Rutgers Cooperative Extension at the New Jersey Agricultural Experiment Station

PLANT & PEST ADVISORY

Fruit Edition $1.50 May 27, 2008

Early brown rot of peach
Source: NYAES Cornell

INSIDE

Fungicide Resistance Discovered in New Jersey Peach Orchard ...1

As I See It.....2

Programs for NJ Fruit Growers.....2

Fruit IPM.....3

An Inconvenient Truth - The Farmer's Version.....6

Tree & Small Fruit Growing Tour & Meeting 7

Sustainable Winegrape Viticulture Twilight Meeting....7

Fungicide Resistance Discovered in New Jersey Peach Orchard

Norman Lalancette, Ph.D., Specialist in Plant Pathology

An isolate of *Monilinia fructicola*, the fungal plant pathogen that causes **blossom blight** and **brown rot** on stone fruits, was found to be resistant to propiconazole fungicide in laboratory assays. Propiconazole is the active ingredient in fungicides marketed under the product names of Orbit, PropiMax, and Bumper, formulations commonly sold on stone fruit. Propiconazole belongs to the DMI (DeMethylation Inhibitor) class of fungicides, which inhibit growth of fungal pathogens by preventing ergosterol production, an important component of cell membranes.

The DMI class of fungicides is currently the most important group of fungicides for management of brown rot. Other popular DMI brown rot fungicides are fenbuconazole (Indar) and tebuconazole (Elite). In general, a strain resistant to propiconazole will also be resistant to these fungicides, a phenomenon called "cross-resistance". However, regardless of their similar chemistry, there are differences among these DMI's, in both their activity and labeling, which may allow their continued usage as part of an integrated resistance management program (more on this in future issues of P&PA).

The resistant isolate was originally obtained in 2006 from a commercial New Jersey peach orchard. In that year, eleven isolates of *M. fructicola* were collected, five from northern and central New Jersey and six from southern New Jersey. The original purpose of this collection was to obtain different genotypes of the pathogen from separate peach growing areas of the state. However, given that DMI resistance in *M. fructicola* has recently been reported in Georgia, Ohio, South Carolina, and New York orchards, it was decided to assay the isolate collection for resistance, even though it represented an extremely small sample size. Surprisingly, a resistant isolate was found in a sampled collected from a southern NJ orchard.

How common is this resistance in New Jersey stone fruit orchards? It is entirely possible that DMI resistance is not widespread and that the single resistant isolate was found by sheer chance. However, given that the resistant isolate was discovered in such a small sample size (one out of eleven), it is more probable that DMI resistance is fairly widespread. Loss of brown rot control has not yet been reported in New Jersey, but this may be due to several interacting factors: (1) the proportion of the

See Resistance on page 6

As I See It

Win Cowgill, Agricultural Agent

Fireblight Alert and Late Thinning

Following three gorgeous days of warm sunny weather in North Jersey, scattered showers and thunderstorms began early this morning in Hunterdon County and most of New Jersey.

Many varieties still have late bloom on one year wood and newly planted apple trees have tons of flowers just opening. These are especially at risk for the **blossom blight** phase of **fireblight** with today's warm humid temperatures and wetting conditions. It is essential that growers that have new blocks of fireblight-susceptible varieties apply often on susceptible dwarfing rootstocks apple streptomycin within 24 hours before or after the wetting event.

Please see our new fact sheet on Fireblight announced in last week's Plant and Pest Advisory newsletter. It can be downloaded at the UMASS Fruit Advisor web site at:

www.umass.edu/fruitadvisor/factsheets/factsheets.html

F-133 An Annual Fire Blight Management Program D. Cooley, W. Autio, J. Clements, W. Cowgill, & R. Spitko

Young Trees

In addition to looking out for fireblight on young trees, make sure to watch for **gypsy moth** and **apple scab**. Gypsy moth infestation is high in many areas of New Jersey this year. Caterpillars can blow into your orchard from miles away, so scout your new blocks for leaf feeding injury.

