

University of Maryland Extension

Harford County Agricultural Center

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INSIDE THIS ISSUE:

Farmland Rental Rates	2
Maryland Agriculture Reporting Tool	3
Updated Neo-P Recommendations in Strawberries	4
Parasite Management Workshop	5
Northern Maryland Field Crops Day	6
UMD Identifies Gene Controlling Wheat Yield	6
Corn Hybrid Trial Results	7
Young Farmer Program	7

Hello, Harford County!

As we close in on the end of the growing season, this is your annual reminder to check your pesticide and nutrient management certifications for renewal. If your private applicator license expires in December of 2025, you should get a notice from the Maryland Department of Agriculture (MDA) in the next few weeks to log into the MDA system to renew your license. As a reminder, you need four (4) credits every three years to renew your license, which is equal to two hours of instruction. If you need credits, don't forget to attend one of our winter meetings! I listed a few of our local meetings in the table below. Also note that if your license expires on December 31 and you don't have credits, you will have a grace period until the end of April 2026 to obtain credits before your license lapses.

November 2025

The Extension office will be closed on November 11 for Veterans Day and November 27-28 for Thanksgiving

Similarly, if you need to renew your nutrient applicator voucher, you will need two-hours worth of nutrient management training during your three-year voucher period.

If you have any questions regarding pesticide or nutrient management certification, please reach out to me.

We will also be closed on November 11 in observance of Veterans Day—we owe great thanks to all who have served our great country, thank you. Have a safe and enjoyable Thanksgiving!

Until next time,
-Andy

	Upcoming Programs for Pesticide & Nutrient Management Credits		
16%	Date & Time	Program	Location
1	November 13, 2025 9:00-11:00 am	Private Applicator Exam (for new applicators)	Harford County Extension Office
	November 13, 2025 1:00-3:00 pm	Private Applicator Recertification Training	Harford County Extension Office
	December 3, 2025 8:00-12:30 pm	Northern Maryland Field Crops Day*	Hereford Fire Hall
	January 21, 2026 8:00-12:30 pm	Central Maryland Vegetable Growers Day*	Hereford Fire Hall
	February 17, 2026 8:30-2:30 pm	Harford County Mid-Winter Agronomy Meeting*	Deer Creek Overlook
	February 25, 2026 10-12:00 pm	Nutrient Management Voucher Training	Harford County Extension Office
	March 12, 2026 9:00-11:00 am	Private Applicator Exam (for new applicators)	Harford County Extension Office
	March 12, 2026 1:00-3:00 pm	Private Applicator Recertification Training	Harford County Extension Office
A	*Satisfies training requirements for BOTH pesticide and nutrient management		

2025 County Rental Rates Now Available

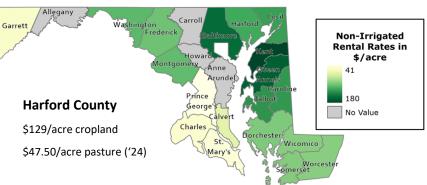
Elizabeth Thilmany, Affiliated Faculty Specialist University of Maryland Agriculture Law Education Initiative

Cash rent lease agreements continue to be the most common type of agricultural lease agreements in Maryland, offering a fixed annual payment per acre and relieving landowners of operating and marketing decisions. Each year, USDA's National Agricultural Statistics Service (NASS) estimates average cash rental rates per acre for irrigated cropland, nonirrigated cropland, and pastureland at the county and state levels based on farm-level survey data. For more information on the NASS Cash Rents Survey, visit https://www.nass.usda.gov/ Surveys/Guide to NASS Surveys/ Cash Rents by County/.

For 2025, the University of Maryland has updated our Maryland Agricultural Cash Rental Rates Report to provide Maryland-specific insights into these rental rates, supporting producers, landowners, and other stakeholders in making informed leasing and land management decisions. The 2025 report includes rental rate data for non-irrigated cropland, irrigated cropland, and pastureland, organized by county and agricultural regions.

