

# Ag Notes

## Harford County Newsletter

UNIVERSITY OF  
MARYLAND  
EXTENSION

June 2025



June is National Dairy month—Be sure to hit the [Maryland Ice Cream Trial!](#)

University of  
Maryland Extension

Harford County  
Agricultural Center

Suite 600

3525 Conowingo Rd.

Street, MD 21154

(410) 638-3255

M—F 8:00 a.m.—4:30 p.m.

[Extension.umd.edu/harford-county](http://Extension.umd.edu/harford-county)

[facebook.com/HarfordAg](https://facebook.com/HarfordAg)

Andrew Kness

Ag Extension Educator

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

### INSIDE THIS ISSUE:

New Heat Illness  
Prevention Standard 2

Agrivoltaics Survey 3

Commodity Classic 3

New Dean of AGNR 4

Optimizing Drying for  
Hay and Baleage 5

Early-Season Soybean  
Pests 6

Harford Legacy Farms 7

## Hello, Harford County!

They say April showers bring May flowers—but we seem to be getting a lot of May showers here lately and unusually cool temperatures.

May 2025 brought notably cooler temperatures to Harford County, deviating from the typical spring warmth. The average high temperature in May for Harford County is around 75°F, with average lows near 53°F. However, during the latter part of May, a rare nor'easter impacted the Mid-Atlantic region. This storm, occurring from May 21 to 23, brought heavy rain, strong winds, and significantly cooler temperatures. Daytime highs in some areas struggled to reach 50°F and lows dipped into the 40s with wind gusts reaching 60 mph. Now that the majority of the 2025 crop is in the ground, heat would be welcome to get things growing.

The recent rains have been an inconvenience for anyone trying to make dry hay, but the water is needed. Despite recent rains, we are still in a moderate drought. However, drought conditions are

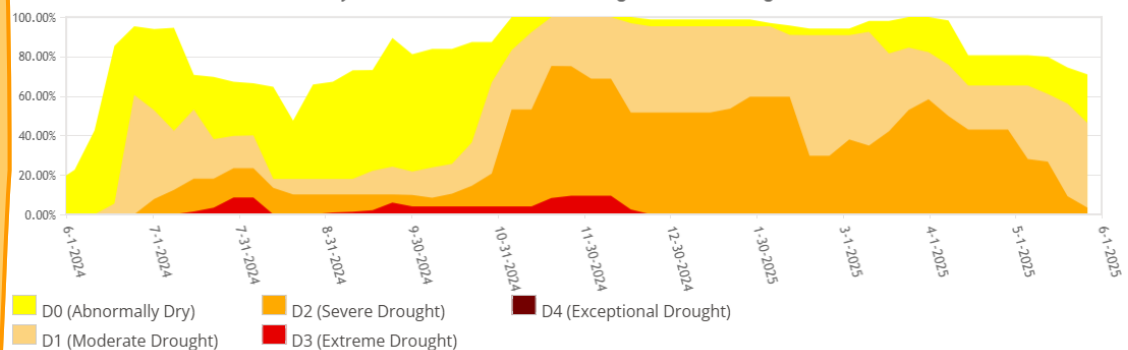
improving as seen in the graph below. Since roughly April 1, we have seen a slow but steady decline in drought conditions across the state, and according to the NOAA Climate Prediction Center, the long term forecast for our region is for continued drought improvement. Unfortunately, drought will continue to persist in many parts of the Mid-West and Plains, which will likely continue to suppress US cattle numbers and beef production; although, this will continue to sustain higher beef prices in the market. The current US cattle herd is at its lowest inventory level since 1951. The discovery of the New World Screwworm in Mexico will also impact cattle imports and lead to even lower domestic inventory.

As usual, mother nature always makes farming interesting.

