

The University of Maryland Extension Agriculture and Food Systems and Environment and Natural Resources Focus Teams proudly present this publication for commercial vegetable and fruit industries.

Volume 7 Issue 5

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## Vegetable Crop Insect Update

By Joanne Whalen  
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### Cabbage

Continue to scout all fields for harlequin bugs, beet armyworm, fall armyworm, diamondback and cabbage looper larvae.



### Lima Beans

Continue to scout all fields for lygus bugs, stinkbugs, corn earworm, soybean loopers and beet armyworm.

### Peppers

Be sure to maintain a your spray schedule for corn borer, corn earworm, beet armyworm and fall armyworm control. You should also watch for flares in aphid populations.

### Snap Beans

All fresh market and processing snap beans will need to be sprayed from the bud stage through harvest for corn borer and corn earworm control.

### Spinach

Continue to sample for webworm and beet armyworm larvae. Controls should be applied when worms are small and before webbing occurs.

## IPM Threshold Guide for Vegetable Crops

**ECONOMIC THRESHOLD - Level of pest activity when control action is suggested to prevent economic injury** Online at:

<https://extension.umd.edu/sites/default/files/docs/IPMGuideVegetables2009.pdf>

## Commercial 2016 Vegetable Production Recommendations Maryland EB 236

2016  
Mid-Atlantic Commercial  
Vegetable  
Production Recommendations



On-Line at:

[http://extension.umd.edu/sites/default/files/docs/programs/mdvegetables/2016\\_CommercialVegRecommend-CompleteMid-AtlanticVegRecsBook.pdf](http://extension.umd.edu/sites/default/files/docs/programs/mdvegetables/2016_CommercialVegRecommend-CompleteMid-AtlanticVegRecsBook.pdf)

## Tough Time for Late-Summer Vegetable Plantings

By Jerry Brust  
IPM Vegetable Specialist, UME

This has been a tough growing season for most of our vegetable crops. Some crops were planted late and had problems setting fruit later on in the summer heat while others that were planted on time were 2-3 weeks ahead of harvest schedule. Some crops have done OK and a few have done well, but most others have suffered due to the weather. Late summer/early fall crops are not fairing much better. I have received several reports of mysterious feeding on plantings of tomatoes and carrots, and reports of damage by pests that were easily seen, because there were so many of them. In many of the cases it was probably two common late summer pests: the blister beetle and Harlequin bugs.

Blister beetles (family Meloidae) are commonly seen in fields starting in late June going through the fall. There seems to be a great deal of them this year feeding on just about every new and even old vegetable planting. Adult blister beetles vary in color and size. Most are one-half to one inch long with long, soft bodies and wide heads. The area between the head and the body is narrow and looks like a neck. The wing covers are leathery with the abdomen often times extending beyond the end of the wings (fig. 1). The legs are relatively long for the body size. The beetles come in a variety of dark or bright colors that are variegated, striped or flat. Striped blister beetles are shades of gray and brown with yellow stripes running lengthwise on its wing covers. Others are gray to black with a gray or white margin around each wing (fig. 1).

Fig. 1 Two adult Margined blister beetles *Epicauta funebris*



Adults begin laying eggs in the spring and continue through most of the season. Females will lay one to two hundred very small eggs just beneath the soil surface. White larvae hatch from these eggs in about two weeks and have relatively long legs which they use to find their main prey--grasshopper eggs (so the larvae are beneficial, while the adults are a pain). Most larvae will go through 4-5 instars but some go through 6-7. Adults emerge from the pupae stage after ten days.

If you look up blister beetles most of the literature deals with the beetles as a threat to horses and livestock. The beetles secrete and contain within them a blistering chemical called catharidin. Catharidin is toxic if ingested and it persists in dead beetles long after the hay they infested was dried and baled. Horses are particularly susceptible to the poisoning. Humans who ingest the beetle can suffer severe damage to the urinary tract and gastrointestinal lining.

