Hello, Harford County!

November is here and Thanksgiving is upon us! Soon we will gather around the table and fill our plates with plenty of food, all brought to us by farmers. Of course, the staple main course meat for Thanksgiving is turkey. Each year, Americans consume nearly 50 million birds on Thanksgiving Day, alone.

Turkey is big business in the US—bringing approximately $6 billion in sales for farmers. But some day you may have the option of consuming a Thanksgiving turkey, or any meat, that wasn't raised on a farm by a farmer. What do I mean, you may ask? Lab-grown meat has quietly been gaining traction over the past few years and may be on our supermarket shelves sooner than we think.

Cultured meat may sound like science-fiction, and up until a few years ago, it was. However, the science behind lab-grown meat has advanced rapidly.

In 2013, researchers in the Netherlands cultured a burger patty in the lab at the cost of $350,000. Since then, they claim that they have driven down the cost to where it is nearly comparable to traditionally-raised meat, and many start-up companies have formed that seek to make lab cultured meat a reality.

The concept of lab cultured meat is fairly straightforward. Basically, the process starts by harvesting specialized stem cells from an animal. These specialized cells occur naturally in animals and are used to build muscle. These cells are isolated and placed in a nutrient solution where they can “do their thing,” which is to make muscle. The cells begin to divide and organize into muscles, just as they would inside the body of an animal, and with the aid of a scaffold, take shape into a familiar product that we know, like a hamburger patty, for example.

Proponents of cultured meat claim that this process is a much more efficient means of raising meat, and utilizes fewer resources. However, it is yet to be seen how consumers will accept this product. Trends in acceptance of other major agriculture and food technology breakthroughs, such as GMOs, agro-chemicals, and gene editing are generally slow and met with a lot of resistance, largely because of the lack of understanding on the consumer end and misinformation surrounding the technology. Cultured meat will be no exception. A recent study from Michigan State found that only 1/3 of Americans would be likely to purchase cultured meat, and 48% said they’d be unlikely to purchase such a product.

Regardless of its initial acceptance, cultured meat may be in our grocery stores sooner rather than later. This new industry will likely impact animal agriculture, and could pose many threats and opportunities for farmers. We will have to see how it all shakes out, but I will continue to look forward to eating a turkey raised by our farmers!

Have a great Thanksgiving!

Until next time,
-Andy
The Maryland Department of Agriculture has confirmed that a single adult spotted lanternfly (Figure 1) has been found on a trap in the northeast corner of Cecil County near the border of Pennsylvania and Delaware. This is the first confirmed sighting of the invasive species in Maryland, and the department does not believe there is an established population of the pest in the state.

The spotted lanternfly poses a major threat to the region’s agricultural industries as they feed on over 70 different types of plants and crops — including grapes, hops, apples, peaches, oak, pine and many others. Originally from Asia, the spotted lanternfly is non-native to the U.S. and was first detected in Berks County, Pennsylvania in the fall of 2014. As a known plant-hopper and hitchhiker, the spotted lanternfly has spread to 13 counties within Pennsylvania and has confirmed populations in Delaware, Virginia, and New Jersey.

“The spotted lanternfly has been on our radar since Pennsylvania’s first sighting in 2014,” said Maryland Agriculture Secretary Joe Bartenfelder. “The Maryland Department of Agriculture’s Plant Protection and Weed Management Program and our partners have been proactively monitoring for spotted lanternfly across the state in an effort to keep the destructive pest from establishing a population in Maryland. By staying ahead of the spotted lanternfly we can keep our farmers’ crops and the state’s agricultural industries safe.”

The department’s Plant Protection and Weed Management Program continues to work with the University of Maryland Extension, the U.S. Department of Agriculture (USDA), the USDA Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ), and others to monitor the insect in Maryland via trap surveys. The department has also launched outreach and education campaigns aimed at agricultural operations and the general public. There is no spotted lanternfly quarantine for businesses or homeowners in Maryland at this time.

