The 2011 Mid-Atlantic Fruit and Vegetable Convention program is held each year to provide the latest updates and important information to fruit and vegetable growers from Maryland, New Jersey, Pennsylvania, and surrounding states. The conference will be held at the Hershey Lodge and Convention Center in Hershey, PA on February 1-3, 2011.

The program will consist of six or more concurrent educational sessions offered during the three days. Sessions on tree fruits, small fruits, wine grapes, organic and general vegetables, pesticide safety, wholesale marketing, and too many others to mention.

This year, Dr. Joe Schwarcz will make the keynote presentation entitled, “Eating - Is There a Solution to the Confusion” on the opening day. The full program is provided at the end of the newsletter.

As usual, there will be an extensive trade show, including displays of horticultural equipment, marketing merchandise, packaging, seed companies, fruit nurseries, as well as pesticides and other supplies and services for commercial growers. Pesticide applicator credits will be available for Maryland, Pennsylvania, and New Jersey growers attending the sessions. Please see the details included in this newsletter.

Maryland growers are reminded to pre-register through the Maryland State Horticultural Society. Pesticide credits will be available at the meeting.

I look forward to seeing you in Hershey and I hope you find this newsletter informative!

Merry Christmas!

Dr. Joseph Fiola, Specialist in Viticulture and Small Fruit, University of Maryland Extension

ARONIA: AN OLD FRUIT CROP, NEW TO MARYLAND FARMS

Andrew Ristvey, Agent & Regional Extension Specialist, Commercial Horticulture, University of Maryland Extension
Sudeep Matthew, Agent, Agriculture & Natural Resources, University of Maryland Extension

A new alternative crop is being studied by University of Maryland Extension for organic fruit production. The Black Chokeberry, or Aronia to which it is commonly referred, is an eastern U.S native with a long history of fruit production in Eastern Europe. As an alternative crop, Aronia has many benefits, having considerable market potential. The fruit is about the size of a large blueberry and comes in clusters of about 10 to 20, making them relatively easy to pick. A mature plant (about 7 to 8 years) can yield over 15 lbs, but they start fruiting within two growing seasons after planting (averaging 3 or 4 lbs of fruit per plant).

The fruit is closely related to an apple and is dark purple in color. The color is attributed to high concentrations of flavonoids including anthocyanins and proanthocyanidins. Due to health-promoting effects, there is great interest in fruits and vegetables containing high concentrations of flavonoids, which are considered potent antioxidants. Recent studies have shown that Aronia has a very high Oxygen Radical Absorbance Capacity (ORAC) compared to other foods, including blueberries. The fruit has potentially strong beneficial properties for health with regards to the function of coronary arteries, antimicrobial properties for urinary tract health, gastrointestinal cancer-fighting properties, and a recent USDA study suggests the fruit possibly aids in the management of diabetes.
ARONIA: AN OLD FRUIT CROP, NEW TO MARYLAND FARMS – CONTINUED FROM PAGE 1

These qualities, considered nutraceutical, heightens Aronia’s marketability and sales potential as a value-added product for Maryland farmers. Several food products can be made from the Aronia fruit including juice, juice extracts, jelly, and wine. It is true that some processing of the fruit is necessary to overcome some of the fruit’s bitter qualities which stem from the flavonoid content.

At the University of Maryland Wye Research and Education Center (Wye REC), an active orchard has been maintained and studied for about five years. During that time, several interesting conclusions have been drawn.

- Aronia can be grown organically because it has few pest species
- Plants yield within the second season
- Can be grown at densities similar to blueberries
- Plants tolerate a variety of soil conditions
- Can be easily propagated from cuttings or seed
- Plants are apomictic, meaning they self-pollinate

Aronia can be planted like blueberries. A spacing of no less than 4 feet on center is recommended, but less dense plantings will improve canopy light penetration in mature plants. Irrigation through drip is a good method for improving establishment during the first two growing seasons and to help growth during drought periods in the summer. At Wye REC, we used plastic ground cover to control weed pressure, however, liners must be planted before May to establish plants before the hot weather ensues. Some loss of plant material can occur from scalding as the plastic becomes very hot in the summer. Irrigation is a necessity in this case. Other forms of mulch can be used also. Aronia tolerates a variety of soil conditions, but amending your soil to fruit orchard quality is necessary to maximize growth and yield. Soils tests are recommended.

So far, nitrogen (N) fertility studies have shown that fruit yield is not influenced by high rates (above ¼ oz. N per plant) for the first five years. Soluble sugar content is also unaffected by high nitrogen rates. Ongoing research will determine if fruit yield can be maintained with rates at ¼ oz. nitrogen per plant or below.

Aronia will flower in early May and flowers will persist for about seven days at peak bloom. Many bee species pollinate the flowers, but Aronia is apomictic and does not require pollination for fruit production. Fruit develops after prolific flowering in early May, through June to August. Fruit progressively turns from green to red to purple during this time period.

Harvest is usually between the middle and end of August and should be based upon the increasing Brix (sugar) content of the fruit. There is a large variation in the Brix dependent upon presently unknown factors, possibly environmental. Fruit should be picked at maximum Brix before fruit senescence which starts as fruit begins to wrinkle as it dries on the plant.

Pest pressure is relatively low. Insect problems have been minimal, but include aphids, lacebug, weevils, Japanese beetle, and grasshoppers. The latter two are of most concern as they usually strip the leaf canopy, resulting in limited sugar production for the fruit.

At present, only one fungus, Gymnosporangium spp. (e.g. Cedar-Apple Rust) has been seen to affect the plants, although parts of the plant that show infection, including fruit, are minimal. All infected plant tissue was removed by hand. More observations will be
This project was initiated in 1991 with an open pollination of McIntosh Wijcik by Gala to produce an initial population of compact seedling trees. The goal was to incorporate the precocity of Gala into a short-statured, spur-type tree that would require minimal pruning. Precocious seedlings from the original cross that were tolerant to late-spring freezes were selected at Keedysville, MD. Field tolerance to fireblight was also evaluated following summer hailstorms. First generation trees were then hybridized with commercial cultivars such as Pink Lady, Fuji, Braeburn, Commander York, and Red Yorking that are adapted to hot, humid climates. Seedlings from the crossovers were germinated and initially evaluated in the greenhouse and set in the field. In January 2008 (at the end of the 5th leaf), trees were sorted by phenotype. Approximately 90% of the wild-type trees were removed, but all of the short-stature, columnar trees were retained.

Starting in 2008, the Cripp’s Pink and Fuji populations were evaluated for bloom and fireblight susceptibility in June. After a series of hailstorms in August, the number of fireblight strikes per tree was counted. Harvest and fruit analysis was conducted from September 5 until October 10, 2008. The data recorded for a representative sample of the fruit included weight, height, width, soluble solids, firmness, ground color, red color and starch. Following a similar schedule for 2009, fireblight strikes were again counted and trees that had 10 or more were again removed. There were more tree deaths due to crown gall; those cases were noted and the trees removed. Harvest and fruit analysis was conducted approximately every ten days starting on August 18 and continuing until October 20. Trees whose average fruit sizes were below the average were removed at the end of the 2009 season.

In 2010, the remaining selections were evaluated for bloom, fireblight susceptibility, and fruit quality. Harvest and fruit analysis was conducted weekly from August 20 until October 7. In addition to the fruit quality tests, we also assessed stink bug damage by counting the number of visible marks on the outside and then on the inside of the apples. This was added in response to the continued presence of Brown Marmorated Stink Bugs (BMSB) in the orchard. This test indicated there are measurable differences between apple varieties as it relates to stink bug damage.

At the end of this year, we expect to select approximately six selections to bud onto root-stocks for future trials. During the fruit analysis, fruit that had acceptable taste were set aside to test for storage ability and further taste testing. Pictures of possible elite selections are seen in Figures 1 and 2.

ARONIA: AN OLD FRUIT CROP, NEW TO MARYLAND FARMS – CONTINUED FROM PAGE 2

made in the following years and we will investigate potential organic methods of control.

Aronia can be made into several marketable products including juices, jams, jellies, salsas and sauces and wine. University of Maryland Extension is presently seeking funding to begin a marketing research program to help farmers find markets.

For more information on Aronia you can contact:

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aristvey@umd.edu

Sudeep Mathew  
410-228-8800  
samathew@umd.edu

Japanese beetle feeding on Aronia leaves in late June/early July and aphids feeding on new growth throughout growing season. Organic production allows predator populations to persist, controlling aphid and other susceptible pests.
MANAGING VEGETABLE DISEASES IN THE GREENHOUSE
Kathryne L. Everts, Professor & Extension Specialist, Plant Pathology, University of Maryland

Production of vegetables in the greenhouse or high tunnel requires a different approach to disease management than field production. The main difference is that use of disease-free soil, exclusion of pathogens, and modification of the environment are the main lines of defense against disease. These are followed by other practices such as biocontrol, conventional fungicide use, and host resistance. In general, managing disease in the greenhouse involves three steps: 1) avoiding initial pathogen inoculum where possible, 2) minimizing initial inoculum, and 3) reducing the rate of disease progress.

While many aspects of greenhouse production are beneficial to plant growth and development, often greenhouse production places stress on plants that can predispose them to disease. For example, too much or too little water, temperature extremes, low light intensity, and nutrition deficiencies or toxicities may stress plants. Salinity, nutrition imbalance, and stress as the partition of assimilates favors fruit development also cause stress. Excessive pesticide use results in plant stress.

