

The University of Maryland Extension Agriculture and Natural Resources Profitability Impact Team proudly presents this bi-weekly publication for the commercial vegetable and fruit industry.

Volume 2 Issue 7 July 14, 2011

## Field Observations from Southern Maryland

By Ben Beale  
Extension Educator & CED,  
Agriculture  
St. Mary's County, UME  
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July 13, 2011

- ✓ Farmers are busy harvesting main season crops.
- ✓ Foliar diseases and insect damage has been showing up in most vegetable crops. Issues observed during the last two weeks include:
  - Spider mite injury in tomatoes, watermelons and muskmelons;
  - Cucumber beetles in cucurbit crops;
  - Alternaria on muskmelon;
  - Root knot nematodes;
  - Squash bugs;
  - Early blight on tomato; and
  - Bacterial canker in tomato.
- ✓ On average, outside field plantings under irrigation still look good.
- ✓ Brown Marmorated Stink Bugs can be found on most farms; although, population levels still remain low.

## Summer Observations from WYEREC

By Michael Newell  
Horticultural Crop Program Manager, UME  
[mnewell@umd.edu](mailto:mnewell@umd.edu)

Observations from WyeREC

July 13, 2011

**Stink Bugs** -The summer crew continues to be on the look-out for Stink Bugs. They find many brown and green stink bugs, but the BMSB has been elusive. As reported on June 29<sup>th</sup>, we had fairly significant injury on our earliest harvested peaches, but injury on more recently harvested peaches has been very light. I have seen injury on the Asian pears but this too has been light. An on-farm black-light trap has been catching only a few adult BMSB every few days, but today's counts were greater than 100! Our on-farm population BMSB adults appear to be active and on the move.

## Vegetable Crop Insect Update

By Joanne Whalen  
DE Extension IPM Specialist  
[jwhalen@udel.edu](mailto:jwhalen@udel.edu)

**Lima Beans** - As soon as pin pods are present, be sure to watch carefully for plant bug and stinkbug adults and nymphs. As a general guideline, treatment should be considered if you find 15 adults and/or nymphs per 50 sweeps. The higher rates of labeled products will be needed if stinkbugs are the predominant insect present. We are also starting to find spider mites in dry land fields. Dimethoate and bifenthrin are labeled for spider mite control in lima beans. Controls are only effective if treatments are applied before populations explode.



**Melons** - Continue to scout all melons for aphids, cucumber beetles, and spider mites. We continue to see rind feeding on watermelons. In some cases it is cucumber beetles but in other cases it is beet armyworm (BAW). Since BAW are difficult to control, be sure to select a material that is labeled for beet armyworm (BAW) on melons such as Coragen, Avaunt, Intrepid, Radiant, Synapse or Vetica. The pyrethroids will not provide effective BAW control.

**Peppers** - As soon as the first flowers can be found, be sure to consider a corn borer treatment. Depending on local corn borer trap catches, sprays should be applied on a 7 to 10-day schedule once pepper fruit is ¼ – ½ inch in diameter. Be sure to check local moth catches in your area by calling the Crop Pest Hotline (instate: 800-345-7544; out of state: 302-831-8851) or visiting our website at (<http://ag.udel.edu/extension/IPM/traps/latestblt.html>). You will also need to consider a treatment for pepper maggot. Beet armyworm larvae can be found in fields and can quickly defoliate plants. Be sure to use a material that provides beet armyworm control – the pyrethroids will not effectively control this insect.

**Potatoes** - Continue to scout fields for Colorado potato beetle (CPB), aphids and leafhoppers. Controls will be

needed for green peach aphids if you find 2 aphids per leaf during bloom and 4 aphids per leaf post bloom. This threshold increases to 10 per leaf at 2 weeks from vine death/kill. If melon aphids are found, the threshold should be reduced by half.

