

Ag Notes

Harford County Newsletter

UNIVERSITY OF
MARYLAND
EXTENSION

 **March 2023**

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

facebook.com/HarfordAg

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Hello, Harford County!

February has been a continuation of January's unseasonably warm weather and I know many of us are excited for warm weather. Signs of spring are already upon us; daffodils and cherry trees in bloom and small grains greening up weeks ahead of the norm. Interestingly, and somewhat related, I received an odd email from an EPA administrator back in late January about a webinar they were promoting regarding "sustainable food choices," and further offering an opportunity for them to come speak to my clientele about the impacts of food choices on our climate.

Upon further investigation, the webinar was hosted by so called "agriculture experts" from Harvard. Harvard is not a land-grant institution and does not specialize in agriculture like our land-grant schools (aka University of Maryland), so I was quite suspicious. Their panel of "agricultural experts" was comprised of an adjunct lecturer in government, an administrator from the Harvard Office of Sustainability, two students, and a representative from Harvard's School of Law. Not a single one had expertise in agriculture. I am a tenured faculty member at a land-grant institution; my expertise is agriculture, and they want to teach in my program? No chance that's happening. What I find even more concerning is that the EPA regards these individuals as experts in agricultural production.

My curiosity got the best of me, so I attended the webinar. The general gist of the webinar was that animal agriculture is killing our planet and as a result, we should not eat meat. I find this message incredibly small-minded, privileged, dangerous, impractical, and misguided.

The data says agriculture accounts for about 24% of global greenhouse gas emissions (GHG); in the U.S. it's about 11%. The Harvard panel argues that this needs to

be addressed in drastic ways. However, I would argue this is quite low considering how important eating is to the 8 billion people on earth; not to mention we also produce fiber for clothing for these 8 billion, along with renewable fuel used for transportation, heating and energy. I assert there is no other sector more important than agriculture, and for us to account for less than 1/4 of global GHG emissions (and only 11% in the U.S.) is quite impressive. Also, GHG emission estimates do not factor in the carbon sequestration that occurs in agricultural systems, which offsets this number by about 20%!

From an efficiency perspective, consider agriculture vs. transportation sector, which accounts for 14% global GHG emissions. An estimated 18% of the world population owns a vehicle, vs. 100% that eats. So, on a per capita basis, we are *far* more efficient at feeding people than we are at moving them.

Furthermore, if we care about feeding all people, not just privileged people living in ivory towers, then animals have to be part of the equation. Livestock are very important in our food system because they not only provide food, but provide milk, leather, and other byproducts necessary for survival and provide vital ecosystem services. Further, livestock convert land that is not suitable for crop production into calories for people to eat! I am not saying that we shouldn't strive to reduce our GHG emissions in agriculture—I think we should focus on practical solutions to reduce GHG emissions, rather than shallow, impractical, sweeping "solutions" such as eliminating animal agriculture.

Of course, I am preaching the choir as I know my audience fully understand this, but we must keep in mind that there are people that do not understand the complexities of agriculture and our food system and we must educate them at every chance.

Until next time,
-Andy

Alan Leslie, Agriculture Agent
University of Maryland Extension, Charles County



Figure 1. Corn earworm feeding on sweet corn ear. Photo: Eric R. Day, Virginia Polytechnic Institute & State University, Bugwood.org.

When selecting sweet corn seed varieties this year, you may want to consider selecting some of the genetically modified Bt hybrids that have built-in resistance to different insect pests. Bt sweet corn varieties have been genetically engineered with genes from the bacterium *Bacillus thuringiensis* (aka “Bt”), which produce proteins that are toxic to different insect pests. In the laboratory, there have been hundreds of different insecticidal proteins identified from Bt, but only about a dozen have been successfully introduced to corn, and only a handful of those traits are available in sweet corn varieties.

