

# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

DECEMBER 14, 1999

## Plum Pox Virus in PA, Part I

*William C. Kleiner, County Agricultural Agent and Extension Director, Pennsylvania State University Cooperative Extension, Ruth Welliver, Plant Virologist, Pennsylvania Department of Agriculture, and John Halbrendt, Plant Nematologist, Pennsylvania State University Fruit Research and Extension Center*



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Ever since the news release indicating that Plum Pox Virus (PPV) had been found in an Adams County orchard, we have had a number of questions asked about this disease and its potential impact on the peach industry. Here we have compiled some of the most frequently asked questions. There are also questions for which we just don't have answers. After more information is gathered and analyzed, we will be able to address the other questions.

#### Can humans get PPV?

No, we are dealing with a plant pathogen, not a human or animal pathogen. Tens of thousands of diseases affect cultivated plants. On average, each kind of plant can be affected by one hundred or more plant diseases. Each kind of pathogen may affect anywhere from one variety to several dozen or even hundreds of species of plants.

PPV is not a human or animal health issue - it is a plant health problem, as well as an economic problem for the stone fruit industry.

#### Who is in charge of the investigation of Plum Pox Virus in Adams County Orchards?

Because this is a national problem, not just an Adams County problem, the US Department of Agriculture (USDA) and the Pennsylvania Department of Agriculture (PDA) are the two lead agencies responsible for this work. It is their responsibility to make sure that this disease does not spread further if at all possible. Workers from the USDA Animal and Plant Health Inspection Service (APHIS) and the PDA Bureau of Plant Industry (BPI) are working hard on this issue.

#### Why is there a quarantine in Latimore and Huntington Townships of Adams County?

A quarantine is the control of import and export of plants or plant products to prevent spread of diseases and pests. In order to

*SEE PPV IN PA ON PAGE 2*

keep out foreign plant pathogens and to protect the nation's farms, gardens, and forests, the Plant Quarantine Act of 1912 was passed by Congress. This act prohibits or restricts entry into or passage through the US from foreign countries of plants, plant products, soil, and other materials carrying or likely to carry plant pathogens not known to be widely established in this country. Pennsylvania has similar legislation to regulate presence or movement of material that poses a plant health threat to our state. The quarantine currently in place is a Pennsylvania quarantine that restricts movement of *Prunus* budwood or trees (propagative material) from the two townships in which PPV has been detected. The quarantine is intended to stop the virus from spreading long distances via human movement. There is no quarantine on the movement of fruit from the area, because the virus is not likely to spread from fruit. The USDA may institute a parallel quarantine, or other states or countries could institute quarantines, if they feel that action is needed to protect their own territory from spread of this disease. We don't know if any other townships or counties will be quarantined. That will be determined in the upcoming year as more data is collected.

### **Have you ever seen this disease in the US?**

Because this disease has been kept out of North America by very strict quarantine regulations, we have never seen this disease in our area. This is the first report of PPV in North America. That is an important fact to remember when you consider the time it is taking to understand the problem — it takes time to identify and understand a new problem and to get help from fruit specialists familiar with the disease.

### **Where is this disease found, where did it come from, and how does it spread?**

PPV is found throughout Europe, Egypt, Turkey, Syria, India, and most recently Chile (1992). How it got here, we don't know just yet. USDA and PDA are investigating how it got into Adams County. PPV is spread over long distances by plant material that is used for propagation. A hobbyist propagator, a person who travels the world looking for new varieties from other countries, could bring a disease like this into Adams County. Once the virus is introduced into an area on a living plant, it is transmitted by aphids. This is an insect that uses its piercing and sucking mouthparts to puncture leaf cells and feed on the cell contents. When aphids feed on an infected tree, they pick up the virus on their mouthparts. If they move to another tree, they can then transmit the virus to that healthy tree.

### **What is an eradication program and are they going to destroy many peach orchards?**

This question cannot be fully answered at the present time. Because there is no cure for a plant virus infection, the only way to get rid of the virus is to get rid of the infected plants. Eradication means getting rid of all virus in the area, which means pushing out all infected trees. This cultural control method is aimed at helping plants avoid contact with a pathogen to prevent further spread of the disease. It is anticipated that infected trees in Adams County will be destroyed, but we do not know how many nearby trees may need to be destroyed to assure that all early infections are also eliminated. That decision will be based on the very best scientific information available about virus distribution. No trees should be removed until growers are contacted by USDA or PDA officials.