**Snap Beans** - Continue to scout for leafhopper and thrips activity in seedling stage beans. Sprays will be needed for corn borer at the bud and pin stages on processing beans. As earworm trap catches increase, an earworm spray may also be needed at the pin stage. Additional sprays may be needed after the pin spray on processing beans.

**Sweet Corn** - Continue to sample all fields from the whorl through pre-tassel stage for corn borers, corn earworms and fall armyworm. We have started to see an increase in fall armyworm damage in whorl stage corn. A treatment should be considered when 12-15% of the plants are infested. Since fall armyworm feeds deep in the whorls, sprays should be directed into the whorls and multiple applications are often needed to achieve control. The first silk sprays will be needed for earworm as soon as ear shanks are visible.

## Spotted Wing Drosophila Confirmed in Virginia

By Joanne Whalen  
DE Extension IPM Specialist  
[jwhalen@udel.edu](mailto:jwhalen@udel.edu)



Male Spotted Wing Drosophila SWD

The first reports of the presence of spotted wing drosophila (SWD) were confirmed last week in Virginia. Although we have not found any yet in our limited survey (only one location), it is very likely that it could make it to our area this season. The following link from Virginia provides more information about this important potential new pest. <http://www.virginiafruit.ento.vt.edu/SWD.html>



Spotted Wing Drosophila Trap, VA



## BMSB Stink Bug: Corn Gangbangers

By Cerruti Hooks, Assistant Professor  
& IPM Extension Specialist,  
University of Maryland  
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### Corn gangbangers

The level of violence among corn gangbangers is a not a new phenomenon. In general, stink bug gang members have been known for decades for their potential to engage in criminal activity by severely injuring field and sweet corn plantings. However, the recent arrival of a new gang of stink bugs from the streets of southeast Asia known as the brown marmorated stink bug (BMSB) have raised our fears and heighten our awareness of the potential of stink bugs to invade corn communities. Potentially more frustrating at this time, is that there is no definitive information on the level of BMSB gang violence (infestation) in corn that would justify chemical intervention. However, investigations have been carried out on other stink bug gangs such as the southern green stink bug (SGSB), brown stink bugs (BSB), green stink bug (GSB) and one of my favorites by name the one-spotted stinkbug (OSSB) to learn of their potential to damage corn. Unlike typical gangs in which there is a territorial war, BMSB and other stink bugs seem to live in harmony and can often be found chilling on and attacking similar corn plants. Not only will they hang out with other stink bug gangbangers but one may often see stink bugs hanging with non-stink bug corn criminals (pests) such as the leaf footed bug. Though, it is not safe to accept it as a truism that damage inflicted by one stink bug gang (species) will be identical to others, we may be able to use some of the intelligence gathered on other stink bug gangs to develop a criminal characteristic pattern or modus operandi (MO) for BMSB that would lead to their management in corn.

### What kind of damage do they inflict and what corn stages are most susceptible to attack?

Studies have shown that all corn sizes are subject to stink bug attack. Damage to young corn plants commonly occurs when BSB feed at the base damaging the growing point of the corn. Observation of corn plantings as early as the 1950s showed that SGSB cause greatest damage to young corn plants 10 to 20 inches in height and developing ears of older plants. Stink bugs insert their needle-like mouthparts into the base of seedling corn plants to inject salivary enzymes into the plant. These enzymes help stink bugs feed on the plant tissue. Stinkbugs may feed on the base of the plant by resting on the soil surface and extending their stylets (mouthparts) into the base of the plant or the insect may rest directly on the plant and feed. Depending on the plant stage attacked, subsequent injury symptoms may include feeding lesions surrounded by chlorotic halos on leaves, tightly rolled, twisted, or severed whorl leaves (similar to 2-

4-D injury), wilting, stunting, reduced root systems, and tillering. The reduced corn root system as a result of stink bug feeding could make corn more susceptible to stresses such as low soil moisture, pathogens, or damage by soil pests, which could reduce corn yield.