Apple Thinning Update

In Northern New Jersey this past holiday weekend was the ideal time to make your second application of PGR thinning materials. The first timing was at petal fall. All growers should consider petal fall Sevin as a mainstay across most varieties. Sevin is a mild uniform thinner that brings consistent results. This year we had two plus weeks waiting for the next window of opportunity for applying thinners. This second window is defined as three days or warm sunny weather-70-80°F applied in a warming trend.

After careful scouting of trees to look at fruit set and the effects of Thursday, Friday and Saturday, we applied thinners to many cultivars at the Rutgers Snyder Farm Saturday and Sunday (5/24-25).

This season with our cold weather the fruit dragged in achieving growth. Usually we can tell what effect our thinner is going to have after 7-9 days. This season it was 10-14 days to fully see the effect of my petal fall applications. On Thursday I thought I needed a lot of additional thinning, but by Saturday morning I adjusted my rates and combinations downward, in some cases no additional applications were made. Wednesday and Thursday are your next two days for normal window thinning if your fruit remains below 18 mm.

From 18-22 mm the only material that may be effective is Ethephon. We consider this a rescue treatment. New information from the UMASS fruit team suggests that Sevin XLR should be added to the ethephon for this rescue treatment. There appears to be a synergistic effect of the Sevin with Ethephon. For more info see our fact sheet:

F-129A Late-season "Rescue" Thinning with Ethephon W. Autio & W. Cowgill at:

www.umass.edu/fruitadvisor/factsheets/factsheets.html. ❑

Programs for NJ Fruit Growers

May 28, 2008 – Twilight Wine Grape Meeting, Plagido's Winery, 570 North 1st Road, Hammonton, NJ 08037 (609) 567-4633, Contact: Jerry Frecon at 856 307-6450 Ext 1 or frecon@njaes.rutgers.edu or Gary Pavlis, 609 625-0056 Fax 609 625-3646 pavlis@njaes.rutgers.edu

June 5, 2008 - Twilight Blueberry Growers Meeting, 5:30 p.m., Atlantic Blueberry Company, 7201 Weymouth Road, Hammonton, New Jersey. Contact: Gary Pavlis, 609 625-0056 Fax 609 625-3646 pavlis@njaes.rutgers.edu

June 10, 2008 - Twilight Fruit Meeting, Kimes Orchard and Cider Mill - State Cooperative Extension, Adams County. For information contact: Tara A. Baugher 717-334-6271, ext. 314.

June 22-25, 2008 – International Fruit Tour South Carolina and North Carolina. Will visit J.W. Yonce & sons Farm, Titan Peach Farms, Cotton Hope peach Farm, Watsonia Packing, Strawberry Hill USA, Apple Wedge Packers, Smile Factory, and Mountain Horticultural Crops Research Station. Contact Jerry Frecon or go to www.ifruittree.org/short-tour-location-dates

June 26, 2008 – Fruit and Wine Grape Research Twilight Meeting, Tour and Picnic, 4:00 p.m., Rutgers NJAES Agricultural Research and Extension Center, 121 Northville Road, Bridgeton, NJ. Pre-registration is required. Contact: Jerome L. Frecon at 856-307-6450 Ext 1 or Frecon@aesop.rutgers.edu

July 24 through 27, 2008 – New Jersey Peach Festival and Gloucester County 4-H Fair, Rt 77, Mullica Hill, NJ. Contact: Jerome L. Frecon at 856-307-6450 Ext 1 or at http://gloucester.njaes.rutgers.edu/fairfest/

Cooperative Extension faculty and staff in Maryland, New Jersey and Pennsylvania primarily sponsor these programs. There are other educational programs run by non extension organizations. ❑

Fruit IPM

Dean Polk, Fruit IPM Agent and David Schmitt, Eugene Rizio and Atanas Atanassov, Ph.D., Program Associates, Tree Fruit IPM

