20-7/22	1 <sup>st</sup> trt 7/6, 2 <sup>nd</sup> trt 7/16-7/18
Central	1 <sup>st</sup> trt 7/8, 2 <sup>nd</sup> trt 7/21	1 <sup>st</sup> trt 7/6, 2 <sup>nd</sup> trt 7/17-19
Northern	1 <sup>st</sup> trt about 7/10-14	1 <sup>st</sup> trt about 7/19-13

✓ **Tufted Apple Budmoth (TABM):** See peach section.

✓ **Summer Diseases – Sooty Blotch and Fly Speck:** In addition to white rot and black rot and anthracnose, these are critical diseases to control at this time. Topsin-M, Sovran or Flint can be included for control. Good coverage is essential for control.

✓ **Fireblight:** Slight shoot blight has been observed in southern county orchards with a history of infections. Potato leafhopper (PLH) is the only insect present at this time that is known to transmit fireblight. PLH should not be tolerated where fireblight is present.

✓ **Aphids: Spirea and Apple (green) Aphids; Potato Leafhoppers (PLH):** Aphid populations are stable or dropping statewide, either from treatment or biological control. PLH are present in a number of orchards. The neonicotinoids, (e.g. Provado, Actara, Calypso, and Assail) will control both leafhoppers and aphids at this time.

SEE BLUEBERRY ON PAGE 3

## Blueberry

✓ **Blueberry Maggot (BBM):** Adults continue to be captured in yellow sticky traps, but at low levels. The following is a reminder for those growers who are participating in the Canadian Export Program and are trapping for maggot flies (or others who interested): Traps should be hung in a "V" orientation within the top 6-8" of the bush canopy, not above it. Sometimes this means cutting away a little foliage so it doesn't stick to the trap. If the trap is hung above the foliage then fewer to no maggot flies will be caught. The traps should ideally remain open at a 90° angle. As the trap gets wet, it loses form and gets heavier. Use of a # 14 or 12 wire in place of the plastic coated wires that come with the traps will help maintain proper orientation and shape. Traps should also be changed every 2 weeks, since the ammonium acetate will volatilize off the traps. Proper identification of flies is also important. There are several flies that resemble blueberry maggot adults, and may be confused for BBM. These include the walnut husk fly and the

cherry fruit fly. The blueberry maggot adult will have a solid "W" or "M" on the wing pattern. In most cases this looks identical to apple maggot, but assume that if it's in commercial blueberries, then it's blueberry maggot. Please see illustration from Carroll et. al. 2002.

✓ **Leafrollers and Larvae:** Shoot terminal inspections show that 8% of samples show live worms of various species. Included in this group is the blueberry leafminer, which forms a teepee from the leaf when older, and has the potential to contaminate the pack if numbers are high. MSU uses a threshold of 5% shoot infestation, of which there was only one sample which exceeded this value in our surveys. Searches of fruit samples for fresh worm injury showed no activity this past week. Old leafroller and other fruit injury was seen on 46% of samples of which 18% of samples exceeded the 1% injury level.