One adult BSB exposed to corn for 96 h has been shown to cause significant detrimental effects to VE (corn emergence), V2, and V4 (4th fully expanded leaf with leaf collar) stages including reduced growth rate, termination of growth, and plant death. Though, no V4 plants died after exposure to adult BSB for 96 h, tillering occurred and tillering is not something that one likes to see associated with injured corn. However, the production of tillers is one of the most striking injuries resulting from early stink bug feeding. Tillered plants exhibit significantly reduced leaf heights, delays in days to silking, and reduced grain production resulting in lower yields than non-tillered plants. Tillers may compete also with the main stalk for water, nutrient and light. If stink bugs causing extensive feeding punctures at the corn base are controlled with insecticides, healthy suckers may subsequently develop from injured plants. However, the injury may delay corn maturation. The severity of stink bug injury to corn may differ according to which stink bug feeds on the corn plant. For example, some investigators have found seedling damage to corn due to stinkbug feeding to be more severe when attacked by BSB versus GSB gang members. However, this may be contributed to the propensity of BSB to feed more readily on seedling corn than their ability to cause more damage than GSB. At this time, I'm unaware of reports of BMSB attacking the base of corn plants; and the native GSB and BSB, which have one generation per season, rarely reach population levels in the spring to cause economic injury to seedling corn in the mid-Atlantic area.

Though older corn plants appear better able to withstand stink bug feeding, older plants are still susceptible to yield reduction if stink bugs target the corn ears. Some investigators have reported that the milk and soft dough stages are most susceptible to stink bug damage. As such, corn is most susceptible to stink bug injury during early developmental stages but stink bugs may puncture and feed on the ears of older corn causing distorted ears and grain development failure. Studies have shown infestations at tasselling (stage VT) caused more damage than later at silking (R1) or blister stage (R2). At the tasseling (stage VT) or R1 stage, three or more BSB adults confined on a corn ear for 9 days caused significant reduction in kernel weight, whereas one or two adults per corn ear resulted in no kernel weight loss. Stink bug feeding injury at stage R2 did not affect kernel damage, ear weight or grain weight during the study. Thus, it appears tasseling is the critical stage at which stink bugs can cause significant damage to field corn but they may cause kernel discoloration at stage R1 and R2. Additionally, because this study was conducted on field corn similar studies are needed to determine whether tasseling is the most critical stage for sweet corn.

### **High risk corn communities**

Though, BSB can overwinter in soybean stubble and become problematic following a soybean/corn rotation, or fields with a cover crop (vetch, etc.), researchers have reported significantly more BSB damage in corn fields following wheat than in those of corn/corn or soybean/corn rotations. Corn next to alfalfa also may be more vulnerable. Some investigators have noticed more stink bug damage occurring in late planted fields and no-tillage corn planted into wheat stubble. Previous observations have also indicated that fields where the seed furrow is not fully closed due to planting during wet field conditions may favor injury by stink bugs by allowing access to the plant's growing point below ground. Often stink bug injury appears first on the field border as they move into the field. If damage is observed soon enough, it may be possible to only treat the field border.

The BMSB prefer overwintering in protected areas such as buildings but likely also overwinter in wooded areas. The GSB seems to prefer overwintering in leaf litter of deciduous woods and along with BMSB can develop on woody host plants in early spring before making their way to corn and other crops. As such, cover crop types, host plant types, farmscape features, tillage practices, and rotation sequence all influence stink bug distribution and associated injury to nearby corn plants. With respect to BSB, high risk areas of attack include newly planted corn fields using reduced-, minimum- or no-tillage practices following a soybean/corn rotation and corn fields neighboring wooded areas and other host plants. The availability of alternate host plants near corn plantings increases the probability of significant infestations of stink bug especially after those hosts senesce or become less desirable food sources. In particular, it is clearly evident from last year's observations that BMSB is most likely to invade corn fields around field margins next to woodlots, where the first generation adults are known to feed on fruiting bodies of many tree species. Once these food sources are depleted or no longer palatable, overwintered and the next generation summer adults move to the nearest available food source, such as corn and soybean.

