Hello, Harford County!

At the end of June, I was fortunate to attend a day of tours in western Maryland, hosted by my fellow ag agents in Garrett and Allegany counties. Among the stops that day were a creamery, an artisan cheese shop, an alternative energies business, and the Garrett 4-H robotics facility. But the most interesting stop, in my opinion, was to Harding’s Ginseng Farm.

I know a bit about ginseng as an herbal supplement, but I’d never thought about where it came from or its potential as a cash crop. Ginseng is a slow-growing perennial herb, thriving in the shade of mature forest canopy, that is native to the eastern United States and eastern Asia. It can be found growing wild but is rare to find due to over-harvesting that occurred in the 1970s. Today, wild ginseng is considered an endangered species and can only legally be harvested in 19 states.

Ginseng can, however, be cultivated in wooded areas where it would naturally be found. At the farm we visited, ginseng beds are prepared by mowing the forest underbrush, removing any rocks, cultivating the soil, broadcasting seed (in the fall), and mulching with straw. Because it is slow-growing, a ginseng plant takes at least three to four years before the plant is large enough to harvest. The farmer we visited waits eight years before harvesting. Ginseng can also be cultivated in farm fields using artificial shade, but this practice produces a root of inferior quality. Cultivated roots appear large, slick, and unbranched. But most buyers prefer a root that looks wild in appearance: slim, branching, and ridged. Ginseng cultivated in the woods and not provided with fertilizer yields a root that looks wild. This type of ginseng is called wild-simulated.

While it seems relatively simple to grow ginseng, Mr. Harding explained some of the challenges. Ginseng is susceptible to several fungal diseases, so he regularly treats his crop with fungicide. Wildlife, especially turkeys, can cause extensive damage to ginseng. Turkeys scratch through the straw mulch, looking for insects to eat, and expose the roots which subsequently freeze and die in the winter. Theft is another problem, as wild-simulated ginseng roots can sell for several hundred dollars per pound (dry weight).

Mr. Harding sells his product in several ways: as fresh roots, dry roots, powder (loose and in capsules), and as a wine. He also makes and cans a concentrate from the plant’s berries. Some of what he produces is sold in the states, but much of it is exported to Asia. Ginseng is claimed to boost the immune system, lower blood sugar levels, improve concentration and learning, and treat several medical conditions including high blood pressure and symptoms of menopause. The active ingredients in ginseng – called ginsenosides – are still undergoing clinical research to determine if these claims can be substantiated by science.

Regardless of its clinical effectiveness, ginseng is a unique crop with a market demand, and I was really interested to learn so much about it!

Sincerely,

The Harford County Extension Office will be closed on September 2 in observance of Labor Day.

INSIDE THIS ISSUE:

- Trailering Horses: Beyond the Basics
- Master Gardeners Accepting Applications
- Invasive Kudzu Bug Reaches Maryland
- Maryland Crop Insurance Workshop
- Maryland’s New Lawn Fertilizer Law
- Annie’s Project Reunion

Sara BhaduriHauck
Ag Extension Educator
sbh@umd.edu

Photo: Penn State
Pasture Management Seminars In Baltimore and Cecil

Our University of Maryland pasture management gurus are taking their education seminar on the road! Join us at one of our featured locations to learn skills that will enable you to produce productive pastures, reduce feed costs, and protect the environment. After the morning seminar presentations, participants will enjoy an afternoon of hands-on skill practice and tours of hosting farms. The cost is $35 per person and includes printed materials, morning refreshments, and lunch. Registration is available online (see links to the right) as well as via paper form; contact the Harford Extension office at 410-638-3255 for a form. Registration is due August 31 so don’t delay! Questions may be directed to Jennifer Reynolds at 301-405-1547 or jenreyn@umd.edu.