Updates in the 2025 Report

- Updated trend graphs: Visualizations with trendlines show how rental rates have shifted over time, offering a clear picture of recent changes in Maryland's cropland and pastureland values.
- County breakdowns: Detailed rental rate tables highlight variations across counties and agricultural regions.
- Static maps: 2025 maps illustrate county-level rental rates for non-irrigated cropland and pastureland, allowing producers to quickly compare rental conditions statewide.



Insights from this year's data

- The Upper Eastern Shore continues to report the highest non-irrigated and irrigated rental rates, reflecting strong demand and productivity.
- Southern Maryland and Western Maryland (mainly Garrett County) remain the regions with the lowest rental rates.

Accessing the Report

The full 2025 report and downloadable data files are available here: https://go.umd.edu/rentalrate.

Rental rate data will also be integrated into the Maryland Grain Budget Planner (go.umd.edu/efmd) in the coming weeks. Developed by the Elevating Farm Management Data team, this free, web-based tool combines crop budgeting with grain marketing analysis. Producers can use it to:

- Track trends, project expenses, and benchmark profitability.
- Customize inputs to fit their operation.
- Provide feedback to improve future versions of the tool.

Maryland Agriculture Reporting Tool (MART)

University of Maryland Extension press release

The University of Maryland Extension, along with state and local partners, is excited to introduce the Maryland Agriculture Reporting Tool (MART). This free, secure online platform is designed to simplify recordkeeping, improve decision-making, and help Maryland farm producers meet both state and federal reporting requirements. MART can be accessed at https://mdagreporting.org/.

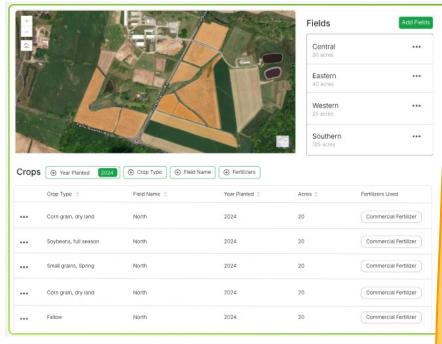
Traditionally, many small- to mediumsized farm producers have depended on paper forms or Excel spreadsheets to track crops, nutrient applications, and harvest data across multiple farms. This method can be tedious and timeconsuming—especially when calculating totals or preparing compliance reports. MART offers a streamlined, secure alternative that consolidates all this information in one place.

What MART Offers

- Spatially Enabled Farm Profiles: After creating a farm profile, users can visualize and manage farm fields spatially. This allows easy tracking of acreage, crop types, harvest amounts, and nutrient applications.
- Secure Accounts: Each account is passwordprotected and role-based, enabling producers and managers to collaborate securely.
- Automated Totals and Dashboards: MART automatically calculates totals at the farm and operation levels, displaying them in user-friendly dashboards and charts to support long-term decision -making.
- Report-Ready Tables: Data is formatted to align with Maryland's Annual Implementation Report (AIR), making compliance quicker and simpler.

MART was initially designed for grain crop producers and tailored to their reporting needs. However, the development team is exploring the possibility of

expanding to include additional commodities and production systems in the future. By improving how data is recorded and visualized, MART can save time, reduce errors, and help farmers make data-driven decisions about their operations. It also supports agencies and conservation partners with accurate, timely information they can use to assist farmers with short- and long-term planning.



Partnership

MART is a collaborative partnership between these state and local partners: University of Maryland Extension, Rural Maryland Council, Rural Maryland Prosperity Investment Fund, Eastern Shore Regional GIS cooperative, Mid-Shore Regional Council, Tri-County Council for the Lower Eastern Shore, Tri-County Council for Southern Maryland, Tri-County Council for Western Maryland, and the Upper Shore Regional Council.

Visit https://mdagreporting.org/ to explore MART or contact the University of Maryland Extension – Talbot County for more information about training sessions and upcoming features.