The site location of a greenhouse should be conducive to good air movement around the house and into the house. Ideally, the greenhouse should be oriented in the direction of prevailing winds to promote air movement. A weed-free area around the greenhouse or high tunnel of 10 meters (33 feet) will minimize pathogens entering the greenhouse. Also, many pathogens, including Phytophthora infestans (late blight), Pseudomonas cubensis (downy mildew on cucurbits), and Sclerotinia sclerotiorum (white mold and other diseases) are easily transported from nearby plantings to greenhouse crops. Therefore, be aware of adjacent areas and what future crops are likely to be planted there. If a structure will have ground beds, the area soil around the greenhouse should slope away from the structure so that pathogens such as Phytophthora spp. or Pythium are not carried into the greenhouse when rainfall is heavy.

Placing foot trays for disinfectants at each doorway also will help reduce bringing new pathogens in on boots. Placing insect mesh over holes and gaps in greenhouse walls will minimize the ingress of virulent insects. Most growers would not think of leaving diseased or dying plants in a greenhouse. (Figure 1). However, elimination of cull piles outside a greenhouse structure is also important. Sanitation is especially critical for diseases where the rate of increase is low (such as Fusarium wilt or nematodes) than for diseases with short life cycles that increase exponentially, such as late blight or powdery mildew.

Reducing diseases in protected environments such as greenhouses, is made easier because water on the foliage can be controlled (i.e. exposure to rainfall is eliminated). However, greenhouse environments without modification tend to be wind-free and prone to high humidity. Dew frequently forms when clear nights follow warm, humid days. Reducing humidity is critical to reducing disease. This is most easily accomplished by ventilation in greenhouses. Air flow can be increased by fans that move air around the structure, particularly around vegetable foliage and fruit. Improved air movement will also reduce temperature of the foliage as water is transpired. Removing unproductive leaves at the base of plants and trellising are two methods to alter the plant architecture resulting in improved air flow within the foliage (Figures 2a and b).

Even the soil environment can be modified to favor plant growth and development and limit disease development. For example, soil in clay pots will maintain cooler temperatures than plastic pots. Raised beds will result in warmer root zone and lead to better drainage. In addition to the presence of the pathogen, disease will be influenced by temperature - including soil temperature, humidity and leaf wetness duration, aeration and spore dispersal and, soil moisture.

Pathogen inoculum should be eliminated from potting media with sterile or disease-free soil or soilless mixes. How and where the mixtures are prepared should be evaluated for cleanliness. If a disease-free mix cannot be purchased, such as in the case of ground beds, soil should be sterilized. First remove plants from the soil, including the roots. Till the soil to break up dirt clods and to further

Continued on page 5
incorporate plant residue. Steam, fumigation, or soil sterilization all will reduce pathogens in soil, but each has disadvantages. Steam may result in phytotoxic manganese or ammonia residue. Fumigants must be used with care by trained personnel, and soil solarization requires a month or more out of production during warm weather. In addition, once the sterilization is conducted, special care should be used in replanting so that diseases are not reintroduced into an environment where few organisms (and therefore little competition) exist.

Composts, while not sterile, may be suppressive to Phytophthora. However, care must be taken with the source of the compost, and be wary of unverified claims of suppression.

Elimination of all inoculum sources is difficult because pathogens survive in many places. Sclerotia of *Sclerotium rolfsii* or *Sclerotium minor* are long-lived in soil. The nematode *Meloidogyne incognita* can survive deep in soil in ground beds and is difficult to eliminate. Bacteria survive on crop debris and on twine, stakes, and wire. Weeds in or near the greenhouse can harbor viruses and some plants serve as symptomless hosts of pathogens such as *Fusarium oxysporum* spp. and *Verticillium*.

Because all inoculum sources cannot be eliminated, measures should be taken to minimize the presence of disease. Use Greenshield or other disinfectant to clean tools, stakes, benches, and walls. Avoid having ornamental plants in the vegetable production greenhouse. Also, launder work clothes frequently. Pathogens are easily spread through the activities of people, on hands, clothing, and tools. Watering can also spread pathogens. Drip tape or the practice of watering at the base of plants, will minimize spread. Finally, pets and birds may bring pathogens inside a greenhouse structure or spread them from a diseased section of a greenhouse to a non-diseased area.

Additional techniques have been very useful in reducing disease in greenhouse environments. Grafting is widely used in many countries to manage Fusarium wilt on tomato and watermelon crops (Figure 3). This approach is highly effective for reducing losses due to soilborne disease such as Fusarium wilt, but does add extra cost to production.

Fungicides and biorational pesticides are often used on greenhouse vegetables. Attached is a table of some selected products that are registered for use in the USA for greenhouse vegetable production. Judicious use of pesticides and biorationals by trained personnel in combination with manipulation of the environment to disfavor disease should result in a healthy crop.

Table 1. Selected fungicides and bactericides for management of vegetable diseases in greenhouses.

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Target Diseases</th>
<th>Labeled Crops</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC COPPER SULFATE</td>
<td>Many diseases including angular leaf spot, downy mildew, Alternaria blight, Anthracnose, bacterial blight, etc.</td>
<td>Vegetables including cucumbers, eggplant, peppers, tomatoes, etc.</td>
<td>Crops grown in the greenhouse may be more sensitive to copper injury, so the user should determine plant sensitivity.</td>
</tr>
<tr>
<td>BACILLUS PUMILUS</td>
<td>Early blight, late blight, downy mildew, powdery mildew</td>
<td>Many vegetables including Brassicas, bulb vegetables, cucurbits, fruiting vegetables, leafy vegetables and root and tuber crops.</td>
<td>OMRI approved.</td>
</tr>
<tr>
<td>BACILLUS SUBTILUS</td>
<td>Suppression of Solborne and foliar diseases including damping off, root rot, and early blight</td>
<td>Many including fruiting and leafy vegetables.</td>
<td>May be used in hydroponic and soilless production systems. Most effective used preventatively.</td>
</tr>
<tr>
<td>CONIOXYTHRIUM MINITANS</td>
<td>Sclerotinia sclerotiorum, Sclerotinia minor</td>
<td>Many vegetables including leafy vegetables, brassicas, legumes, fruiting vegetables, and bulb vegetables.</td>
<td>OMRI approved. Contains a beneficial fungus. Do not allow to stand overnight following mixture. Acts as a preventative.</td>
</tr>
<tr>
<td>COPPER HYDROXIDE</td>
<td>Leaf spots, Anthracnose and bacterial spots.</td>
<td>See labels for specific crops.</td>
<td>See labels for specific usage instructions.</td>
</tr>
<tr>
<td>COPPER SALTS</td>
<td>Alternaria blight, downy mildew, angular leaf spot, powdery mildew, scab, gray mold, bacterial soft rot, bacterial rot, Cercospora leaf spot, etc.</td>
<td>Vegetables such as broccoli, cabbage, cucurbits, tomato, etc.</td>
<td>The user should determine if Camelot can be used safely prior to use. Observe for 7 to 10 days for symptoms of injury.</td>
</tr>
<tr>
<td>CYAZOFAMID</td>
<td>Pythium damping off</td>
<td>Tomato greenhouse transplant production.</td>
<td>Make a single fungicide drench to tray at planting or up until one week before transplant. See label for additional details.</td>
</tr>
<tr>
<td>DICLORAN</td>
<td>Pink rot, gray mold, Sclerotinia and Sclerotium rots, leaf blight, and neck rot.</td>
<td>Many vegetables including celery, lettuce, onions, garlic, and shallots.</td>
<td>May cause leaf bronzing on lettuce. Use adequate volume of water.</td>
</tr>
<tr>
<td>FENHEXAMID</td>
<td>Botrytis</td>
<td>Tomatoes and lettuce</td>
<td></td>
</tr>
<tr>
<td>HARPIN PROTEIN</td>
<td>Increases vigor and aids in the management of disease.</td>
<td>Vegetables including cucurbits, fruiting vegetables, and leafy and cole crops.</td>
<td>Do not use chlorinated water when mixing this product. Activates natural defense mechanism in plants. Has no direct effect on pests or pathogens.</td>
</tr>
</tbody>
</table>
### Table 1. Selected fungicides and bactericides for management of vegetable diseases in greenhouses continued