### **Scouting and Stink bug threshold in corn**

Good management options for stink bugs include scouting or sampling fields before planting corn to detect existing stink bug populations and monitoring corn rows bordering woods, fruit orchards, wheat, other corn fields and host plants. Further, two weeks after corn emergence is a critical period to watch for stink bug damage. Feeding may start 10 to 20 days before clear symptoms of injury (twisting, stunting, wilting or plant death) are present, so early scouting is critical. As mentioned above, there appears to be a very strong edge effect with respect to the BMSB. A pronounced edge effect was also reported for the distribution of BSB in corn. So for these gangbangers initial infestation may be detected along the margin of corn fields. Keep in mind, stink bugs can mobilize quickly from surrounding habitats so a good scouting program will include

weekly field checks. There is not a lot of information with respect to economic threshold for stink bugs. One source indicated, prior to injury in corn less than 24 inches tall, consider treatment if 10% or more corn plants are infested with stink bugs. If injured corn plants are present, a suggested treatment threshold is when 3-5% of the plants have injury and stink bugs are still present. Probably most Maryland corn growers didn't consider stinkbugs being a real problem in corn prior to the arrival of BMSB. Still there may not be a problem with BMSB prior to corn reaching the tasseling stage.

The previous economic threshold for stink bugs on corn at stage VT (tasseling) through R2 was set at one individual per 10 ears. However, a recent study indicated that an infestation of less than or equal to three stink bugs per ear for 9 days caused no significant yield loss. Thus, the recent study suggests a higher economic threshold may be justified at stage VT and R1. However, many of us last year witnessed populations of BMSB greater than 3 individuals per corn plant after the ear had started to form especially along the field margin. The pitfall of trying to arrest BMSB at this time lies in the fact that the corn canopy may prevent sufficient penetration and coverage of spray residue by air application in order to provide control of BMSB feeding on the ear. High clearance ground applicators provide better coverage but they are not always available to growers. The other thing to keep in mind is that, like other stink bugs, the BMSB appears to congregate along the crop margin. So, if an individual has the means to treat late stage corn it may still prove economically unfeasible to treat the entire field if only the border or turn rows have levels above economic threshold. As such, some scouting should also be conducted in the interior of the fields to determine their overall distribution within the corn field. If invading BMSB are detected at the field margin and repeated field visits over a few days indicate that their numbers are increasing (this is most likely to occur in late July through August), then a perimeter treatment applied by an extended over-the-top boom sprayer or airblast sprayer may be the best strategy to prevent further invasion into the field. Field and laboratory bioassays have shown that several pyrethroid insecticides, Lannate (methomyl), and premixes of pyrethroids with other active ingredients are labeled for corn and effective on BMSB. The problem is not being able to kill them, as getting a toxic dose of the insecticide to the bugs can be an issue and there is often re-invasions after treatments are applied. This season, the feasibility of perimeter treatments will be tested at several University research farms. Also, graduate students at the Universities of Maryland and Delaware are currently investigating the distribution of BMSB in field and sweet corn fields and their impact on corn grain yield and quality, respectively. Their findings will provide valuable information in developing sampling and treatment protocols and thresholds specifically for BMSB in corn plantings.

## Controlling Powdery Mildew in Cucurbits

By Kate Everts  
Vegetable Pathologist, University  
of Delaware & University of  
Maryland  
[keverts@umd.edu](mailto:keverts@umd.edu)



Powdery mildew is a problem on cucurbits each year. All cucurbits are susceptible, however host plant resistance in many cucumber and cantaloupe cultivars has successfully managed the problem. Susceptible varieties as well as other crops like pumpkin and squash are hit hard by powdery mildew. Disease builds up during July and becomes severe in August and September. Powdery mildew is a challenge to manage, especially in hot dry conditions. Also, there is resistance in the powdery mildew pathogen to many of our fungicides such as Quadris. Therefore, fungicides must be chosen carefully.