Blister beetles will feed on just about any plant: tomato, potato, eggplant, peppers and other solanaceous vegetables as well leafy greens. Often times in late summer, they arrive in swarms, seemingly overnight and can feed heavily on plants and then just as suddenly disappear, often leaving growers perplexed as to what came in and did the feeding damage. A

beetle will feed for a time and then usually move on to another spot not causing a great deal of damage unless there are a significant number of them or they stay in one place for an extended period of time. Covering plants with a row cover or with kaolin clay (product called *Surround*) BEFORE the beetles start to feed has worked pretty well, but the row cover or clay must be applied before they start to feed. If applied after they are found feeding it is not as effective. Pyrethroids also will work well if beetles are directly contacted.

Fig. 2 Harlequin bug adult



### Harlequin bugs (*Murgantia histrionica*)

Adults are red- or orange-and-black-spotted bugs about 3/8 of an inch long, with flat, shield-shaped bodies (fig 2). Nymphs are similar in general color and shape to the adults (fig. 3). The eggs of harlequin bugs are distinctive and look like no other stink bug eggs—or anything else. The eggs look like tiny white barrels standing on end typically in a double row (fig. 4). Twelve to eighteen eggs are usually laid together in one batch on the underside of the leaves of the host plant. Each egg is marked by two broad black stripes near the ends of the "barrel" (egg) with one black spot in the middle of the egg and a black mark on top of each egg. Harlequin bugs over winter as adults (rarely large nymphs) in old cabbage stalks or any other crop debris. Plants commonly attacked by harlequin bugs include crucifers such as horseradish, cabbage, forage radish, collards, mustard, Brussels sprouts, turnip, kohlrabi and radish. If these are not available hungry bugs will feed on tomato, potato, eggplant, okra, bean, asparagus, beet, weeds, and even fruit trees and field crops. The harlequin bug feeds by injecting salivary secretions into plants that liquefy plant tissue so they can ingest it. This feeding at first results in white spots (fig. 3) and then progresses to browning, wilting and eventual death of the plant. New plantings of crucifers can be heavily attacked in the spring but more commonly in the fall and this is what I have heard about and seen happening in several areas of Maryland. As with blister beetles harlequin bugs can be managed by using a row cover or

kaolin clay BEFORE they show up and start feeding. Once they start feeding these two controls do not work very well. Pyrethroids will reduce the damage, but there is often a 7-day pre-harvest interval (phi) with many of the chemicals depending on what the crop is. So be sure to check the label to find the correct phi for the product you are using on the particular crucifer you are using it on.

Fig 3 Harlequin bug nymph and damage-white spots



Fig. 4 Harlequin bug eggs



## Invest in Your Farm's Success: Write Stuff Down

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A wise person once told me that *writing stuff down* is the difference between doing science and just messing around. I would argue that it can also make the difference between a successful and a floundering farm business.

I know farmers in particular never have enough hours in the day, and the crisis of the minute can make stepping back and taking notes seem like an unaffordable luxury. But I'd like to suggest that you don't think of record-keeping as an impossible luxury, or

an onerous chore. Think of it as a daily investment you can make in your farm's long-term success.

Every day we have to prioritize what we spend our time on, to achieve short-term deadlines and make progress on long-term goals. Record-keeping, like education, is one of those long-term investments that will show fruit for years to come.

Clear, well-kept records benefit many areas of your farm business. Clear communication between employees and team-members is improved when everyone has access to important information. If someone falls ill, written records make filling in for that person much smoother. Complying with regulations requires keeping clear records about things like safety precautions, nutrient management, and pesticide use.

And most importantly, having written records of farming practices, yields, and sales gives you **power to improve your farm business**. Think of what you could do with that information. If you knew from sales records that you consistently sell more at market at the beginning of the month, you could adjust your harvest amounts accordingly and reduce waste. If you noticed your yields gradually declining from year to year, you could start tracking down the cause of the problem early on. If you knew your costs of production and average yields, you could calculate an enterprise budget that would enable you to accurately price each product and cover your costs.

University of Maryland Extension has many resources to help make record-keeping as simple as possible. Click the following links for record-keeping resources related to [nutrient management](#), [farm business planning](#), and [field operations](#).

I recognize that many of these resources are designed for different farming practices than are used by urban farmers, so if you are an urban farmer, I would be very interested in working with you to develop record-keeping systems that make sense for your production practices. Please drop me a line at [ngliddle@umd.edu](mailto:ngliddle@umd.edu) or 410-856-1850 x123.