The insecticidal proteins or “traits” available in sweet corn fall into two different categories: the “Cry” proteins, which stands for crystalline proteins and the “Vip” proteins, which stands for vegetative insecticidal proteins. Further, when each of these traits were introduced to the corn genetics, this introduction becomes patented under a trade name used for marketing. The Cry1Ab protein was the earliest trait introduced to sweet corn, and is marketed under the trade name Agrisure CB/LL. At the time it was released, Cry1Ab provided 100% control of caterpillar pests like European corn borer and corn ear worm (Fig. 1). Since then, corn earworm has become widely resistant to this protein, though it still provides 100% control of European corn borer. The Cry1Ab protein is

still available in Syngenta’s Attribute I series of seeds. Other Cry proteins that are available in sweet corn are Cry1A.105 and Cry2Ab2, which are also active against caterpillars, and Cry3Bb1, which is active against some beetles, mainly corn rootworm. Cry1A.105 and Cry2Ab2 were introduced to the corn genome at the same time, and are marketed as Yieldgard VT Pro, while Cry3Bb1 was introduced separately and is marketed as Yieldgard Rootworm. These three traits are all available together in the Seminis Performance series. Although these varieties have multiple traits targeting caterpillar pests, they do not provide effective control of corn earworm. The only Vip protein available in sweet corn as the Vip3A trait, which is marketed as Agrisure Viptera. Vip3A provides excellent control of corn earworm and other ear-feeding caterpillars, but does not control European corn borer. For that reason, the Vip3A trait is included along with the Cry1Ab trait in Syngenta’s Attribute II and Attribute Plus series to provide the full range of control of caterpillar pests. Field trials with these varieties provided 100% control of ear feeding caterpillars with no insecticide applications.

The Attribute II and Attribute Plus varieties of sweet corn are significantly more expensive than conventional varieties that do not include these Bt traits. However, if corn earworm is evading your current spray program, especially in mid-late summer when moth pressure is especially high, it may be worth trying some of these GMO varieties that offer full protection from ear-feeding pests. It is worth noting that none of the Bt traits will control stink bugs or sap beetles, so insecticide sprays may still be needed to manage these pests, though these pests can typically be managed with a single insecticide application. If you are considering buying Bt sweet corn seed this year, below is a useful table (next page) that summarizes all of the varieties that are available, the pests they control, and the herbicide tolerance included in the package. This table is also available at: https://agrilife.org/lubbock/files/2020/02/2020_BtTrai_Table_Sweet.pdf.



The Handy Bt Trait Table - Sweet Corn Production

The latest version of the table is always posted at <https://www.texasinsects.org/bt-corn-trait-table.html>

For questions & corrections: Ben Phillips, Michigan State University (phill406@msu.edu)

Contributor: Pat Porter, Texas A&M University (web site host)

New February 2020

Corn 'events' (transformations of one or more genes) and their Trade Names

Trade name for trait	Event	Protein(s) expressed	Primary Insect Targets, <i>Herbicide Tolerance</i>
Agrisure CB/LL	Bt11	Cry1Ab + PAT	corn borer + <i>glufosinate</i>
Agrisure GT	GA21	EPSPS	<i>glyphosate</i>
Agrisure Viptera	MIR162	Vip3Aa20	broad caterpillar control, except for corn borer
Roundup Ready 2	NK603	EPSPS	<i>glyphosate</i>
Yieldgard Rootworm	MON683	Cry3Bb1	rootworm
Yieldgard VT Pro	MON89034	Cry1A.105 + Cry2Ab2	corn borer & several caterpillar species