Peach

✔ **Tufted Apple Budmoth (TABM):** (Partially reprinted from last week). Tufted apple budmoth trap catches are going into their 4th week. This has been a key pest in many peach and apple orchards over the past years. More recently, we have seen lower populations and fewer problems. This is likely due in part to the move away from organophosphates and carbamates, to more effective materials like Intrepid and pyrethroids. Even though pyrethroids have negative effects such as killing predators and encouraging outbreaks of secondary pests (e.g. wooly apple aphids in apples, European red mites), their use has increased, partially due to lower costs. New materials include Delegate and Avaunt, and are very effective for TABM control. Treatments for TABM should be focused where TABM has been a past problem. This includes most areas of the state Mercer County and south. Degree day (DD) timed treatments are outlined for either alternate middle (AM) applications, where 4 sprays are needed per generation, full cover every middle (EM) applications where 2 sprays are needed per generation. If using the bio-rational control *Bacillus thuringiensis* (Bt) or the insect growth regulator (IGR), Intrepid, apply full cover with 2 sprays per generation. The following table lists timings based on degree-day accumulations according to our Skybit sites:

Degree Day Based Timing for Tufted Apple Budmoth				
	Spray Type			
Area	**AM**	**EM**	**Intrepid-EM**	**Bt-EM**
Gloucester Co.	1st 6/3-4, 2nd 6/8-10	1st 6/5-8	6/2-10	6/8-10
Monmouth Co.	1st 6/8-9, 2nd 6/11-13	1st 6/8-9	6/6-11	6/8-11
Middlesex Co.	1st 6/3-5, 2nd 6/9-11	1st 6/7-9	6/5-11	6/9-11
Hunterdon Co.	1st 6/7-9,	1st 6/10-13	6/8-15	6/13-15

✔ **Oriental Fruit Moth (OFM):** The first generation flight continues to "bottom out" in southern counties. All treatments based on DD timing should have been applied for the first brood. No additional treatments should be necessary unless trap captures are above the provisional threshold of 6 moths/trap. Treatments for the second generation should start about 6/18 in southern counties. Growers who wish to utilize mating disruption should begin placing ties or applying sprayable pheromone. This should be about 5/29 in southern counties, 5/31-6/1 in central counties, and 6/5-6 on northern counties. See last week's newsletter for more information.

✔ **Stink Bugs and Other Catfacing Insects:** If using Imidan for catfacing insect control, do not cut the rate. You may have to use the full 3 lb/Ac, especially if orchard blocks have wooded borders or weedy groundcover. Other materials effective for catfacing insect control include Thionex, and the pyrethroids – Asana, Baythroid, Ambush, Pounce and Warrior. Lannate can also be used but is not the best control for plum curculio. Lannate and pyrethroid materials increase risk for mite flare-ups. While not as effective as the pyrethroids, Actara, Assail, Avaunt, and Provado also provide activity for tarnished plant bug control. Provado does not control stink bugs, and Actara and Avaunt are weak on that insect. Beleaf is also very effective for tarnished plant bugs, although less effective on stink bugs.

✔ **Plum Curculio (PC):** PC is still actively causing fruit injury, but should be tapering off sometime in the next few weeks. Growers should continue to include effective materials. The best materials include Imidan, Avaunt, and Actara.

✔ **Rusty Spot:** Symptoms have begun to appear on susceptible varieties. Rally (formerly Nova) or another effective material should be included in cover sprays until pit hardening, which usually occurs around mid-June. Early spring weather (but not recently) has been conducive for rusty spot infections.

✔ **Bacterial Spot:** Symptoms have appeared on leaves in several southern orchards, however it is too early to see infected fruit. Leaf lesions first appear as faint water soaked areas between leaf veins (see Fig. 1 left photo). These lesions darken in a few days (Figure 1 right photo) and will eventually drop out leaving a "shot hole" effect. Tenncop should be included in cover sprays and antibiotics applied whenever conditions are favorable for infection (i.e. wetting periods, especially those that are accompanied by wind or damaging storms).