### **What causes Plum Pox disease?**

Also known as Sharka, this disease is caused by several strains of a virus called Plum Pox Virus.

### **What are the symptoms on my peach trees?**

Symptoms of PPV infection vary in different stone fruit species, and in different cultivars of a species. Some infected plants show no clear symptoms at all. Peach leaf symptoms may consist of pale green chlorotic spots, rings, and lines that are visible from early summer onward. These markings can become necrotic. Symptoms frequently are restricted to only a few leaves per shoot. Infected trees are not stunted and are difficult to identify. Fruit symptoms in red and dark colored plums consist of rings and blotches in fully expanded unripe fruit. These markings tend to disappear as the fruits color and reach maturity. Sunken rings and spots occur in some varieties, overlying discolored flesh. Red rings and spots can occur on the stones. Affected fruit can be low in sugars and tasteless and may drop from the tree prematurely. In peach, symptoms appear in the first leaves to expand and consist of chlorotic vein clearing and vein banding. Symptoms in peach fruit consist of pale or dark rings, lines, and spots. These symptoms may disappear at ripening. Affected fruit sometimes are deformed. Fruit yields can be severely decreased due to virus infection.

*This article will be continued in the January, 2000 issue of the Fruit edition of the Plant & Pest Advisory.*

*Jerome L. Frecon submitted this article because many in New Jersey have similar questions. Also see article on Plum Pox in the Nov. '99 issue of the Fruit edition of this newsletter. □*

# Import Permits Suspended to Keep Canada Free of Plum Pox Virus

Gayle Jasperson, BCFMA Plant Pathologist, Kelowna, British Columbia, Canada

The Canadian Food Inspection Agency (CFIA) has suspended all import permits for *Prunus* propagative plant material (including nursery trees, scionwood, seed and rootstocks of peach, apricot, plum, prune and nectarine) from the US. The suspension does not apply to cherry trees or propagative material and does not affect imports of fresh fruit into Canada.

The following *Prunus* species remain admissible into Canada from the U.S.: *Prunus avium*, *Prunus cerasus*, *Prunus effusus*, *Prunus laurocerasus*, *Prunus mahaleb*, *Prunus padus*, *Prunus sargentii*, *Prunus serotina*, *Prunus serrula*, *Prunus serrulata*, *Prunus subhirtella*, *Prunus virginiana*, and *Prunus yedoensis*. All other *Prunus* species are prohibited.

The suspension was implemented after US scientists confirmed the finding of plum pox virus (PPV) in peach, apricot and plum trees in Adams County, PA. PPV is a serious disease infecting stone fruit species, as well as some ornamental *Prunus* species. The strain of PPV (D strain) found in Pennsylvania does not infect cherries. The suspension is a measure to protect the Canadian stone fruit industry from introduction of PPV.

Plum Pox Virus has the potential to devastate stone fruit production. The fruit from infected trees becomes severely blemished and unmarketable. It can take several years before infected trees start to show symptoms, which complicates survey and eradication programs. The disease is spread by several species of aphids as well as infected propagative material.

The Pennsylvania Secretary of Agriculture has placed a quarantine around two townships prohibiting movement of any *Prunus* plant material. US officials are tracing the origins of the infected trees. An eradication program will likely be undertaken, and extensive surveys will continue in the spring.

## Symptoms

Symptoms of plum pox virus are variable depending on the strain of virus, the host species and even the host cultivar, and may take several years to develop. On plum, leaf symptoms include pale green spots, rings and lines. Usually only some of the leaves on a tree are affected. Fruit symptoms include rings and blotches which become harder to detect as the fruit ripens, as well as sunken lesions. The pit may also be marked with rings or spots. Affected fruit have

poor flavor due to low sugar content. Infected trees have a tendency to drop much of their fruit prematurely, resulting in a "blue carpet" of fruit on the ground.