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# University of Maryland Hops and Barley Project

By Bryan Butler  
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## 12 Varieties of Hops were planted May 12<sup>th</sup> 2016 at WMREC, Keedysville, Maryland.

- The hops were spaced 3.5' x 14', ¼ Acre. Laminated posts with a cable at 18'.
- Posts are 4 feet in the ground.
- Soil was prepared the previous fall, limed and phosphorus and potassium added to optimum levels. Planting received the equivalent of 180 pounds of Nitrogen from three applications in 2016.
- Tall fescue planted between rows spring 2016.
- Weekly IPM scouting with control measures taken as needed.
- Double planting for 2017, need varieties the industry would like us to add.

Current Varieties in the trial:

Alpharoma  
Cascade  
Centennial  
Chinook  
Crystal  
Mt. Hood  
Mt. Ranier  
Nugget  
Sorachi Ace  
Southern Cross  
Tahoma  
Ultra.



## Hops spray schedule for establishment:

5/13 Ridomil Gold (drench) *Target Pest-* Downy Mildew  
5/20 Ranman *Target Pest-* Downy Mildew  
6/8 Ranman+Phostrol+Bifenthrin 8oz. +50 lbs. N *Target Pest-* Downy Mildew and Leafhoppers  
6/24 Ranman+Bifenthrin 8oz. *Target Pest-* Downy Mildew, Leafhoppers  
6/31 Phostrol+Bifenthrin 8oz. *Target Pest-* Downy Mildew, Japanese Beetles  
7/7 Phostrol+Bifenthrin 8oz. *Target Pest-* Downy Mildew, Japanese Beetles, Tent Caterpillars  
7/15 Pristine+Bifenthrin 16oz. +50 lbs. N *Target Pest-* Downy Mildew, Powdery Mildew' Two spotted Spider Mites

7/25 Rally+Admire Pro *Target Pest-* Powdery Mildew, Two spotted Spider Mites,  
7/29 Flint+M Pede+Malathion *Target Pest-* Downy Mildew Powdery Mildew, Two spotted Spider Mites  
8/16 M Pede *Target Pest-* Two spotted Spider Mites, Armyworms

## 3 Varieties of Malting Barley to be planted September 30, 2016 2 bushels per Acre, 4 acre plots.

- Harvest, dry, clean, store in bags.
- Scala (2 row), SY Tepee (2 row), and Thoroughbred (6 row).
- Additionally Erie Rye will be planted, harvested, dried and stored in bags.



**AG MARKETING ALERT!**

## UNIVERSITY OF MARYLAND EXTENSION SPONSORS FOOD FOR PROFIT CLASS IN WASHINGTON COUNTY ON OCTOBER 20, 2016

Have you ever been told that your favorite homemade bread, or salsa, is "good enough to sell?" Do you have additional fruit or vegetables from your farm or home garden that you would like to make into a commercial product?

*Food for Profit* is a one-day workshop designed to help you work through the maze of local and state regulations, food safety issues, and business management concepts that all must be considered in setting up a commercial food business. The course will be held at the University of Maryland Extension-Washington County, 7303 Sharpsburg Pike, Boonsboro, MD 21713 on Thursday, October 20, 2016 from 9:00 a.m. to 4:00 p.m. This session of Penn State Extension's popular course has been specifically adapted to Maryland's food production regulations, food entrepreneurial resources, and marketing opportunities.

### **HOW CAN FOOD FOR PROFIT HELP ME?**

*Food for Profit* will take you step-by-step through the entrepreneurial process. It will provide you with the information and skills to assess if your idea will be something that will sell at a profit. Conducting a feasibility study (to see if yours is a good business idea), performing marketing research, and beginning to draft a business plan are a few of the concrete tools taught by certified instructors and business experts. By attending

this class, you can learn how to evaluate the opportunities on paper before you look for funding or take action (saving money and time).

