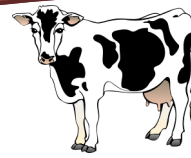


Ag Notes

Harford County Newsletter

UNIVERSITY OF
MARYLAND
EXTENSION

June 2022



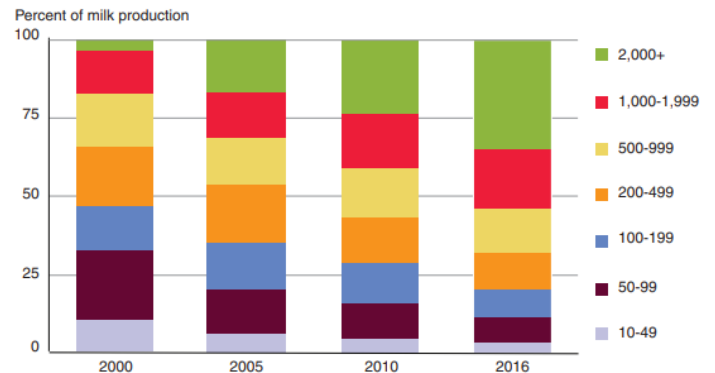
Hello, Harford County!

June is National Dairy month! Don't forget to stop by one of Harford County's several dairy farms that retail delicious and healthy dairy products, such as ice cream, milk, and cheese!

As of the most recent count, Harford County has about 16 commercial dairy farms left in operation. As you know, farming is generally a business that often operates on thin profit margins, dairy farming is no exception. Several consecutive years of tight milk prices has led to the consolidation of the dairy industry, where dairies are forced to get larger as a way to decrease per unit costs of production. As a result, we have lost a few dairy farms in Harford County over the years, which is consistent with the trend across the state and across the country.

In Maryland, there are about 340 dairy farms, and fewer than 30,000 in the entire US. To put that in perspective, just 30 years ago there were over 200,000 dairy farms in the US. During this time of consolidation, the number of dairy cows in the US has remained relatively consistent, and milk production has increased. This illustrates the fact that the industry is driven to larger herds on fewer farms. The figure pictured above from a [USDA report](#) illustrates this trend; just 22 years ago, less than 10% of US milk production was from dairy farms with over 2,000 cows. Today, that number is about 30% and climbing.

Milk production has shifted to larger herds



Source: USDA, National Agricultural Statistics Service, and USDA, Economic Research Service, Agricultural Resource Management Survey, Dairy Versions, 2000, 2005, 2010, 2016.

Milk prices have not changed all that greatly since the 1980s, with the exception of some wide price fluctuations in the recent decades. However, what has consistently increased are feed and input costs. As a result, the only way for a dairy farm to remain profitable is to get larger, which decreases the cost of production per unit of milk, hence the consolidation of the industry.

All things considered, dairying is still an important part of our community here in Harford County where we have both traditional dairies that sell to co-ops and "non-traditional" dairies that have pivoted to more retail and direct-to-consumer markets.

Regardless of what kind of farm produced the milk in the product you enjoy on your dinner table, you can be rest assured and be confident that it is a wholesome, healthy, and sustainable product!

Until next time,
-Andy



University of
Maryland Extension

Harford County
Agricultural Center

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3525 Conowingo Rd.
Street, MD 21154
(410) 638-3255

M—F 8:00 a.m.—4:30 p.m.

Extension.umd.edu/harford-county

facebook.com/HarfordAg

Andrew Kness

Ag Extension Educator
akness@umd.edu

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Maryland Farm Bureau press release

Maryland Farm Bureau (MDFB), in partnership with the U.S. Fish and Wildlife Service (USFWS), announced that producer permits for the control of black vulture depredation are now available, and can be obtained through MDFB. Black vultures can kill young livestock and damage property. They can work together as a “wake” and attack an animal to the point of death or need of euthanasia.

As black vultures have been traced from migratory origin, they are protected under the federal Migratory Bird Treaty Act of 1918, and can only be lethally controlled through USFWS permits.

USFWS and MDFB suggest trying non-lethal means to manage black vultures first, but know that the loss of livestock young, among other damage, affects Maryland farmers’ bottom lines. The wakes of black vultures often target the soft tissue, like eyes, noses and tongues, of their prey.