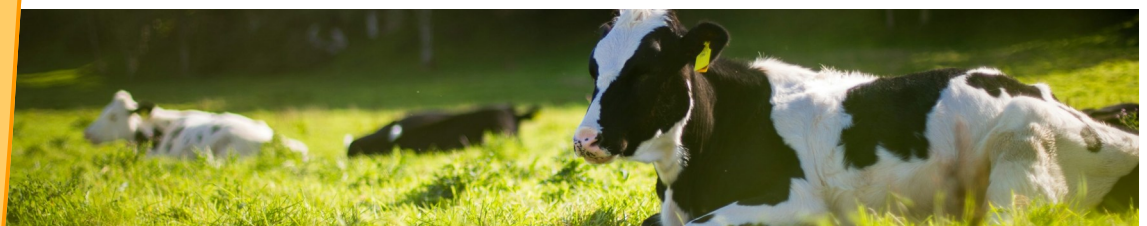
I hope you had an enjoyable Memorial Day and took time to remember and reflect on our fallen service members.

Until next time,  
-Andy

Maryland Percent Area in U.S. Drought Monitor Categories



From the U.S. Drought Monitor website, <https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx>, 5-30-2025



Nicole Cook, Environmental & Agricultural Legal Specialist  
University of Maryland Agriculture Law Education Initiative

Reposted from the [Ag Risk Management Blog](#). This article is not a substitute for legal advice.

The Maryland Occupational Safety and Health (MOSH) Division of Labor and Industry published its new [Heat Illness Prevention Standard](#) as a final regulation on September 20, 2024. This new workplace safety regulation went into effect just 10 days later, on September 30, 2024. The new standard—found in COMAR 09.12.32—applies to all workplaces where the heat index reaches 80 degrees Fahrenheit or higher, regardless of whether the work is indoors or outdoors. This includes farms.

### Who Must Comply?

The regulation covers most Maryland employers, including those in agriculture. The rule does not apply to emergency operations (e.g., first responders or utility providers), incidental heat exposures of less than 15 consecutive minutes per hour, or situations where mechanical ventilation or fans keep the heat index below 80 degrees Fahrenheit.

### What Must Employers Do?

Employers whose workers are regularly exposed to heat must now monitor the heat index throughout the work shift using approved methods. In buildings or structures without mechanical ventilation, employers must measure both temperature and humidity at the actual worksite to calculate the heat index accurately.

If workers are exposed to heat index levels of 80°F or above, employers must implement an already-prepared, written, compliant Heat Illness Prevention and Management Plan. The written plan must be made available and accessible to employees and to MOSH upon request. The plan must be specific to your work place (meaning it cannot be a generic plan), and it must include, among other things:

- Providing easy access to sufficient cool, potable drinking water—at least 32 ounces per employee, per hour per work day;
- Clear methods for encouraging and allowing employees to hydrate regularly;

- Training to help workers and supervisors monitor for and recognize symptoms of heat-related illnesses such as heat exhaustion and heat stroke;
- Plans for providing compliant shaded or cool, climate-controlled rest breaks as needed to prevent illness;
- A compliant, structured heat acclimatization process for new or returning workers over a period of up to 14 days; and
- Ongoing education and annual re-training for all employees, including training on the risks of heat illness and the specifics of the heat illness prevention plan, and additional training for supervisors on how to respond to heat illness symptoms.

### Additional Protections at Higher Temperatures

Once the heat index reaches 90°F, additional safety measures must be taken. This includes more frequent monitoring, especially if temperatures are expected to rise significantly or when workers are in high radiant heat areas or wearing heat-restrictive clothing. In addition,

- Workers must receive a minimum 10-minute cooled rest break every 2 hours; and
- If the heat index climbs above 100°F, that rest time increases to 15 minutes every hour.

Also, employers must implement a hierarchy of control measures to reduce the risk of heat illness, including:

- Engineering Controls: Use air conditioning, fans, ventilation, and other methods to reduce temperature and heat index.
- Administrative Controls: Adjust work schedules, rotate employees, and reduce work intensity during peak heat periods.
- Personal Protective Equipment: Use cooling garments or other personal protective equipment as a last resort if other controls are insufficient.