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Target Diseases</th>
<th>Labeled Crops</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HORTICULTURAL OIL</strong></td>
<td>Powdery mildew</td>
<td>Cucurbits, melons, and squash</td>
<td>Application should be made when disease is first noticed. See label for information on plant safety. Use lower label rates in the greenhouse.</td>
</tr>
<tr>
<td>(Ultra-Fine Oil, Whitmire Micro-Gen) 4 hr. REI</td>
<td></td>
<td></td>
<td>Strong oxidizing agent. Contact, oxidizing sanitizer. Hydrogen peroxide</td>
</tr>
<tr>
<td><strong>HYDROGEN DIOXIDE</strong></td>
<td>Anthracnose, downy mildew, powdery mildew, Pythium root rot</td>
<td>Many including cole crops, cucurbit, leafy vegetables, peppers, and tomatoes.</td>
<td></td>
</tr>
<tr>
<td>(Oxidate, Zerotol, BioSafe Systems LLC) 0 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>KAOLIN</strong></td>
<td>Powdery Mildew</td>
<td>Cucurbit vegetables</td>
<td>Product forms a white film on leaves and fruit.</td>
</tr>
<tr>
<td>(Surround WP, Nova Source Tessenderlo Group) 4 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MANCOZEB</strong></td>
<td>Leaf spot diseases, seed treatment for damping off, seed rots, and seedling blights.</td>
<td>Tomatoes and others</td>
<td>Broad-spectrum protectant fungicide.</td>
</tr>
<tr>
<td>(Dithane F-45, DF, Dow AgroSciences LLC) 24 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PENTACHLORO-NITROBENZENE PCNB</strong></td>
<td>Root and stem rot, damping off (Rhizoctonia solani, Pellicularia filamentosa)</td>
<td>Vegetable bedding plants. Limited to container-grown beans, broccoli, brussel sprouts, cabbage, cauliflower, peppers, and tomatoes.</td>
<td>Flowable and 75WP: Apply as a soil drench. 15G: Used as growing media mix. See label additional information.</td>
</tr>
<tr>
<td>(Terractor 75 WP, Terractor Flowable, Terractor 15G, Chemburta Corp.) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>POTASSIUM BICARBONATE</strong></td>
<td>Powdery mildew and others</td>
<td>Many vegetables including cabbage, cucumber, eggplant, broccoli, cauliflower, lettuce, peppers, tomatoes, and squash</td>
<td>Works by contact. Potassium bicarbonate disrupts the potassium ion balance in the fungus cell, causing the cell walls to collapse.</td>
</tr>
<tr>
<td>(Armicarb 100, Helena Chemical Company; Millstop, BioWorks, Inc.; Kaligreen, Taogossi Co., LTD) 4 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROPAMOCARB HYDROCHLORIDE</strong></td>
<td>Pythium root rot and damping off</td>
<td>Tomatoes, leaf lettuce, cucurbit, and peppers</td>
<td>See label for specific usage instructions.</td>
</tr>
<tr>
<td>(Previcur Flex, Bayer Crop Science) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PETROLEUMOIL</strong></td>
<td>Powdery Mildew</td>
<td>Cucurbit vegetables</td>
<td>Contact fungicide. Phytotoxicity may occur. See label for details.</td>
</tr>
<tr>
<td>(Saf-T-Side spray oil, Brandt Consolidated) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>POTASSIUM SALTS OF FATTY ACIDS</strong></td>
<td>Powdery Mildew</td>
<td>Greenhouse cucumber</td>
<td>Contact fungicide. See label for details.</td>
</tr>
<tr>
<td>(M-Pede, Dow Agro Sciences) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PYRIMETHANIL</strong></td>
<td>Early blight and gray mold</td>
<td>Tomatoes</td>
<td>Use in well-ventilated houses only and ventilate two hours after application.</td>
</tr>
<tr>
<td>(Scala, Bayer Crop Science) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STREPTOMYCES GRISEOVIRIDIS</strong></td>
<td>Fusarium, Alternaria, Rhomonopsis, suppression of Botrytis, and root rots of Pythium, Phytophthora, and Rhizoctonia</td>
<td>Many including lettuce, cole crops, cucumbers, melons, peppers, tomatoes and others</td>
<td>Contains a beneficial bacterium. Repeat applications may be needed. Use as a soil spray or drench.</td>
</tr>
<tr>
<td>strain K 61 (Mycostop, Mycostop Mix, Vederia Oy, Finland) 4 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STREPTOMYCES LYDICUS</strong></td>
<td>Damping off and root rot, pathogens Pythium, Rhizoctonia, Phytophthora, Verticilium; and foliar diseases including downy and powdery mildew and Alternaria and Botrytis.</td>
<td>Greenhouse vegetables and herbs and others.</td>
<td>May be applied to soil or foliage through mist systems or sprayer.</td>
</tr>
<tr>
<td>(Actinovate, Natural Industries, Inc.) 1 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STREPTOMYCEIN SULFATE</strong></td>
<td>Bacterial spot</td>
<td>Tomatoes and peppers</td>
<td>Repeated applications can result in resistant bacteria. Do not apply through any irrigation system.</td>
</tr>
<tr>
<td>(Agri-mycin 17, Nufarm Americas, Inc.) 12 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SULFUR</strong></td>
<td>Powdery mildew</td>
<td>Crucifers, cucurbit, peppers and tomatoes</td>
<td>Crops grown in greenhouses may be more sensitive to sulfur injury, so the lowest label rate should be tried initially. Do not use within two weeks of an oil spray treatment.</td>
</tr>
<tr>
<td>(Microthiol Dispers, United Phosphorus, Inc.) 24 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRICHODERMA HARZIANUM</strong></td>
<td>Pythium, Rhizoctonia, and Fusarium. When applied as a foliar spray, suppresses Botrytis and powdery mildew.</td>
<td>Greenhouse vegetables</td>
<td>Contains a beneficial fungus. Avoid applications of fungicides at least one week before or after application. Acts as a preventative. Will not cure diseased plants.</td>
</tr>
<tr>
<td>(PlantShield, Rootshield, Bioworks, Inc.) 0 hr. REI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRICHODERMA VIRENS GL-21</strong></td>
<td>Damping off and root rot, pathogens Pythium and Rhizoctonia</td>
<td>Food crop plants in greenhouse</td>
<td>Acts as a preventative and will protect noninfected plants. Will not cure already diseased plants. Allow treated soil to incubate for one day prior to planting for best results. Do not use other soil fungicides at time of incorporation.</td>
</tr>
<tr>
<td>(formerly known as Gliocladium virans) (SoilGard 12G, Certis USA LLC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If any information in these tables is inconsistent with the label, follow the label. Note that some states define pesticide applications in high tunnels as greenhouse applications and other states define them as field applications. Check with your extension educator or state department of agriculture for correct application.
Tomato ripening problems are called by various names such as uneven or blotchy ripening, yellow shoulders, gray wall, internal whitening, etc. (Fig. 1). They all have the same principal cause; lower levels of potassium (K+) than what are needed by the fruit to ripen properly. Over the last couple of years, my lab has taken many soil and foliar tomato samples from fields and high tunnels with fruit ripening problems and we consistently found that most soils had adequate or even high levels of K+, but tissue samples were low to very low in K+ as well as a few other nutrients. What could cause a reduction in K+ in the plant when there was plenty in the soil? There can be several explanations, but the main cause is the fact that the roots are not taking up K+ as much as they needed to.

In one case, last year’s (2009) early season weather conditions helped cause the problem. We either set records or came close for two months in the spring for rainfall. This also meant we had very cloudy skies. Whether it was the excessive moisture, the cloudy skies or both the plant’s ability to take up enough K+ was seriously reduced causing internal whitening (Fig. 1) problems in June and July. In mid-to late-summer we more often see yellow shoulders and uneven ripening. These maladies appear when plants are putting on fruit and temperatures and humidity are high. The cause is the same, K+ levels too low in the plant. Some of the causes of too little K+ in the plant could be due to inadequate soil moisture or a poor tomato root system which results in a plant that cannot take up enough K+. If the roots are concentrated in the top 6-8 inches of soil and the plant canopy is poor, this can expose the black plastic to the sun and raise soil temperatures to the point where water, as well as K+ and other nutrient uptake, is reduced enough to cause ripening problems. In a study I conducted in a plasticulture staked tomato system, when root zone temperature (RZT) reached 82° for greater, the plants slowed their uptake of many nutrients, most notably K+, phosphorus, and at times calcium, according to leaf tissue analysis. This phenomenon usually occurred earlier in the season and more severely in high tunnel tomato production systems (2010). The problem is that sometimes as the levels of K+ decreased in the plant, it was not always correlated with an increase in fruit problems. There appears to be other additional factors involved besides the lack of some plant nutrients.

Figure 1. Various forms of ripening problems in tomato fruit in the mid-Atlantic:

Uneven or blotchy ripening

Internal whitening

Yellow shoulders
UNIVERSITY OF MARYLAND EXPERIMENTAL WINES RECEIVE MEDALS FROM AMERICAN WINE SOCIETY

Wines from the University of Maryland Viticulture & Enology and Research Extension Program were entered in the 2010 National American Wine Society Amateur (non-commercial) Wine Competition that took place on October 22-24 in Pittsburgh, PA.

Nine wines were entered and Eight received medals:

<table>
<thead>
<tr>
<th>Year</th>
<th>Name of Wine</th>
<th>Research Center</th>
<th>Medal</th>
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</thead>
<tbody>
<tr>
<td>2007</td>
<td>Germanic White (XIV-1-86, SK77-10-69, SK77-5-3)</td>
<td>WREC</td>
<td>Gold</td>
</tr>
<tr>
<td>2007</td>
<td>Chardonnay Clonal Reserve</td>
<td>WMREC</td>
<td>Silver</td>
</tr>
<tr>
<td>2007</td>
<td>Valvin Muscat</td>
<td>LESREC</td>
<td>Silver</td>
</tr>
<tr>
<td>2007</td>
<td>Chardonnay Oak Reserve</td>
<td>WMREC</td>
<td>Bronze</td>
</tr>
<tr>
<td>2008</td>
<td>Petite Sirah</td>
<td>WREC &amp; WMREC</td>
<td>Bronze</td>
</tr>
<tr>
<td>2007</td>
<td>Linae</td>
<td>WREC</td>
<td>Bronze</td>
</tr>
<tr>
<td>2007</td>
<td>Vidal</td>
<td>CMREC</td>
<td>Bronze</td>
</tr>
<tr>
<td>NV</td>
<td>54-36-33</td>
<td>WREC</td>
<td>Bronze</td>
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</tbody>
</table>

WMREC - Western Maryland Research & Education Center, Kearneysville, MD
WREC - Research & Education Center, Queenstown, MD
LESREC - Lower Eastern Shore Research & Education Center, Salisbury MD Location
CMREC - Central Maryland Research & Education Center, Upper Marlboro, MD Location