Symptoms on peach include chlorotic vein clearing and banding, along with leaf twisting or distortion. Fruit symptoms include rings, lines and spots, which may disappear at ripening. Apricot leaf symptoms are less conspicuous, but fruit of some cultivars are severely marked and may be misshapen, with poor flavor. The pit is often marked with rings or spots.

## Prevention and Control

Prevention of the introduction of plum pox virus is critical for the survival of the stone fruit industry in BC. Only virus-free propagative material from approved sources should be used to establish orchards or nursery blocks. Currently the virus does not occur in Canada.

Once PPV is introduced to an area, it is very difficult to control. There are no treatments that can cure virus-infected trees. Control measures include removal of infected trees and orchards, along with spray programs to control the aphid vectors.

A Canadian National Task Force of scientists, provincial advisors and industry representatives has been established to make recommendations to the CFIA and collaborate on activities to keep Canada free of plum pox virus.

*Jerome L. Frecon submitted this article because many in New Jersey have similar questions. Also see article on Plum Pox in the Nov. '99 issue of the Fruit edition of this newsletter.* □

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## Calendar of Events

**January 18, 19, 20, 2000** - The NJ Annual Vegetable Meeting and Trade Show. Trump Taj Mahal, Casino Resort, Atlantic City, NJ. Contact Phil Traino, Vegetable Growers Association of New Jersey, Inc. at 609-985-4382.

**January 25, 26, & 27, 2000** - Mid-Atlantic Fruit and Vegetable Convention (Formerly Tri-State Horticultural Meetings). Hershey Lodge and Convention Center, Hershey, Pa. Contact Bill Tietjen at RCE of Warren County (908-475-6505) or Jerry Frecon at RCE of Gloucester County (856-307-6450) for registration information.

**March 18, 2000** - Grape Expectations - A Viticultural and Enological Symposium. Forsgate Country Club, Jamesburg, NJ. Contact Dr. Joseph Fiola, Rutgers Fruit Research & Extension Center (609) 758-7311.

# Orchard Vole Control

*William H. Tietjen, Agricultural Agent*

Now is the time to survey your orchard for vole activity. If there was no problem with voles last year, don't assume the same will hold true again this year. Tall weeds and debris in the orchard serve as great habitat for voles and protect the voles from predators. Herbicide strips should be weed-free and one final mowing of the grass middles will help to decrease the potential for vole activity.

The number of voles that can be tolerated is a trade-off between cost of control and cost of damage. Most damage occurs at high population levels. Monitoring vole populations allows the grower to assess when populations are starting to increase and to begin control programs at the appropriate time.

It is important to determine which species of vole occurs in your orchard, since damage, recommended control, and effectiveness of techniques will vary depending on the species. Meadow vole damage is usually in the form of gnawing on the bark at the base of the tree, and is evidenced by sprouts and suckers emerging from the base. Meadow voles construct surface runways that are 1.5-2" wide and occur throughout the orchard. Pine vole damage is in the form of root girdling, which often is unnoticed until severe damage has already occurred and the tree is in rapid decline. Pine voles construct burrows that run 1-2" below ground surface within the drip line of the tree.

Determine the species of vole present by observing the type of burrows or runways in the orchard. Trap a few voles using standard or box-type (live) mouse traps. Meadow voles, also called meadow mice, have large eyes and ears, and the tail is more than twice as long as the hind foot. Pine voles are smaller, have small eyes and inconspicuous ears. The tail is about the same length as the hind foot.

New Jersey Pesticide Law requires the use of tamper-resistant bait stations.

Zinc phosphide baits are classified as restricted-use pesticides in New Jersey, and can only be applied by registered pesticide applicators. Additional information regarding use of pesticides can be obtained by calling the NJ Bureau of Pesticide Control (609-530-4070).

If possible, set out baits when a dry spell is expected (3-4 days). Rain or damp conditions quickly reduce bait effectiveness. Pelleted zinc phosphide bait formulations are currently available to the fruit industry. Care must be taken to read the label to determine if a specific product is still currently labeled for New Jersey. Some rodenticides labeled in New Jersey are:

BONIDE ORCHARD MOUSE BAIT (BONIDE PRODUCTS INC.)