“Luckily, we found the first spotted lanternfly towards the end of the season and the confirmed spotted lanternfly is a male, which means it did not produce any egg masses in the state,” said Kim Rice, the department’s Plant Protection and Weed Management Program Manager. “It is extremely important that businesses, agricultural operations, farmers, and homeowners in Maryland, especially in Cecil County, are aware of this pest, its potential consequences, and how to identify it. Early detection is key to stopping the spotted lanternfly from spreading.”

Throughout the fall and into the winter the department will continue to conduct surveys and visual inspections for spotted lanternfly egg masses on the tree-of-heaven (Ailanthus altissima)—the spotted lanternfly’s preferred tree to feed on. As cold weather continues to set in, adult spotted lanternflies will start to die off, and egg masses can be seen from now until late spring. Come spring time, egg masses will hatch producing 30-50 black and white-speckled nymphs.

If you suspect you have found a spotted lanternfly egg mass, nymph, or adult, snap a picture of it, collect it, put it in a plastic bag, freeze it, and report it to the Maryland Department of Agriculture at DontBug.MD@maryland.gov. Deceased samples from any life stage can be sent to the Maryland Department of Agriculture—Plant Protection and Weed Management at 50 Harry S. Truman Parkway, Annapolis.

Other helpful resources:

- **Spotted Lanternfly Pest Alert**
- **Spotted Lanternfly Checklist for Maryland Homeowners**
- **Spotted Lanternfly Wanted Poster—Life Cycles**
- **Spotted Lanternfly Wanted Poster—Adult Stage**

For more information about the spotted lanternfly, please visit the Maryland Department of Agriculture’s website at mda.maryland.gov/spottedlanternfly.
Winter will soon be here and the fields dormant and the equipment will be put away till the spring. But one more crucial job remains -- organizing and properly storing unused pesticides.

Proper storage of herbicides, fungicides, and insecticides is important for protecting the health of farmers, homeowners, and their families who use these products. It is also important to remember that storing these pesticides correctly protects the environment and preserves the quality of the chemicals.

Pesticides should always be stored in their original container, making sure the product label is legible. Also be sure to maintain a storage inventory to help keep track of unused pesticides.

Keeping an inventory helps you plan for the next growing season so you don’t buy more of one type of product than you need. For the inventory, write down the product name, active ingredients, date of purchase, date of storage, and volume stored.

The storage area should be a secure, well-ventilated dry area, protected from heat and cold. There should be enough room to keep fertilizers, fungicides, insecticides and herbicides separated. The storage area should be enclosed so leaks or spills can be contained or cleaned without affecting the area's soil or water quality.

Some other elements of safe storage that must be addressed when establishing a storage area include;

- Proper lighting is obviously important so that products can be located and to reduce the chance of tripping or spilling while selecting the pesticide for the job.
- Ventilation. Ventilation is a must for human health. Ventilation also is important to prevent volatile chemicals from contaminating other materials in storage. Some lawn chemicals are volatile enough to be absorbed by garden fertilizers. Thus possibly turning a fertility product into a herbicide.
- Flammable liquids. Any flammable liquids should be stored outside living areas and away from ignition sources.
- Dampness. Dampness reduces the shelf life of many chemicals and can cause deterioration of metal or paper containers. All fertilizer products are combinations of chemical salts that attract moisture. Some products can absorb enough moisture during winter storage to create a thick syrup in the spring.
- Temperature extremes. Intense summer heat increases the volatility of chemicals, particularly herbicides. Freezing temperatures can cause ruptures in some types of containers. Freezing also can alter the chemical quality of liquid products, reducing their effectiveness. Look for directions on the package label for special storage temperatures.
- Flooding. Pesticides should be stored well off the floor to prevent pesticide contamination if flooding should occur due to heavy rains or spring snowmelt.
- It is also important to keep cleaning supplies near the storage facility or area. At a minimum, these supplies should include rubber gloves, absorbents such as kitty litter or paper towels and a container to seal the used clean-up materials.