More information about the University of Maryland Research Centers go to: http://agresearch.umd.edu/RECs/index.cfm

TOMATO FRUIT RIPENING PROBLEMS IN MARYLAND AND SOME PRELIMINARY ANSWERS? - CONTINUED FROM PAGE 7

Remedies: I have tried applying greater levels of K+ to the soil to help alleviate the problem and this has helped to some degree. I also have used several different types of foliar sprays of K+ during the season to reduce the problem. In both situations, I have increased the K+ levels in the plant, sometimes significantly, but often just a little. Penn State says that these K+ foliar sprays will raise the potassium levels significantly and will just about alleviate the problem, but it just has not worked very well in Maryland. It may be due to our greater summer temperatures that heat the plastic resulting in a much greater K+ deficiency in our tomatoes. Something that points to this (too high of temperatures in the RTZ) as being a big part of the problem is that when I grow the same variety of tomato in plastic culture systems in synthetic or organic systems I end up with tomato ripening problems (although they are always worse in the synthetic system), but in an organic system without plastic mulch I do not get much tomato fruit ripening problems. Soil temperatures are usually below 84°F in July and August in the organic systems without plastic mulch, although they do have straw mulch, which further lowers soil temperature. There may be other factors in organic soil systems that help reduce the impact of high RZT and that allow an adequate supply of K+ to be delivered to the fruit even when it is hot.
2010 ACTIVITIES OF THE MARYLAND STATE HORTICULTURAL SOCIETY

Lynn Moore, MSHS Secretary

THE SUMMER ORCHARD TOUR
This summer the MSHS visited three farms in Pennsylvania. The first stop was Strites’ Orchard Farm Market and Bakery. We were greeted with delicious doughnuts and a tour of the impressive farm market. They grow all they sell in the market, which makes for a very complicated grower operation. They ended the season with choose and cut Christmas trees. The second stop was lunch at Brown’s Orchards and Farm Market. The lunch was great and the farm market includes a bakery, deli, coffee bar, lunch pavilion, and wine shop. They have high density trellised dwarf apples on trickle irrigation. The orchards and the vineyard are on the hillsides below the market. It is very picturesque. The last stop was Flinchbaugh’s Orchard and Farm Market. The market is new and surrounded by perpendicular V peach plantings and high density apple orchards.

RESEARCH PROJECTS FUNDED
In January of each year, the Maryland State Horticultural Society sends out a “call for proposals” to the Chair of the Department of Plant Science and Landscape Architecture at the University of Maryland. The Society is interested in funding projects that could be conducted during this growing season. Research should attempt to solve production problems, improve the profitability of fruit producers, and support family farming in Maryland. Proposals for research projects are then reviewed by the board members of the Maryland State Horticultural Society. Grants are awarded to projects that are relevant to the industry and will benefit Maryland growers. These grants are frequently used as seed money to attract other monies to fund the research projects.

I am proud to report that four projects were funded in 2009.

- Alternative Crops Research and Demonstration Trial - a continuation by Dr. Joe Fiola
- “Improving Apple Tree Architecture, Reducing Tree Stature, and Promoting Apple Fruit Quality Through Field Hybridization and Selection” - a continuation by Dr. Christopher S. Walsh.
- Strawberry Research Projects including “Bio-Fumigation in Annual Plasticulture,” “Fumigation in High Tunnels and Its Effects on Fall and Spring Strawberry Production”
- “Floating Row Cover Deployment Date and Planting Date effects on Chandler and three other, now Florida-Bred Cultivars” by Michael Newell at the Wye Research and Education Center

Each scientist is happy to discuss their project with any grower. Project results are presented to the Maryland State Horticultural Society and are available on request. Frequently projects are presented at Twilight tours put on by the University of Maryland.

HARRY G. BLACK DISTINGUISHED SERVICE AWARD

This award will be given, when deemed appropriate by the Executive Board, to a person who is a member of the Maryland State Horticultural Society making a significant contribution in the state of Maryland this year and in years past. The Award and Nominations Committee, consisting of three members appointed by the President, shall recommend to the Executive Board such an award.

Although primarily intended to be given to a fruit grower or those involved in fruit production, it may be given to a person in an allied industry such as processing, a state employee, a county agent, university personnel, or to any other person making a special contribution to the fruit industry. The committee will annually review the list of nominees, if any, to determine its recommendation to the Executive Board.

Previous recipients are:
- Lloyd Balderston III, 1976
- S. Herman Todd, 1977
- M. N. ‘Nick’ Pope, 1979
- Dr. Arthur Thompson, 1982
- William M. Allenberg, 1996
- Dr. Paul W. Steiner, 2000
- Dr. Castillo Graham, 1976
- William C. Main, 1978
- Dr. L. O. Weaver, 1980
- Harry G. Black, 1985
- Evan B. Milburn, 1987
- I. Bruce Barr, 2005
- Professor A. F. Veirheller, 1976
- Theodore Stegmaier, 1978
- Dr. Ben L. Rogers, 1981
- George H. Butler, Jr., 1986
- John H. Rinehart, 1999

ARThUR H. THOMPSON TRAVEL FELLOWSHIP

The purpose of the Thompson Fellowship is to expose young people, working in the Maryland fruit industry, to ideas on fruit production in other areas of the world. In order to do this, the Maryland State Horticultural Society has established a fellowship of up to $1,000. This fellowship can be awarded annually to young people working in the fruit industry to promote leadership within the Society.

Recipient: The recipient will be a fruit grower or someone else associated with fruit production in Maryland, to be given to young persons aged 18 to 30, to encourage travel outside the state of Maryland. The recipient would be expected to make a short presentation to the membership at the annual meeting concerning the information learned in the travel.

Application and Procedure: To apply, a brief explanation of the proposed trip should be submitted in writing. The application letter should include the name, age, and potential trip being considered by the applicant. Applications should be submitted by January 21, 2011 to be considered for use during the subsequent year.

Applications for the award should be submitted to:

Lynn Moore, Secretary, c/o MSHS Nominating and Awards Committee,
2415 Woodbine Road, Woodbine, MD 21797, 410-489-7034

The Awards and Nominating Committee will consider the nominations and make its recommendation to the Executive Committee, which will make the final decision. The Thompson Fellowship will be presented at the Awards Banquet held during the Mid-Atlantic Fruit and Vegetable Convention in Hershey, PA.
The brown marmorated stink bug (BMSB), *Halyomorpha halys* (Stål) has rapidly become a major pest of fruits and vegetables in Maryland and the Northeast. It is an invasive insect native to China, Taiwan, Korea, and Japan that was introduced into the Allentown, PA, region in the mid 1990’s. Currently, BMSB is well established throughout DE, MD, PA, NJ, VA, and WV and has been officially detected in 26 states and the District of Columbia.

The BMSB has quickly spread and become a nuisance pest in homes. First detection in orchards in the region was in 2003. In 2010, BMSB populations increased dramatically and attacked many high value specialty crops in the Mid-Atlantic region, including fruits (tree, small, grapes) and vegetables (almost all!). Damage in commercial tree fruit orchards reached critical levels with some growers in Washington and Frederick counties losing entire blocks of stone fruit, and incurring severe economic injury in apples and Asian pears. It has even become a serious pest of ornamentals and hardwood trees, as well as cultivated field crops (soybean, corn). Questions of potential disease transmission and post-harvest issues continue to arise.

There are no established commercial monitoring methods, treatment thresholds, or control strategies for BMSB in any cropping system. BMSB populations and their damage are currently being monitored by University and USDA scientists in MD, PA, and WV. In an effort to elicit answers to the many biological and management questions surrounding this new pest, scientists from eight states have come together to apply for a USDA (SCRI) grant for close to 10 million dollars. The grant is entitled: “Biology, Ecology, and Management of Brown Marmorated Stink Bug in Orchard Crops, Small Fruit, Grapes, Vegetables, and Ornamentals.” The following are the objectives of the grant proposal.

1. To assess biology and population development of BMSB in specialty crops. This will include monitoring developmental rates, overwintering, spring emergence and movement, diagnosis of injury, and characterizing severity in specialty crops.

2. To develop monitoring tools for BMSB. This will include identification of pheromones, other attractants, and traps that can be used for monitoring.

3. To establish effective management strategies for BMSB in specialty crops. Integrated management tools will be investigated, including conventional and alternative insecticides, repellents, and natural enemies, including parasitoids, predators, and pathogens.

4. To integrate stakeholder input and research findings to form and deliver practical outcomes. This will include coordination of stakeholder advisory meetings to guide execution of objectives, direct research plans, and review accomplishments. Outreach and educational programs will be offered to deliver research results and management recommendations (including sampling and monitoring guidelines) to stakeholders based on local needs and priorities. A continuity plan with the Northeastern IPM Center will be established for sustained delivery of grower and consumer-level educational materials.