ZINC PHOSPHIDE BAIT & PELLETS (HACCO, INC.)

ZINC PHOSPHIDE CORN BAIT (HACCO, INC.)

RIDALL-ZINC RODENT FIELD & AGRICULTURAL BAIT (LIPHATECH INC)

ZP RODENT BAIT AG (BELL LABORATORIES INC.)

GASTOXIN FUMIGATION PELLETS (BERNARDO CHEMICALS LTD)

ZINC PHOSPHIDE CONCENTRATE FOR MOUSE CONTROL (USDA-APHIS)

Zinc phosphide concentrate (63%) for making your own bait can be purchased from the USDA-Animal and Plant Health Inspection Service-Wildlife Services by contacting: Janet L. Bucknell, State Director, USDA APHIS WS, 140-C Locust Grove Road, Pittstown NJ 08867. Phone: 908-735-5654, Fax: 908-735-0821. ZP Rodent Bait AG made by Bell Laboratories is reportedly much superior to grain baits for the control of pine and meadow voles. Hand placement of this material under covers or in holes and runs will control both species. If populations are high, a second application using an anticoagulant may be required. □

## Farm Financial Management Workshops

Rutgers Cooperative Extension is offering Farm Financial Management Workshops. Participants will be asked to commit to a series of three workshops offered on the same day of the week over a three-week period, and to pay a total fee of \$25 per family to cover lunch and supply costs. Four sets of workshops will be offered in each of three regions of New Jersey (North, Central, and South) for a total of 36 workshops. Class size will be limited to five farm families and/or individual producers. Call RCE of Salem County at 856-769-0090 if you would like to participate.

Computers will be used for hands-on learning.

Week 1: Overview of Finpack – 10 am to 1 pm

Week 2: Balance Sheet Data Entry 10am-3 pm

Week 3: Budget Data Entry – 10 am to 3 pm

Workshop Dates and Locations\*

**Southern Jersey, Tuesdays:**

Set 1: Nov. 30, Dec. 7, 14

Set 2: Jan. 11, 18, 25

Set 3: Feb. 8, 15, 22

Set 4: Feb. 29, Mar. 7, 14

**Central Jersey, Wednesdays:**

Set 1: Dec. 1, 8, 15

Set 2: Jan. 12, 19, 26

Set 3: Feb. 9, 16, 23

Set 4: Mar. 1, 8, 15

\*Subject to change dependent upon participant response

# Sustaining the Apple Industry with New Cultivars, Part I

*Jeremy Compton, Plant and Soil Science  
Technician and Win Cowgill, Agricultural  
Agent*

In last year's October issue of the Plant & Pest Advisory (Fruit Edition 3(26): 2) we provided a summary of the performance of many cultivars in the 1995 planting of the North East Cooperative Regional Project (NE-183). This apple cultivar trial was established at the Rutgers, Snyder Research and Extension Farm in Pittstown, NJ to evaluate new apple varieties being introduced to the industry. An extensive screening by university personnel nationwide has quickly identified the strengths and limitations of these cultivars. New high quality cultivars will determine the sustainability of the ever-evolving apple industry.

1999 started off as another early season, with extremely mild temperatures dominating February and into March, causing trees to break bud about two weeks early again this spring. Below average temperatures were experienced during most of April and May, which slowed bud advancement, and allowed bloom to settle into the traditional window for our region. After the roller coaster spring, we then experienced a season-long drought, which became the second driest summer in recorded history.

A hot, dry summer quickly highlighted and exposed any physiological disorders these new cultivars may possess, such as cork, sunburn sensitivity and pre-harvest drop.

In 1999 extensive data was collected for fruit quality and tree performance of all cultivars under evaluation in this trial. This was the third fruiting year for this planting. The following is a listing of the cultivars under evaluation in the 1995 NE-183 trial, and notable features for each.

A four point rating system is used to qualify each selection's performance to date. Four pluses are outstanding, and one plus indicates it has not performed well at our location. The harvest date is in parentheses. The observations and ratings are based on a summary of three years of fruit observation at the Snyder Farm planting.