### REGISTRATION INFORMATION:

**Food for Profit** will meet from 9:00 am to 4:00 pm., on October 20, 2016 at the University of Maryland Extension-Washington County, 7303 Sharpsburg Pike, Boonsboro, MD 21713. The tuition cost of \$45 per person which includes all materials and lunch.

Registration is through the University of Maryland Extension Eventbrite on-line system at: <https://foodforprofit-washco.eventbrite.com> or by calling **301-432-2767 ext. 301**. For further information about workshop content, contact Ginger S. Myers, University of Maryland Extension Specialist at [gsmyers@umd.edu](mailto:gsmyers@umd.edu), **301-432-2767 ext.338**. Pre-payment and registration are required for this workshop.

Ginger S. Myers  
Marketing Specialist, University of Maryland Extension  
Director, Maryland Rural Enterprise Development Center  
Principal Agent Associate

**VOICE:** [301-432-2767](tel:301-432-2767) Extension: 338

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**EMAIL:** [gsmyers@umd.edu](mailto:gsmyers@umd.edu)



## Let Us Know How You Feel on Ag Law Issues, ALEI Evaluation Now Online

We want to hear from you! The Ag Law Education Initiative is launching an online program evaluation to help the program meets the needs of the Maryland agricultural community. The assessment is designed to take only 10 minutes and will assist the program to determine legal issues to focus on in the coming year and best forms to present information on those top needs.

The evaluation is available online at <http://go.umd.edu/ALEIEval>. Please take a moment and let ALEI know what you think.

**REGISTER NOW**

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**UNIVERSITY OF MARYLAND  
AGRICULTURE LAW  
EDUCATION INITIATIVE**  
MPOWERING THE STATE

2016 Agriculture and Environmental Law Conference  
November 18, 2016 | 8:00 a.m.-4:00 p.m.  
Doubletree Hotel | 210 Holiday Court, Annapolis, Md.

Discussion topics to include:

- Hot Legal Issues in Agricultural and Environmental Law
- Recent Developments with Nutrient Management Regulations
- Alternative Energy on the Farm
- The Food Safety Modernization Act and Water Usage
- Agritourism and Zoning Compliance
- Stormwater Management and the Chesapeake Bay
- Nutrient Management Continuing Learning Education Credit Available

For more information visit [www.umaglaw.org/2016ALEIConf](http://www.umaglaw.org/2016ALEIConf)

Photo Credit: Edwin Remsburg

<http://extension.umd.edu/events/fri-2016-11-18-0000-agricultural-and-environmental-law-conference>

## Grapes and Fruit

Information and Resources for Commercial Grape & Fruit Growers

Home About Berries Grapes Tree Fruit Hops Enology & Wine Soil Testing Presentations/Workshops Calendar Resources

<https://www.extension.umd.edu/smallfruit>

### Timely Viticulture

Dormant Pre-Bloom Bloom Post-Bloom Mid-Season Pre-Harvest Harvest Post-Harvest Dormant

Joseph A. Fiola, Ph.D.  
Specialist in Viticulture and Small Fruit  
University of Maryland Extension

"Timely Vit" is designed to give those in the Maryland grape industry a timely reminder on procedures or topics they should be considering in the vineyard.

## Pre-Harvest (August)

- Brown Marmorated Stink Bug (BMSB) - Part 1
- Brown Marmorated Stink Bug (BMSB) - Part 2
- Brown Marmorated Stink Bug (BMSB) - Part 3 (Fruit Damage and Juice/Wine Taint)
- Crop Development Sampling
- Crop Management
- Disease Management - Botrytis
- Early Warning: Multi-Colored Asian Ladybeetle (MALB) for Grape Growers
- Evaluating Grape Samples for Ripeness
- Grape Berry Moth
- Harvest Priorities
- Nematode Sampling
- Pre-Harvest Disease Management
- Round Two: Multi-colored Asian Ladybeetle (MALD) Management for Grape Growers
- The Spotted Wing Drosophila (SWD) - Part 1: History, Background, and Damage
- The Spotted Wing Drosophila (SWD) - Part 2: Management

By Joe Fiola  
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# High Tunnels

101

By Emily Zobel  
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Whether you are a vegetable or fruit grower looking to extend your growing season or a grain farmer looking to start growing a new crop during the offseason high tunnels might be a good opportunity for you to increase your farm's marketability. High tunnels are simple, plastic-covered structures that have been widely used for numerous years in many regions of the world where the growing season is short or the climate is unfavorable. High tunnels have not been widely used in the United States until recently, but they are becoming more popular with farmers, who are using them to enhance their current system and increase marketing opportunities. High tunnels can be used to extend the growing season and grow higher quality vegetables, fruits, herbs and cut flowers.