Abbreviations used in the Table

RR Roundup Ready / glyphosate-tolerant

LL Liberty Link / glufosinate-tolerant

CR corn rootworm

BCW black cutworm

CEW corn earworm

ECB European corn borer

FAW fall armyworm

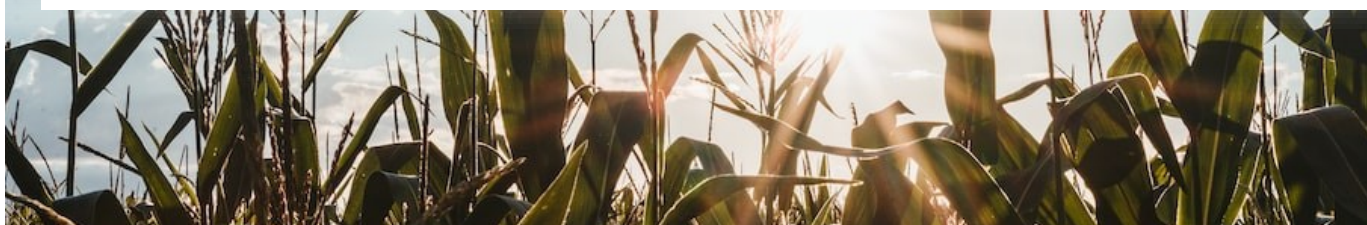
SCB sugarcane borer

SWB southwestern corn borer

TAW true armyworm

WBC western bean cutworm

Bt Sweet corn packages & associated varieties in alphanumeric order	Bt protein(s)	Marketed for control of:										Resistant populations	Herbicide protein(s)	Herbicide Tolerance		
		B C W	C E W	E C B	F A W	S C B	S W B	T A W	W B C	W B C	R			RR	LL	
<u>Seminis Performance Series</u> Anthem II, sh2, bicolor Anthem XR II, sh2, bicolor Devotion II, sh2, white Obsession II, sh2, bicolor Passion II, sh2, yellow Temptation II, se, bicolor SV9010SA, sh2, bicolor SV9012SD, sh2, yellow SV9014SB, syn, bicolor	Cry1A.105 + Cry2Ab2 + Cry3Bb1		x	x	x	x	x						CEW	EPSPS	x	
<u>Syngenta Attribute I Series</u> BC0528, syn, bicolor BC0805, syn, bicolor BC0822, syn, bicolor BSS0977, sh2, bicolor BSS0982, sh2, bicolor GH0851, syn, yellow GSS0966, sh2, yellow WH0809, syn, white WSS0987, sh2, white	Cry1Ab		x	x	x	x							CEW	PAT		x
<u>Syngenta Attribute II Series</u> Aspire, syn, yellow Milky Way, syn, white Protector, sh2, yellow Pursuit, sh2, bicolor Remedy, syn, bicolor	Cry1Ab + Vip3A	x	x	x	x	x	x	x	x					EPSPS + PAT	x	x
<u>Syngenta Attribute Plus Series</u> BSS0761, sh2, bicolor Patriarch, sh2, bicolor	Cry1Ab + Vip3A	x	x	x	x	x	x	x						PAT		x



New Agronomy Guide Available

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The Agronomy Guide, which is the premier agronomy reference for Mid-Atlantic grain crop production, has been updated and is available for purchase online: extension.psu.edu/agronomy-guide. Use the code below for a 25% discount. I also have a few hard copies at the Extension office available for purchase. Contact Andy if you're interested.

New Edition Available

The Penn State Agronomy Guide

This guide provides comprehensive information on crop, soil, and pest management for farms of all sizes.

25% OFF
through
3/25/23

Use code: **CROPS-
8GS**
at checkout.



extension.psu.edu/agronomy-guide



The 2023-2024

AGRONOMY GUIDE

Ag Law Landowner Series

The Department of Agricultural and Resource Economics (AREC) will host five webinars via zoom every Friday starting on Friday, March 31st, and ending on Friday, April 28th. The free webinars will cover those legal issues that Maryland landowners may face. A grant funds the program through the Northeast Risk Management Education Center. The webinars will feature Paul Goering, a Senior Faculty Specialist and Extension Specialist in agricultural law. He will address leasing, landowner liability issues, right-to-farm law, fencing laws, livestock liability, and estate planning. As well as additional feature speakers Tim Bishton with Crow Insurance Agency, Stephanie Brophy with Dulany Leahy Curtis & Brophy LLP, and Brooke Schumm with Levin Gann, P.A.

"These webinars will be a great opportunity for landowners and other professionals in rural areas to learn about some of the basic legal issues that many deal with daily. They can understand their rights and responsibilities whether they are involved in agriculture or own land in a rural area," said Goering.

Each webinar will begin at 12:00 p.m. and run to 1:30 p.m. The dates and topics are:

- March 31: Negligence, Livestock, and Guests on Farmland
- April 7: Fencing and Right to Farm
- April 14: Agricultural Leasing
- April 21: Understanding Insurance
- April 28: Working with an Ag Law Attorney

Participants will receive copies of Extension fact sheets and other valuable documents as a part of the workshop series. For more information, please get in touch with Paul Goering at lgoering@umd.edu.

Click here to register: <http://bit.ly/3I7CfRG>

This material is based upon work supported by USDA/NIFA under Award Number 2021-70027-34693.



Harford 250 Legacy Farms Celebration



The Farmers & Community Partnership of Harford County is the sponsoring organization for the recognition of Harford Legacy Farms during the Harford 250 Celebration.

From March 2023 through March 2024, Harford County is celebrating the 250th

anniversary of its founding. Starting with the Harford 250 Showcase at the Arena at Harford Community College on Friday, March 31, and Saturday, April 1, 2023, several events and special activities are being planned under the leadership of the Historical Society of Harford County.