See IPM on page 4

Figure 1. New and slightly more established foliar bacterial spot lesions.

IPM from page 3

Apple

✔ **Codling Moth (CM):** Timings for the first of 2 sprays for the 1st generation is set at 250DD_{50} and again at 550DD for standard insecticides OPs, carbamates and pyrethroids, and the newer chemistries Assail and Calypso. The timings for the IGR's Intrepid, Rimon and Esteem are at 150DD and again at 450DD. The following chart outlines these times for southern, central and northern counties. Growers should try to time sprays the best way possible and not cut insecticide rates. The 2nd complete spray timing for CM generally coincides with timings for TABM. Materials used for TABM should also be very effective for CM.

Codling Moth Degree Day Spray Timing		
	Application and Insecticide Type	
Area	**Standard Insecticides**	**IGR's**
Gloucester Co.	1st 5/27 2nd about 6/12	1st past; 2nd 6/7
Monmouth Co.	1st 5/29 2nd about 6/15	1st 5/15-21; 2nd about 6/9-10
Middlesex Co.	1st 5/30-31 2nd about 6/16	1st 5/17-24; 2nd about 6/10-11
Hunterdon Co.	1st 6/2-3 2nd about 6/20	1st 5/18-26; 2nd about 6/11-13

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

✔ **White Apple Leafhopper; Aphids (Spirea and Apple Aphids, and Rosy Apple Aphids):** Leafhoppers are now appearing in apples in southern regions. Although a nuisance, leafhoppers cause little economic injury and should be tolerated unless sampling indicates a population over 3-4 total nymphs/leaf. Green aphid populations continue to build but are under the treatment threshold of 50% terminals infested. Growers using Assail or Calypso for codling moth control will also control aphids and leafhoppers.

✔ **European Apple Sawfly:** Both primary and secondary injury has been seen in several orchards in northern counties. This is a perennial difficult pest to control, especially when present in plantings with mixed varieties. Calypso and Provado are the best materials we have for control. Make sure to use plenty of water volume at this time. See page 167 of the *TFPG* for additional materials

✔ **Fire Blight:** New fire blight strikes continue to appear in several blocks. Young trees with extended bloom are particularly susceptible, and are common in North Jersey. If your orchard has fire blight, consider cover sprays of any copper labeled for post bloom use. Post bloom use of coppers will russet fruit. Combining coppers with Manzate will increase the effectiveness for fire blight control. In general, antibiotics are used when any bloom is present and fire blight infections are predicted or have just recently occurred. Coppers are used to help stop further spread of the disease when additional infection periods are predicted and no bloom is present. This is done for both resistance management and economic concerns. Apply materials anytime warm rains occur, especially those that are accompanied by wind or damaging storms. See accompanying Fire Blight Alert article by Win Cowgill as well as links to the Fire Blight fact sheet: F-133 An Annual Fire Blight Management Program D. Cooley, W. Autio, J. Clements, W. Cowgill, & R. Spitko.

✔ **Apple Scab and Other Diseases:** Scab is present in only a few orchards in southern counties at present. Summer diseases, including black rot and white rot are the key diseases to control at present. Combinations with Topsin and Captan have been the most economical, and give broad spectrum control. The strobilurins, Sovran and Pristine are also effective for rot control as well as sooty blotch and fly speck. Flint is effective for rots but is less so than Sovran or Pristine. Flint should be combined with an effective protectant such as captan or and EBDC fungicide. Use higher rates of strobilurins where scab is present.