High tunnels are made by covering a simple frame structure with plastic. They are tall enough for a person to stand up in and for tractors to be used inside. They traditionally don't use fans, heaters and lights, instead they depend mainly on the sun to provide light and warm the air and soil inside them. Unlike greenhouses where crops are grown in flats or pot on tables, crops in high tunnels are grown directly in the ground in raised beds. In many areas, high tunnels are viewed as being temporary structures and do not require a building permit and may not be taxed, but you should always check with your local zoning ordinances before building. High tunnels, on average, cost \$2-3 per square foot depending on the size, shape, and materials used.

High tunnel production is considerably different from field production some of the advantages and challenges of growing crops in high tunnels are listed below.

## Advantages

- ✓ Extended growing seasons
- ✓ Protection from the weather
- ✓ Environmental control
- ✓ Reduced incidence of diseases
- ✓ Improved quality
- ✓ Increased revenue per square foot

## Challenges

- ✓ Initial and maintenance cost
- ✓ Different pest problems
- ✓ Require regular monitoring
- ✓ Increase in labor
- ✓ Crops must be irrigated
- ✓ Crop rotation

High tunnels can be configured in a wide variety of shapes and sizes. They can be semi-permeant, temporary or movable structures. There are no standard dimensions for high tunnel, but they typically fall within the ranges of 14-30 feet wide by 30-96 feet long. Wider tunnels tend to be taller, provide better ventilation and retain heat better than narrow tunnels. There are two main shapes of high tunnels: Quonset and gothic. The Quonset shape is relatively short and squat with a rounded roof and sloped sides, while the gothic-shape looks like a cathedral with a high pointed peak and straight sidewalls. The gothic-shape tunnels are more costly, but the shape helps to shed snow, provides better air exchange, has more useable space and is generally more comfortable for working in due to its higher walls.

High tunnel frames can be made of wood, PVC, aluminum or steel. While steel is the most costly, it is preferred by most growers due to its low maintenance and its durability. PVC is mainly used only for low tunnels and is not recommended due to its low durability. A well built and maintained high tunnel will last at least 20 years, however, the plastic cover will need to be replaced every few years. The most common cover is polyethylene. UV resistant greenhouse quality polyethylene is preferred over common construction grade polyethylene since it transmits more light, has a longer life and prevents nighttime heat loss. There is a wide variety of different greenhouse films to choose from. The best one for your high tunnel will depend on what is being grown and when. Ventilation is important in high tunnels in order to reduce humidity and prevent plants from getting heat stress. Ventilation can be accomplished by passive air movement through roll-up sides, gable-end doors and vents, roof vents, ridge vents and removable doors.

High tunnels don't need to be on a level site. A gradual slope can actually be beneficial, however, too large of a slope can compromise the structural integrity of the tunnel. The tunnel should be on a site with well-drained soil, which is not heavily shaded and is out of the wind. Due to the higher labor needed to maintain crops inside high tunnels, it is ideal to place them on sites that are easy to get people and equipment too. They can be orientated either North-South or East-West. North-South orientation is more traditional since it reduces shading and is good if you plan on growing only during the warmer months. East-West orientation allows for more effective collecting of sunlight during the winter and early spring. High tunnels normally take about a week to build once the land is prepared and all the supplies are gathered.

Before investing the time and money needed to build a high tunnel it's important to make sure you have a marketing plan in place. Think about the main reason you are using a high tunnel instead of a field and then determine if you have a market for it. For example, if you are trying to extend your growing season, then do

you have buyers or places to sell too after the main growing season is over? If you are trying to increase your quantity and quality, then do you have additional places or people to sell too? Are they looking for a better quality than what you can produce in a field? If you are growing a specialty crop? Does it need to be grown in a more controlled environment? Is there a local market for it?