The University of Maryland will have 16 faculty members involved in this grant to assure that Maryland growers and residents will have local, cutting-edge, research, and extension information available to help manage this emerging pest. Stay tuned for updates!
<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10-11 7:00 PM to 9:00 PM</td>
<td>Private Pesticide Applicator Exam Review, University of Maryland Extension - Kent County</td>
<td>Contact: 410-778-1661</td>
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<tr>
<td>1-10-11 7:00 PM to 9:00 PM</td>
<td>Private Pesticide Applicator Exam Review, University of Maryland Extension - Garrett County</td>
<td>Contact: Willie Lantz 301-334-6960 <a href="http://garrett.umd.edu/Agrnr/Pest%20Classes%20Dec%206%20-%20Jan%2017%202011.pdf">http://garrett.umd.edu/Agrnr/Pest%20Classes%20Dec%206%20-%20Jan%2017%202011.pdf</a></td>
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<td>1-14-11 thru 1-15-11</td>
<td>Future Harvest - CASA 12th Annual Conference - We Are What We Eat: Community Health Through Sustainable Farming, Pearlstone Center and Kayam Farm, Reisterstown, Maryland.</td>
<td><a href="http://www.futureharvestcasa.org/">http://www.futureharvestcasa.org/</a></td>
</tr>
<tr>
<td>1-17-11 3:00 PM</td>
<td>Private Pesticide Applicator Exam, University of Maryland Extension - Garrett County</td>
<td>Contact: Willie Lantz 301-334-6960 <a href="http://garrett.umd.edu/Agrnr/Pest%20Classes%20Dec%206%20-%20Jan%2017%202011.pdf">http://garrett.umd.edu/Agrnr/Pest%20Classes%20Dec%206%20-%20Jan%2017%202011.pdf</a></td>
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<tr>
<td>1-28-11 9:00 AM to 3:30 PM</td>
<td>Central MD Vegetable Growers Meeting, Friendly Farm Restaurant, Upperco, MD - Call (410) 771-1761 for information and registration.</td>
<td><a href="http://baltimorecounty.umd.edu/AgricultureandNaturalResources/UpcomingAgriculturalMeetings/index.cfm">http://baltimorecounty.umd.edu/AgricultureandNaturalResources/UpcomingAgriculturalMeetings/index.cfm</a></td>
</tr>
<tr>
<td>2-09-11 Time TBA</td>
<td>Southern MD Vegetable &amp; Fruit Production Meeting, St. Mary’s County</td>
<td>For more information, contact Ben Beale: 301-475-4481</td>
</tr>
<tr>
<td>2-22-11 9:00 AM to 11:30 AM</td>
<td>New Private Pesticide Applicator Certification Training - Baltimore County</td>
<td>Call to register: 410-771-1761</td>
</tr>
<tr>
<td>2-22-11 1:00 PM to 3:30 PM</td>
<td>Private Pesticide Applicator Re-Certification Training - Baltimore County</td>
<td>Call to register: 410-771-1761</td>
</tr>
<tr>
<td>2-23-11</td>
<td>Bay Area Fruit School, Wye Research and Education Center, Queenstown, MD</td>
<td>For more information please go to: <a href="http://extension.umd.edu/local/Wye/index.cfm">http://extension.umd.edu/local/Wye/index.cfm</a></td>
</tr>
<tr>
<td>2-24-11 8:30 AM to 4:00 PM</td>
<td>Western Maryland Regional Fruit Meeting, Western Maryland Research &amp; Education Center, Keedysville, MD</td>
<td><a href="http://www.grapesandfruit.umd.edu/calendar.htm">http://www.grapesandfruit.umd.edu/calendar.htm</a> or <a href="mailto:sbarnes6@umd.edu">sbarnes6@umd.edu</a></td>
</tr>
<tr>
<td>2-26-11 thru 3-04-11</td>
<td>International Fruit Tree Association Annual Conference, Red Lion Hotel, Pasco, WA.</td>
<td>For more information go to: <a href="http://www.iuftree.org/">http://www.iuftree.org/</a></td>
</tr>
<tr>
<td>3-01-11 9:00 AM to 10:30 AM</td>
<td>Private Pesticide Applicator Exam - Baltimore County</td>
<td>Contact: 410-771-1761</td>
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<tr>
<td>4-01-11 4:00 PM to 6:00 PM</td>
<td>Nutrient Management Voucher Recertification Training Live On-Line Session - High speed cable or satellite internet connection is required. Contact Anne Arundel County Extension Office at 410-222-6759. Registration deadline: March 30, 2011</td>
<td></td>
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<tr>
<td>4-15-11 4:00 PM to 6:00 PM</td>
<td>Private Pesticide Recertification Training Live On-Line Session - High speed cable or satellite internet connection is required. Contact Anne Arundel County Extension Office at 410-222-6759. Registration deadline: April 12, 2011</td>
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This year Hershey Lodge is now offering online reservation for your convenience. To make your reservation you can go to: https://resweb.passkey.com/Resweb.do?mode>Welcome_ei_new&eventID=3096137. If you are unable to go online, you can contact Hershey Lodge at 717-533-3311. Just let them know that you are attending the Mid-Atlantic Fruit & Vegetable Conference.

MARYLAND STATE HORTICULTURAL SOCIETY MEETINGS HELD AT CONVENTION

The Maryland State Horticultural Society will have the following meetings during the convention:

EXECUTIVE COMMITTEE MEETING
February 1, 2010 - 4:15 PM
Cocoa Suite #2

BUSINESS MEETING
February 2, 2010 - 4:30 PM
Tower Board Room

PRE-CONVENTION WORKSHOPS

DIAGNOSING VEGETABLE PROBLEMS WORKSHOP ($25.00 fee)
10:00 Introduction to Diagnosing Vegetable Problems - Dr. Michael Orzolek, Penn State University
10:30 *Disease Symptoms - Dr. Beth Gugino, Penn State University
11:00 *Insect Symptoms - Dr. Shelby Fleischer, Penn State University
11:30 *Herbicide Injury Symptoms - Dwight Lingenfelter, Penn State University
12:00 Lunch - on your own
1:00 Nutrition Symptoms - Dr. Michael Orzolek, Penn State University
1:45 Air Pollution Symptoms - Dr. Dennis Decoteau, Penn State University
2:30 Extreme Weather Affects on Plants - Dr. Joe Russo, ZedX Inc.
3:00 Industry Show and Tell
3:15 Animal Damage Symptoms - Dr. Gary San Julian, Penn State University
4:00 Questions for Afternoon Speakers
4:30 Adjourn

BEE-INC SUSTAINABLE ($25.00 fee)
9:00 Overview of Agriculturally Important Bees - Alex Surcica, Penn State Cooperative Extension
10:00 Getting the Most From Your Beekeeper and His Bees - Scott Guiser, Penn State Cooperative Extension
11:00 Bee-Friendly Insect Pest Control in Vine Crops - Steve Bogash, Penn State Cooperative Extension
11:50 Lunch - on your own
12:40 Learning to Identify Most Common Bees - Kim Carlen, Penn State Cooperative Extension
1:40 Bee-Rewarding Plants and Methods to Establish Them - Connie Schmotzer, Penn State Cooperative Extension
2:40 Enhancing Bee Nesting Habitats - Alex Surcica, Penn State Cooperative Extension
3:40 Panel Discussion
4:00 Adjourn

FARM TRANSITION – BRINGING IN THE NEXT GENERATION ($50 fee) 12:00 PM to 3:30 PM - includes lunch
A multi-generational workshop on farm transition planning featuring estate planning attorney Mark L. James and Penn State Extension farm succession specialists. This session is not just for the youngest generation on the farm but for all individuals within the family enterprise. The program will begin with lunch and a motivational presentation. The workshop will be an interactive, discussion based educational experience for all those who attend - whether you are just starting your farm transition plan or are well into the process! Mark L. James is author of the award winning book, Estate Planning Success for Pennsylvania Residents, and will share important insights on “Estate Planning Fundamentals for Families in Agriculture.” The Penn State team will lead a discussion on “Evaluating Your Farm Business - Can the Business Survive a Transition?”
Registration form on page 19

MAIN CONVENTION PROGRAM

TUESDAY MORNING, FEBRUARY 1, 2011

TREE FRUIT - Nigerian Room
9:00 Invocation - James Clarke
9:05 President’s Address - Ed Weaver, Weaver’s Orchards
9:15 **Getting a Handle on Worker Protection Inspections - James Harvey, Penn State University
9:45 George Goodling Lecture - Flower Bud Formation and its Control in Apples - Dr. Steve McArtney, North Carolina State University
10:30 Adjourn to Plenary Session

WHOLESALE MARKETING - Aztec Room
9:00 Food Alliance Certification - Ben Wenk, Wenk’s Orchards
9:30 Industry Show and Tell
9:45 Buyer Grower Panel - to be announced
**TUESDAY AFTERNOON, FEBRUARY 1, 2011**

**SNAP BEANS** - Magnolia Room A
10:30 Adjourn to Plenary Session

**SWEET CORN** - Magnolia Room BCD
9:00 Reduced Tillage Sweet Corn - No-Till - Lenny Burger, Burgers Farm; Zone Tillage - Ronald Beinlich, Triple B Farms
9:30 Industry Show and Tell
9:45 *What Not To Do for Sweet Corn Weed Control - Dwight Lingenfelter, Penn State University
10:30 Adjourn to Plenary Session

**DIRECT MARKETING - CSA'S** - Aztec Room
4:00 Considerations for Marketing Onions - William Saussaman, Seminole Produce Distributing Co. Inc
4:30 Adjourn

**ONION** - Magnolia Room A
1:30 Onion Production 101 - Arthur King, Harvest Valley Farms
2:00 *Iris Yellow Spot Virus: The New York Story - Christy Hoepting, Cornell University
2:30 *Maximizing the Level of Onion Thrips Control Using Insecticides - Dr. Brian Nault, Cornell University
3:00 Industry Show and Tell
3:15 *Managing Bacterial Diseases of Onion - Dr. Beth Gugino, Penn State University
4:00 Considerations for Marketing Onions - William Saussaman, Seminole Produce Distributing Co. Inc
4:30 Adjourn