Importantly, all procedures and training must be provided in a format and language that employees can understand.

### Emergency Preparedness and Re-Training

Employers are also required to develop emergency





3 response procedures as part of their heat illness prevention plans. These procedures are intended to ensure prompt and effective action if a worker shows signs of heat illness.

In cases where a suspected or confirmed heat illness occurs on the job, the regulation mandates retraining for all relevant employees and supervisors. At a minimum, refresher training must be conducted once per year.

### Resources and Staying Informed

If you haven't already, you should review the new requirements, evaluate your methods for monitoring heat in both indoor and outdoor work settings, develop

your heat illness prevention plan, and provide training to your employees to ensure compliance.

To support employers and workers in meeting these new requirements, MOSH issued [information and guidance](#), which includes heat standards and education from other OSHA state plans, such as California, Oregon, and Washington.

MOSH is developing additional resources and guidance documents. Anyone interested in receiving updates can subscribe through the MOSH homepage by submitting their email on the MOSH Subscription Form.

## Agrivoltaics Survey

*Jennifer Morash, Postdoctoral Associate  
University of Maryland, Department of Environmental Science and Technology*

In an effort to explore ways to meet clean energy goals while preserving farmland, the University of Maryland is gathering input on **how Marylanders view solar development on agricultural land**. In addition to general perceptions of solar power, we're interested in local perceptions of agrivoltaics, the practice of combining solar energy production with agricultural activities on the same piece of land. To help us understand local priorities and inform balanced, community-centered solutions, we're asking Marylanders to complete a 10-minute survey.

We greatly appreciate your anticipated participation in the [Maryland Agrivoltaics Survey](#). Participants who complete the survey are eligible to enter a raffle for a chance to win one of seven \$200 Amazon gift cards. After you complete the survey, please be sure to forward the survey link (found below) to family, friends, neighbors and colleagues.

[https://umdsurvey.umd.edu/jfe/form/SV\\_2u8Hm0XpoBtKVme](https://umdsurvey.umd.edu/jfe/form/SV_2u8Hm0XpoBtKVme)

Email [jmorash@umd.edu](mailto:jmorash@umd.edu) if you have any questions or comments about the survey or study.



**JULY 24TH | ALL DAY**

CHECK-OFF FUNDED GRANTS  
NETWORKING | RECOGNITION  
CRAB FEAST & BBQ



**MARYLAND  
GRAIN PRODUCERS  
UTILIZATION BOARD**

**QUEEN ANNE'S COUNTY 4-H PARK  
CENTREVILLE, MD 21617**

**REGISTER HERE**

*Agrivoltaics*



The University of Maryland has named Wendy Powers as Dean of the College of Agriculture and Natural Resources (AGNR), effective July 1, 2025. As Dean, Powers will build on the college's more than 150-year history to promote a culture of impactful scholarship and student success, advancing opportunities for interdisciplinary research and educational partnerships that support the university's land-grant mission.

Powers will work with faculty, staff and students across the college to advance its strategic commitments to serve the public good, steward a healthy planet, feed and nourish communities and build a sustainable tomorrow, serving the state of Maryland and beyond. As dean, Powers will also serve as director of the Agricultural Experiment Station and University of Maryland Extension (UME). With four major program areas—Agriculture and Food Systems; Environment, Natural Resources and Sea Grant; 4-H Youth Development; and Family and Consumer Sciences—UME provides Maryland residents grassroots-level support in their communities, on their fields and in their homes. UME has offices in every Maryland county and Baltimore City, and four research and education centers across the state.

"Dr. Powers possesses an exceptional track record in leading agricultural colleges to achieve remarkable success in fulfilling their core mission of serving communities," said Senior Vice President and Provost Jennifer King Rice. "I am confident that her leadership will bring similar success to the University of Maryland, propelling the College of Agriculture and Natural Resources into its next phase of excellence."