Updated Neo-P Recommendations

Bill Kline, Small Fruit Extension Pathologist North Carolina State Extension

Whether Neopestalotiopsis (Neopest/Neo-P) will harm your strawberries this season depends on many factors – including the quality of the transplants, the cultivar, sanitation practices, soil inoculum levels, weather conditions, and the fungicides you use. Below, we discuss aggressive chemical options for fields with recent Neopest infestations, or if transplants arrive with symptoms. In fields that have NOT had Neopest problems in the last two years and were planted with symptom-free plants (and no word from the nursery that there were issues) these aggressive options do not need to be applied. In that case, broad-spectrum fungicides like thiram or captan can be applied as needed or at 10- to 14-day intervals.

This article focuses on chemical management options for fields affected by Neopest last year and for fields now being planted with Neopest-contaminated transplants. These options include fungicides with proven effectiveness against Neopest, such as thiram, fludioxonil (found in Switch, Alterity, Miravis Prime), and the DMI fungicides propiconazole (Tilt, Topaz, Propi-Star), difenoconazole (Inspire, Inspire Super), and flutriafol (Rhyme). Here are some key points to consider:

- 1. Spray fungicides every 10-14 days when weather conditions are dry, and when conditions are wet, your spray program should be tightened to include a fungicide application every 7-10 days.
- 2. One can apply four applications of Switch (or any of the labeled generics such as Alterity) per crop cycle if applied at the full rate of 15 fl oz per acre. If you use the lower rate (11 fl oz per acre), you may apply it five times. Most, if not all, of those applications should be reserved for spring or early summer for fruit rot prevention. And no, you cannot

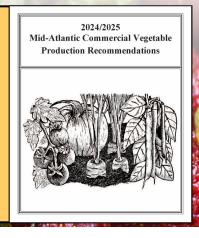
- legally use four more applications of Miravis Prime after reaching the maximum number allowed under the Switch label restrictions.
- Thiram solo applications should form the backbone of your spray program to maintain low inoculum levels. It is an effective material against Neopest and Botrytis.
- 4. Before an infection event (significant rainfall at temperatures over 70°F), spray a mixture of Thiram with a demethylation inhibitor (DMI) fungicide. Research has shown that propiconazole (Tilt, PropiStar, etc.) can be applied once to planted plugs without affecting plant growth, but this fungicide should not be applied multiple times in a row, as this may cause slight stunting over the course of the season. There is no data on cut-offs, but they may be more vulnerable to propiconazole stunting as compared to plug plants. For cut-offs, we recommend flutriafol (Rhyme) or difenoconazole (Inspire and Inspire Super), which have not shown any inhibition of plant growth on transplants.

Fall application recommendations:

- First three weeks after planting and during lowdisease-pressure situations: Thiram SC at 2 to 2.5 qts per acre OR Thiram SC at 2.5 qts PLUS Rhyme at 7 fl oz (if you must apply a mixture during early plant establishment)
- After three weeks and before high-disease-pressure situations: Thiram SC at 2.5 qts PLUS Rhyme at 7 fl oz OR Inspire at labeled rates followed by (if highpressure situation persists) Thiram SC at 2.5 qts PLUS Tilt at label rates (use Rhyme at 7 fl oz if you planted cut offs) followed by (if high-pressure situation persists) Thiram SC at 2.5 qts PLUS Switch at 11 fl oz.



Prepare for the 2026 growing season by getting a copy of the *Mid-Atlantic Commercial Vegetable Production Recommendations*, a comprehensive production guide for all things vegetable related in our region. Recommendations are written and reviewed by University specialists from Mid-Atlantic Extension services. Copies are available on our website or print copies are available for purchase by calling the Extension office.



Parasite Management Workshop

Amanda Grev, Pasture & Forage Specialist University of Maryland Extension

University of Maryland Extension invites grazers, livestock owners, and associated industry personnel to attend an upcoming parasite management workshop this fall.

The parasite management workshop will be held on **November 8, 2025** at the Western Maryland Research and Education Center in Keedysville, MD from 9:00 AM to 3:30 PM. The workshop will include a mix of classroom and hands-on activities and will provide a comprehensive overview of the basics of parasite management. Topics covered will include an overview of common parasites, managing dewormer resistance, fecal collection and fecal egg counts, putting together a deworming kit, minimizing parasites on pasture, calculating dosages and drenching, body condition scoring, and FAMACHA® scoring.

