

FARM NOTES

CARROLL COUNTY NEWSLETTER

UNIVERSITY OF
MARYLAND
EXTENSION

MARCH/APRIL 2022

University of
Maryland Extension

700 Agriculture Center
Westminster, MD 21157
M—F 8:00 a.m.—4:30 p.m.
(410) 386-2760

[extension.umd.edu/locations/
carroll-county](https://extension.umd.edu/locations/carroll-county)

Facebook.com/umecarroll

Bryan Butler
Extension Agent, Ag &
Food Systems

HELLO,
CARROLL COUNTY!



PANDEMIC COVER CROP PROGRAM

USDA [Bulletin](#) February 16, 2022

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Producers with Crop Insurance to Receive Premium Benefit for Cover Crops

File acreage report by March 15, 2022

Agricultural producers who have coverage under most crop insurance policies are eligible for a premium benefit from the U.S. Department of Agriculture (USDA) if they planted cover crops during the 2022 crop year. To receive the benefit from this year's Pandemic Cover Crop Program (PCCP), producers must report cover crop acreage by **March 15, 2022**.

PCCP, offered by USDA's Risk Management Agency (RMA), helps farmers maintain their cover crop systems, despite the financial challenges posed by the pandemic and is part of USDA's Pandemic Assistance for Producers initiative, a bundle of programs to bring financial assistance to farmers, ranchers and producers who felt the impact of COVID-19 market disruptions.

PCCP provides premium support to producers who insured their crop with most insurance policies and planted a qualifying cover crop during the 2022 crop year. The premium support is \$5 per acre, but no more than the full premium amount owed.

Maryland Department of Agriculture Press Release

Online Reporting Now Available for Farmers

The Maryland Department of Agriculture (MDA) is reminding farmers regulated by the Nutrient Management Program that they are required to submit their 2021 Annual Implementation Reporting (AIR) forms by March 1, 2022. For a second year, farmers will have the option to submit their forms electronically via the Maryland OneStop portal.

Approximately 5,500 Maryland farmers are regulated by MDA's Nutrient Management Program. These farmers are required to follow nutrient management plans when fertilizing crops and managing animal manure, and must submit AIR forms summarizing their operation's nutrient applications for the previous year.

Confined Animal Feeding Operations (CAFOs) operating under a permit from the Maryland Department of the Environment should submit **one** combined reporting form along with a manure analysis to MDA's Nutrient Management Program.

For those farmers who want to continue to submit paper reports, a mail-in option remains available. Paper forms will be mailed to all regulated farmers and are available for download on MDA's website. For additional assistance in completing the AIRs, farmers should contact their regional nutrient management office.

Maryland OneStop is a central hub for licenses, forms, certificates, permits, applications, and registrations from across the state's agencies and departments. E-filing offers many advantages over paper, including faster processing time, less errors and delivery confirmation.

The Maryland OneStop Portal is available at onestop.md.gov

2021
Annual
Implementation
Reporting Forms

Due March 1, 2022



Apply online with Maryland OneStop!

PESTICIDE APPLICATOR TRAINING, EXAMS, & RECERTIFICATION

In-person Private Pesticide Optional Exam Training

The Pesticide Applicator training will be reviewing the Maryland Pesticide Applicator Core Manual. The study manuals are available online on the [Maryland Department of Agriculture's website](https://mda.maryland.gov/plants-pests/Pages/licensing_and_certification.aspx) at https://mda.maryland.gov/plants-pests/Pages/licensing_and_certification.aspx. Hard copies can be obtained from the Extension Office (while supplies last). For more information and to register online visit <https://extension.umd.edu/resource/pesticide-and-nutrient-management-meetings>

DATE	DAY	TIME	LOCATION	CONTACT
March 2, 2022	Wed.	9 am—11 am	UME Wicomico County 28647 Old Quantico Rd. Salisbury, MD 21801	Ginny Rosenkranz rosnkranz@umd.edu (410) 749-6806 x 106
March 3, 2022	Thurs.	1 pm—3 pm	UME Washington County 7303 Sharpsburg Pike Boonsboro, MD 21713	Jeff Semler jsemler@umd.edu (301) 791-1304

Private Pesticide Exam

DATE	DAY	TIME	LOCATION	CONTACT / REGISTER
March 8, 2022	Tues.	9 am—12 pm	UME Wicomico County 28647 Old Quantico Rd. Salisbury, MD 21801	Ginny Rosenkranz rosnkranz@umd.edu (410) 749-6806 x 106
March 10, 2022	Thurs.	1 pm—3 pm	UME Washington County 7303 Sharpsburg Pike Boonsboro, MD 21713	Register by contacting Any Simmons simmons@umd.edu (301) 791-1304