Powers joins UMD from Washington State University

(WSU), where she serves as the inaugural Cashup Davis Family Endowed Dean of the College of Agricultural, Human, and Natural Resource Sciences. In this role, Powers leads the college's 13 departments and schools, serving more than 2,500 undergraduate and graduate students, and the WSU Extension, which has more than 40 offices and four research and extension centers across the state.

"I am thrilled to join the University of Maryland, one of the most prestigious land-grant research universities in the nation, to build upon more than a century of work to serve the public good," said Powers. "I look forward to collaborating with communities on campus and beyond to build new and innovative opportunities for students, faculty and staff to the benefit of the people of Maryland and around the world."

As Dean, Powers led the development of a new vision for the college in support of its land-grant mission, emphasizing the university's role in building a more resilient state and highlighting the college's societal impacts. During her time at WSU, the college has consistently secured more than \$20 million annually in gifts and foundation funds, and exceeded \$100 million in grant expenditures for the first time. The college also grew its national ranking from No. 15 to No. 12.

Prior to WSU, Powers served as associate vice president for the Division of Agriculture and Natural Resources at the University of California, where she led academic, research and outreach programs, overseeing county-based cooperative extension outreach, 12 statewide programs and institutes, and nine research and extension centers across California.

Powers began her career at Iowa State University as an assistant professor and extension specialist. She then joined Michigan State University as a full professor in the departments of Animal Science, and Biosystems and Agricultural Engineering, extension specialist, and director of environmental stewardship for animal agriculture in the College of Agriculture and Natural Resources. She was the first director of the Agriculture and Agribusiness Institute for Michigan State University Extension.

She has served in national leadership positions throughout her career, in professional societies, and on technical committees to develop policy guidance. Her scholarship is centered around reducing environmental impacts of the livestock industry.

Powers holds a B.S. in animal science from Cornell University, and an M.S. in dairy science and Ph.D. in animal science from the University of Florida.



# Optimizing Drying For Hay and Baleage

Amanda Grev, Pasture & Forage Specialist  
University of Maryland Extension

Forage

Along with making corn and soybean planting a challenge, spring rains can make for a challenging forage harvest as well. The faster we can get our hay or baleage dry enough to bale or wrap, the more we can reduce the risk of rain damage and retain a higher-quality end product. Follow these guidelines to help optimize drying time during forage harvest this spring.

## The Forage Drying Process

Let's think for a moment about the basic principles behind forage drying. When forage is cut, it is typically around 75 to 85% moisture, but it must be dried down to 40 to 60% moisture for baleage or 14 to 18% moisture for dry hay. During this wilting and drying process, plants continue the natural process of respiration, breaking down stored sugars to create energy and carbon dioxide. The longer it takes the forage to dry, the longer the forage continues to respire in the field. Data suggests that 2 to 8% of the dry matter may be lost due to respiration, resulting in energy losses and an overall reduction in forage quality. This means that a faster drying time will not only get the forage off the field faster but will also lower the amount of dry matter and nutrients lost through respiration.

The drying process happens in several distinct phases; knowing and understanding these phases can help us manage our forage in a way that will maximize drying rates and ensure nutrient retention within the harvested forage.

### Phase One: Moisture Loss via Stomatal Openings

The first phase in the drying process is moisture loss from the leaves. This happens through the stomata, which are the openings in the leaf surface that allow for moisture and gas exchange between the leaf and the atmosphere. In most plants, stomata are open in daylight and closed at night. After a plant is cut, respiration through these stomata continues but gradually declines until the moisture content has fallen below 60%. Rapid drying in this initial phase to lose the first 15 to 20% moisture will reduce loss of starch and sugar and preserve more dry matter (yield) and total digestible nutrients in the harvested forage.