The Farmers & Community Partnership and its members, especially Harford County Farm Bureau, the Harford Soil Conservation District, Harford Land Trust, and Harford County Government are proud to be working on the identification and recognition of Harford Legacy Farms.

To recognize our Harford Legacy Farms during the Harford 250 Celebration, we are conducting [a survey](#) to identify farms that have been continuously owned by the same family for 100 years or more, that maintain at

least 10 acres of the original purchase, and that continues to be actively farmed.

We hope you will self-nominate your farm to be part of this special recognition. Please complete [the survey](#) and return using the enclosed envelope to the Soil Conservation District by April 3, 2023. Contact Leslie Byrd, leslie.byrd@maryland.gov or (410) 638-4828, ext. 5229 with any questions on the survey or to request a paper copy.

We also invite you to the Harford Legacy Farms Celebration to be held on Saturday, June 10, 2023, from 4:00-7:00 PM at the Harford County Equestrian Center. As a Legacy Farm owner, you will receive two (2) complimentary tickets to the event. During this celebration, you will also be recognized with a certificate and a sign designating your family farm as a Harford Legacy Farm. Additional tickets can be purchased for \$20 (12 and under free) starting April 3 at <https://www.harfordlandtrust.org/get-involved/events/>.

For additional information on the Harford Legacy Farms Celebration, contact Nina Depkin at ndepkin@harfordlandtrust.org or (410) 836-2103.



**Equine Business
Management Seminar**
March 14, 2023
6-9pm
Baltimore County Extension Office
114 Shawan Rd., Cockeysville, MD 21030

Sign Up Now!
<https://bit.ly/umdequinebiz>

This institution is an equal opportunity provider.

General Interest

Equine

UMD Extension Internships

The University of Maryland Extension (UME) is seeking undergraduate student applicants interested in careers in agriculture.

Applications are open for the 2023 Creating Leadership and Professional Development Through Extension Internships Program. The deadline is 11:59 pm (EST) Friday, March 17th. If you have students interested in a career in Extension or agriculture industries and want to learn more about Extension, applied research, and community outreach, while gaining professional development, leadership skills, job experience, and pay, please encourage them to apply. This internship is a great experiential learning opportunity for students seeking a degree or professional certification in agriculture, natural sciences, biological sciences, environmental education, and related programs. We

prioritize students enrolled in a two-year program and sophomores and juniors enrolled in a four-year degree program. This is a paid internship!

For more information, including the application, visit <https://go.umd.edu/extensioninternships>.

Program Contact: Shannon Dill, Extension Educator - AgFS, (410) 822-1244 | sdill@umd.edu

This work is supported by the USDA National Institute of Food and Agriculture, AFRI Competitive Grant Workforce Development, project MD-UME-09312.

This institution is an equal opportunity provider.



Farm Bureau Scholarship

Maryland Farm Bureau (MDFB) is giving back to its members and students of the community by offering five \$2,000 scholarships for the 2023-2024 academic year. Applicants must be high school seniors starting college in the fall of 2023 or full-time college students at any accredited community college or four-year institution. Applicants, or their parents/guardians, must be members of Maryland Farm Bureau.

Three of the scholarships will be awarded to students pursuing academic disciplines in food, agriculture and/or natural resources. The remaining two scholarships are open to students in any academic discipline.

Scholarship recipients will be selected by a designated committee of Maryland Farm Bureau. Students must

apply online via the [official application website](#). The application includes the following essay question to be answered by each applicant:

How can Farm Bureau effectively support young farmers and ranchers to successfully prepare for an ever-changing economy and increasing infrastructure challenges? Provide two examples, including one local program or initiative you have been a part of or been made aware of.

Online applications must be submitted by **March 24 at 10:59 p.m.** For more information or to apply, visit the [official application website](#).



Maryland State Fair Scholarship

The Maryland State Fair will sponsor four \$2,000 scholarships in honor of F. Grove Miller to Maryland youth who are enrolled in a four-year college, post secondary college or trade school, and one \$2,000 scholarship in memory of Marlin K. Hoff to a Maryland youth who has carried a dairy project and is enrolled in a four-year college, post secondary college or trade school. General Information:

1. These scholarships are available to all permanent residents of Maryland who have participated in the previous year's Maryland State Fair.
2. Students must be pursuing a degree, enrolled in a post secondary college, or enrolled in a trade school.