To manage powdery mildew, select cultivars (varieties) with resistance or tolerance. Even a moderate level of resistance will improve the efficacy of a fungicide spray (and help reduce the damage if you miss a spray). Scout the field and apply the first powdery mildew spray when you see one lesion on the underside of 45 old leaves.

Always follow good resistance management guidelines:

- 1)** Keep on a good spray schedule (a 7-day interval for powdery mildew).
- 2)** Apply fungicides at label rate (don't cut the rate).
- 3)** Be sure you are getting good fungicide coverage of your plants.
- 4)** Be aware of products that are at risk for resistance development.
- 5)** Materials with different modes of action (FRAC codes) should always be alternated.
- 6)** Late in the season when powdery mildew has become well established, only apply protectant fungicides such as chlorothalonil or sulfur.

### Fungicide programs suggested for the various crops:

**Summer Squash or Cucumber:** Alternate a tank mix that contains chlorothalonil and either Procure, Rally, Folicur, or Inspire Super, with a tank mix containing Pristine plus chlorothalonil.

**Muskmelon:** Alternate Quintec plus chlorothalonil, with a tank mix containing chlorothalonil and either Procure, Rally, Folicur, or Inspire Super.



Extensive white sporulation of powdery mildew on pumpkin leaves.

**Pumpkin:** Alternate Quintec plus chlorothalonil with a tank mix containing chlorothalonil and either Pristine, Procure, Rally, Folicur, or Inspire Super. An alternative and less expensive option is to alternate Micronized Wettable Sulfur with one of the above options. Sulfur may injure plants, especially at high temperatures, which is why it is only recommended for pumpkin. Certain varieties can be more sensitive.

## Vegetable Disease Updates

Bob Mulrooney  
DE Extension Plant Pathologist  
[bobmul@udel.edu](mailto:bobmul@udel.edu)

July 8, 2011

### Late Blight

There have been no new late blight detections in DE or VA on potatoes. The disease apparently is under control and the weather has not been very favorable, especially where the temperatures have been over 90°F. Besides the two finds in DE and VA the only active late blight at present appears to be on Long Island, NY on both potato and tomato.

### Downy Mildew on Cucurbits

As most of you know by now downy mildew was found in Sussex County on Tuesday and Dorchester County, MD. Both finds were on pickling cucumber. Since then downy mildew was found in an additional field near Bridgeton, NJ, Talbot County, MD, Wyoming County, PA, and several more cucumber fields in NC. Now is the time to be spraying specific fungicides for downy mildew on cucumbers. Continue to check the IPM pipe website for more information on the spread of downy mildew: <http://cdm.ipmpipe.org>.

### Root Knot Nematode

Root knot nematode can be a very yield limiting pathogen on very susceptible crops like cucumbers and other vine crops, lima beans, snap beans and tomatoes to name a few. They are often worse in very sandy soils or sandy knolls in fields. With the temperatures that we have seen here in DE you can begin to see the swellings or galls on the roots in about 21 days from seeding or transplanting. Plants in infested areas of the field will be stunted and if the plants are dug carefully, if root knot is present, you will see galls of varying sizes on the roots. We have no chemical controls except for vine crops once the nematodes are seen. Vydate should be applied preventatively in fields with known root knot infestations at seeding and/or later when plants are still small. See label for details. Treating early is always better than waiting until galls can be seen.



Root knot galls on baby lima bean roots, 23 days from planting

### Pepper Anthracnose

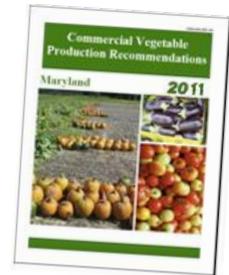
Be on the lookout for anthracnose on peppers. It has been reported in southern NJ. Anthracnose fruit rot can be a very difficult disease to control if it gets established in a field. Fields should be scouted frequently especially if peppers or tomatoes have been planted in the past. It is best controlled by preventative fungicide sprays beginning at flowering.