Cultivar performances of the 1995 NE-183 trial through year five at the Pittstown, NJ site

**Breaburn (10-29)** - A perennial producer of high quality fruit. Fruit load management in the early years may be key to attaining adequate canopy volume that produces annual quality, especially on dwarfing rootstocks. This cultivar is sensitive to powdery mildew, mites and flesh corking (calcium disorder). (+++1/2)

**Yataka (Fuji) (10-13)** - Fuji type that possesses variable ripening between years. Tree vigor is weak to moderate. Cultivar has good potential in our region if properly managed. (+++)

**Arlet (9-9)** - Although fruit finish was off the mark this year with heavy surface russet and reduced red color, this cultivar's eating quality has been outstanding every year. Tree vigor is moderate with a tree structure similar to Gala. (+++)

**Creston (BC8M15-10) (10-13)** - Develops a rough finish similar to Honeycrisp, but lacks suitable red color. Cork and bitter pit have occurred annually. Tree growth is weak with poor lateral branching. Appears to be susceptible to Spotted Tentiform Leafminers. This cultivar may have limited potential under our climatic conditions (+++1/2)

**Cameo (10-24)** - This cultivar is a perennial front runner. A chance seedling from Washington State, it resembles the original red delicious with exceptional flavor. Tree vigor can be excessive without proper nitrogen management. (+++1/2)

**Enterprise (10-24)** - One of the most disease-resistant cultivars we have with resistance to scab, fireblight, mildew and cedar apple rust. The fruit is annually large and of high quality, especially after one month in storage. Tree vigor is high. This cultivar is susceptible to calcium deficiencies that can manifest in a spotting on skin, coined "Mystery Spot"; Regular calcium nutrition management is a must. (+++)

**Fuji (RedSport #2) (10-29)** - A high quality fruit with a tree that is very vigorous under our conditions. Without careful nitrogen management red fruit color may be off in this cultivar. (+++1/2)

**Gala Supreme (10-19)** - This cultivar is not a true Gala and does not have the fruit or tree characteristics found in most Gala strains. The tree is moderately vigorous. It has not been precocious. This was the first year a measurable yield was harvested. Fruit finish was russeted and quality was subpar. (+)

**Gingergold (8-22)** - An early golden type with large fruit size very high fruit quality. It has performed well annually and is the best golden type in this season. The tree is highly vigorous. Nitrogen needs to be properly managed. This cultivar is extremely sensitive to powdery mildew and fireblight. Heavy cork spotting has been observed annually. (+++1/2)

**Golden Supreme (9-15)** - Fruit quality was outstanding in '99, the first year a measurable harvest was produced. It is a golden type that can mature up to three weeks before Golden Delicious. The tree is highly vigorous that lacks precocity. (+++)

*This article will be continued in the January, 2000 issue of the Fruit edition of the Plant & Pest Advisory. □*

# Small Fruit Sessions at The NJ Annual Vegetable Meeting and Trade Show

January 18, 19, 20, 2000  
Trump Taj Mahal, Casino Resort  
Atlantic City, NJ

Sponsored by Rutgers Cooperative Extension in cooperation with the Vegetable Growers Association of New Jersey, Inc. and the New Jersey Department of Agriculture.

Tuesday morning, January 18, 2000 Strawberry  
Plasticulture Session I in the Diamond Room C/D