In-person & Virtual Private Pesticide Applicator Recertification Meetings

DATE	DAY	TIME	LOCATION	CONTACT / REGISTER
March 8, 2022	Tues.	6 pm—9pm	UME Anne Arundel County 97 Dairy Lane Gambrills, MD 21054	REGISTER ONLINE Dave Myers myersd@umd.edu (301) 405-1602
March 10, 2022	Thurs.	6 pm—9 pm	Talbot County Ag Center 10661 Hiners Lane Easton, MD 21601 Note: Private Applicator Recertification and Nutrient Voucher Meeting	REGISTER ONLINE Shannon Dill sdill@umd.edu (410) 822-1244
April 5, 2022	Tues.	6 pm—8 pm	Online, Statewide Zoom Session Register online by 4/4/2022 to receive Zoom login	REGISTER ONLINE Dave Myers myersd@umd.edu (301) 405-1602

NUTRIENT MANAGEMENT VOUCHER TRAINING

In-person and Virtual Nutrient Management Voucher Training

For more information and to register online visit <https://extension.umd.edu/resource/pesticide-and-nutrient-management-meetings>

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March 8, 2022	Tues.	6 pm—9pm	UME Anne Arundel County 97 Dairy Lane Gambrills, MD 21054	REGISTER ONLINE Dave Myers myersd@umd.edu (301) 405-1602
March 10, 2022	Thurs.	6 pm—9 pm	Talbot County Ag Center 10661 Hiners Lane Easton, MD 21601 Note: Private Applicator Recertification and Nutrient Voucher Meeting	REGISTER ONLINE Shannon Dill sdill@umd.edu (410) 822-1244
April 19, 2022	Tues.	6 pm—8 pm	UME Anne Arundel County 97 Dairy Lane Gambrills, MD 21054 Online, Statewide Zoom Session Register online by 4/18/2022 to receive Zoom login	REGISTER ONLINE Dave Myers myersd@umd.edu (301) 405-1602

LEARN & EARN CEUs ONLINE

University of Maryland agricultural nutrient management webinars available anytime!
Visit mda.maryland.gov/resource_conservation/Pages/asynchronous.aspx



2022-2023 MID-ATLANTIC COMMERCIAL VEGETABLE PRODUCTION RECOMMENDATIONS



Digital copy available for free online at <https://extension.umd.edu/resource/2022-2023-mid-atlantic-commercial-vegetable-production-recommendations>. Hard copies available at the Extension Office for \$20 while supplies last.

2022 MID-ATLANTIC WEED CONTROL GUIDE

Essentials for Agronomic Crops



2022 MID- ATLANTIC WEED CONTROL GUIDE

Herbicide recommendations for:

- Corn
- Sorghum
- Soybean
- Small Grains
- Forage, CRP, Farmstead

Print Format - \$10
Digital Download -\$8
Bundle: Print & Digital- \$18
Available from Penn State Extension
877-345-0691
<https://extension.psu.edu/mid-atlantic-field-crop-weed-management-guide>

Produced by Penn State Extension in cooperation with University of Delaware, University of Maryland, Rutgers University, Virginia Tech, and West Virginia University

The Handy Bt Trait Table

for U.S. Corn Production

Updated February 2021

An up-to-date version of the table is posted at <https://www.texasinsects.org/bt-corn-trait-table.html>
 Editor: Chris DiFonzo, Michigan State University, difonzo@msu.edu Web host: Pat Porter, Texas A&M University

The Handy Bt Trait Table provides a helpful list of trait names (below) and details of trait packages (over) to make it easier to understand company seed guides, sales materials, and bag tags.

A new mode of action in 2021 - RNA interference (RNAi). SmartStax-Pro is the first trait package to include RNAi technology for pest control, with one species (corn) interfering with protein production in another species (corn rootworm).