“Unlike turkey vultures, black vultures will actually attack live, young or weak animals, such as lambs, calves and piglets, usually working as a group,” said Tyler Hough, Eastern Shore regional manager of MDFB. “This goes beyond an annoyance and is not only sad, but damaging to profits. We have been given the authority by USFWS to help expedite the process for farmers to get the vulture control producer permits. This should help reduce costs to farmers, as well.”

Producer permits will be issued to livestock operations only. Applications will be scored based on past livestock losses, number of livestock on the applicant’s farming operation, number of black vulture roosts and birds in

the immediate vicinity, and the county ranking of livestock. A maximum of three “takes” may be issued to an approved applicant and will be determined by the application score. Applicants must agree to follow all rules and regulations required by USFWS in the MDFB statewide permit.

You must be a livestock producer to qualify for the producer permits. Producers in need may request a producer permit application by emailing Tyler Hough at though@marylandfb.org or by calling (410) 922-3426, ext. 320.

“There are legal methods of removing black vultures, but they are limited,” said Hough. “Things like harassment, habitat clean-up and livestock management can serve as a first line of defense.”

These practices include:

- Harassment – horns, pyrotechnics, propane cannons, effigies.
- Habitat modification – removal of roost trees.
- Animal husbandry – moving livestock away from aggressive birds.

Producers experiencing extensive depredation issues or having large black vulture roosts on their property are encouraged to reach out to the United States Department of Agriculture (USDA) Wildlife Services to review the conflict and to develop a comprehensive management plan.

The permits will be valid through January 31, 2023, and must be renewed annually. It is against federal law to kill a black vulture without a federally issued permit.

Webinar: Interpreting Forage Analysis

June 14, 2022 | 7:30 PM

This webinar is part of the monthly beef cattle webinar series held on the second Tuesday of each month from 7:30– 8:30 PM.

During this session, we will discuss how to interpret and use a forage analysis to help with feeding and purchasing decisions.

Register here, <https://go.umd.edu/beefseries..>

For more information, contact Dr. Sarah Potts (sbpotts@umd.edu)



Spotted Lanternflies Are Active

Andrew Kness, Agriculture Agent
University of Maryland Extension, Harford County

Early instar spotted lanternflies have hatched and are active in Harford County, and one managed to find its way into my office earlier in the week. The early instar nymphs are quite small, about the size of an engorged tick, with black bodies and white spots. As they molt through later instars, they will grow larger and eventually have patches of orange mixed in. Later in July they will reach mature adults, about an inch long with grey outer wings, black spots, and orange secondary wings (Figure 1).

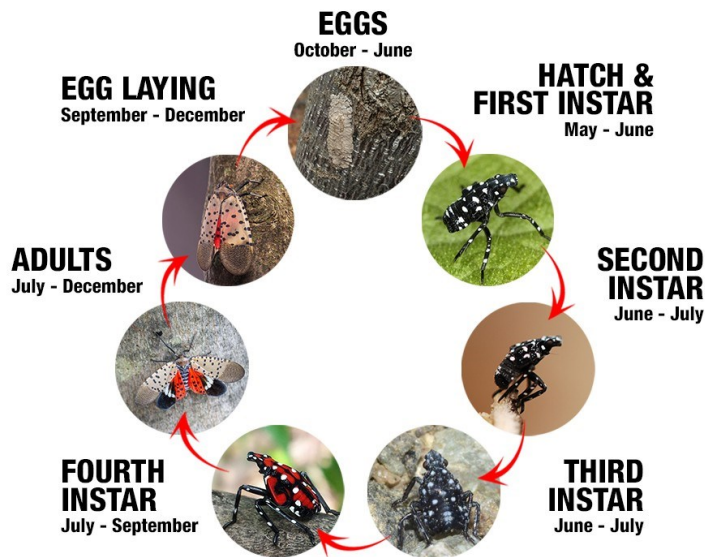


Figure 1. Spotted lanternfly lifecycle. Image: spottedlanternflykillers.com.

Spotted lanternfly is not so much an agricultural pest of most of our crops, it's more of a nuisance; although if you cultivate grapes, hops, or fruit trees, they can be a major pest if not managed. If you find spotted lanternfly, report it to the Maryland Department of Agriculture, then try to destroy the insects.