- 9:30 am Strawberry Plasticulture System Overview and Site Selection for the Region – Dr. Joseph A. Fiola, Specialist in Small Fruit and Viticulture, Rutgers Cooperative Extension
- 9:50 Plasticulture Takes Over the Southeast – Dr. Barclay Poling, Director, Southern Regional Small Fruit Center, NC State University
- 10:10 Preplant Preparation: Nutrient Management – Dr. Gordon Miner, Specialist in Soil Fertility, NC State University
- 10:40 Preplant Preparations: Bed, Plastic, and Spacing Options – Mr. Peter Probasco, Agricultural Agent, Rutgers Cooperative Extension of Salem County
- 11:00 Plant Types, Planting Dates and Varieties – Dr. Joseph Fiola
- 11:25 Disease Management – Dr. Paul Steiner, Extension Plant Pathologist, University of Maryland
- 11:45 What's New from Industry – Mr. Robert Moore, Helena Chemical Co.
- 11:50 Adjourn – N.J. Pesticide Recertification Units
- Tuesday afternoon, January 18, 2000 Strawberry  
Plasticulture Session II in the Diamond Room C/D
- 1:45 pm To keep or not to keep: Strawberry and Vegetable Double Cropping – Mr. Robert Rouse, Regional Extension Specialist in Fruits and Vegetables, University of Maryland
- 2:05 Floating Row Covers: A Necessity for Optimal Production – Dr. Joseph Fiola, Specialist in Small Fruits and Viticulture, Rutgers Cooperative Extension
- 2:20 Avoiding Frost and Staggering the Crop with Row Covers – Mr. Peter Nitzsche, Agricultural Agent, Rutgers Cooperative Extension of Morris County
- 2:35 Fruit Protection: Irrigation, Row Covers, and Thermocouplers – Dr. Barclay Poling, NC State University
- 2:55 Grower Experience: Fruit Production – Mr.

Dan Gallahan, Clinton, Maryland and other growers

- 3:10 Vertically Integrated Tip Production – Mr. Dave Langford, Davon Crest Farms, Hurlock, MD
- 3:25 Marketing Considerations: U-Pick, Retail, and Wholesale – Mr. Robert Rouse
- 3:45 Economics and the Future – Dr. Joseph Fiola
- 4:05 What's New from Industry – Mr. Robert Moore
- 4:15 Adjourn – Pesticide Recertification Credits
- Wednesday morning, January 19 Grape Production  
Workshop Session I in the Topaz Room
- 9:30 am Site Selection Considerations for the Mid-Atlantic and North – Dr. Joseph Fiola, Specialist in Small Fruit and Viticulture, Rutgers Cooperative Extension
- 10:00 Grape Production in NJ – Production Costs and Marketing Opportunities – Dr. Gary Pavlis, Agricultural Agent, Rutgers Cooperative Extension of Atlantic County
- 10:20 Grape Production in the Piedmont and Western North Carolina – Dr. Barclay Poling, North Carolina State University
- 10:45 Preplant Site Preparation for Nematode Control – Dr. Paul Steiner, Extension Plant Pathologist, Univ. of MD
- 11:05 Trickle Irrigation: System Basics and Cost Sharing Programs – Ms. Mary Beth Sorrentino, Irrigation and Water Management Specialist, Natural Resources Conservation Service, USDA
- 11:25 Establishment Basics: Plants, Planting and Grow Tubers – Dr. Gary Pavlis
- 11:45 What's New from Industry – Mr. Robert Moore
- 11:50 Adjourn – N.J. Pesticide Recertification Units
- Wednesday afternoon, January 19 Grape Production  
Workshop Session I in the Topaz Room
- 1:45 pm Grape Production in New Jersey: Production Basics and Varieties by Dr. Joseph Fiola
- 2:15 Vineyard Floor Management by Dr. Bradley Majek, Specialist in Weed Science, Rutgers Cooperative Extension
- 2:40 Vineyard Disease Management by Dr. Paul Steiner
- 3:10 Grower Experiences – Mr. Bill Ermenhauser, Merimac Vineyards, Bridgeton, N.J. Mr. Raymond Sher and Mr. Randy Johnson, La Fraterria Vineyards New Egypt, N.J.
- 3:35 Wildlife Management Panel – Speakers to be announced.
- 4:15 What's New from Industry by Mr. Robert Moore

These programs were developed and organized by Dr. Joseph Fiola. For a full copy of the vegetable program and registration information please contact Mr. Phil Traino, Secretary of the Vegetable Growers Association of New Jersey, Inc. at 609-985-4382 or a Rutgers Cooperative Extension agricultural agent. □

# Mid-Atlantic Fruit and Vegetable Convention: “Planting for the New Millennium”

*William H. Tietjen, Agricultural Agent*

The Hershey Lodge and Convention Center will host the 2000 Mid-Atlantic Fruit and Vegetable Convention on January 25-27, 2000. The theme of this year's meeting will be “Planting for the New Millennium.” In addition to three days of educational sessions, the Great American Hall at Hershey will host the Trade Show with over 130 exhibitors. The fruit program is jointly sponsored by the New Jersey and Maryland Horticultural Societies and the State Horticultural Association of Pennsylvania.