Apply Bravo or another chlorothalonil product every 7 days and alternate with a strobilurin fungicide (FRAC code 11) like Cabrio or Quadris plus Bravo. If anthracnose fruit rot appears, removing infected fruit from heavily infected areas will help to reduce spore loads and reduce spread if done early and often enough. Fruit will need to be removed from the field and not just thrown on the ground.



Anthracnose on pepper fruit

## Commercial Vegetable Production Recommendations Maryland EB 236 On-Line at:



<http://extension.umd.edu/agriculture/mdvegetables/files/Maryland%20full%202010.pdf>

Also available in a new very interactive format at the Delaware Extension site at:

<http://ag.udel.edu/extension/vegprogram/publications.htm#vegrecs>

# MDA To Make Changes to the Proposed Rules for the Nutrient Management Program

Valerie T. Connelly  
Director of Government Relations  
Maryland Farm Bureau, Inc.  
(410) 922-3426

Over the last three weeks, Maryland Farm Bureau and many individual farmers and horse owners (as well as several elected officials) weighed in heavily with the Maryland Department of Agriculture in opposition to the proposed changes to the nutrient management rules.

Some of the proposed changes included mandatory stream fencing, mandatory injection or incorporation of all organic matter applied to fields, and a prohibition on most fall fertilizer for small grains. As a result of farmer feedback, Secretary Buddy Hance announced to the Maryland Farm Bureau Board of Directors on July 7<sup>th</sup> that changes will be made to the proposed rules. The new wording will be shared with members of the Nutrient Management Advisory Committee next Friday, July 22<sup>nd</sup>. Maryland Farm Bureau staff and leadership will attend and will report the proposed change to our members as quickly as possible.

## Here are the changes that were previously proposed and were the subject of farmer comment:

1. No fall application of commercial fertilizer to fall planted small grain crops unless a soil nitrate test shows less than 10ppm for wheat or 15ppm for barley. (This will allow all small grain crops to count as cover crops in the TMDL calculation.)
2. A uniform 35-foot setback from the edge of surface water for all broadcast fertilizer and vegetated buffers. (Effective January 1, 2014)
3. Stream fencing - A uniform 10-foot setback from water (including continual and intermittent streams) for pastures and hayfields. No nutrient can be applied mechanically or deposited by livestock within the setback. (Effective January 1, 2014)
4. From March 1st – September 9<sup>th</sup> all manures and other organic nutrient sources must be injected or incorporated within 72 hours.
5. Operators and generators of livestock manures must make plans to have “adequate” storage to eliminate the need for winter application by July 1, 2016.
6. Until July 1, 2016, winter application of manure due to lack of adequate storage must be injected only and

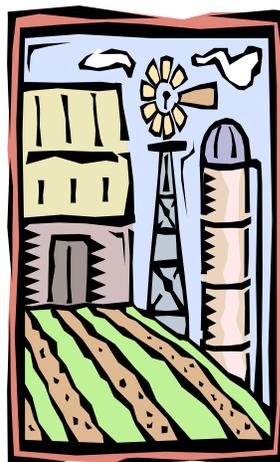
applied only to existing vegetative cover or significant crop residue.

7. No application of any nutrient sources shall be made between November 16<sup>th</sup> and February 28<sup>th</sup> after July 1, 2016.

8. All soil conditioners, soil amendments, waste materials or effluent applied to agricultural land must be registered with the state chemist and applied using all restrictions contained in the nutrient management law. This means sewage sludge applications will not be allowed to be applied from November to March under the same conditions that apply to manures and other organic nutrients.

**Please submit your thoughts on this policy development issue to your county Farm Bureau. You may review Maryland Farm Bureau's current policy by logging on to our website at [www.mdfarmbureau.com](http://www.mdfarmbureau.com).**

**The policy can be found on the homepage and under the Government Affairs tab.**



## Vegetable Production and IPM Twilight Walking Tour

To be held at the farm of  
Ivan Wenger  
25970 Loveville Road  
Mechanicsville, Maryland  
20659

on  
Monday, July 25<sup>th</sup>, 2011  
6 p.m. - 8 p.m.