Grants Available from Maryland Horse Industry Board

The Maryland Horse Industry Board (MHIB) will accept grant applications for research, educational, and promotional projects that support horses or the equestrian community or develop new opportunities for the Maryland horse industry. Grant applications may be submitted between August 1 and September 30. Individual requests should not exceed $3,000. Organizations eligible for MHIB grants include (but are not limited to) non-profit organizations, clubs and associations, businesses, farms and licensed stables, government entities, schools, and educational institutions. Projects of interest to the Board include (but are not limited to) those that develop new opportunities and coincide with the board’s mission to increase awareness and growth of the Maryland horse industry. Projects are evaluated for their value to the industry, degree of industry promotion, size and scope of activity, financial need, potential for matching funds, benefits, and quality of the written presentation. Grant recipients will be announced in December 2013. Funding will be available after January 1, 2014. Projects must be completed by June 30, 2014. For grant guidelines, grant applications or more information about MHIB or the Feed Fund, visit www.mda.maryland.gov/horseboard or contact MHIB Executive Director Ross Peddicord at 410-841-5798 or email ross.peddicord@maryland.gov.
Trailering Horses: Beyond the Basics

As a horse owner, you know how to care for your animals. But how much do you know about the technical aspects of transporting them? This seminar will focus on correctly matching a horse trailer with a properly sized vehicle, vehicle specifications that are best suited to towing horse trailers, Department of Transportation regulations that may affect you and how to comply with them, maintenance procedures to keep your truck and trailer in safe condition, and safety considerations and horse care during extended transport. Registration is $5 per person and includes printed materials and refreshments. Space is limited so advanced registration is required by September 6. To register, contact Sara at 410-638-3255 or sbh@umd.edu with your name and phone number.

September 11, 2013
6:00 p.m.—8:00 p.m.
Harford County Extension Office in Forest Hill, MD

Organic Vegetable Twilight Tour

August 15, 2013
All organic vegetable growers and those interested in growing organically shouldn’t miss this tour! University of Maryland researchers and organic growers will discuss the effects of cover crops and plastic on soil carbon dioxide emissions, weed control in organic systems, companion plantings for increased biocontrol, cover crop effects on pests. Dinner will be served at 5:00 p.m., and the wagon tour will begin at 6:00 p.m. The meeting is free to attend, but registration is required in advance to assist with meal planning. To register, e-mail Jerry Brust at jburts@umd.edu.

August 15, 2013
Upper Marlboro Research and Education Center
Upper Marlboro, MD

Master Gardener: Accepting Applications for Training Class

Are you interested in becoming a Master Gardener? Master Gardeners are Extension volunteers who assist the university’s mission by providing outreach education and service to the local community, after completing a 50-hour training course. If interested, you will need to submit an application. The training class for accepted applicants will be held at the Harford County Extension Office in Forest Hill, Tuesdays and Wednesdays from 1:00 p.m. – 4:00 p.m., September 4 through November 16. The cost for the training is $200; students will receive a copy of the Master Gardener Manual and other printed resource materials. For more details, answers to your questions, or to obtain an application, contact Joyce Browning at 410-638-3255 or jbrowni3@umd.edu.
Soybean growers in Maryland may have a new invasive insect pest. The kudzu bug (also known as the bean plataspid, or *Megacopta cribraria*) is an economic pest of soybeans in its native range in Asia, and has been spreading throughout the southeast United States. This species was first discovered in October 2009 in northeastern Georgia. No one knows for certain how the insect made the move from Asia to the U.S., but it has been spreading quickly since it arrived. As of 2012, the insect had been reported in eight states in the southeast U.S., including neighboring Virginia. The invasion of kudzu bug into Maryland was considered by many researchers to likely occur this year as a part of its northward dispersal. This led us to conduct a survey this summer of southern Maryland counties to search for this new invader. The survey was funded by the Maryland Soybean Board. As of early July, the kudzu bug has been found in five Maryland counties. What the new bug means for Maryland soybean growers is still uncertain.