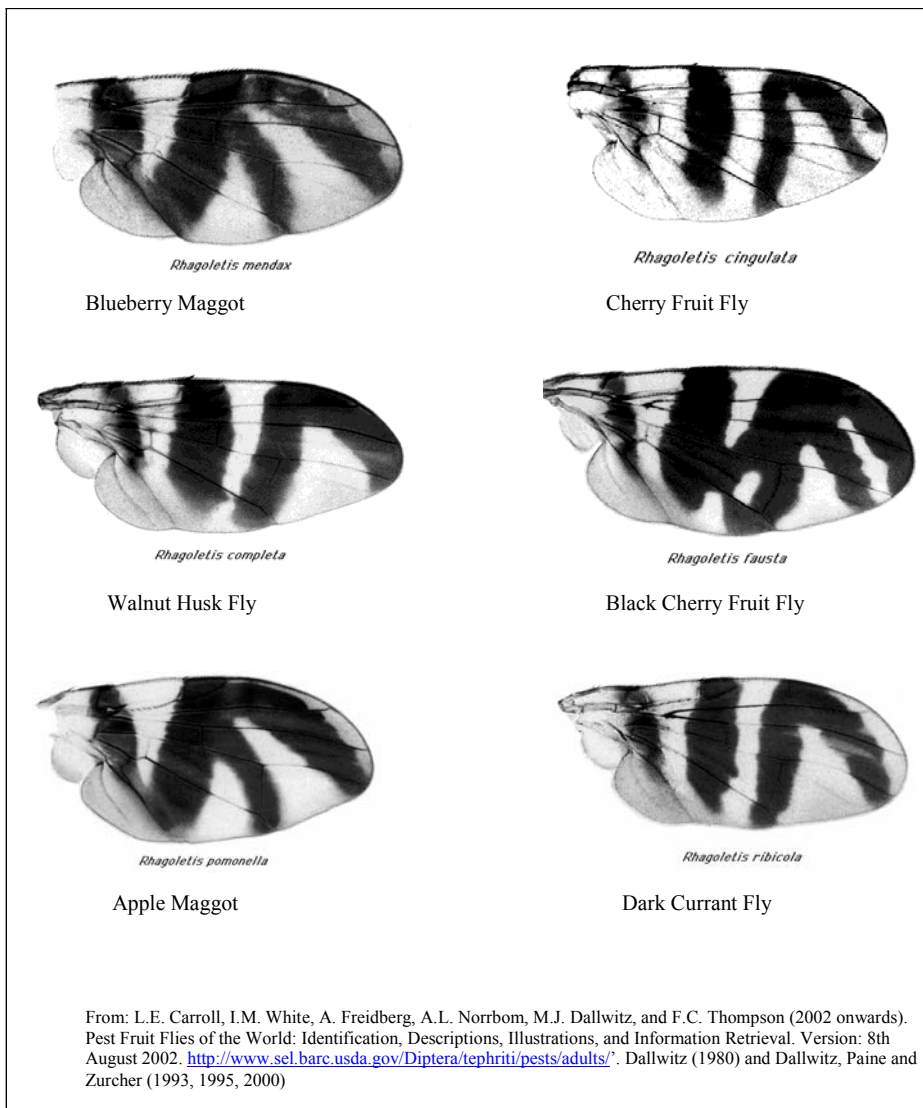
✓ **Cranberry Fruitworm:** About 16% of total samples were positive for damage. Almost all of the evaluations were on Bluecrop, since harvests on that variety had not yet reduced the amount of damaged fruit. The highest level seen was 2% of clusters with injury.

✓ **Aphids:** Both individuals and colonies are present in about 55% of our samples. Samples exceed the 10% infestation level in 36% of samples. Some predators are present.

✓ **Plum Curculio (PC):** No adults have been seen for the past 2 weeks, nor has there been any fresh injury. Old injury was present on about 34% of samples taken. This should decrease rapidly as injured fruit starts to drop.

✓ **Anthracnose:** With the recent wet weather, this disease is a concern. Abound or Cabrio applied between Bluecrop and Duke pickings will be helpful. Do not apply Abound with anything else, since it may result in plant injury.

SEE INSECT TRAP COUNTS ON PAGE 4



**Editor's Note: There will be no newsletter on Tuesday, July 4, 2006. The next issue will be July 11th.**

## Two New Fruit Insecticide Labels

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

New Jersey fruit growers have a new and an old insecticide labeled for use. The first label is for Venom® from Valent, a new insecticide for use against certain sucking insects on grape. This product will control **leafhoppers, grape mealybug, and thrips**. It can be used as a foliar application with a 1 day Pre-Harvest Intervals (PHI) or as a side-dress soil application 28 days before harvest. Both application methods require a 12 hour Restricted Entry Interval (REI).

The other label is for Lannate® SP insecticide. This new Special Local Need 24(c) Labeling replaces the previous label that expired. This allows peach and nectarine growers to use this product to control **thrips** pre-harvest. The Restricted Entry Intervals (REI) are 3 days for nectarines and 4 days for peaches. The Pre-Harvest Intervals (PHI) are 1 day for nectarines and 4 days for peaches. Because of the discrepancy between the REI and PHI for nectarine, if pickers harvest nectarines before the 3 day REI expires, they are required to wear coveralls, Category A chemical resistant gloves, shoes plus socks, and protective eyewear. These requirements are not necessary 3 days after application. Growers and applicators are urged to read and follow the directions on any pesticide label. □