***If you are currently growing vegetables or considering it as a future crop, plan to attend the Vegetable Twilight Tour.***

Information will be presented by University of Maryland Extension Specialists and Agents pertaining to our local area vegetable production. Topics include: Brown Marmorated Stink Bug (BMSB) control; Powdery mildew disease control; Squash bug control efforts; Considering blueberry and small fruit on the farm; Late-season worm control; Other disease and insect pest control options; Vegetable fertility; and Vegetable variety selection. The tour will be held at the farm of Ivan Wenger.

This will be an informal tour, with plenty of opportunity to discuss your vegetable questions with other growers. Handouts and other brochures will be available.

**If you need special assistance to participate, please contact Ben Beale at 301-475-4484, by Thursday, July 18, 2011.**



## Potato Twilight Meeting

July 26, 2011

University of Maryland Extension will conduct a potato twilight meeting for growers on Tuesday, July 26th from 6.00– 7:00 p.m. at East New Market Rhodesdale Rd, Hwy 14 near North Dorchester High School in Dorchester County Maryland. This meeting will provide an opportunity to observe potato genotype and variety research plots and potato crop modeling research for managing irrigation and production.

Interact with University of Maryland Extension specialists and USDA researchers at the site. Materials and refreshments will be served. Please contact Rhonda Barnhart for registration and more information at 410-228-8800 or [rbarnhar@umd.edu](mailto:rbarnhar@umd.edu)



## Sustainable Farming Twilight

Cumaptico Farm, Cooper Rd.  
Eden, MD  
Monday, August 1, 2011  
5:00-7:30 p.m.

Sponsored by USDA Agricultural Research Service (ARS) with a grant from USDA National Institute for Food and Agriculture (NIFA), and University of Maryland Extension

- 5:00 - Catered chicken dinner; ice cream from a local dairy
- 5:30 - Welcome and Introductions – USDA-ARS and Wicomico County Extension
- 5:40 - Cumaptico Farm/CutFresh Organics - Aaron Cooper, owner
- 5:50 - What's Happening with Local Food, CSAs, Farmer and Direct Markets - farmer discussion
- 6:10 - Combining Cover Crops and Poultry Litter to Supply Corn Nutrients - John Spargo, USDA-ARS
- 6:30 - Cover Crops, Reduced Tillage, and Pest Management in Sustainable Systems - Steven Mirsky, USDA-ARS
- 6:50 - NRCS EQIP Funds for Transitioning to Organic - Teresa Kampmeyer, NRCS-Wicomico Co.
- 7:10 - Organic Snap Bean and Edamame Production – Aaron Cooper
- 7:30 - Adjourn

**Bring lawn chair or blanket for seating while eating and comfortable shoes for touring plots.**

**Please register by Thursday 7/28 via the Wicomico Extension office at 410-479-6141.**

**A fee of \$10 per participant may be paid at the Extension office or at the field site.**

## Cut Flower Tour In Southern Maryland

August 1, 2011  
8:30 a.m. to 3:30 p.m.



Cut Flower Tour in Southern Maryland



Sponsored by:  
University of Maryland Extension

In cooperation with:  
Association of Specialty Cut Flower Growers  
Maryland Greenhouse Growers Association

### Tour Stops:

#### Stoltzfus Farm

Mechanicsville, MD - Benjamin Stoltzfus and his family raise a large selection of cut flowers, including sunflowers, lilies, zinnias, lisianthus, and other flowers.

#### Weaver's Cut Flower Farm

Mechanicsville, MD - The Weavers produce cut flowers in rollup side greenhouses and in the field on approximately 3 acres. They have a large variety of seasonal cut flowers year round, available by the stem or readymade bouquets. They can also make floral arrangements and bouquets to your specifications.