- Imagine a recipe book, and a chef who turns the written directions into a cake. In an organism, the DNA (the recipe book) in each cell contains the genes (the recipes) to make the proteins (cakes) needed for survival and growth. RNA molecules are a bit like 'chefs' directing this process. Interfering with a chef results in no 'cake' from a gene recipe. This interference is called *gene silencing*. It happens naturally, but it also is the mode of action for new non-browning GMO apple and potato lines.
- SmartStax-Pro hybrids are modified to produce RNA fragments which silence the *Dvsnf7* gene, the 'recipe' for a key protein in the rootworm gut. Larvae ingest dsRNA as they feed on the roots. The RNA molecules interfere with production of the protein in the midgut and the larvae eventually die. The mode of action is specific to rootworm and it doesn't involve making a Bt toxin.
- The RNAi trait in SmartStax-Pro will be pyramided with Cry3Bb1 and Cry34/35Ab1, giving plants three modes of action against rootworm; this will be helpful in areas with Bt-resistant rootworm populations. However, there is no guarantee that rootworms won't develop resistance to RNAi! Demonstration sites will be planted in 2021 and seed will be commercially available in 2022.

Happy Birthday, Bt corn. 2021 marks the 25th year of commercialization of Bt corn in the U.S. The first Bt hybrids produced only one toxin, Cry1Ab, for European corn borer control. Bt has come a long way since then, given the laundry list of trade names in the current table. Bt hybrids are now planted on >80% of U.S. corn acres. The benefits of widespread use of Bt hybrids include a reduction in corn borer in the landscape (benefitting conventional corn & vegetables too), and an overall reduction in insecticide use. Costs include increasing problems of insect resistance, overuse of neonicotinoid seed treatments, and the literal high price of seed. 25 more years? We'll see.....



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

Trade name for trait	Event	Bt toxin or other trait expressed	Primary Insect Targets + <i>Herbicide tolerance</i>
Agrisure CB/LL	Bt11	Cry1Ab + PAT	corn borer + <i>glufosinate tolerance</i>
Agrisure Duracade	5307	eCry3.1Ab	rootworm
Agrisure GT	GA21	EPSPS	<i>glyphosate tolerance</i>
Agrisure RW	MIR604	mCry3A	rootworm
Agrisure Viptera	MIR162	Vip3Aa20	broad caterpillar control, except for corn borer
Enlist	DAS40278	<i>aad-1</i>	2,4-D & 'FOPs'
Herculex I (HXI) or CB	TC1507	Cry1Fa2 + PAT	corn borer + <i>glufosinate tolerance</i>
Herculex RW	DAS-59122-7	Cry34Ab1/Cry35Ab1 + PAT	rootworm + <i>glufosinate tolerance</i>
Roundup Ready 2	NK603	EPSPS	<i>glyphosate tolerance</i>
Yieldgard Corn Borer	MON810	Cry1Ab	corn borer
Yieldgard Rootworm	MON863	Cry3Bb1	rootworm
Yieldgard VT Pro	MON89034	Cry1A.105 + Cry2Ab2	corn borer & several caterpillar species
Yieldgard VT Rootworm	MON88017	Cry3Bb1 + EPSPS	rootworm + <i>glyphosate tolerance</i>
(None – in Qrome)	DP-4114	Cry1F + Cry34Ab1/Cry35Ab1 + PAT	corn borer + rootworm + <i>glufosinate tolerance</i>
(None – in SmartStax Pro)	MON87411	Cry3Bb1 + DvSnf7 dsRNA + EPSPS	rootworm + <i>glyphosate tolerance</i>

Abbreviations used in the Trait Table	<u>Herbicide tolerance</u>	<u>Insect targets</u>	
	E Enlist - 2,4-D and 'FOPs'	BCW black cutworm	FAW fall armyworm
G <i>glyphosate</i>	CEW corn earworm	SCB sugarcane borer	SWB southwestern corn borer
R Roundup Ready 2 - <i>glyphosate</i>	CR corn rootworm	TAW true armyworm	WBC western bean cutworm
LL Liberty Link - <i>glufosinate</i>	(N- Northern, W- Western)		
	ECB European corn borer		