As a reminder, Pesticide Recertification and Training have been scheduled, so check the MDA website for a complete list.
Cover Crop Planting Deadline Extended

Due to a late harvest and saturated soil conditions, the Maryland Department of Agriculture has extended the Nov. 5 planting deadline by one week for farmers who have signed up to plant cover crops this fall with the Maryland Agricultural Water Quality Cost-Share (MACS) Program. Farmers now have until Nov. 12 to plant qualifying cover crops of rye, wheat and triticale on their fields.

The extension is only available to farmers who use the following planting methods: no till, conventional, or broadcast with light, minimum or vertical tillage. With the extension, farmers must certify their cover crop with their local soil conservation district within one week of planting and no later than Nov. 19 in order to be reimbursed for associated seed, labor, and equipment costs.

“Extending the planting deadline allows farmers enrolled in our popular Cover Crop program to plant more acres of protective cover crops on their fields this fall in order to control soil erosion, reduce nutrient runoff, build healthy soils, and protect water quality in the Chesapeake Bay and its tributaries,” said Hans Schmidt, the department’s Assistant Secretary of Resource Conservation. “Importantly, the extended forecast calls for mild temperatures which should allow for germination to take place.”

Cover crops are cereal grains that grow in cool weather. They help slow down rainwater runoff during the winter, when the soil would otherwise be exposed, and recycle any nutrients remaining in the soil from the previous summer crop. Cover crops are a key feature in Maryland’s efforts to reduce the amount of nutrients entering the Bay.

Maryland’s Cover Crop program is funded by the Chesapeake Bay Restoration Fund and the Chesapeake and Atlantic Coastal Bays Trust Fund. For more information, farmers should contact their local soil conservation district or the Maryland Agricultural Water Quality Cost-Share Program at (410) 841-5864.

Northern Maryland Field Crops Day

The 2018 Northern Maryland Field Crops Day will take place on December 6, 2018 at Friendly Farm Restaurant. Topics for this year’s meeting include: head scab management in small grains, nitrogen management, herbicide resistance, pyrethroid insecticide use in field corn, tilled vs. no-till rain demonstration, on-farm anaerobic digestion, employer legal responsibilities with pesticide use and worker protection safety, and growing barley for malt. Topics will satisfy recertification for Maryland private pesticide applicators and offers recertification credits for Pennsylvania Applicators. In addition, producers can attend specific presentations to also renew their Maryland nutrient applicator’s voucher.

Pre-registration is $22.00, or $30.00 at the door and includes all-you-can-eat lunch. To register to attend or get more information call the University of Maryland Extension, Baltimore County Office at (410) 887-8090. Or you can sign up on Eventbrite at https://fcd18.eventbrite.com or fill out the form below and mail to: 1114 Shawan Road, Suite 2, Cockeysville, MD 21030. Make checks out to BCEAC.

Name: ____________________________ Email: ____________________________
Address: ____________________________ Phone: ____________________________
Payment: # attending __________ x $22.00 = $ __________
Diversifying Your Operation Workshop Series

January 8, 15 & 22
12 PM—3 PM
Baltimore County Extension Office
Cockeysville, MD

Come join us in a three-part series to learn how to diversify your operation. We will talk about agri-tourism and how it might be right for your operation, adding value-added products, and marketing and pricing farm-raised meats. Guest speakers will include: UME’s Ag Marketing Specialist, Ginger Myers, UME’s Ag Law Specialist, Paul Goeringer, local farmers, and many more! Agenda to be available soon. Light snacks and refreshments will be served. Registration is $5 and can be completed online via Eventbrite at https://dyo18.eventbrite.com or call the Baltimore County office at (410) 887-8090. Contact Erika Crowl at the Baltimore office if you have any questions.

Farm Transfer Workshops

This winter, the Department of Agricultural and Resource Economics (AREC) is partnering with the Agriculture Law Education Initiative (ALEI), the University of Maryland Extension, the Maryland Department of Agriculture, and Nationwide Insurance to host a series of one-day farm succession workshops around Maryland.