### Insect Trap Counts

#### Tree Fruit Trap Counts – Southern Counties

Week Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
6/3/06	32	22	12		3		3	32	88	5
6/10/06	766	34	5		12		9	42	104	8
6/17/06	1111	21	5		1		11	23	82	0
6/24/06	1191	14	5		5		6	15	55	0

#### Tree Fruit Trap Counts – Northern Counties

Week Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
6/3	148.5	16.5	16.8			19.5	49.1	17.1	73.1	0.0
6/10	357.3	25.5	6.5			20.0	17.9	30.6	33.5	0.8
6/17	665.0	19.7	3.2	N/A	N/A	19.5	14.7	18.6	30.4	3.0
6/24	738	14.1	60.	N/A	N/A	14.3	16.4	18.2	32.4	3.2

#### Blueberry Trap Counts – Atlantic County

Week Ending	CBFW	RBLR	OBLR	SNLH	OB	BBM
6/3	1.6	1.7	31.4			
6/10	2.3	59.7	39.2	0.16	7	0
6/17	2.2	96.3	27	0.27	61.8	0.02
6/24	1.2	97.9	16.6	1.8	1341	.03

#### Blueberry Trap Counts – Burlington County

Week Ending	CBFW	RBLR	OBLR	SNLH	OB	BBM
6/3	10.1	0.2	15.6			
6/10	19.1	4.0	35.3	12.8	11.7	0.025
6/17	25.4	16.9	44.4	6.5	10.3	0
6/24	12.1	45.1	45.5	7.5	803	0

Key: CBFW = Cranberry Fruitworm, RBLR = Redbanded Leafroller, OBLR = Obliquebanded Leafroller, SNLH = Sharpnosed Leafhopper, OB = Oriental Beetle, BBM = Blueberry Maggot

# Wine Grape Information for the Region

Mark Chien, Wine Grape Agent, Penn State  
Cooperative Extension

Source: Mark Chien's Electronic Newsletter, June  
21, 2006

## ASEV Eastern Section Annual Conference - July 9-11 in Rochester, NY

Wine makers and grape growers, vendors and academics involved with wine and grapes in the region should belong to the American Society for Enology and Viticulture, certainly the regional Eastern Section of the society but also the national. ASEV is the professional association of the wine industry. In the East, ASEV hosts an annual meeting in a wine growing region each year and brings together important researchers in enology and viticulture with the wine industry. It is the best way to keep current with the latest research information that is relevant to your wine business. Funds from ASEV-ES are used to support a scholarship program for graduate students in viticulture and enology. These young people represent the future of our industry, both in research and commercial production. Research is essential to drive the quality and production of our industry in an intensely competitive global market. We need to cultivate young and enthusiastic minds to enter our industry either as professionals or researchers.

This year's conference is in Rochester, New York from July 9-11. This is a terrific opportunity to visit the Finger Lakes and hear about the latest research into multi-colored Asian Lady Beetle and other research topics including progress reports from Viticulture Consortium researchers. It is the best way to catch up with recent research and network with scientists and fellow growers. Plus, it is in the beautiful Finger Lakes region so you can use it as an excuse to enjoy the scenery and terrific wine and food. You should not miss a chance to visit the newly opened New York Food and Culinary Center in Cananadaigua.

A tour of vineyards and wineries has been organized for Sunday, July 9. It's a great way to see vineyards and enjoy the company of fellow wine growers, good food and wine and not have to worry about driving. You may learn as much or more from conversations on this day than during the meeting.

Membership and conference registration can be found at: <http://www.nysaes.cornell.edu/fst/faculty/henick/asev/>.

## Wine Grape Growers of America (WGA)

WGA is the national trade organization that represents the interests of all grape growers in the U.S. If you are not a member, please consider joining WGA. There

are issues at the national level that affect all grape growers, not just California. Jim Bedient, a grower from the Finger Lakes, is currently the president of WGA. Fowler West is the lobbyist in DC who carries important grape issues to the legislators such as immigration reform, estate tax and funding for viticulture research. This is really important work and well worth supporting. You may not know it, but WGA is working to help you. Please visit the WGA web site at <http://www.cawg.org/wga/>.