A special hands-on Computer Use Workshop will be conducted throughout the first two days of the Convention. Growers will see first-hand demonstrations of agricultural software programs and the use of the Internet.

Pesticide applicator update training credits are available to New Jersey growers attending the fruit sessions. The program covers nearly every aspect of fruit and berry production. Commercial growers should not pass up this terrific educational opportunity.

On Tuesday, January 25, Dr. Kenneth Hickey of Penn State University will lecture on the fire blight threat and its management followed by a panel discussion of fire blight specialists to include Dr. P. Steiner, University of Maryland and Dr. T. van der Zavet, USDA-ARS.

Tuesday afternoon will lead off with a panel of Nursery growers/sales personnel discussing what growers are planting and the trends. The panel will include W. Hauser, Summit Sales and Phil Baugher, Adams County Nursery. Next, Win Cowgill of Rutgers Cooperative Extension will lead a grower panel discussing ethephon usage in apples.

The annual fruit and vegetable grower's dinner will be the highlight of Tuesday evening.

Wednesday morning session will be highlighted by presentations on the Plum Pox virus outbreak in Pennsylvania. Dr. John Halbrendt, Penn State University will present an overview of plum pox and Dr. Ruth Welliver, PA Dept. of Agriculture will discuss results of the plum pox survey done in Adams County last year in September and October. A representative from the USDA-Animal and Plant Health Inspection Service will outline the federal government's involvement and impact to control the further spread of plum pox virus. Aphids spread the plum pox virus

and Dr. Peter Shearer of Rutgers Cooperative Extension will discuss methods to control the aphid vectors.

The Lunch and Learn Sessions were very popular last year and will be repeated early Wednesday afternoon. Participants will include:

Peach and Apple IPM- Dean Polk, Rutgers Cooperative Extension

Nematode Suppression with Cover Crops – Dr. John Halbrendt, Penn State University

Blueberry Production – Dr. Gary Pavlis, RCE of Atlantic County

Strawberry Plasticulture – Dr. Joseph Fiola, Rutgers Cooperative Extension

Robert Rouse, Wye Research and Education Center  
Strawberry Weed Control – Kathy Demchak, Penn State University

Greenhouse Strawberry Production & Blackberry Trellis/Training Systems – Dr. Fumiomi Takeda, USDA-ARS, Kearneysville, WV

Stone fruit will be the subject for the Wednesday Afternoon session. Dr. R. Belding, RCE will present results of bloom thinning of peaches with WilThin. Dean Polk, RCE will discuss mating disruption for peaches on a state-wide basis. Pennsylvania grower Tim Weiser will present his experience growing apriums and pluots.

The NJ State Horticultural Society annual business meeting will be held Wednesday afternoon.

Presentations on Thursday, January 27 will include Dr. Larry Hull, PSU discussing transitional strategies without or with limited organophosphate insecticides. Dr. Luke LaBorde, PSU will present food safety approaches for fruit growers. The morning will also include a talk by Mr. Kraig Naasz, President of the US Apple Association on future trends for apples and cider.

The convention will continue Thursday afternoon with a presentation by Dr. Norman Lalancette, RCE, on bacterial spot control. Novel peach training systems and high density are the subject of a presentation by Dr. Neil Miles, University of Guelph. Wegman's IPM program and CORE values program will be discussed by Dr. Edward Rajotte, PSU.

The Small Fruit Program will run concurrently on Wednesday afternoon and all day Thursday.

The Small Fruit Session schedule includes presentations on strawberry plasticulture, crop protection and culture of blueberries, grapes and brambles. For additional information contact Bill Tietjen (908-475-6505) or Jerry Frecon (856-307-6450). The Hershey Lodge does not accept reservations by phone. Forms may be obtained from Bill Tietjen or Jerry Frecon. See you in Hershey! □

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