Trait packages in alphabetical order (acronym that may be used)	Bt protein(s) (or other trait) in package	Marketed for control of:											Resistance confirmed to the combination of Bts in package (check local situation)	Herbicide trait			Non-Bt Refuge % (cornbelt)			
		B	C	E	F	S	S	T	W					G	L	E				
		C	E	C	A	S	C	W	A	B	C	R		R	L	E				
AcreMax (AM)	Cry1Ab Cry1F	x	x	x	x	x	x	x								CEW FAW WBC	x	x		5% in bag
AcreMax CRW (AMRW)	Cry34/35Ab1													x		NCR WCR	x	x		10% in bag
AcreMax1 (AM1)	Cry1F Cry34/35Ab1	x		x	x	x	x	x						x		ECB FAW SWB WBC NCR WCR	x	x		10% in bag 20% ECB
AcreMax Leptra (AML)	Cry1Ab Cry1F Vip3A	x	x	x	x	x	x	x	x	x							x	x		5% in bag
AcreMax TRIsect (AMT)	Cry1Ab Cry1F mCry3A	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x	x		10% in bag
AcreMax Xtra (AMX)	Cry1Ab Cry1F Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC NCR WCR	x	x		10% in bag
AcreMax Xtreme (AMXT)	Cry1Ab Cry1F mCry3A Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x	x		5% in bag
Agrisure 3010 (BR)	Cry1Ab		x	x				x	x							CEW	x	x		20%
Agrisure 3000GT & 3011A	Cry1Ab mCry3A		x	x				x	x					x		CEW WCR	x	x		20%
Agrisure Viptera 3110 (VR)	Cry1Ab Vip3A	x	x	x	x	x	x	x	x	x							x	x		20%
Agrisure Viptera 3111 (A4)	Cry1Ab Vip3A mCry3A	x	x	x	x	x	x	x	x	x	x					WCR	x	x		20%
Agrisure 3120 E-Z Refuge (BZ)	Cry1Ab Cry1F	x	x	x	x	x	x	x								CEW FAW WBC	x		See bag tag, E20 = no, E21 = yes	5% in bag
Agrisure 3122 E-Z Refuge	Cry1Ab Cry1F mCry3A Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x			5% in bag
Agrisure Viptera 3220 E-Z (VZ)	Cry1Ab Cry1F Vip3A	x	x	x	x	x	x	x	x	x							x			5% in bag
Agrisure Viptera 3330 E-Z	Cry1Ab Vip3A Cry1A.105/Cry2Ab2	x	x	x	x	x	x	x	x	x							x			5% in bag
Agrisure Duracade 5122 E-Z (D1)	Cry1Ab Cry1F mCry3A eCry3.1Ab	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x			5% in bag
Agrisure Duracade 5222 E-Z (D2)	Cry1Ab Cry1F Vip3A mCry3A eCry3.1Ab	x	x	x	x	x	x	x	x	x	x					WCR	x			5% in bag
Herculex I (HXI)	Cry1F	x		x	x	x	x	x								ECB FAW SWB WBC	x	x		20%
Herculex RW (HXRW)	Cry34/35Ab1													x		NCR WCR	x	x		20%
Herculex XTRA (HXX)	Cry1F Cry34/35Ab1	x		x	x	x	x	x						x		ECB FAW SWB WBC NCR WCR	x	x		20%
Intrasect (YHR)	Cry1Ab Cry1F	x	x	x	x	x	x	x								CEW FAW WBC	x	x		5%
Intrasect TRIsect (CYHR)	Cry1Ab Cry1F mCry3A	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x	x		20%
Intrasect Xtra (YXR)	Cry1Ab Cry1F Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC NCR WCR	x	x		20%
Intrasect Xtreme (CYXR)	Cry1Ab Cry1F mCry3A Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x	x		5%
Leptra (VYHR)	Cry1Ab Cry1F Vip3A	x	x	x	x	x	x	x	x	x							x	x		5%
Powercore ^a (PW)	Cry1A.105/Cry2Ab2	x	x	x	x	x	x	x								CEW WBC	x	x		^a 5%
PW Refuge Advanced ^b (PWRA)	Cry1F																			^b 5% in bag
Powercore Enlist (PWE)	Same as Powercore	x	x	x	x	x	x	x								Same as Powercore	x	x	x	5% in bag
QROME (Q)	Cry1Ab Cry1F mCry3A Cry34/35Ab1	x	x	x	x	x	x	x						x		CEW FAW WBC WCR	x	x		5% in bag
SmartStax ^a (SX,STX or SS)	Cry1A.105/Cry2Ab2	x	x	x	x	x	x	x						x		CEW WBC	x	x		^a 5%
STX Refuge Advanced ^b (SXRA)	Cry1F Cry3Bb1															NCR WCR				
STX RIB Complete ^b (STXRIB)	Cry34/35Ab1																			^b 5% in bag
SmartStax Enlist (SXE)	Same as SmartStax	x	x	x	x	x	x	x						x		Same as SmartStax	x	x	x	5% in bag
SmartStax Pro *2022 commercialization date	Same as SmartStax + DvSnf7 dsRNA	x	x	x	x	x	x	x						x		CEW WBC	x	x		5% in bag
Trecepta ^a (TRE)	Cry1A.105/Cry2Ab2	x	x	x	x	x	x	x	x	x							x			^a 5%
Trecepta RIB Complete ^b (TRERIB)	Vip3A																			^b 5% in bag
TRIsect (CHR)	Cry1F mCry3A	x		x	x	x	x	x						x		ECB FAW SWB WBC WCR	x	x		20%
VT DoublePRO ^a (VT2P)	Cry1A.105/Cry2Ab2		x	x	x	x	x	x								CEW	x			^a 5%
VT2P RIB Complete ^b (VT2PRIB)																				^b 5% in bag
VT TriplePRO ^c (VT3P)	Cry1A.105/Cry2Ab2		x	x	x	x	x	x						x		CEW	x			^c 20%
VT3P RIB Complete ^d (VT3PRIB)	Cry3Bb1															NCR WCR				^d 10% in bag
Yieldgard Corn Borer (YGCB)	Cry1Ab		x	x				x	x							CEW	x			20%
Yieldgard Rootworm (YGRW)	Cry3Bb1													x		NCR WCR	x			20%
Yieldgard VT Triple (VT3)	Cry1Ab Cry3Bb1		x	x				x	x					x		CEW NCR WCR	x			20%