Solar radiation is the biggest driver for maximizing drying during this initial phase. This can be accomplished by using a wide swath (at least 60% of the cut area), which

will reduce the density of the forage swath and maximize the amount of forage exposed to sunlight. A wider swath will increase the swath temperature, reduce the swath humidity, and keep the stomata open to allow for moisture loss, encouraging rapid and more even drying immediately after cutting. In contrast, narrow swaths will have higher humidity and less drying, allowing respiration to continue and leading to further dry matter and nutrient losses. Wide swaths also help keep the crop off of wet soil more than narrow swaths, since narrow swaths are heavier and tend to settle through the stubble and make contact with the ground.

Research has shown that a wide swath immediately after cutting is the single most important factor in maximizing the initial drying rate and preserving digestible dry matter. To reduce soil moisture, some will cut their hay in a narrow swath and allow the ground to dry before tedding. However, research indicates that valuable drying time is lost while allowing the ground to dry, so this practice is not recommended. A full-width swath will increase the drying surface of the swath by 2.8 times, and moisture reductions from 85 to 60% can be reached in as little as 5 to 7 hours. Baleage from wide swaths has been shown to have lower respiration losses during drying, greater total digestible nutrients, and more lactic and acetic acid, improving forage quality and fermentation.

During this phase, a wide swath is more important than conditioning, as most of the respiration takes place in the leaves. While conditioning is important for drying stems, it has less impact on drying leaves and therefore will have little effect on this initial moisture loss. This means that for baleage, a wide swath may be more important than conditioning.

The second phase in the drying process includes moisture loss from the stems in addition to the leaves. Once moisture levels have dropped to the point where plant respiration ceases, the closing of the stomata traps the remaining moisture, slowing further drying. Loss of moisture from the stems is a much slower process because stems have a lower surface to volume ratio, fewer stomata, and a semi-impervious waxy cuticle that minimizes water loss. At

*Continue on page 7*



## Early Season Soybean Pests

Hayden Schug, Agriculture Extension Agent  
University of Maryland Extension, Charles County

As soybean planting gets underway across Maryland, it's important to watch for early-season pests that can impact stand establishment and ultimately yield potential.