**Impacts**

The kudzu bug gets its common name from the fact that it feeds and develops on the invasive kudzu vine (*Pueraria montana*), but the insect also feeds on a wide variety of legumes, and has been reported on some non-legume crops as well. The life history of this introduced pest has been most extensively studied in the southern states, where it has already proven to be a serious soybean pest. The general life cycle pattern has been the overwintering adults emerging and producing a first generation on kudzu vines. The new adults then disperse and produce a second generation on both kudzu and soybeans. Both nymph and adult stages feed on stems and leaves of the soybean plants with their piercing-sucking mouthparts, disrupting plant physiological processes that cause reduced growth and yield.

The kudzu bug has been found in roadside kudzu patches in St. Mary’s, Charles, Calvert, Prince George’s, and Anne Arundel Counties in Maryland. The insect has not yet been reported on the Eastern Shore, though it is likely present there as kudzu bugs have been confirmed to be present on the Virginia and Delaware portions of the Delmarva Peninsula. During the remainder of the summer, we will scout for the insect in soybean fields across the state. Our goal is to determine the extent of counties that are home to this new invader, and to determine whether it poses a serious threat to Maryland soybean farmers. It is currently unknown whether the growing season in Maryland is long enough to support two full generations of the insect, or whether the insect will reach high enough densities to produce economic damage.

**Identification**

Adult kudzu bugs look like small beetles, but they are actually more closely related to stink bugs than to beetles. They have piercing-sucking mouthparts, rather than the characteristic chewing mouthparts for beetles. Adults measure between 3.5 to 6 mm (1/8-1/4 inch) in length, and are rounded like lady beetles. The abdomen is covered by a hard plate (scutellum) that covers the wings and makes them look like small, brown to greenish brown, mottled beetles. The shape of this scutellum gives the kudzu bug a distinctive appearance, as the posterior end is truncated, rather than narrowly rounded like in other bugs and beetles. This gives the overall outline of the kudzu bug a squared shape. When disturbed, kudzu bugs will release a chemical that smells similar to that of stink bugs. Eggs are laid in two parallel rows on the undersides of leaves in groups of about 16. Kudzu bugs undergo 5 nymph stages before molting to the final adult stage.
Federal Crop Insurance Act Provides Funding to MD

Maryland farmers who signed up for an eligible crop insurance policy in 2013 will receive an additional automatic federal credit of up to $225 per policy, as outlined by the Federal Crop Insurance Act. Maryland was one of sixteen states selected to receive the credit, along with Delaware and Pennsylvania. No additional action is required to receive the credit; it will be applied automatically to all eligible crop insurance policies. For those who will receive the credit, your insurance provider will either deduct the amount from the premium on your billing statement or note that your premium will be subject to a refund. If your premium is less than $225, your credit will be capped at 100 percent of your premium. Policies that are ineligible for this refund include all catastrophic risk protection policies as well as policies under the livestock risk protection and livestock gross margin plans. If you have questions regarding the credit, contact your crop insurance agent.

2013 Maryland Crop Insurance Workshop

University of Maryland Extension – in conjunction with The Center for Agricultural and Natural Resource Policy, Maryland Department of Agriculture, and U.S. Department of Agriculture’s Risk Management Agency – will host a crop insurance workshop on September 4 at the Loews Hotel in Annapolis. The day’s speakers and topic will include: Brandon Willis of USDA-RMA on where crop insurance is headed in the new Farm Bill; Dr. Art Barnaby of Kansas State University on crop insurance as a farm management and marketing tool; Gene Gantz of USDA-RMA giving a crop insurance update for 2014; Stephen Frerichs of AgVantage LLC giving a Farm Bill crop insurance perspective; Pat McMillian of the Maryland Department of Agriculture giving an overview of the current crop conditions and outlook for quantity and prices in the near future; and Steve Connelly of the Maryland Department of Agriculture on the Maryland crop insurance education program. This program is free to attend, but registration in advance is requested. To register, contact Liesl Koch at lkoch@arec.umd.edu or obtain a registration form from the Harford County Extension Office. Check out agresearch.umd.edu/canrp for more details.