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**	**2007 Observed Date**
Apple Scab leaf lesions observed	April 28 +/- 07 Days	May 22
TABM Biofix	May 04 +/- 10 Days	May 4
Plum Curculio Injury	May 05 +/- 16 Days	April 22
Oriental Fruit Moth - 375 DD	May 10 +/- 10 Days	May 8
Rusty Spot symptoms observed	May 12 +/- 10 days	May 14
CM Biofix	May 14 +/- 16 Days	May 3
OFM Flagging observed	May 15 +/- 04 Days	May 14
Bact. Spot Leaf Symptoms observed	May 15 +/- 21 Days	May 21
CM 1st generation 150 DD target	May 18 +/- 04 Days	May 17
CM 1st generation 250 DD target	May 28 +/- 07 Days	May 27
2nd Pear Psylla hatch	May 30 +/- 02 Days	Not yet observed
TABM 1st gen. 475 DD target (start)	June 02 +/- 07 Days	Not yet observed
CM 1st generation 450 DD target	June 04 +/- 08 Days	Not yet observed
CM 1st generation 550 DD target	June 09 +/- 07 Days	Not yet observed
TABM 1st gen. 910 DD target (end)	June 18 +/- 10 Days	Not yet observed

See Blueberry on page 5

Blueberry from page 4

Blueberry

✔ **Cranberry Fruitworm (CBFW):** Given the trap counts over the past 2-3 weeks, the CBFW flight should be close to a peak. While flight peaks are difficult to define until after they have happened, trap counts in fields with high populations indicate that flights in the Hammonton area are close to if not at the flight peak. Some trap counts are over 20-40/trap in that area. Given this case, growers who have a history of cranberry fruitworm, should target this insect in any application that falls at the end of the week.

✔ **Aphids:** Aphid levels are increasing. About 84% of samples are positive for aphids, and 41% have been over the 10% of 'terminals infested' level. Sampling is being done in the lower 1/3 of the bush only on new growth terminals. Very few aphids are being seen in the upper portions of the bush at this time. **Predators/Lady Beetles** - Adult Lady Beetles are being seen very frequently at many of our farms. They are usually seen at the shoot terminals where aphids are normally found. **Syrphid** fly larvae have also been seen at a few sites. Both these predators are actively feeding on aphids.

✔ **Plum Curculio (PC):** Adults are being seen at about the same frequency and levels as last week. About 8% of samples have been positive and the overall catch is at 0.12 adults/sample. Fruit evaluations show that 38% of samples are positive for PC injury and 5% of these samples are over the 1% damage level. Since PC adults are still active, growers should include a material that is effective for this insect, especially in fields that border the woods, or on early season varieties that are more susceptible to PC injury.

✔ **Gypsy Moth Larvae:** A sharp decline in larvae is being seen in our sampling. About 30% of samples have been positive for worms, but only 1% of samples were found to have over 1 worm/100 clusters. In most of these positive samples worms are being found only at the wooded boarders with none seen in the center of the field, which is a very different picture compared to 3 weeks ago. Growers should still make sure to check their bushes for any large larvae. Any larvae that mature in blueberry fields will pupate. These pupae will hang on the bushes and may become a phytosanitary concern if picked by mechanical harvesters later in the season.

✔ **Leafroller (LR) Larvae and Other Non-Gypsy Moth Worms:** Beating tray and shoot samples for LR worms show low levels of infestation being found in 12% of our samples. Only one sample was seen which was considered over threshold, and this was in a semi-abandoned field. Minor fruit injury is being seen in 52% of fruit samples, which includes damage from gypsy moth larvae and other species of worm larvae.

✔ **Thrips:** Thrips are being seen more frequently but levels are still generally low. The range of levels goes from 1-37 per 100 fruit clusters. It is also common to see thrips on foliage at the new growth terminals. However, since all fruit is set, no damage is expected, and treatments for this insect are not suggested.

✔ **Mummy Berry:** While no mummy has been seen in fruit samples as yet, shoot strikes are being seen in 5% of samples.