**HIGH TUNNELS** - Crystal Room
1:30 Techniques for Producing Early Sweet Corn: Clear Plastic and Covered Using a Hoop Layer - Brenton Barnhart, Country Creek Produce; Row Cover - Keith Eckel, Fred W. Eckel Sons; Clear Plastic or Row Cover Depending on Planting Date - John Mason, Mason Farms
2:30 How We Harvest Fresh Market Sweet Corn: Hand Harvesting and De-Tasseling - Keith Eckel Fred W. Eckel Sons; One Row Mechanical Harvester - William Geise, Geise’s Sweet Corn; Four Row Mechanical Harvester - Brian Campbell, Brian Campbell Farms
3:15 Industry Show and Tell
3:30 **Sprayers for Sweet Corn - Coverage and Calibration - Dr. Andrew Landers, Cornell University
4:30 Adjourn

**TREE FRUIT** - Nigerian Room
Taking the LEAP (Labor Efficient Apple and Peach Production) to Labor Efficient Technologies
1:30 Preparing Our Enterprises for Labor Efficient Technologies - Dr. James Schupp, Penn State University
2:00 Engineering Solutions Under Development by University/Commercialization Partners - Dr. Sanjiv Singh, Carnegie & Dr. Paul Heinemann, Penn State University
2:40 Industry Show and Tell
2:55 Apple Rootstock and Cultivar Extension Project - Drs. Robert Crassweller & Richard Marini, Penn State University
3:05 Labor Efficient IPM Tools - Dr. Larry Hull, Penn State University
3:25 Encouraging Results from CASC Harvest Assist Trials with a Commercial Partner - Phil Brown, Phil Brown Welding & Dr. James Schupp, Penn State University
3:35 Developing a Mind-Set for Automation - Karen Lewis, Washington State University
4:15 Adjourn

**COLE CROPS** - Empire Room CD
1:30 *Managing Diseases of Cole Crops During a Cool, Wet Season - Dr. Chris Smart, Cornell University
2:00 *Iris Yellow Spot Virus: The New York Story - Christy Hoepting, Cornell University
2:30 *Maximizing the Level of Onion Thrips Control Using Insecticides - Dr. Brian Nault, Cornell University
3:00 Industry Show and Tell
3:15 Nutrition of Cole Crops - Dr. Carl Rosen, University of Minnesota
4:00 Organic Cucurbit Production - Ermita Hernandez, Penn State University
4:30 Adjourn

**ORGANIC VEGETABLES** - Empire Room AB
1:30 *Managing Diseases of Cole Crops During a Cool, Wet Season - Dr. Chris Smart, Cornell University
2:00 *Iris Yellow Spot Virus: The New York Story - Christy Hoepting, Cornell University
2:30 *Maximizing the Level of Onion Thrips Control Using Insecticides - Dr. Brian Nault, Cornell University
3:00 Industry Show and Tell
3:15 Nutrition of Cole Crops - Dr. Carl Rosen, University of Minnesota
4:00 Organic Cucurbit Production - Ermita Hernandez, Penn State University
4:30 Adjourn

**PLANEARY** - Nigerian and Aztec Rooms
10:45 Mid-Atlantic Legislative Affairs Update - Gary Swan, Pennsylvania Farm Bureau
11:00 Keynote Presentation - Eating - Is There a Solution to the Confusion? - Dr. Joseph Schwartz, McGill University
11:30 Keynote - Eating - Is There a Solution to the Confusion? - Dr. Joseph Schwartz, McGill University

**TREE FRUIT** - Nigerian Room
Taking the LEAP (Labor Efficient Apple and Peach Production) to Labor Efficient Technologies
1:30 Preparing Our Enterprises for Labor Efficient Technologies - Dr. James Schupp, Penn State University
2:00 Engineering Solutions Under Development by University/Commercialization Partners - Dr. Sanjiv Singh, Carnegie & Dr. Paul Heinemann, Penn State University
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3:35 Developing a Mind-Set for Automation - Karen Lewis, Washington State University
4:15 Adjourn

**DIRECT MARKETING - CSA'S** - Aztec Room
To be announced

**ONION** - Magnolia Room A
1:30 Onion Production 101 - Arthur King, Harvest Valley Farms
2:00 *Iris Yellow Spot Virus: The New York Story - Christy Hoepting, Cornell University
2:30 *Maximizing the Level of Onion Thrips Control Using Insecticides - Dr. Brian Nault, Cornell University
3:00 Industry Show and Tell
3:15 *Managing Bacterial Diseases of Onion - Dr. Beth Gugino, Penn State University
4:00 Considerations for Marketing Onions - William Saussaman, Seminole Produce Distributing Co. Inc
4:30 Adjourn

**HIGH TUNNELS** - Crystal Room
1:30 What to Consider When Purchasing a High Tunnel Frame - Ed Person, Ledgewood Farm and Greenhouses
2:00 Putting the Economic Pencil to High Tunnel Production - Adam Montri, Michigan State University
2:30 The Use of Compost, Grafting and Irrigation in Organic High Tunnel Management - Dr. Matthew Kleinhizen, Ohio State University
3:00 Industry Show and Tell
3:15 Using High Tunnels for the Production of Tomatoes and Other Crops - Fred Forsburg, Honeyhill Farm
4:00 How I Use High Tunnels in My Farming Operation - Ed Person, Ledgewood Farm and Greenhouses
4:30 Adjourn

**ORGANIC VEGETABLES** - Empire Room AB
1:30 Grant Programs Available that Allow Farmers to Try New and Innovative Practices on their Farms - Carol Delaney, SARE farmer grant specialist
2:00 *Managing Late Blight on Organically Produced Tomato - Dr. Beth Gugino, Penn State University
2:30 Growing Potatoes Organically - Dr. Melvin Henninger, Rutgers University
3:00 Industry Show and Tell
3:15 Tools for Integrated Crop Management of Peppers - Dr. Mark Bennett, Ohio State University
4:00 Organic Cucurbit Production - Ermita Hernandez, Penn State University
4:30 Adjourn

**COLE CROPS** - Empire Room CD
1:30 *Managing Diseases of Cole Crops During a Cool, Wet Season - Dr. Chris Smart, Cornell University
2:00 *Iris Yellow Spot Virus: The New York Story - Christy Hoepting, Cornell University
2:30 *Maximizing the Level of Onion Thrips Control Using Insecticides - Dr. Brian Nault, Cornell University
3:00 Industry Show and Tell
3:15 Nutrition of Cole Crops - Dr. Carl Rosen, University of Minnesota
4:00 To be announced
4:30 Adjourn

**GENERAL VEGETABLES** - Wild Rose Room
1:30 Soil pH, CEC and Organic Matter: How are They Related? - Dr. Carl Rosen, University of Minnesota
2:00 Improving Carotenoid Phytochemical Concentrations in Vegetable Crops - Dr. Dean Kopsell, University of Tennessee

* Indicates topic expected to qualify for category pesticide credit ** Indicates topic expected to qualify for core pesticide credit *** Indicates topic is expected to qualify for fumigation pesticide credit
2011 Mid Atlantic Fruit and Vegetable Convention Educational Programs  Continued from Page 13

2:30 ***Fumigants: Current Materials and Uses - Victor Lilley, Reddick Fumigants  
3:00 Industry Show and Tell  
3:15 *Management Strategies for Phytophthora - Dr. Chris Smart, Cornell University  
4:00 Asparagus Production - Dr. Robert Precheur, Ohio State University  
4:30 Adjourn  

TUESDAY EVENING, FEBRUARY 1, 2011  

SOCIAL  
6:00 Fruit and Vegetable Grower Reception - Chocolate Lobby  
7:00 Fruit and Vegetable Growers Banquet - Aztec and Nigerian Rooms  
(ticket required) - buffet dinner, recognitions and awards  

WEDNESDAY MORNING, FEBRUARY 2, 2011  

TREE FRUIT - Nigerian Room  
9:00 *Managing Apple Powdery Mildew on Susceptible Varieties in SI Resistant Orchards - Dr. Kerik Cox, Cornell University  
9:45 **Matching the Sprayer to the Canopy - Dr. Andrew Landers, Cornell University  
10:30 Industry Show & Tell  
10:45 Competitive Orchard Systems: One Destination, Several Ways to Get There - Karen Lewis Washington State University  
11:15 The Wonderful World of PGRs: Harvest Management and Thinning in Apple - Dr. Steve McArtney, North Carolina State University  

SPiking your Farm Market - Aztec Room  
9:00 Why We Do What We Do at Our Market - Jay Milburn, Millburn Orchards  
10:00 Industry Show and Tell  
10:15 The Significance of Educating Consumers - Your Customers - MeeCee Baker, Vanent Strategies.  
11:00 Visually Communicating with Your Customers Through Print and Virtual Media - Deanna Fox, The Fox Group  
11:45 Using EBT Machines at Your Market - Sandy Hoppel, Pennsylvania Department of Agriculture  
12:15 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

SPANISH - Magnolia Room A  
9:30 Principios de la seguridad alimentaria con buenas practicas agrícolas (GAPs) - Maria Gorgo-Gourouwitch, Yardley  
10:00 Control de plagas y enfermedades del suelo por uso de cobertura vegetal (Control of Soil-Borne Pests and Diseases with Cover Crops) - Tianna DuPont, Penn State Cooperative Extension  
10:30 Manejo y control del escarabajo japonés en arándanos (Japanese Beetle Control on Blueberries) - Dr. Carlos Garcia-Salazar, Michigan State University  
11:00 Noticia del chinche apesoto (vaquita) marrón mármol (Brown Marmorated Stink Bug Status Update) - Dr. Katie Ellis, Penn State University  
11:10 Como igualar la aspersora de alta presión a la copa (Matching the Sprayer to the Canopy) - Dr. Andrew Landers, Cornell University - English/Spanish Interpretation Session; Interpretation by Bruce Hollabaugh, Hollabaugh Bros., Inc.  
11:30 Identificacion y control de enfermedades del tomate (Selected Tomato Diseases and Their Control) - Dr. Beth Gugino, Penn State University - English/Spanish Interpretation Session; Interpretation by Bruce Hollabaugh, Hollabaugh Bros., Inc.  