Horticultural oil and insecticidal soap (a.k.a. soapy water) work well on spotted lanternfly, although be careful with horticultural oil in the heat of the summer as it can burn foliage. Both oil and soap products have to be sprayed directly on the insect to kill it, as it coats the bugs in a layer that suffocates them. Also note that these products have no residual effect, so repeated applications are needed for newly arrived lanternflies.

You can also try to trap lanternflies by making a circle trap. Penn State has a great tutorial on how to build your own circle trap on their website (<https://extension.psu.edu/spotted-lanternfly-management-guide>). This trap is installed on the trunk of a host tree and as the lanternflies crawl up the trunk they are captured in the trap. This is the preferred trapping method as it is bird-safe. Sticky bands on trunks also work, but they tend to also catch birds if screens are not installed around the sticky traps.

This is also a casual observation of mine, but spotted lanternfly nymphs seem to be particularly fascinated with objects like trash cans, barrels, gas cans, coolers, buckets, etc.; I have observed them in my yard crawling all over such objects. So, before you load up that cooler and take it for a ride to a cookout, check it for lanternfly nymphs, especially if you live in an area with high populations; you don't want to mistakenly transport them to new locations.

If you are growing hops, grapes, or fruit trees you will want to be sure to scout for this insect then take proper management actions to protect your crop. Contact the Extension office for additional info.

Nursery Biological Control Conference

Stanton Gill, Landscape Nursery IPM Specialist
University of Maryland Extension

For June 30th, 2022, The University of Maryland Extension and MNLGA have organized a Biological Control Conference that will help you move forward with biological control in your nursery and landscape operation. On July 1 we will have a morning session with a live demonstration of using a commercial steam device to control weeds in nurseries. This part of the session on the second day, July 1st, will be hosted at Emory Knoll Nursery, in Street, Maryland.

This Biological Control Conference is being conducted

in cooperation with the Maryland Nursery, Greenhouse and Landscape Association (MNLGA). We are bringing in speakers from Maryland, across the country and from Canada to share information on practical biological control options. You will be able to register through MNLGA online registration. Registration is \$90 for members and \$140 for non-members. Register online at MNLGA.org. Select Biological Control event on the homepage calendar. For additional information, contact Stanton Gill, sgill@umd.edu, (410) 868-9400.

Farm Inputs Increase Faster Than Inflation Rate

Nate Bruce, Farm Business Management Specialist
University of Delaware

Inflation has been on the rise over the last year and shows no signs of stopping anytime soon. Just this Wednesday, the Federal Reserve raised its key short-term interest rate by a half percentage point. This is the largest interest rate hike since 2000 and could be a signal of more to come over the course of the year to curtail inflation. General inflation has had a drastic impact on farm input costs, in addition to many other factors (COVID-19, Ukraine-Russia, supply chain issues, etc.).

An interesting study done by the University of Illinois recently looked at the general price index of farm inputs and their relationship to inflation. They found that agricultural inputs rose at a rate of 15.6%, or more than double the general inflation rate, with input price changes for fertilizer products and energy being particularly high. Diesel prices increased by 47% in the last 12 months and fertilizer prices ranged from a 51% increase for diammonium phosphate, to a high of 179% for anhydrous ammonia. The study found the only input prices that increased at a rate lower of the general inflation rate were seeds and wages. It is critical to remember that each farm input used in production agriculture has its own sets of supply and demand functions as well. For example, natural gas is a major input required to produce both ammonia and urea fertilizers. Therefore, certain agricultural input prices have

increased at rates far quicker than others (particularly fertilizer products). Below are the percentage changes in farm input prices over the last 12 months from the Illinois study. The PCE deflator, or Personal Consumption Expenditure Deflator, is simply a measure of inflation based on changes in personal consumption.

Despite relatively high commodity prices, producer sentiment that input prices will continue to rise over the course of next year remains high. A University of Purdue study found 36% of survey respondents said they expect input prices to rise 10% or more from 2022 to 2023, with 21% expecting input prices to rise 20% or greater. It is impossible to know when and if things will become normal within the year or even the next couple of years. To make sure your farming operation is financially sound to withstand inflation, you need to be aware of all risks and pay attention to the amount of loan borrowing. It is also imperative to review budgets, and particularly understand the return value of all input costs on the operation.