Participants will have the option to earn their FAMACHA© certification from a certified FAMACHA© instructor (via the American Consortium for Small Ruminant Parasite Control) and receive an official FAMACHA© score card at the event. Certification will be available to the first 25 people who request certification when registering for the event.

Registration for this event is required, for full details and registration information please visit https:// go.umd.edu/parasite. Keep in mind that portions of this event will take place outdoors, so please dress

accordingly for the weather.

For more information on all upcoming forage events visit https://go.umd.edu/forageevents or sign up for our monthly newsletter at https://go.umd.edu/ forageemails. If you have questions or need accommodations please contact Amanda Grev (agrev@umd.edu; 301-226-7575) or Brittany Fletcher (bfletch1@umd.edu; 301-226-7576). If you need reasonable accommodations to participate please contact us at least 2 weeks prior to the event. Hope to see you there!



Topics Covered:

- Overview of common parasites
- Managing dewormer resistance
- Fecal collection and fecal egg counts
- Putting together a deworming kit
- Minimizing parasites on pasture
- Calculating dosages and drenching
- Body condition scoring
- FAMACHA© scoring

Event Details











Northern Maryland Field Crops Day



Producers of corn, soybeans, hay and small grains will be interested in the various topics and sessions on the latest in agronomy in Maryland.

The meeting will be held on December 3, 2025, at the Summit

Manor at Hereford Fire Hall (510 Monkton Rd., Monkton, MD 21111). Numerous commercial displays and representatives will be there to discuss new products and plans for the upcoming year.

This meeting serves as recertification for Maryland private pesticide applicators and offers recertification credits for Pennsylvania recertification. Also,

producers can attend specific presentations to renew their Maryland nutrient applicator's voucher.

December 3

8:00 AM-12:30 PM Hereford Fire Hall

The doors will open at 7:30 a.m. to visit commercial exhibits, networking, and morning refreshments. The presentations begin at 8:00 a.m. and will end by 12:30 p.m. Lunch will be served following the presentations.

Cost of the event is \$22.00. The meeting location is conveniently located about 5 miles west of I-83 via Mt. Carmel Rd. and right onto Foreston Rd. Register by calling (410) 887-8090 or visit https:// go.umd.edu/2025FCD.

For more information, or if you need special accommodations, please call the Baltimore County Office of the University of Maryland Extension at our phone number (410) 887-8090.

Researchers Find New Wheat Yield Gene

University of Maryland, College of Agriculture and Natural Resources news release (abridged)

University of Maryland researchers discovered a gene that makes wheat grow three ovaries per flower overall yield," said Vijay Tiwari, Associate Professor of instead of one. Since each ovary can develop into a grain of wheat, the gene could help farmers grow much more wheat per acre. Their work was published on October 14, 2025, in the journal *Proceedings of the* discovery provides an exciting route to develop cost-National Academy of Sciences.

The trait of growing three ovaries per flower was initially discovered in a spontaneously occurring mutant of common bread wheat. But it wasn't clear what genetic changes led to the new trait. The UMD team created a highly detailed map of the multiovary wheat's DNA and compared it to regular wheat. They discovered that the normally dormant gene WUSCHEL-D1 (WUS-D1) was "switched on" in the multi-ovary wheat. When WUS-D1 is active early in flower development, it enlarges the flower-building tissues, enabling them to produce extra female parts.

If breeders can control or mimic this genetic trick of activating WUS-D1, they could design wheat varieties that grow more kernels per plant. Even small gains in the number of kernels per plant can translate into huge increases in food supply at the global scale.

"Pinpointing the genetic basis of this trait offers a path for breeders to incorporate it into new wheat varieties, of these organizations.

potentially increasing the number of grains per spike and Plant Sciences and co-author of the study. "By employing a gene editing toolkit, we can now focus on further improving this trait for enhancing wheat yield. This effective hybrid wheat."