As of 2017, the average age of principal farm operators in Maryland is 59, according to the USDA-National Agricultural Statistics Service’s state agriculture overview, illustrating the increasing need for the farming community to understand how to pass on the farm to the next generation.

Seven winter workshops are split into two series designed around the idea that the succession process requires financial planning, communication, and a general understanding of business planning and estate planning tools.

The first series of workshops, Transferring the Farm to the Next Generation, includes five workshop dates and features speakers like Farm Management Specialist; Dale Johnson, Craig Highfield with Alliance for the Bay, and Extension Legal Specialist Paul Goeringer. This series will discuss business planning techniques, attached forested land, estate planning, tax basics, and more. For more information, click here.

Dates and locations for both workshop series are:

Transferring the Farm to the Next Generation Workshop Series Dates and Locations:

- **Queen Anne’s County** – November 26, 2018, 8:30 a.m. - 3:00 p.m. Chesapeake College - Eastern Shore Higher Education Center 1000 College Cir, Queenstown, MD 21658
- **Alleghany County** – December 6, 2018, 8:30 a.m. - 3:00 p.m. Allegany College of Maryland, 12401 Willowbrook Rd, Cumberland, MD 21502
- **Wicomico County** – December 12, 2018, 8:30 a.m. - 3:00 p.m. Wicomico County Extension Office, 28647 Old Quantico Rd, Salisbury, MD 21801
- **Howard County** – January 16, 2019, 8:30 a.m. - 3:00 p.m. - Howard County Fairgrounds, Dining Hall, 2210 Fairgrounds Rd, West Friendship, MD 21794
- **Baltimore County** – January 17, 2019, 8:30 a.m. - 3:00 p.m. Baltimore County Extension Office, 1114 Shawan Road, Cockeysville, MD 21030

To register for any event in this series, click here.

Investing in Your Farm’s Future Workshop Series Dates and Locations:

- **Talbot County** – Wednesday, January 30, 2018, 8:30 a.m. - 3:00 p.m. - Chesapeake College, 1000 College Circle, Wye Mills, MD 21679
- **Prince George’s County** – Thursday, January 31, 2019, 8:30 a.m. - 3:00 p.m. - Prince George’s County Soil Conservation District Office, 5301 Marlboro, Race Track Rd, Upper Marlboro, MD 20772

To register for any event in this series, click here.

This material is based upon work supported by USDA/ NIFA under Award Number 2015-49200-24225.
The Farmer Training and Certification workshops provide opportunities for producers with cropland and pastures who use commercial fertilizer and/or manure to learn how to write nutrient management plans for their operation that meet Maryland Department of Agriculture’s regulations.

Individuals with fields or pastures high in soil test phosphorus may require additional training and a greater time commitment.

**Required Skills:**

Competency in high school math, familiarity with using a keyboard, and the ability to save and retrieve files is essential for completion of the course and nutrient management plan development.

**You will receive:**

- **A comprehensive training binder** – the training binder will be used during the class, serve as a reference during the exam, and as a valuable resource when you write future plans for your operation.
- **Certification** – producers who pass the exam will be certified by MDA to write their own nutrient management plans.
- **Voucher training credits** – this class will fulfill the nutrient applicator voucher training requirements.

**Registration Information**

- Space is limited and registrations are accepted on a first-come basis; therefore, **register early**.
- Paid registrations must be received 10 days before the first class. For more information, please call 410-841-5959. Classes will be cancelled if there is insufficient enrollment.

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<tr>
<td>9:30 AM – 4:30 PM each day</td>
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<td>6 – 9 PM each evening</td>
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Keep this portion for your records.

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Please register me for class # ___________. Enclosed find my payment for the class.

Name ____________________________

Mailing Address ____________________________

County ____________________________ City ____________________________ State ______ Zip Code ______

Telephone ____________________________ E-mail ____________________________

Special accommodations needed?