#### Loveville Produce Auction

Loveville, MD - This auction is a 14,000 square foot facility that held its first auction in April 2006. Auction days are Mondays, Wednesday and Fridays. Produce, plants and cut flowers are sold at this auction.

#### Suttler Post Farm

Mechanicsville, MD - Judy and John Mast grow cut flowers in the field at their family farm. They have been growing cut flowers at Suttler Post Farm for about 6 years. They produce the flowers on black plastic with drip irrigation. Crops grown include sunflowers, zinnias, purple coneflower, and liatris among others. Suttler Post sells cut flowers on Saturdays at the Silver Spring Farm Market.

#### University of Maryland Extension Talks

Extension personnel will give short (10 to 15 minute) talks at several of the sites during the day. Topics will include insects and diseases on cut flowers, weed control options and woody cut stems.

#### Extension Speakers:

**Ben Beale, St. Mary's County**  
**Brian Clark, Prince George's County**  
**Stanton Gill, Central MD Research and Education Center**  
**Karen Rane, Plant Diagnostic Lab**  
**Ginny Rosenkranz, Worcester, Wicomico and Somerset Counties**  
**Chuck Schuster, Montgomery County**  
**For more information on the program:**  
**301-596-9413**

**The first site will be the farm of Benjamin Stoltzfus which is located at:**

**Benjamin Stoltzfus Farm**  
**28660 Rollins Lane,**  
**Mechanicsville, MD 20659**

**Annual Field Crops Research  
Twilight  
Barbecue & Ice Cream Social  
CMREC, Upper Marlboro Farm  
August 4, 2011**

You are invited to attend a twilight wagon tour of the University of Maryland Central Maryland Research And Education Center, Upper Marlboro Farm, on Thursday, August 4, 2011 from 4:30 p.m. to 8:30 p.m. The University of Maryland Extension will host this Annual Field Crops Research Twilight Barbecue & Ice Cream Social; Served after the barbecue, "Old-fashioned" homemade ice cream. This event will highlight field crops, agronomic and horticultural research projects currently conducted at the CMREC, Upper Marlboro Farm.



**Barbecue Begins at 4:30**

**Ice Cream Served at 5:30**

**Wagon Tour Begins Promptly at 6:00**

University of Maryland Extension Educators and Specialists will showcase their field crop, vegetable and fruit research plots. The twilight tour highlights will include:

*Vegetable integrated pest management and reduced risk control methods; Field crops research updates; Meadow orchard concept and Fruit research update for apples, peentos, blueberries and beach plums; and a vineyard research update for wine grapes.*

**Please call the Anne Arundel Extension Office at 410 222-6759 by August 2<sup>nd</sup> to reserve your meal ticket. There is no cost to attend; RSVP is required for the meal.**

**If you need special assistance to participate, please contact the Anne Arundel County Extension office at 410-222-6759 by August 2<sup>nd</sup>, 2011.**



**Aronia Twilight Tour  
August 23, 2011**

Aronia (*Chokeberry*) is a new alternative crop which has high concentrations of flavonoids and several nutraceutical qualities.

University of Maryland Extension will conduct a Twilight Tour of the Aronia research orchard on August 23rd, 5.30 pm at Wye Research and Education Center, 211 Farm Lane, Queenstown MD, 21658.

Participants will learn about highly nutritive Aronia berries; varieties and yield; plant densities and propagation; cultural and production methods; fertility practices; and experience ripe Aronia fruit.

**The event is free, however, registration is requested. Please contact Debby Dant for additional information and/or to register at: 410-827-8056 X 115, [ddant@umd.edu](mailto:ddant@umd.edu)**

***Vegetable & Fruit Headline News***

A bi-weekly publication for the commercial vegetable and fruit industry available electronically in 2011 from April through September on the following dates: April 14 & 28; May 12 & 26; June 9 & 30; July 14 & 28; August 18; September 8

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**Article submission deadlines for 2011:** April 13 & 27; May 11 & 25; June 8 & 29; July 13 & 27; August 17; September 7.

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