Two websites have been developed to provide information on this invasive insect to farmers and the general public. The Megacopta Working Group (www.kudzubug.org) is a multi-state collaboration that has been tracking the spread of this insect since it was first discovered in 2009. Their website includes detailed images that can be used for identifying the insect, current county-level distribution maps of the insect, information on how to control this pest, and forms for reporting new sightings of the kudzu bug. The Dr. William Lamp Laboratory at the University of Maryland is conducting a survey this summer of kudzu vines and soybean fields in southern Maryland counties through funding from the Maryland Soybean Board. Our website (http://mdkudzubug.org) includes descriptions of the kudzu bug, online forms for reporting sightings, and regular updates on results of our survey this summer. If you discover what you believe to be the kudzu bug in your fields, please consider reporting it to our website. The information will help us prepare for its likelihood of becoming a soybean pest in Maryland.
Nutrient Management: Dealing with the Changes

By Patricia Hoopes, Nutrient Management Advisor

Since the updated nutrient management regulations were introduced in October of last year, there have been changes in the way nutrient management plans are being written and implemented on farms.

**Beginning with plans written this past spring**, manure, biosolids, and other organic nutrient sources are required to be injected or incorporated into the soil within 48 hours of application. There are exceptions, however. If your land is designated as Highly Erodible Land on official NRCS maps, incorporation is not required. Many no-till producers who were initially concerned by the incorporation requirement are exempt because they are farming HEL land. To be exempt from the incorporation requirement, the NRCS maps showing HEL fields must be included in the nutrient management plan. Operators who have not yet updated their plans should request copies of their NRCS maps so they may be included in the nutrient management plan.

An HEL status meets an exemption from incorporation. Other exemptions include spray irrigation on a growing crop and applications on permanent pastures and hay. Guidance can be found at [www.mda.maryland.gov](http://www.mda.maryland.gov) and click on Nutrient Management.

**This fall, additional regulations will become effective**, which follow:

- Fall application of nitrogen is prohibited on small grains if a fall nitrate test indicates levels greater than 10 parts per million (ppm) for wheat or 15 ppm for barley.
- Cover crops must be planted when organic nutrient sources are applied in the fall.
- Farmers whose fields have a Fertility Index Value (FIV) of 150 or greater are required to use the new Phosphorus Management Tool to determine phosphorus rates for plans developed after July 1, 2013.

*Source: Maryland Department of Agriculture Fact Sheet. “Maryland’s New Nutrient Management Regulations: What you Need to Know and Do to Comply.” March 26, 2013.*

**What does this mean for me?**

New and updated nutrient management plans may require additional documentation such as to allow for an exception for incorporation of manure, a fall soil nitrate test (FSNT), and/or application of the Phosphorus Management Tool (PMT). This means that more information may be required to develop a plan, and plan development will require more time. For example, the PMT may require additional information be included on your soil test report.

Since Maryland Department of Agriculture requires farmers to have plans in hand prior to any application, allow ample time for your advisor to develop a plan. As usual, current soil analyses, current manure analyses, and rotations are standard needs for any plan development. If you suspect you may need PSNT or PMT done, contact your advisor and get on the schedule soon. When field studies are needed, there is limited time between fall harvest and fall planting to get the needed information to develop a plan.

Yes, the law has changed, but with the help of your advisor you can still make the best choices for your operation. If you are looking for more information, fact sheets are available on Maryland’s New Nutrient Management Regulations as well as the FSNT. If you have questions or need to update your nutrient management plan for fall, call your Nutrient Management Advisor today.

Maryland’s New Lawn Fertilizer Law

*Source: Adapted from Maryland Department of Agriculture bulletin and press releases*

Lawn fertilizer now accounts for approximately 44 percent of the fertilizer sold in Maryland. While certain restrictions on fertilizer use have been in place for farmers since 2001, additional stakeholder involvement is needed if Maryland is to meet new nutrient reduction goals outlined in its Watershed Implementation Plan (WIP) to restore the Bay. Maryland’s Fertilizer Use Act of 2011 is designed to protect the Chesapeake Bay from excess nutrients
entering its waters from a variety of urban sources, including golf courses, parks, recreation areas, athletic fields, businesses and hundreds of thousands of suburban and urban lawns. The regulations putting this law into effect were signed into the Maryland register earlier this year.