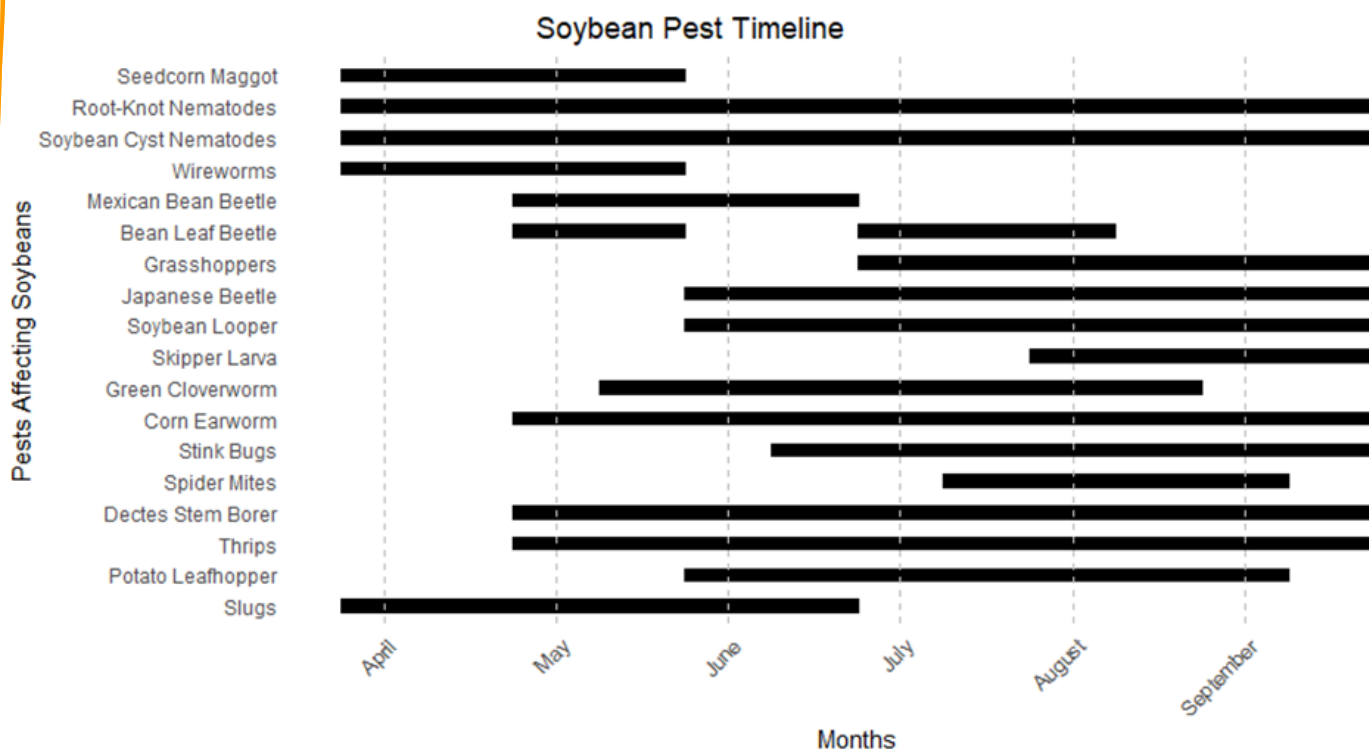
**Seedcorn maggots** are a common problem in freshly tilled fields, especially those with high organic matter or recent manure applications. Maggot feeding can destroy the sprouting seed, leading to weak stands or gaps in rows. An insecticide seed treatment containing neonicotinoids (such as thiamethoxam or clothianidin) can protect against seedcorn maggot. Additionally, monitoring soil temperatures and avoiding planting into cool, wet soils can help minimize risk.

**Slugs** are another concern in no-till and cover-cropped fields. They thrive in moist, heavy residue environments and can cause heavy feeding injury to cotyledons, stems, and young leaves. Good furrow closure at planting is critical, open seed furrows can create a pathway for slugs to reach seeds and seedlings before emergence. Slug baits containing

iron phosphate or metaldehyde can be applied if damage is severe, but results are often variable. Managing residue to reduce slug habitat and scouting early are important preventative steps.

**Bean leaf beetles** may also move into emerging soybeans, feeding on cotyledons and early leaves. While light feeding typically does not justify treatment, heavy populations can reduce stands. Insecticide seed treatments should provide adequate protection, however, if high populations persist, foliar insecticide applications labeled for bean leaf beetle, such as pyrethroids, can be used if defoliation thresholds, 30% for vegetative growth, are met.

Timely scouting is critical. Examine plants as they emerge, especially in fields with a history of early pest issues, cover crops, or heavy residue. Focus on stand counts and visible injury, and determine if replanting or other action is needed based on stand loss and defoliation thresholds. A pest timeline for common soybean insect pests is found in the figure attached.





**7** this stage, conditioning can help increase the drying rate because it provides openings within the plant's structure, breaking the waxy cuticle, providing an exit path for moisture, and allowing drying to continue at a faster rate. For maximum effectiveness, be sure the conditioner is adjusted properly. Forage is considered properly conditioned if the stems of legumes are scraped or broken every 2 to 4 inches and less than 5% of the leaves are bruised. In general, roller conditioners are best suited for alfalfa or alfalfa/grass mixtures, while flail conditioners work best for grasses.

## Additional Factors

In addition to swath width and conditioning, several other strategies can be used to improve drying time. Be sure to mow forages at the proper height, leaving 2 to 3 inches of residual for alfalfa and 4 inches for cool-season grasses. Not only will this result in improved stand persistence, earlier regrowth, and sooner subsequent cuttings, but the stubble will help to elevate the swath, breaking contact from the ground, reducing moisture wicking from the soil, and promoting better air flow for drying.