That's important because wheat is one of the world's staple crops, feeding billions of people every day. As global demand for wheat continues to rise, climate change, limited farmland, and population growth make it increasingly difficult to increase production using traditional methods. This discovery could give breeders a powerful new tool to boost yields without needing more land, water, or fertilizer.

The discovery of WUS-D1 could also lead to the development of similar multi-ovary varieties of other grain crops.

This work was supported by the U.S. Department of Agriculture's National Institute of Food and Agriculture (Awards 13716674 and 13368004), the Australian Research Council (FT210100810), the Royal Society (UF150081), and the Yitpi Foundation. The views expressed in this story do not necessarily reflect the views

2025 Corn Variety Trial Results

Nicole Fiorellino, Extension Agronomist University of Maryland, College Park

The University of Maryland offers a fee-based, corn hybrid Many thanks to Louis Thorne, Gene Hahn, and Audrey performance testing program to local and national seed companies. The results from these replicated trials provide agronomic performance information about corn hybrids tested at five locations in Maryland considered representative of the state's geography and weather conditions.

During 2025, 43 hybrids were tested using three maturity groups: early season (6 hybrids), mid-season (18 hybrids), and full season (19 hybrids). Each company designated maturity group assignments for hybrids they submitted.

The factsheet with the results can be downloaded from the MD Crops website at https://psla.umd.edu/extension/ md-crops or you may call Andy Kness at (410) 638-3255 to hybrid/variety trial data, check out our fact obtain a printed copy.

Sultenfuss for their time spent preparing, establishing, collecting data, and preparing the report. These trials could not be completed without them. I greatly appreciate the Center managers and personnel who assist our team with executing these trials.

We are grateful for the funding provided by Maryland Grain Producers Utilization Board to support these trials. MGPUB provides our program with checkoff funding to support applied agricultural research and generate results that directly benefit Maryland producers.

For more information on how to interpret and utilize sheet, What do the numbers really mean? Interpreting variety trial results.



AGCO Agriculture Foundation (the "Foundation"), a private foundation with the vision to prevent and relieve hunger through sustainable agricultural development, announced a new partnership with Cultivating New Frontiers in Agriculture (CNFA) to support youth-led and high-impact innovations for sustainable agri-food systems.

The Foundation has awarded CNFA a \$450,000 grant over three years to provide 30 AGCO Foundation Youth AgriChampions with training and resources to become agents of change for sustainable agri-food systems throughout the United States. Aptly named AgriChampions, young farmers and entrepreneurs ages

18-40 will be selected based on their accomplishments and interests in digital agriculture, climate resilience and agri-food innovations.

During each of the program's three years, the Youth AgriChampion Program will offer comprehensive training, mentorship and seed grant funding to equip the selected AgriChampions with tools and resources to transform their agri-food systems ideas into sustainable solutions within their communities.

To lean more, visit https://cnfa.org/media/agco- agriculture-foundation-and-cnfa-partner-to-advanceyoung-farmers-and-agri-food-system-entrepreneurs/.

Great resources are just a click away!

Andrew Kness Senior 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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Dates to remember

- **08 Nov.** Parasite Management Workshop. 9-3:30 PM. Western MD Research & Education Center. \$30-\$50. Register online or call (301) 226-7575.
- 13 Nov. Private Pesticide Applicator Exam. 9-11AM, Harford County Extension Office. Free. Register by calling (410) 638 -3255 or email akness@umd.edu.
- 13 Nov. Private Pesticide Applicator Recertification Training.
 1-3 PM, Harford County Extension Office. Free. Register by calling (410) 638-3255 or email akness@umd.edu.
- 21 Nov. Harford County Farm Bureau Banquet. 6:00 PM. Pond View Farm. Contact Alice Archer for details (410) 836-7773.
- **03 Dec.** Northern Maryland Field Crops Day. 8-12:30 PM, Hereford Fire Hall. \$22. Register by calling (410) 887-8090.



November 2025