The University of Illinois study:
<https://farmdocdaily.illinois.edu/2022/04/trends-in-general-inflation-and-farm-input-prices.html>

The University of Purdue study:
<https://www.purdue.edu/newsroom/releases/2022/Q2/producer-sentiment-improves-with-strengthened-commodity-prices,-but-high-cost-inflation-worries-farmers.html>

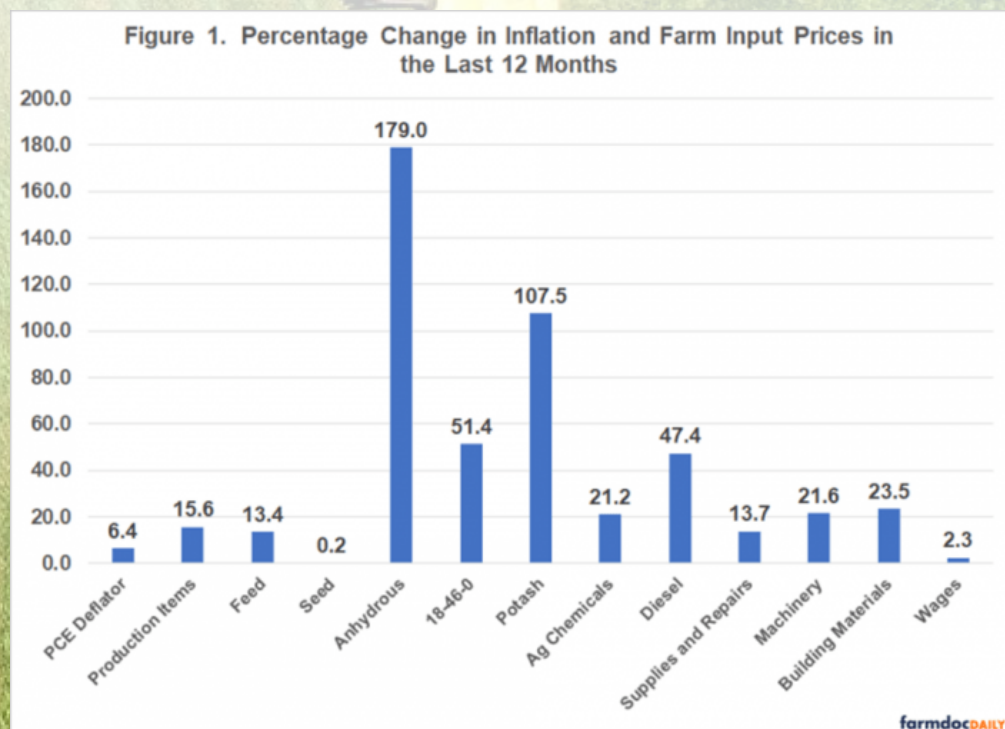


Figure 1. Percent change in inflation and farm prices in the last 12 months.

Troubleshooting Disease Symptoms in Wheat

Andrew Kness, Agriculture Agent
University of Maryland Extension, Harford County

This spring's abnormal weather patterns have led to some interesting symptom development in wheat. In my travels across the county and state and in conversations with colleagues in the area, several wheat fields have been exhibiting disease-like symptoms that are not readily attributed to any one disease.



B. Beale, Univ. of Maryland

Figure 1. Symptomatic wheat plants.

The symptoms include general yellowing of plants, yellow leaf tips, and/or flecking on the leaves (Figure 1). The flecking on the leaves is a symptom that can be caused by many different biotic and abiotic factors, but when entire fields are affected it is generally associated with a condition called physiological leaf fleck (Figure 2). Leaf flecking can be caused by periods of cloudy weather followed by bright, sunny weather, which we have certainly had this spring. However, similar symptoms can also be associated with viral infections and bacterial pathogens. Bacterial infections in wheat are not very common in our region; however, wheat samples in nearby Delaware tested positive for the bacterial wheat pathogen, *Clavibacter michiganensis* subsp. *tessellarius* (Cmt, Figure 3). Both physiological leaf fleck and *Clavibacter m. tessellarius* are believed to have little-to-no impact on yield.