Trap Counts

Tree Fruit

Southern Counties

Weekend	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
5/3	68	0	0		6		9	0	0	
5/10	66	1	6		18		7	1	29	
5/17	22	1	7		9		2	2	19	
5/24	10	4	3		2	0	1	4	47	

Northern Counties

Weekend	STLM	TABM-A	CM	AM	DWB	OFM-P	TABM-P	LPTB	PTB	OBLR
5/3	494.0	0.0	0.0			33.9	0.0			
5/10	765.3	0.2	0.4			32.7	0.0			
5/17	632.1	2.6	3.2			25.0	1.1			
5/24	137.6	3.7	2.1			23.0	2.1			

Blueberry

Atlantic County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
5/3		41.9				
5/10	0.4	7.7				
5/17	1.4	1.7	0			
5/24	1.8	0.3	0			

Burlington County

Week End	CBFW	RBLR	OBLR	SNLH	OR BEET	BBM
5/3		19.8				
5/10	0.2	8.5				
5/17	.96	1.7	0			
5/24	0.4	0.6	0			

An Inconvenient Truth - The Farmer's Version

Jhilson Ortiz, Senior Program Coordinator, Agriculture Marketing

The green (ecological) movement that pushes for more responsible business practices toward the environment has reached not only the likes of J&J, Coca Cola, and most of mainstream Corporate America, but also Agriculture as an industry.

To be prepared to face this not so new challenge, farmers have to recognize what part of their operations meet and do not meet these growing niche market expectations by creating a list of positive and negative impacts created by their farm activities.

The objective of generating the list is to help farmers recognize what business practices should be considered for further improvement for more social responsibility, and also to help farmers understand what activities should be promoted and advertised.

One of the main mistakes that farmers make is to not be proactive and communicative to their audiences/buyers by informing them what the farm does for their economy, their lifestyle, their health, and their [other] expectations.

This program/plan, does require a plan for delivery, and the best methods are those that "shock & awe" with an inspirational spin. Farmers could start by taking good pictures of nature as portrayed by their farm and its activities.

The purpose of the pictures is to help the farmer communicate an idea that resonates with their audience. These ideas are naturally the match between consumer concern and the actions that farmers are taking to address them. After this subject is understood, it becomes clear why it is important to list the activities that are done right and should be promoted as well as those that could be improved (for self analysis, not publication).

Other activities that promote the image of social/environmental responsibility are easy to follow, such as offering recyclable and multiuse bags. These activities are economically self sustainable and their public relations benefit value has no price.

Sharing the good news of agriculture and farming responsibility in New Jersey is upon each farmer. It will go a long way to help farmers tell their story and how their activities are not an inconvenient truth. All that farmers need is the interest in becoming more active in the mind and hearts of their consumers.

For more information on how to enhance your farm image, please contact Rutgers Cooperative Extension of Mercer County at 609-989-6830.

Hints & Tips:

- Promoting a nonexistent brand called "you" defeats the purpose of becoming familiar with your name. Make sure people know what products you grow and what you stand for.
- The size of your ad and promotion efforts should be directly related to the size of your clientele and your budget.
- Some is better than none. This is why at least some of your green activities should be promoted to the public rather than none.
- Be in touch with society's green concerns by reading the local press and industry news. There is no worse waste than highlighting something obvious or of small importance.

Resistance from page 1

resistant subpopulation may still be low relative to the sensitive subpopulation; (2) mid-late summer droughts over the last two years limited development of brown rot epidemics; and (3) use of non-DMI fungicides during bloom and fruit ripening is delaying emergence of resistant strains.