For more information on high tunnels and construction tips see the following publications:

University of Vermont:

<https://www.uvm.edu/~susagctr/resources/HighTunnels.pdf>

Iowa State University:

<http://www.extension.iastate.edu/valueaddedag/high-tunnel->

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## TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

### Record August Temperatures – What Does it Mean for Plants?

By Stanton A. Gill

Extension Specialist in IPM and Entomology  
University of Maryland Extension

Central Maryland Research and Education Center

And Professor in Landscape Technology

Montgomery College, Germantown Campus

[www.Extension.umd.edu/ipm](http://www.Extension.umd.edu/ipm) - IPM Alerts

[Sgill@umd.edu](mailto:Sgill@umd.edu)

Sept 16, 2016

NOAA has released the weather score for August and it doesn't look good. We just broke the record for the number of days above 90 F in August and continuing into September (53 days). The record we broke was set back in the late 1900s. Worldwide the temperatures were 1.5 F hotter than last year.

Back in the spring through the end of July we had regular rains and relatively cool weather. Soil moisture levels were very high through early summer. Now we are in a bit of a drought situation with plenty of sunshine, hot weather and no really significant rain storm on the horizon.

This is having a late season impact on plants. We have had three different landscape companies comment that spruce, mainly blue spruce and Norway spruce, are showing scorching needles and branch dieback. The high soil moisture levels of the spring and early summer compromised the root systems of these plants that need a really well drained soil. Now we have lots of sunshine and high temperatures the foliage is losing moisture faster than the damaged root system can pull up the water with resulting scorching a dieback.

We also seeing deciduous tree that were transplanted this spring showing leaf scorching and some trees,

especially red oaks and pin oaks, developing bacterial slime flux on the trunks of tree from the heat and water stress.

Hopefully, cooler and rainy weather will be on the way soon. Meanwhile, be on the lookout for plants showing stress symptoms.



## Organic Vegetable Production at Maryland Vegetables

Public awareness and interest in how food is produced is an increasing concern for today's society. Growing organically is an ever increasing market that has evolved to address society's concerns on food production. Organic production has continued on an increasing trend since the mid 1990's. Organic food sales now represent approximately two percent of U.S. food sales (Hunsburger et. al., 2010) with the future outlook looking very positive.

Organic production requires a different approach to traditional farming production methods. It requires more physical input towards production in addition to critical thinking when approaching pest management and soil fertility.

Because organic vegetable production is so complicated we at the University of Maryland Extension developed this *Organic Vegetable Production Manual*, to help those growers who are new to organic vegetable production practices or for those growers who have been growing organic vegetables for only a few years. And while the manual is not meant for experienced growers there are some chapters that even the most experienced grower may find interesting and helpful. The Introduction/Authors section explains how the manual is set-up and who reviewed the chapters. In addition all the author information is presented in this section. Each chapter is listed separately and can be downloaded by the grower for their use, but not for any commercial use unless permission is granted by the Editors. <http://extension.umd.edu/mdvegetables>  
<http://extension.umd.edu/mdvegetables/organic-vegetable-production>

### Organic Vegetable Production Articles:

- [Big-Eyed Bug: A MVP of Generalist Natural Enemies - 8/2016](#)
- [Minute Pirate Bug: A Beneficial Generalist Insect Predator - 7/2016](#)
- [Organic Weed Management in Vegetables \(Hooks, Leslie, Chen\) - 5/2016](#)
- [Cantaloupe \(Muskmelon\) in Maryland](#)
- [Plants that Attract Pollinators and Natural Enemies \(presentation\) - 6/2015](#)

- [Managing the Weed Seedbank with Cover Crops and Tillage](#)
- [Offing Cover Crops for Weed Suppression: Featuring the Roller Crimper and Other Mechanical Contraptions](#)
- [The Plight of Clint and His Monoculture Practices](#)
- [Using Flowering Plants to Help Parasitic Wasps Attack Stink Bug Eggs](#)
- [The Stale Seedbed Technique: A Relatively Underused Alternative Weed Management Tactic for Vegetable Production](#)
- [Fungal Entomopathogens: An Enigmatic Pest](#)
- [Organic Weed Control in No-Till Vegetable Systems](#)
- [New Grower Training - Vegetable IPM - 2/2014](#)
- [Gold Flecking in Tomatoes Caused by Many Things - 2/2014](#)
- [Examining an Organic Control for Flea Beetles on Eggplant](#)