A second disease that we are seeing associated with these yellowing leaf tip symptoms is Barley Yellow Dwarf Virus (BYDV) and Cereal Yellow Dwarf Virus (CYDV). Both viruses have similar disease cycles and are vectored by aphids, primarily in the fall. What is interesting is that BYDV symptoms are typically also associated with

bronzing of the leaf tips; however, these particular wheat samples did not exhibit these classic symptoms. Additionally, some plants that were exhibiting bronzing/purple leaf tips did not test positive for BYDV or any other viral pathogens, which leads me to this takeaway point—disease symptoms in wheat can be very tricky to decipher, especially when weather events complicate symptom expression. Wheat can be particularly sensitive to freeze, cold, and even sunny weather events in the spring, especially if weather

conditions fluctuate. In many cases, symptom expression in response to environmental stressors can mask, uncover, or mimic disease issues. Furthermore,



A. Kness, Univ. of Maryland

Figure 2. Symptoms of physiological leaf flecking.

disease symptoms are not always “textbook,” so relying on visual identification is not enough to properly diagnose problems.

Moving forward with wheat cultivation, it is important to keep this information in the back of your mind as you troubleshoot symptoms, and it is a good idea to utilize all the resources at your disposal, such as crop consultants, labs, and Extension professionals, to help diagnose problems.



J. Pollok, Univ. of Delaware

Figure 3. Wheat sample that tested positive for BYDV, CYDV, and Cmt.



Avian Flu Confirmed in Black Vultures

Maryland Department of Agriculture [press release](#), abridged

Federal laboratory testing confirmed cases of highly pathogenic H5N1 avian influenza (HPAI) in samples taken from black vultures initially found sick and dead on April 22 in Harford County, Maryland. Following an investigation by the Maryland Departments of Agriculture and Natural Resources (MDA, DNR) and the U.S. Department of Agriculture (USDA) Wildlife Services, the USDA National Veterinary Services Laboratory [confirmed samples submitted from the dead birds tested positive for HPAI](#).

These detections mark the Delmarva region's first confirmation of HPAI in wild birds since February 17, when the virus was found through wildlife surveillance in a [Canada goose in Kent County, Delaware](#).

HPAI is known to be carried by wild birds, especially waterfowl, raptors, and vultures. Avian influenza is a highly contagious airborne respiratory virus that spreads quickly among birds through nasal and eye secretions and manure. As scavengers, vultures will feed on dead wildlife, including other wild birds. If they ingest the virus, they can get sick and die. It is believed the vultures contracted the virus from eating infected migratory bird species.

Even with the ongoing detections of HPAI in poultry and wild birds in the United States, continuing testing of people in close contact with infected poultry indicates a low risk to the general public's health. This H5N1 virus has not shown an ability to infect and be transmitted between people. Avian influenza does not affect poultry meat or egg products, which remain safe to eat. Properly cooking poultry and eggs to 165 degrees Fahrenheit will kill viruses or bacteria.

Since the initial detection in Harford County, more than 100 black vultures have died from the disease. A total count cannot be confirmed because wild birds often get sick and die where people cannot see them. Black vultures are also known to fly long distances, which means infected vultures may die in other locations and transmit the virus to other birds, including poultry.

Six farms on Maryland's Eastern Shore and Delaware were identified as impacted by HPAI between [February 23](#) and [March 18, 2022](#). With the first confirmation in a commercial poultry farm, a state-federal response was initiated between the Delaware Department of Agriculture (DDA), MDA, and USDA.

Considering the ongoing detections in the black vulture population, all poultry owners need to continue with

increased vigilance in protecting their flocks from contracting avian influenza. Follow these steps to help manage wildlife and keep avian influenza off your farm:

Cover waste. Keep mortality and compost piles covered at all times. The recommendation is one part mortalities to two parts litter, with birds in layers no more than 5 inches deep and not placed next to sidewalls. Cover mortalities daily with litter. If vultures are still an issue, cover the bins with netting or a screen.

Remove standing water adjacent to poultry houses. Grade property to avoid pooling water. Fill or grade areas where water stands for more than 48 hours after heavy rainfall. Don't walk or move equipment through or near standing water – this could track wildlife fecal matter or other contaminants with the virus into your barns. Never use untreated surface water for watering birds, cleaning poultry barns, or other facilities.

Manage ponds and basins on poultry farms. Prune or remove plants from banks of artificial water structures. Use wire grids, predator decoys, and scare devices to keep waterfowl away. Use fencing to separate natural ponds from the active area around barns.