As we approach our 2008 harvest season, future articles in Plant & Pest Advisory Fruit Edition will discuss brown rot control with emphasis on fungicide resistance. Hopefully, our growing season will have adequate rainfall for producing a bountiful crop, yet not so much rain to cause a full scale brown rot epidemic. In the meantime, growers should keep watch for any current signs of brown rot development, namely blossom blight cankers and/or green fruit rot. ❑

Tree & Small Fruit Growing Tour & Meeting

Thursday, May 29, 2008
Weaver Orchards
Morgantown, PA 19543

Sponsored by Penn State Cooperative Extension of Berks County

Small Fruit Walk and Demonstration
1:30 to 4:00 p.m. Agenda:

- Strawberry Growing Systems- Kathy Demchak, Department of Horticulture, Penn State
- Raspberry and Strawberry Cultivars- Kathy Demchak
- Small Fruit Pest Problems- Kathy Demchak and Ed Weaver, Grower/Owner

Dinner on your own. Sandwiches available from new deli at Weavers Orchards Farm Market.

Come socialize with other growers and follow-up dinner with ice cream!

S.E.PA Tree Fruit Growers Twilight Meeting
6:30 p.m. to 8:30 p.m. Agenda:

- Seasonal Insect Control Update by Dr. Greg Krawczyk, Penn State Fruit Research and Extension Center, Biglerville, PA
- Insect Monitoring Update by Dr. Greg Krawczyk
- Training Systems for Various Fruits and Herbicide Update by Dr. Rob Crassweller, Department of Horticulture, PSU
- Sprayer Calibration Update (including new tower sprayer) [core credit] by Ed Weaver and Mena Hautau, Extension Educator

THE EVENTS WILL BE HELD RAIN OR SHINE

Only 77 miles from Glassboro and 74 miles from Trenton

Directions from their website:
http://www.weaversorchard.com

Submitted by Jerome Frecon, Agricultural Agent. ❑

Sustainable Winegrape Viticulture Twilight Meeting

Wednesday, May 28, 2008 6:15 P.M.
Plagido's Winery
570 North 1st Road
Hammonton, NJ 08037
(609) 567-4633
www.plagidoswinery.com

Sponsored by Rutgers New Jersey Agricultural Experiment Station, Cooperative Extension in cooperation with the New Jersey State Horticultural Society and the Sustainable Agriculture Research and Education Program

6:15 P.M. Welcome and Remarks *by Ollie Tomasello and Dr. Gary Pavlis, Agricultural Agent, Rutgers NJAES Cooperative Extension, Atlantic County.*

6:30 P.M. Quality Control in the Vineyard: Tips on Canopy Management of Winegrapes *by Dr. Imed Dami, Assistant Professor, Viticulture Specialist, Department of Horticulture and Crop Science, Ohio State University.*

6:50 P.M. Managing Grape Insect Pests *by Dr. Peter Shearer, Specialist in Fruit Entomology, Rutgers NJAES Cooperative Extension.*

7:10 P.M. Weed Control in Established and Newly Planted Vineyards by *Dr. Brad Majek, Specialist in Weed Science, Rutgers NJAES Cooperative Extension.*

7:30 P.M. Sustainable Viticulture Practices: Know the Nutrient Status of Your Soils and Vines *by Dr. Imed Dami.*

7:50 P.M. Management of Sustainable Wine Grape Vineyards by Utilization of Global Positioning Systems by *Dr. Peter Oudemans, Associate Professor in Plant Pathology, Rutgers New Jersey Agricultural Experiment Station, Marrucci Center for Blueberry and Cranberry Research.*

8:10 P.M. Pesticide Safety in the Vineyard by *Pat Hastings, Pest Management Coordinator, Rutgers NJAES Cooperative Extension.*

8:40 P.M. Lessons from the 2008 Wine Grape Competition *by Dr. Gary Pavlis, Agricultural Agent with Rutgers Cooperative Extension of Atlantic County.*

9:00. P.M. Adjourn

NJ PESTICIDE APPLICATOR UNITS: CORE = 1; Category 10, 1A and PP2 = 3 units

This meeting is not accessible to the physically challenged. If assistance it needed please contact Jerome L. Frecon at 856 307-6450. Ext 1 prior to the meeting. ❑

RUTGERS
New Jersey Agricultural
Experiment Station

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PLANT & PEST ADVISORY

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