Fertilizer Products
New phased-in restrictions affect all lawn fertilizer products sold and distributed in Maryland. Specifically, the law:

- Requires lawn fertilizer products sold in Maryland to include label directions to ensure that no more than 0.9 pound of total nitrogen is applied per 1,000 square feet; at least 20 percent of this nitrogen must be in a slow release form. The maximum amount of water soluble nitrogen in lawn fertilizer products applied per 1,000 square feet is capped at 0.7 pound.
- Prohibits lawn fertilizer products from containing phosphorus with certain exceptions for specially labeled starter fertilizer and organic fertilizer products.
- Prohibits labeling lawn fertilizer as a de-icer.

These regulations will take effect on October 1, 2013. Since 2011, lawn fertilizers products have been required to contain the following statement: “Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn and sweep any product that lands on the driveway, sidewalk, or street, back onto your lawn.”

The enforcement agency for fertilizer product regulations will be MDA’s State Chemist Section. If you have questions, you may contact them at 410-841-2721.

Lawn Care Professionals
Beginning October 1, 2013, all lawn care professionals must be certified in order to apply fertilizer in Maryland or must work under the direct supervision of someone who is certified. This regulation applies to professionals for hire as well as individuals responsible for turf management at golf courses, public parks, airports, athletic fields, businesses, cemeteries and other non-agricultural properties. Licenses will be required for all businesses engaged in commercial fertilizer applications, and each business will be required to employ at least one certified fertilizer applicator.

The Professional Fertilizer Applicator Certification Exam will be held at MDA Headquarters in Annapolis on August 9 and 16 from 12:30 – 2:30 p.m. and 2:00 – 5:00 p.m.; at the Montgomery County Extension Office in Derwood on August 22 and September 11 from noon to 2:00 p.m. and 2:30 – 4:30 p.m.; and at the Talbot County Free Library from 12:30 – 2:30 p.m. and 3:00 – 5:00 p.m. Review sessions will be held on-site from 9:00 – 11:30 a.m. during each exam day. The certification fee is $75. The pro-rated certification fee is $75. To register, contact MDA at 410-841-5959 or visit www.mda.maryland.gov/fertilizer and follow the link to “training classes.” Additional exam dates will be scheduled and advertised this fall.

To assist lawn care professionals in preparing for the exam, MDA and the University of Maryland (UMD) have developed a training manual and study guide which are available on the MDA website. The training manual includes information on soils and fertility, soil testing, interpreting fertilizer labels, use and calibration of fertilizer application equipment, UMD fertilizer recommendations and other knowledge areas that will be covered by the Maryland Professional Fertilizer Applicator Certification Exam. The Maryland Professional Lawn Care Manual is available on the MDA website at www.mda.maryland.gov/fertilizer.

The following restrictions apply to fertilizer application by lawn care professionals:

- No application of lawn fertilizer to impervious surfaces or frozen ground.
- No fertilizer applications within 15 feet of waterways. This setback is reduced to 10 feet if a drop spreader, rotary spreader with deflector, or targeted spray liquid is used to apply the fertilizer.
- No lawn fertilizer may be applied between December 1 and March 1. Between November 15 and December 1, only water soluble nitrogen (no slow-release) may be applied to lawns at a maximum rate of ½ pound per 1,000 square feet.
- Professionals must apply fertilizer using University of Maryland recommendations.
- Soil tests must be taken for each new customer and once every three years thereafter.
- A single application may not exceed 0.5 pound of phosphorus per 1,000 square feet. These products may not be applied when soils test at "optimum to excessive" for phosphorus levels.
- Enhanced efficiency controlled release products may be applied at no more than 2.5 pounds per year, with a maximum monthly release rate of 0.7 pound of nitrogen per 1,000 square feet.
Violators are subject to civil penalties of up to $1,000 for the first violation and $2,000 for each subsequent violation. The enforcement agency for applicator certification will be MDA’s Nutrient Management Program (410-841-5959).