Students must provide proof of enrollment to the Maryland State Fair Office by August 1 of the academic year in which the scholarship is awarded.

3. The scholarships are available to students entering their freshman through senior year of college.
4. Individuals may submit applications for both scholarships, but are ONLY eligible to be the recipient of one scholarship in the same year.

Complete details and applications can be found on <https://www.marylandstatefair.com/general-info/scholarships>.



Farm Well & Drinking Water Webinar

March 16

12:00 Noon
Online

Private wells for drinking water are a valuable resource to a home and the water's quality is

important for good health. Well owners are responsible to maintain the well and test the water quality to ensure the water is safe to

drink. Learn how to ensure quality water for you and your family.

Learn About:

- Aquifers and wells
- Water quality and health risks
- Protecting your well and water
- Do you need treatment?

To Register: <https://tinyurl.com/mrx6m4bc>



General Interest

Ag Tire Recycling in April

The Maryland Department of the Environment, in conjunction with Maryland Environmental Service (MES), and the Maryland Farm Bureau, Inc., has hosted several Scrap Tire Drop-Off Day events which allowed farmers to deliver agricultural scrap tires to approved collection locations free of charge. These events have been extremely popular and successful among the agricultural community. This year we are happy to announce additional participating counties across the state. Dates and hours are subject to change based on scheduling conflicts with haulers, that will be county a decision, and

all dates are subject to end early based on volume and budget. We suggest calling the landfill before you attend to check their availability and if they are requiring any verifying documents.

Harford County

April 24 – April 28 | 8:00 AM – 2:00 PM

Harford Waste Disposal Center (Scarboro Landfill)
3241 Scarboro Road
Street, MD 21154

Job Opening: Master Gardener Coordinator

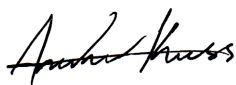
University of Maryland Extension is seeking a Home Horticulture/Master Gardener coordinator for the Baltimore County office. A summary of the job responsibilities includes:

- Coordinate the Master Gardener Program in Baltimore County
- Develop, conduct, and evaluate educational seminars, classes, workshops, and other presentations related to home and non-commercial horticulture.
- Respond to clientele requests via phone, office visits, email, etc., related to home horticulture and lawns.

- Identify plants, insects, and other horticulture samples submitted by clientele.
- Provide pest control and fertilizer recommendations in accordance with University of Maryland guidelines.
- Disseminate horticulture information to county residents through news releases, website updates, etc.

All applications must be submitted through [ejobs/umd.edu](https://ejobs.umd.edu); search for position #119822. Apply by March 24, 2023 for best consideration.

Great resources are just a click away!



Andrew Kness
Senior Extension Agent,
Agriculture and
Food Systems



Like us on
Facebook

facebook.com/HarfordAg

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

- 01 Mar.** Annual Implementation Reports due to MDA.
- 01 Mar.** Private Applicator Exam Prep Class. 9-11 AM. Harford County Extension Office. Free. Register by calling (410) 638-3255 or email akness@umd.edu.
- 08 Mar.** Private Applicator Exam. 9-11 AM. Harford County Extension Office. Free. Register by calling (410) 638-3255 or email akness@umd.edu.
- 08 Mar.** Private Applicator Recertification Training. 1-3 PM. Harford County Extension Office. Free. Register by calling (410) 638-3255 or email akness@umd.edu.
- 09 Mar.** Produce Safety Rule Training: Soil Amendments. 8:30 -3:30 PM. Montgomery County Extension Office, Derwood. \$10. Register [online](#) or call (316) 993-5293.
- 11 Mar.** North Harford FFA Alumni Annual Barn Dance. 6-10 PM. Pond View Farm. \$40 per ticket. Tickets available online <https://2023FFAAlumniBarnDance.eventbrite.com>.
- 14 Mar.** Equine Business Management Seminar. 6-9 PM. Baltimore County Extension Office. Free. Register [online](#) or call (410) 887-8090.
- 16 Mar.** Farm Well & Drinking Water Webinar. 12 noon. Free. Register [online](#).
- 24-28 Apr.** Tire Recycling. 8-2 PM. Scarboro Landfill, Street, MD. Call ahead (410) 638-3417.

March 2023