TOMATOES - Magnolia Room BCD  
9:00 New Fresh Market Varieties - Peter Nitzsche, Rutgers Cooperative Extension  
9:30 To be announced  
10:00 Industry Show and Tell  
10:15 *Bacterial Canker-and Other Tomato Diseases - Dr.Beth Gugino - Penn State University  
11:00 Fighting Disease/Grafting - Dr. Matthew Kleinheinz - Ohio State University  
11:30 PVGA Annual Meeting - Wild Rose Room  
12:30 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

FOOD SAFETY - Crystal Room  
9:00 Penn State GAPs Program - Dr. Luke LaBorde, Penn State University  
10:00 Industry Show and Tell  
10:15 Problems Observed in Audits in New Jersey - Dr. Wesley Kline, Rutgers Cooperative Extension  

11:00 New York GAP Update - Elizabeth Bihn, Food Science, Cornell University  
11:45 Panel Discussion - Donald Wellbrock, Pennsylvania Department of Agriculture; Glenda Christy, Giant Eagle; and other session speakers  
12:30 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

GENERAL VEGETABLES - Empire Room AB  
9:00 **Surfactants 101 - Kerry Hoffman-Richards, Penn State University  
9:30 Brassica Cover Crops and Seed Meals as Soil Biofumigants in Vegetable Crop Production - Dr. Dean Kopsell, University of Tennessee  
10:00 Industry Show and Tell  
10:15 Basic Plant Nutrition - Dr. Ernest Bergman, Emeritus Penn State University  
11:00 Buring Plastic for Energy - An Update - James Garthe, Penn State University  
11:30 PVGA Annual Meeting - Wild Rose Room  
12:30 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

WINE GRAPES - Wild Rose Room  
9:00 *Weed Control in Wine Grapes - Scott Guiser, Penn State Cooperative Extension  
9:45 Winter Hardiness in Grapes - Dr. Robert Crassweller, Penn State University  
10:15 Industry Show & Tell  
10:30 *Brown Marmorated Stink Bug Control - Dr. Mike Saunders, Penn State University  
11:15 Temperature and Light Impact on Fruit Color - Dr. Sara Spayd, North Carolina State University  
12:30 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

GREENHOUSE - Cocoa Suite 1  
9:00 Container Grown Vegetables: New Business Opportunities - Steven Bogash, Penn State Cooperative Extension  
9:30 *Pests of Vegetables and Herb Transplants - Stanton Gill, University of Maryland Extension  
10:00 Industry Show and Tell  
10:15 *IPM for Root and Stem Diseases - Rick Yates, Griffin Greenhouse Supplies  
11:00 Supplemental Lighting Guidelines for Greenhouse Crop Production - Dr. Erik Runkle, Michigan State University  
11:30 The Best Tried and True Varieties That You Should Be Growing - Alan Michael, Penn State Cooperative Extension  
12:00 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)  

WEDNESDAY AFTERNOON, FEBRUARY 2, 2011  

NATIONAL PEACH COUNCIL - Aztec Room  
1:30 National Peach Council Annual Business Meeting - Edward Gaventa, President  
1:45 Ernie Christ Memorial Lecture - Peach Breeding Program of the University of Arkansas - Dr. John Clark, University of Arkansas  
2:30 Industry Show & Tell  
2:45 Automated String Thinner Positioning - Reuben Dise/Dr. Paul Heinemann, Penn State University  
3:30 Peach Training Systems for the Mid-Atlantic - Dr. James Schupp, Penn State University  
4:15 Adjourn  

TREE FRUIT - Nigerian Room  
1:30 **Core Presentation - Dr. Kerry Hoffman-Richards, Penn State University  
2:00 Cost of Fruit Production Part A - Lynn Kime, Penn State University  
2:30 Generating Buzz for Your Business - PR Roundtable - Karin Rodriguez, Pennsylvania Apple Marketing Board and Teri Hurst, PPO&S  
3:15 Industry Show & Tell  
3:30 U.S. Apple Association Update - Nancy Foster, U.S. Apple Association  

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2011 Mid Atlantic Fruit and Vegetable Convention Educational Programs  
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3:30 Vineyard Floor Management for Successful Establishment - Dr. Daniel Ward, Rutgers University
4:15 Adjourn

GREENHOUSE - Cocoa Suite 1
1:30 The Best New Varieties That You Should Be Growing - Alan Michael
2:00 Energy-Efficient Strategies To Provide Long Days To Photoperiodic Crops - Dr. Erik Runkle, Michigan State University
2:30 Nightmare Crops - Rick Yates, Griffin Greenhouse Supplies
3:00 Industry Show and Tell
3:15 Thrips and Whitefly Management: What's New and What Works - Stanton Gill, University of Maryland Extension
4:00 My Crystal Ball: Anticipating the Market for 2011 - Steve Bogash, Penn State Cooperative Extension
4:30 Adjourn

WEDNESDAY EVENING, FEBRUARY 2, 2011

SOCIAL/EDUCATIONAL
5:00 Reception for Pennsylvania Apple Growers - Cocoa Suites - hosted by the Pennsylvania Apple Marketing Board and Temple-Inland
7:00 Ice Cream Social for All Convention Attendees - Great Lobby - hosted by the Pennsylvania Vegetable Growers Association - ice cream served until 8:00 p.m.
7:00 Cut Flower Arrangement Workshop - Wild Rose Room
7:00 Business Management Software - Empire Room CD
7:00 Strawberry Plasticulture Roundtable Discussion - Empire Room AB

THURSDAY MORNING, FEBRUARY 3, 2011

NATIONAL PEACH COUNCIL - Aztec Room
9:00 Early Season Insecticide Programs to Maximize Biological Control of OFM - Dr. David Biddinger, Penn State University
9:30 PPV: Let’s Not Give it Another Chance - Dr. Ruth Welliver, Pennsylvania Department of Agriculture
10:00 Industry Show & Tell
10:15 California’s Peach Industries - Fresh and Processing - Roger Duncan, University of California Cooperative Extension
11:00 Peach Marketing Trends - to be announced

TREE FRUIT - Nigerian Room
9:00 Pruning and Training Dwarf Cherries (video series) - Winifred Cowgill, Rutgers Cooperative Extension; Jonathan Clements, University of Massachusetts Extension; Dr. Greg Lang, Michigan State University
9:45 Cost of Fruit Production Part B - Mr. Lynn Kime, Penn State University
10:15 Industry Show and Tell
10:30 *What Do We Know About Brown Marmorated Stink Bug - Dr. Greg Krawczyk, Penn State University
11:00 **How Pesticide Label Language is Developed - Dr. Clayton Myers, US EPA
11:30 *New Chemistries and Alternate Row Middle Spraying - Dr. Larry Hull, Penn State University

AGRITEAINMENT - Magnolia Room ABCD
9:00 What is Agri-tainment and How Do We Enchance Customer Safety? - John Berry, Penn State Cooperative Extension
9:30 Agri-tainment Perspectives - PDA, Rides and Amusements Regulations and Guidelines - John Filoromo, Pennsylvania Department of Agriculture
10:00 Industry Show and Tell
10:15 Growing Our Agri-tainment Experience - Greg and Tina Forry, Risser-Marvel Farm Market
11:00 Adjourn

VINE CROPS - Crystal Room
9:00 *Fungicide Resistance Management for Cucurbit Crops - Dr. Andrew Wyenandt, Rutgers University
9:30 Winter Squash Variety Trial Update – Dr. Elsa Sanchez, Penn State University & Dr. Timothy Elkner, Penn State Cooperative Extension
10:00 Industry Show and Tell
10:15 *Early Season Virus Transmission by Striped Cucumber Beetles in Cucurbits – Dr. Gerald Brust, University of Maryland Extension

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11:00 *Recommendations Based on Science: How to Effectively Manage Common Cucurbit Diseases - Dr. Kelly Ivors, North Carolina State University
11:30 *Weed Issues in Cucurbit Crops - Dr. Bradley Majek, Rutgers University
12:00 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)

SMALL FRUIT - Empire Room AB
9:00 *Experiences with Brown Marmorated Stink Bug in Raspberries - Bryan Butler, University of Maryland Extension
9:30 Topic TBA - John Clark, University of Arkansas
10:00 Industry Show and Tell
10:15 *Assessing and Avoiding Viruses in Blueberries and Raspberries - Dr. Kerik Cox, Cornell University
11:00 **Core Pesticide Credit - Dr. Timothy Elkner, Penn State Cooperative Extension
11:30 Primocane-Fruiting Blackberry Breeding - Dr. John Clark, University of Arkansas
12:00 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)