2022 Novel Tall Fescue Renovation Workshop

March 30, 2022 | Keedysville, MD

Workshop focused on managing tall fescue toxicity and introducing novel tall fescue varieties

Register today and save!

visit www.GrasslandRenewal.org for more info



When:	Wednesday, March 30, 2022 8:30 am—4:30 pm
Where:	Western Maryland Research and Education Center 18330 Keedysville Rd. Keedysville, MD 21756
Who:	All – Producers, Extension, Conservationists, Industry
Cost:	\$65 (before March 20)
Registration Link:	https://TallFescueMD2022.eventbrite.com
Flyer:	https://grasslandrenewal.files.wordpress.com/2022/01/maryland-flyer-final-formatted.pdf



Are you interested in using solar to power your home, farm or business?

The workshop will cover important topics and hands-on training that will help you decide if solar is right for you, and how you can install a solar electric system that will meet your needs.

When:	Wednesday, March 30, 2022 10:30 am—12:30 am
Where:	Western Maryland Research and Education Center 18330 Keedysville Rd. Keedysville, MD 21756
Cost:	Free
Registration Link:	https://www.eventbrite.com/e/umd-solar-workshop-washington-county-registration-256400289167

VIRTUAL MEETINGS AND WEBINARS

GOOD MORNING FARMER

The University of Maryland Extension will host Good Morning Farmer! An online gathering place where farmers can discuss topics of interest, learn from experts and provide support through community fellowship.

Winter/Spring Sessions (Wednesday) Time: 8:00 am—9:00 am **Location:** Virtual (Zoom)
To register, visit: <https://extension.umd.edu/programs/agriculture-food-systems/meetings-and-events>

Date	Topic
March 16, 2022	GMO: Agriculture: Where are we going?
April 13, 2022	IPM: How to make it work on your farm

For more information or need special assistance, please contact the Anne Arundel County Extension Office at (410)222-3906.

Wednesday Webinars



Offered the second and fourth Wednesday of each month. They are FREE and open to all!

To see a schedule of upcoming topics and to register visit: <https://extension.umd.edu/programs/agriculture-food-systems/program-areas/farm-and-agribusiness-management/women-agriculture/webinars>

GREAT RESOURCES ARE JUST A CLICK AWAY!

Bryan R. Butler, Sr.
Extension Agent,
Agriculture and
Food Systems

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<https://extension.umd.edu/locations/carroll-county>

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If you need a reasonable accommodation to participate in any event or activity, please contact your local University of Maryland Extension Office.

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700 Agriculture Center
Westminster, MD 21157

FARM NOTES

CARROLL COUNTY NEWSLETTER

Dates to remember

March 1 AIR Forms Due
March 1 Virtual Statewide Fruit Production Meeting
March 3 Pesticide Exam Training UME Washington
March 4 Grain Marketing Mtg. @ Plum Crazy Diner
7:30 am
March 10 Pesticide Exam UME Washington
March 11 General CRP Signup Deadline
March 15 Pandemic Cover Crop Acreage Due
March 18 Grain Marketing Mtg. @ Plum Crazy Diner
7:30 am
March 25 Dairy Margin Coverage Deadline

April 1 Grain Marketing Mtg. @ Plum Crazy Diner
7:30 am
April 5 Virtual Pesticide Applicators Recertification
April 15 Grain Marketing Mtg. @ Plum Crazy Diner
7:30 am
April 19 Virtual Nutrient Management Voucher
Training
April 29 Grain Marketing Mtg. @ Plum Crazy Diner
7:30 am

MARCH/APRIL 2022