### Organic Vegetable Production Manual

- [MD Organic Vegetable Growers \(link is external\)](#)
- [Organic Certification](#)
- [Marketing Organic Vegetables](#)
- [Seed Selection & Transplant Production](#)
- [Soil Health & Cover Crops](#)
- [Soil Fertility](#)
- [Disease Management](#)
- [Insect Pest Management](#)
- [Weed Management](#)
- [High Tunnel Vegetable Production](#)
- [Equipment Needs for Small Farms](#)
- [Tillage Practices](#)



### Woods in Your Backyard Workshop:

<http://www.howardcountyforestryboard.org/index.cfm?objectid=FF8064B0-265C-11E6-9F6A0050560F037A> - September 29th, 2016 and October 6, 2016 (consecutive Thursday evenings), 6:30 - 9:00 PM.

The University of Maryland Extension and the Howard County Forestry Board will host a "Woods in Your Backyard" workshop over two consecutive Thursday evenings at the Maryland Extension office in Ellicott City, MD. This workshop is designed for landowners with 1-10 acres who wish to learn about getting more out of their land, converting lawn to woodland, habitat management, and much more. Class sessions will feature presentations by foresters, arborists, landscape designers, and Master Naturalists. The cost for both evenings is \$25.00 per person or \$30.00 per couple. For more information and how to register, go to <http://www.howardcountyforestryboard.org/index.cfm?objectid=FF8064B0-265C-11E6-9F6A0050560F037A>.

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## BRANCHING OUT

Maryland's Woodland Stewardship Educator



University of Maryland Extension - Woodland Stewardship Education  
<http://extension.umd.edu/woodland>



Volume 24, No. 2

Summer, 2016

A new issue of *Branching Out* is now available! The Events Calendar includes a "Woods in Your Backyard" workshop in Howard County and regional workshops hosted by the Maryland Forests Association. Articles include research into what makes poison ivy so troublesome, and some potential good news in the struggle against tree-of-heaven, along with regular features *Woodland Wildlife Spotlight*, *Invasives in Your Woodland*, and the *Brain Tickler*.

### *Branching Out* Vol. 24, No. 3 Fall 2016

URL: <https://extension.umd.edu/news/newsletters/branching-out-fall-2016>



### LEAD Maryland Accepting Applications for Next Class of Fellows

The LEAD Maryland Foundation is seeking applicants for its next class of Fellows. Applications are due October 1, and are available at the foundation's [website](#). Participants will complete a series of multi-day seminars held throughout Maryland and Washington, D.C. in 2017 and 2018 along with a travel study tour and class project. LEAD is a partnership 501 (c) (3) nonprofit dedicated to identifying and developing leaders to serve Maryland's agriculture, natural resources, and rural communities. For more information, contact Susan R. Harrison at [410-827-8056](tel:410-827-8056) or [leadmd@umd.edu](mailto:leadmd@umd.edu).



Join us for our final workshop of the season:

**“Harvesting, Post-Harvest Activities, and Food Safety”**

*When: September 24, 2016*

*Where: Firebird Farm*

*Location : 12001 Old Baltimore Pike, Beltsville, MD 20705*

*Time: 10:00 a.m.—12:00 p.m.*

**Cost: FREE!**

This workshop will give an overview of harvesting, food processing, packaging, and food safety including an overview of food safety laws.

Yao Afantchao, UDC-SARE

Nic Ellis, MS, PhD, CCA  
Chef Marie Joe Faye  
Paul Goeringer, PhD  
The Fresh Food Factory

Olukemi Adeola, MS  
Tambra Raye Stevenson, MS  
Eneshal Miller  
Bread for the City

## Vegetable & Fruit News

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**Article submission deadlines for 2016 at 4:30 p.m. on:** May 12; June 8; July 20; August 17; September 15; and October 19.

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