## Observations from the Field

I have visited a bunch of vineyards in SE PA in the past few weeks and feel very good about the way this vintage is shaping up so far. Vines look very clean so far - disease and bug free except for a bit of phomopsis and cane girdler, some hail damage in York and Berks Counties and what I generally refer to as "spring fever" which is due to the cool and dry season we've had resulting in some nitrogen deficiency along with either potassium or magnesium deficiency. The K can be deficient enough to cause leaf margin burning but I never saw it in any vineyard to the extent that it was a concern. Weed control in most places is excellent. I saw Chateau in action and it is very impressive. It looks like it will offer good residual control into the summer months. Mechanical devices have also been used very effectively, sometimes in combination with herbicides like Roundup or Rely. The warm weather kicked in the shoot growth so keeping up with canopy management has been a challenge recently but most vineyards are tucked and positioned. I have seen lots of shoot thinning in both vinifera and hybrids which I like. Heads of vines are particularly crowded so take out a few shoots but be sure to leave renewal positions below the fruiting wire, a must for cane pruning, a good insurance measure for cordon. Watch for the bull canes on the end of fruiting canes, they can grow now but cut them off before they begin to shade their neighbors. Leaf pulling on one or both sides should commence as we pass fruit set as well as hedging. When pulling leaves, try to get some of the interior leaves, especially the big ones and also the little watersprouts with no fruit on them. It will really help to open up the canopy. Right now the crop looks big. Set was good in most places. I hope everyone will consider doing a lag phase crop estimate and adjusting accordingly. Even with a good year shaping up, regulating yields on vines intended for high quality wine is a good idea. In most PA vineyards fertilizer needs are very modest if necessary at all. Let the vines or a bloom petiole test be your guide.

As you manage the vines, strive for uniformity in size and shape. We are at the tail end of the critical post bloom spray period and you should still be using your best materials at full rates and coverage. I like the use of directed fruit zone applications of botrytis and late

SEE WINE GRAPE INFO ON PAGE 6

season rot fungicides at bloom and bunch close. Having the leaves pulled will facilitate these applications and insure that they get into the interior of the clusters. It has been dry. I worry a little about vines planted this spring. If the shoot tips get very small and internodes length tighten up and tendrils tips turn black it is time to get some water on the vines any way you can.

Controlling weeds and cover crop systems will also help young vines to get established. If they get set back now, they may never become as productive or healthy as the would have if they were not stressed during establishment. Some growers are still coping with winter injury in vines from the 03 and 04 winters – cracked trunks and canes, crown gall and shoot collapse are still occurring. Grub these vines out and get ready to replant next year. The sooner the vines are out the better the soil can rest.

Some growers do not have commitments yet for their fruit. I suggest growers and wineries get together as soon as possible to plan for the upcoming vintage. Crop level is especially important. Wine makers should consider a first visit to vineyards where grapes are being purchased to look at canopies and crops. We have some new vineyards coming on line in Pennsylvania that are just terrific - well financed and developed and capable of producing high quality fruit. I think the industry is really moving in the right direction.

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

## Drip Irrigation Tape Recycling Program Continues as Mulch Film Program Closes

New Jersey Secretary of Agriculture Charles M. Kuperus announced that New Jersey farmers may continue to recycle drip irrigation tape at the Cumberland County Solid Waste Complex, however, the mulch film, silage bags, peat moss bags and crop cover recycling program has been eliminated.

“The agricultural plastics recycling pilot project was an example of the Department’s efforts to expand recycling opportunities for farmers in the hopes of keeping these plastics out of the waste stream, further protecting the environment and possibly defraying farmers’ disposal costs,” said Secretary Kuperus. “We will continue to search for new recycling opportunities and promote recycling in the agricultural industry.”

According to Steve Wymbs, Executive Director of the Cumberland County Improvement Authority, the market for plastics is extremely strong, yet after shipping numerous test loads none of the vendors were interested in the mulch film, silage bags, peat moss bags and crop cover.

“The mulch film, silage bags, peat moss bags and crop cover had too much foreign material and it was impossible for the plastics recycling vendor to get a high enough return out of the material,” said Wymbs. “The farm community did an excellent job in trying to prepare the material for recycling, but it is difficult to remove the dirt and plant material.”

Growers who generate mulch film and other soiled agricultural plastics must now take their material to an authorized solid waste disposal facility. Under New Jersey solid waste regulations, the material cannot be stockpiled on the farm.