**Homeowners and Residential Users**

Beginning October 1, 2013, homeowners and do-it-yourselfers will be required to follow University of Maryland recommendations when fertilizing lawns. Mandatory restrictions, similar to those imposed for lawn care professionals, apply:

- Homeowners must follow University of Maryland fertilizer recommendations when applying nitrogen to lawns.
- A single application may not exceed 0.9 pound total nitrogen per 1,000 square feet and 0.7 pound of soluble nitrogen per 1,000 square feet.
- Homeowners are prohibited from applying fertilizer to sidewalks, driveways or other impervious surfaces. Any product that lands on these surfaces must be swept back onto lawns.
- No fertilizer applications within 15 feet of waterways. This setback is reduced to 10 feet if a drop spreader, rotary spreader with deflector, or targeted spray liquid is used to apply fertilizer.
- No lawn fertilizer may be applied between November 15 and March 1 and when the ground is frozen.
- Fertilizers may not be used to de-ice walkways and driveways.
- Do not fertilize if heavy rain is predicted.
- Phosphorus may only be applied to lawns when indicated by soil test results or when the homeowner is establishing, patching or renovating a lawn.

A county, municipality, or MDA may enforce these requirements for homeowners. This law pre-empts any existing local ordinances. For more information, contact MDA’s Nutrient Management Program at 410-841-5959.

---

**Two Nutrient Management Advisor Positions Open**

University of Maryland Extension is seeking candidates for two Nutrient Management Advisor positions: one part-time (50%) position in Cecil County (position number 119237), and one full-time position in Kent County (position number 119262). Both positions require a B.S. in agricultural, environmental, or natural resource science or three years of full-time experience as an agricultural producer. Candidates must have knowledge of agricultural production practices and cropping systems. All applicants must apply online at ejobs.umd.edu. For best consideration, apply by August 12. The University of Maryland, College Park, is an equal opportunity employer.

---

**Small Farms Bus Tour**

Back by popular demand, this year’s tour will begin in Upper Marlboro on August 26 at 9:30 a.m. The next 48 hours will provide participants many opportunities to experience successful and innovative farming ventures in Southern and Central Maryland and to explore alternatives and possibilities that will help the average farmer increase his or her bottom line. Major topics of discussion will be centered on direct marketing, value-added products, sustainable farming practices, alternative “niche” crops, agri-tourism, and more. Day one of the tour will finish in Upper Marlboro with a farm dinner, guest speakers, and assorted activities. Day two of the tour, participants will depart from Bowie at 8:00 a.m. and will conclude with the bus returning to Bowie at approximately 4:15 p.m. on August 27. The registration fee, which covers bus transportation, a farm dinner, educational materials, and light refreshments, is $25 per person. Hotel accommodations for the night of August 26 will be an additional $25 per person. To register online, visit www.umes.edu/1890-mce. All registrations and payments must be received by August 22. For more information, contact Berran Rogers at 410-651-6070.
Graduates of Annie’s Project (an Extension-based farm business and risk management education program for women) and all other women with a passion for farm business are invited to attend a cookout and networking social on September 4 at the Harford County 4-H Camp. The evening will begin with a networking session followed by a cookout-style dinner and a short program. Maryland/Delaware Annie’s Project coordinators Shannon Dill and Jenny Rhodes, as well as Maryland Farm Bureau’s Valerie Connelly, will share some insights about women in agriculture, and the program will conclude at 9:00 p.m. The cost to attend is $10 per person; RSVP is required by August 28. To RSVP, contact Sara at the Harford County Extension Office at 410-638-3255 or sbh@umd.edu (please provide your name, phone number, and any dietary restrictions or other special needs).
This just in!

MARBIDCO is offering grants of up to $15,000 to producers wishing to diversify by making value-added products. Applications and details are available on the MARBIDCO website at www.marbidco.org/applications.html (choose “MVAPG-Capital Assets” option). Questions may be directed to Linda Arnold, MARBIDCO Financial Programs Officer, at (410) 267-6807.

University of Maryland Extension
Harford County Office
P.O. Box 663
Forest Hill, MD 21050