LEAFY GREENS - Empire Room CD
9:00 Consumer Preferences for Specialty Greens and Herbs - William Sciarappa, Rutgers Cooperative Extension
9:30 Growing Leafy Greens in a High Tunnel - Eli Cook, Grower, West Virginia University of Maryland Extension
10:00 Industry Show and Tell
10:15 Growing and Harvesting Leafy Greens - Thomas Sheppard, Sheppard Farms, Coch, Cornell University
11:00 Activities of the Leafy Green Council - Ray Clark, Leafy Greens Council
11:30 *Weed Control in Leafy Green Crops - Dr. Richard Bonanno, University of Massachusetts and Bonnano Farms
12:00 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)

CUT FLOWERS - Wild Rose Room
9:00 Starting and Growing Lisianthus from Seed - Robert Ambrose, Ridgeview Acres
9:30 How I Market Lisianthus and Other Interesting Flowers - Dave Dowling, Farmhouse Flowers
10:00 Industry Show and Tell
10:15 Managing Insect Pests in Cut Flowers - Stanton Gill, University of Maryland Extension
11:00 New Varieties: Lisianthus and More from American Takii - Mark Huggett, American Takii
11:30 Trends in Cut Flowers: Growing your Market - Steve Bogash, Penn State Cooperative Extension
12:00 Luncheon Buffet - Great Lobby and Confection Hall Lobby (cash)

PUMPKINS - Crystal Room
1:30 Growing Giant Pumpkins - James Beauchemin, New Hampshire Giant Pumpkin Growers Association
2:00 *Controlling the Mildews - TBD
2:30 To be announced
3:15 Pennsylvania Pumpkin Variety Trial Overview - Dr. Timothy Elkner and Thomas Butzler, Penn State Cooperative Extension
3:45 * Weed Control Update in Pumpkins - Dr. Bradley Majek, Rutgers University
4:15 Adjourn

SMALL FRUIT - Empire Room AB
1:20 Welcome and Growers’ Survey - Kathy Demchak, Penn State University and Cesar Rodriguez-Saona, Rutgers University
1:30 *Japanese Beetle Management in Blueberries - Carlos Garcia-Salazar, Michigan State University
2:00 *Best Weed Control Program Choices for 2011 - Dr. Bradley Majek, Rutgers University
2:30 *Rational Fungicide Use for Blueberry Disease Management - Dr. Peter Oudemans, Rutgers University
3:00 *Effect of Nitrogen Regime on Blueberry Overwinter, Stem Blight, and Phomopsis Susceptibility and Aphid Population Density - Year Two Results - Dr. Gary Pavlis, Rutgers University
3:30 *What We Have Learned for More Efficient Blueberry Scouting - Dean Polk, Rutgers University
4:00 *Plum Curculio Management in Blueberries: New Solutions for an Old Problem - Dean Polk, Rutgers University
4:30 Adjourn

EQUIPMENT FOR REDUCED TILLAGE - Empire Room CD
1:30 Approaches to Reduce Tillage on Small to Large Farms - Dr. Anu Rangarajan, Cornell University
2:15 Tillage Equipment - Panel Discussion - Furman Farms; Donn Branton, Branton Farms, NY
2:30 To be announced
3:30 Adjourn

HERBS - Wild Rose Room
1:30 Growing Medicinal Herbs - Rusty and Claire Orner, Quiet Creek Herb Farm
2:00 Medicinal Qualities of Herbs - Leslie Alexander, Restoration Herbs
2:30 Is this Plant a Hoax? - Dr. Arthur Tucker, Delaware State University
3:00 Eat Your Weedies - Leslie Alexander, Restoration Herbs
3:45 Adjourn

THURSDAY AFTERNOON, FEBRUARY 3, 2011

NATIONAL PEACH COUNCIL - Aztec Room
1:30 **Core Presentation - Dr. Kerry Hoffman Richards, Penn State University
2:00 National Peach Council Update - Kay Rentzel, National Peach Council *
2:30 *Orchard Floor Management - Herbicides and Possible Alternatives - Dr. Thomas Tworkoski, USDA - ARS
3:30 *Approaches for Bacterial Spot Management in Stone Fruits - Dr. Norman Oudemans, Rutgers University
3:30 Annual Business Meeting of National Peach Council
4:00 Adjourn

TREE FRUIT - Nigerian Room
1:30 *Real Energy Savings for Horticulture - Dr. Daniel Ciolkosz, Penn State University
2:00 Market Trends in Apples - Karin Rodriguez, Pennsylvania Apple Marketing Board
2:30 *Practical Implications of Molecular Aspects of Fungicide Resistance in Apple Scab and Brown Rot Pathogens - Dr. Kenik Cox, Cornell University
3:00 *Status of DMI Fungicide Resistance in Pennsylvania Orchards - Dr. Henry Ngugi, Penn State University
3:45 Adjourn

WEB PRESENCE MARKETING - Magnolia Room ABCD
1:30 Making our Website Everything it Can be - David King, Harvest Valley Farm
2:00 Maximizing Visits to your Website - Chris More, Penn State University
2:30 Selling Through our Website - David Brown, Browns Orchard and Farm Market
3:00 Adjourn

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ADVANCE REGISTRATION
Maryland State Horticultural Society Annual Meeting
at the Mid-Atlantic Fruit & Vegetable Convention
Hershey Lodge and Convention Center - Hershey, PA
February 1 - 3, 2011

Please list name(s) registering:

☐ ______________________________________  ☐ ______________________________________
☐ ______________________________________  ☐ ______________________________________
☐ ______________________________________  ☐ ______________________________________

Please check the names who are renewing or would like to become a member of the Maryland State Horticultural Society

Farm & Business Name:________________________________________ Email Address:________________________
Address:___________________________________________________ City:________________ State:____ Zip Code:_________ Phone:______________________

Mid-Atlantic Fruit & Vegetable Registration Fees

Member’s Registration

Advance Registration......................  ___________ @ $60.00 = ___________
(Must be postmarked by January 21, 2011)

Walk-In Registration (after Jan. 21, 2011) ___________ @ $75.00 = ___________

Non-Member’s Registration

One Day (at door)......................... ___________ @ $100.00 = ___________

Three Day (at door)...................... ___________ @ $140.00 = ___________

2011 Fruit & Vegetable Growers Dinner

Grower Reception - Door Prizes - Awards

Tues., Feb. 1, 2011 - Nigerian Room ___________ @ $35.00 = ___________

Maryland State Horticultural Society Membership Dues

2011 MSHS Dues .......................... ___________ @ $30.00 = ___________

TOTAL AMOUNT ENCLOSED.................................................. $__________

For more Information please call
Robert Black at 301-271-7491 or
e-mail HBGala@aol.com

Thank you for registering in advance!

☐ Your registration includes a FREE 1 yr. subscription to Country Folks Grower.
Check box if you would like to receive publication.

Please make your check payable to:
MARYLAND STATE HORTICULTURAL SOCIETY
You may use one check for convention registration and your 2011 membership dues.

Mail check (payable MSHS) and registration form by JANUARY 21, 2011 to:

University of Maryland Extension — WMREC
Attention: Susan Barnes
18330 Keedysville Road
Keedysville, MD  21756
Maryland State Horticultural Society List

Due to the rising costs for printing and mailing, we are sending the newsletter and other information via email. We can print and mail hard copies if you do not have access to email.

Also, if we have your email address you will be receiving University of Maryland program information and updates.

Please fill out the form below to indicate your preference.

Please check the appropriate box:

☐ Add my name to the e-mail subscriber list

☐ I do not have e-mail and wish to receive the newsletter via U.S. Mail

Please Fill Out (Print) Completely:

Name:_______________________________________________________
Farm/Business:________________________________________________
Address: _____________________________________________________
City:____________________  State: _____________  Zip:_____________
Email Address: ________________________________________________
Phone: _______________________________________________________
Special Mid-Atlantic Fruit and Vegetable Convention  
Pre-Conference Workshop  
Farm Transition—Bringing in the Next Generation  
Monday, January 31, 12:00 p.m. - 3:30 p.m.  
Hershey Lodge and Convention Center  
Hershey, PA

A Multi-Generational Workshop on Farm Transition Planning: The Young Grower Alliance, SHAP, and Penn State Extension are jointly sponsoring a workshop on January 31st featuring estate planning attorney Mark L. James and Penn State Extension farm succession specialists. This session is not just for the youngest generation on the farm but for all individuals within the family enterprise. The program will begin with lunch and a motivational presentation. The workshop will be an interactive, discussion based educational experience for all those who attend—whether you are just starting your farm transition plan or are well into the process!

Mark L. James is author of the award winning book, Estate Planning Success for Pennsylvania Residents, and will share important insights on “Estate Planning Fundamentals for Families in Agriculture.” The Penn State team will lead a discussion on “Evaluating Your Farm Business—Can the Business Survive a Transition?”

For more information, contact Jim Remcheck, jar5006@psu.edu.

Registration Form for Bringing in the Next Generation  
Registration Deadline — January 19, 2011; Space is Limited!

Name__________________________________________ Business:____________________________________

List additional persons attending:______________________________________________________________

Address_____________________________________________

City_________________________________________ State___________ Zip___________

Daytime Phone__________________________ Evening Phone__________________________

E-mail________________________________

Registration Fee: $50 (Includes lunch)  
Total Enclosed: $50 x __________ = $__________

Please make checks payable to: State Horticultural Association of Pennsylvania

Please return registration form and payment to:

Maureen Irwin, Executive Secretary  
State Horticultural Association of Pennsylvania  
480 Mountain Road  
Ortanna, PA 17353

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.
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The sponsoring agencies’ programs are open to all citizens without regard to race, color, gender, disability, religion, age, sexual orientation, marital or parental status, or national origin.