Secure buildings. Regularly check and repair damaged screens on windows and doors and holes in barn walls. Install netting or screens and use repellent gel or bird spikes to deter perching. Wash away or remove old nests before each nesting season. It is unlawful to remove nests with eggs or young birds in them.

Reduce food sources. Don't feed wildlife. Remove spilled or uneaten feed and ensure feed storage units are secure and free of holes. Wild birds can carry HPAI.

If you have sick poultry or experience increased mortality in your flock: commercial poultry producers should contact the company they grow for when they notice signs of disease. Backyard flock owners who notice any signs of HPAI in their flock should contact the MDA Animal Health Program at (410) 841-5810. Commercial chicken growers and backyard flock owners can email questions about the outbreak to Birdflu@maryland.gov.

If you see sick or dead wild birds, **do not handle or move** them. Report any sick wild birds. For assistance, call toll-free 1-877-463-6497. U.S. Department of Agriculture Wildlife Services operators are available from 8 a.m. to 4:30 p.m. Monday through Friday, except holidays.

For more information on avian influenza, visit <https://mda.maryland.gov/avianflu>.

Pesticide Container Recycling

Maryland Department of Agriculture [press release](#)



The Maryland Department of Agriculture's (MDA) Pesticide Regulation Section has announced the 2022 dates and drop-off locations for its Pesticide Container Recycling Program.

On certain days from June through September farmers, pesticide applicators, and other users can recycle used plastic pesticide containers at no cost at locations in Frederick, Harford, Kent, Montgomery, Talbot, Washington, and Wicomico counties.

For the past 29 years, MDA's Pesticide Container Recycling Program has helped prevent pesticide residues from entering Maryland soil and waterways, saving valuable landfill space by recycling more than 1 million containers. This year marks the 30th anniversary of the program for Maryland farmers, pesticide applicators and others to safely dispose of containers. A total of 28 collection days are scheduled from June through September 2022 at seven locations throughout the state. Those participating are asked to properly rinse their empty pesticide containers.

"This recycling program protects the environment from possible contamination and gives producers and others an easy and free way to dispose of pesticide containers," said Agriculture Secretary Joe Bartenfelder. "We are very

pleased with the response by farmers, commercial agricultural pesticide applicators and other pesticide users to this program."

In addition to removing potential contaminants through proper disposal, the program provides a source of recycled material for vendors.

The pesticide container recycling program is free and open to all agricultural producers and pesticide applicators. The Agricultural Container Recycling Council provides a contractor to pick-up and process the plastic containers. "We are especially pleased with the cooperative effort of the Agricultural Container Recycling Council and Ag Plastic Solutions, Inc., which makes local recycling and special pick up for large quantities possible, providing a convenient and much cheaper alternative to landfill disposal," said Secretary Bartenfelder. "With continued cooperation among the participating groups, farmers and pesticide applicators, the program will continue to be successful and will protect the natural resources of the state."

Maryland's Pesticide Container Recycling Program is a combined effort of state, county, and federal agencies, and the private industry working together to protect the environment.

A schedule of 2022 collection dates and locations is available on the department's [website](#). For additional information, or to schedule a chipping date at your site, please contact the Pesticide Regulation Section at (410) 841-5710.

Harford County Collection Sites:

Scarboro Landfill

Dates: June 3, July 1, August 5, September 2. 9-3pm.

The Mill of Black Horse

Dates: June 1-September 30 during business hours. Must be current customer

Great resources are just a click away!

Andrew Kness
Extension Agent,
Agriculture and
Food Systems



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Back-issues can be found at: <https://extension.umd.edu/locations/harford-county/agriculture-and-nutrient-management>



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Ag Notes

Harford County Newsletter

Dates to remember

- 14 Jun.** Beef Webinar: Interpreting Forage Analysis. 7:30-8:30 PM. Online via Zoom. Free. Register [online](#).
- 15 Jun.** [Webinar: Aquatic Plant Management in Ponds](#). 12 noon. Online via Zoom. Free. Register [online](#).

28 Jun. [Kicking the Hay Habit](#). 6-8 PM. Equine Rotational Grazing Demo Site, Ellicott City. Free. Register [online](#) or call (301) 405-1547.



Do you have noxious or invasive weeds on your property?

Harford County's Weed Control Program can help you manage them.

Call Randy Faber at (410) 638-3018 or (240) 755-9280.

June 2022