If possible, mow earlier in the day, preferably around mid-to late-morning after the dew has dried off. Although it is true that cutting later in the day can result in greater concentrations of sugars and starches in the forage at the time of cutting, increased respiratory losses overnight and a longer total drying time may offset this potential benefit with afternoon cuttings. Research in high-moisture environments has not found any forage quality advantage with afternoon cutting. Instead, mowing earlier in the day will allow for a

full day of drying right away, maximizing exposure to sunlight and resulting in a faster drop in moisture and reduced respiration.

And finally, be sure to rake or merge forage at the right time and adjust your rake properly. Raking the forage while it is still pliable helps to reduce leaf loss and maintain forage quality; legumes like alfalfa and clover should be raked when the forage is above 40% moisture, and grasses should be raked above 25% moisture. Rakes should be adjusted to minimize soil contact, as soil incorporation into the windrow leads to increased ash contamination. Research has found that for every 1% increase in ash content, there is a 1% decrease in total digestible nutrients.

In conclusion, mowing at the proper height, using an appropriate and correctly adjusted conditioner, raking at the right time with a properly adjusted rake, and utilizing wide swaths to take advantage of sunlight are key to both faster drying and preserving digestible dry matter. Remember, a wide swath enhances leaf drying while conditioning expedites stem drying; both are needed to make high-quality hay.

Why is 100 years of family ownership something worth celebrating? The answer is simple. Because it's hard.

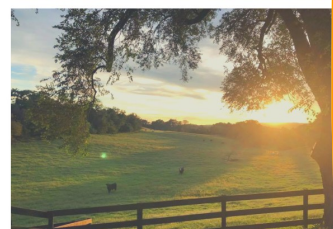
## Harford Legacy Farm

Join the 65 farms already designated by self-nominating your property as a Legacy Farms on the basis of the following three criteria.

- Continuously owned by the same family for 100 years or more
- At least 10 acres of the original purchase
- Actively farmed

New Legacy Farms will be recognized at the Harford Farm Bureau dinner in November.

Contact Nina Depkin for a survey or for more information  
ndepkin@harfordlandtrust.org



*Great resources are just a click away!*

*Andrew Kness*

Andrew Kness  
Senior Extension Agent,  
Agriculture and  
Food Systems



Like us on  
**Facebook**

[facebook.com/HarfordAg](https://facebook.com/HarfordAg)



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



UNIVERSITY OF  
MARYLAND  
EXTENSION  
Suite 600  
3525 Conowingo Rd.  
Street, MD 21154

# Ag Notes

Harford County Newsletter

## Dates to remember

- 12 Jun.** Pasture Walk. Central MD Research & Education Center, Ellicott City, MD. 6-8 PM. Register [online](#) or call (301) 405-1547.
- 21 Jun.** Harford County Farm Bureau Picnic. Contact Alice Archer for details: (410) 836-7773, harfordfb@gmail.com.
- 19-26 Jul.** Harford County Farm Fair.

### AG PLASTIC RECYCLING @ HWDC

All plastics should be as clean as possible and stored under cover to minimize moisture. Farms should separate plastic by type. All types of Ag Plastics are received in Supersacks that are provided by Office of Recycling. Harford County farms only.



#### ACCEPTABLE ITEMS-FREE DROP OFF

Bale Wrap- Debris-Free  
Black and White Silage Bags/Bunker Covers(without Plastic Baler Twine)  
Woven Plastic Feed Bags & Supersacks #4  
Softener Salt & Pellet Stove Bags #4  
Animal Feed Bags #4  
Plastic Baler Twine  
Greenhouse Cover  
Drip Tape  
Flats, Trays, & Flower Pots  
Clear Stretch Film  
Plastic Pallets



TO SCHEDULE A DROP OFF PLEASE CALL

410-638-3417



# June 2025