Submit a separate form for each person. Make check payable to Maryland Department of Agriculture. Mail completed form and payment to: Nutrient Management Program, Maryland Department of Agriculture, and 50 Harry S Truman Pkwy, Annapolis, Maryland 21401.
Harford County Agricultural Grants

The Harford County Government Division of Agricultural Services is proud to announce its request for applications for the Agricultural Grant Program for Fiscal Year 2019.

The Division of Agriculture strives to promote sustainable growth within the agricultural community by providing grant opportunities to local agri-businesses. We target projects that will help farmers emerge into a new market or enhance their existing farming operation.

Anyone who is a resident or has a farming operation within Harford County may apply (must be 18 years or older). Applicants must apply for projects that benefit Harford County agriculture. The maximum award per applicant is set at $20,000. The grants are for matching funds only with the county paying 75% and the applicant 25%. Grants are for reimbursements only; receipts/invoices are required at the time of reimbursement. Projects must be completed by June 26, 2020 and are subject to quarterly reports. Awardees must have a W-9 on file to receive reimbursement money. Grants will not be awarded for permanent structures or capital improvements. The property on which a project is located shall be in compliance with all Harford County Zoning regulations and laws. The ideal candidate will apply for a project that benefits the agricultural community and assists farms working together to support the buy local initiative within Harford County.

Application: The application form can be submitted online or downloaded from the County website at harfordfarms.com for completion. Late applications will be rejected and incomplete applications will be returned. Any supplemental information must be included with the attachment and turned in by the deadline. Please direct all questions regarding preparation and/or submission of these forms to Jason Gallion at (410) 638-3511.

Deadline: The application deadline is November 30, 2018 at 5:00 p.m.

Please submit either one (1) original paper application to the mailing address below or (1) electronic copy by November 30 at 5:00 p.m. to jcgallion@harfordcountymd.gov

Mailing Address: 3525 Conowingo Rd., Ste. 700, Street, MD 21154, Attn: Jason Gallion, Agricultural Specialist

Conservation Leasing Workshops

This winter, the Agriculture Law Education Initiative (ALEI) and the Harry R. Hughes Center for Agro-Ecology, Inc. will be hosting workshops to teach agricultural service providers, landowners and farmers how to communicate about and draft a farm lease to incorporate conservation practices. The interactive workshops will equip participants with: communication tools for discussing conservation values; leasing strategies; examples of lease language for commonly used practices; and educational materials for future use.

The workshop series kicks off with an informational webinar on November 15th. Register today for a workshop in your region.

Central Maryland: January 28, 2019 Baltimore County Ag Center, 1114 Shawan Rd., Cockeysville, MD.

All workshops will be from 8:00 a.m. to 3:00 p.m. and Nutrient Management Credits are available! Lunch is provided to all participants free of charge. For more information and to register: https://agresearch.umd.edu/agroecol.
Dates to remember


14 Nov. Women in Ag Webinar: Farm Lease Agreements. 12PM. Free. Register online.

15 Nov. Informational Webinar: Ag Conservation Leasing Workshop Series. 12-1PM. Register online.

13-15 Nov. Mid-Atlantic Crop Management School. Register online.

17 Nov. Farm to Table Gala. 6-9PM. Deer Creek Overlook, Street, MD. $100. Proceeds benefit Harford County Farm Fair. Register online.

28 Nov. Women in Ag Webinar: GMO. 12PM. Free. Register online.

6 Dec. Northern MD Field Crops Day. 8:30-3PM. Friendly Farm Restaurant, Upperco, MD. $22 in advance, $30 at door. Register online or call (410) 887-8090.

8, 15, & 22 Jan. Diversifying Your Operation. 12-3PM. Baltimore County Extension Office, Cockeysville, MD. $5. Register online or call (410) 887-8090.

17 Jan. Farm Transfer Workshop. 8:30-3PM. Baltimore County Extension Office, Cockeysville, MD. Register online.


12 Feb. Harford County Mid-Winter Agronomy Meeting. Deer Creek Overlook, Street, MD. Details to come.