In the fall, the Cumberland County Solid Waste Complex will continue to accept farmers’ drip irrigation tape, but it cannot contain any foreign materials. Farmers must pay a fee of \$30 per ton, an almost 50 percent savings in landfill tipping fees.

Farmers interested in recycling their drip irrigation tape can contact the Cumberland County Improvement Authority at 856-825-3700. Prior to delivery of the drip irrigation tape, all growers must call the Cumberland County Improvement Authority to establish an account with the Authority. Growers using a licensed solid waste hauler must inform the Authority prior to delivery in an effort to maintain proper billing and documentation.

*SEE RECYCLING PROGRAM ON PAGE 7*

## Sustainable Ag Videos

The following videos are available from the Center for Sustainable Agriculture at the University of Vermont:

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*'Farmers and their Weed Control Machines' – VHS*  
*'Farmers and their Weed Control Machines' – DVD*  
*'Farmers and their Ecological Sweet Corn Production Practices' – VHS*  
*'Farmers and their Diversified Horticultural Marketing Strategies' – VHS*  
*'Farmers and their Innovative Cover Cropping Techniques' – VHS*  
*'Farmers and their Innovative Cover Cropping Techniques' - DVD*

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Prices per video or DVD are \$15 mailed within the continental US. An order form is available on the web at:  
<http://www.uvm.edu/vtvegandberry/Videos/videoorderform.html>

To order, please send with payment to:  
Center for Sustainable Agriculture  
University of Vermont  
63 Carrigan Drive  
Burlington, VT 05405-0004  
Phone: (802) 656-5459  
E-mail: [sustainable.agriculture@uvm.edu](mailto:sustainable.agriculture@uvm.edu)

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## Calendar of Events

**June 28, 2006 - 5:00 p.m.** - Twilight Fruit Research Meeting, Tour and Picnic, Rutgers Agricultural Research and Extension Center, Northville Rd., Bridgeton, N.J. Contact Jerry Frecon at RCRE of Gloucester County at 856 307-6450 Ext 1.

**July 17, 5:00pm - Bio-diesel and Waste Vegetable Oil as Fuel, North Slope Farm, Lambertville, NJ.** To register: call NOFA-NJ at (609) 737-6848 or email [mazzara@nofanj.org](mailto:mazzara@nofanj.org). For directions: [www.nofanj.org](http://www.nofanj.org)

**July 27-30, 2006** - New Jersey Peach Festival, 4-H Fairgrounds Rt. 77 South of Mullica Hill, N.J. Contact Jerry Frecon at RCRE of Gloucester County at 856 307-6450 Ext. 1 or go to:  
<http://gloucester.rcre.rutgers.edu/fairfest>.

**August 3, 5:00pm – A Behind the Scenes Look at Managing a Large CSA, Honey Brook Organic Farm, Pennington, NJ.** To register: call NOFA-NJ at (609) 737-6848 or email [mazzara@nofanj.org](mailto:mazzara@nofanj.org). For directions: [www.honeybrookorganicfarm.com](http://www.honeybrookorganicfarm.com).


### RECYCLING PROGRAM FROM PAGE 6

The New Jersey Department of Agriculture has a strong commitment to ensuring compliance with New Jersey's mandatory recycling regulations. The Department has developed and/or facilitated several programs to assist Garden State farmers to recycle the plastic generated on their farm operations and reduce their solid waste disposal fees: nursery and greenhouse film recycling program, the plastic pesticide container-recycling program and the recently announced nursery pot-recycling program. For more information, visit [www.nj.gov/agriculture/divisions/md/prog/recycling.html](http://www.nj.gov/agriculture/divisions/md/prog/recycling.html).

For questions on the drip irrigation recycling program or the other plastics recycling programs sponsored by the Department, contact the Department's recycling coordinator at (609) 292-5536. □

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For back issues, visit our web site at: [www.rce.rutgers.edu/pubs/plantandpestadvisory](http://www.rce.rutgers.edu/pubs/plantandpestadvisory).

**Pesticide User Responsibility:** Use pesticides safely and follow instructions on labels. The pesticide user is responsible for proper use, storage and disposal, residues on crops, and damage caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact RCRE in your County.

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