

# Ag Notes

## Harford County Newsletter

UNIVERSITY OF  
MARYLAND  
EXTENSION

# December 2021

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

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

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## Hello, Harford County!

I think I say this every year, but it's hard to believe we are almost through another year; it seems like it was 2019 only a few months ago!

Many have been calling into the Extension office asking about training courses and classes for the winter season. I have published meeting dates in previous issues, but I thought I would highlight a few select upcoming

programs here that may be of interest to you. Contact information is provided for registration and further details. If you have any questions, please let me know. Have a very Merry Christmas and Happy Holidays!

Until next time,  
-Andy

The Extension office will be closed on  
December 24 and 31.

### Agronomy

Carroll County Winter Farm Meeting <i>Westminster, MD</i>	January 13, 2022 Contact: (410) 386-2760
Harford County Mid-Winter Agronomy Meeting <i>Street, MD</i>	February 15, 2022 Contact: (410) 638-3255
Virtual Agronomy Meeting <i>Online</i>	February 3, 2022 Contact: <a href="mailto:akness@umd.edu">akness@umd.edu</a> or <a href="mailto:ecrowl@umd.edu">ecrowl@umd.edu</a>

### Forage

Virtual Forage Conference <i>Online</i>	January 25 & 27, 2022 <a href="http://go.umd.edu/virtualforageconference">go.umd.edu/virtualforageconference</a>
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### Fruit & Vegetable

Central Maryland Vegetable Grower's Meeting <i>Upperco, MD</i>	January 27, 2022 Contact: (410) 887-8090
Western Maryland Fruit Meeting <i>Keedysville, MD</i>	February 10, 2022 Contact: (301) 432-2767
Virtual Produce Safety Rule Training <i>Online</i>	January 26 & 27, 2022 Contact: (316) 993-5293
Virtual Vegetable Meeting <i>Online</i>	February 8, 2022 <a href="https://umd.zoom.us/meeting/register/tJ0rdeuhrjstE9P3LFCJSiCd9XKWwMDI6iaT">https://umd.zoom.us/meeting/register/tJ0rdeuhrjstE9P3LFCJSiCd9XKWwMDI6iaT</a>
Virtual Fruit Meeting <i>Online</i>	March 1, 2022 Contact: TBA

### Urban Agriculture

Urban Farmer Winter Meeting <i>Baltimore, MD and online options</i>	January 22 & 24, 2022 <a href="https://extension.umd.edu/resource/urban-agriculture-grower-meetings">https://extension.umd.edu/resource/urban-agriculture-grower-meetings</a>
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Maryland Department of Agriculture [press release](#)

The Maryland Department of Agriculture (MDA) will host the Maryland's Best Expo on Wednesday, January 19 from 10 a.m. to 2 p.m. at the Navy-Marine Corps Memorial Stadium in Annapolis. Returning for its eighteenth year, after being canceled in 2021 due to the COVID-19 pandemic, the Maryland's Best Expo provides an opportunity for Maryland farmers, seafood producers, and processors to connect with buyers from grocery retailers, restaurants, schools, food distributors, and other venues.

"We are thrilled to be back in person and hosting the 2022 Maryland's Best Expo," said Maryland Agriculture Secretary Joe Bartenfelder. "This premiere event plays an important role in connecting our Maryland farmers and producers to buyers from around the state. Over the past two decades, MDA's Marketing Program, Maryland's Best, has promoted our state's agricultural and seafood products, and expanded markets for our farmers and producers. I am incredibly proud of their work and grateful for their efforts."

The 2020 Maryland's Best Expo attracted more than 300 attendees. Participants included farmers, producers, watermen, aquaculturists, processors, grocery store retailers, restaurants, schools, institutions, distributors, economic development officials, University of Maryland Extension (UME) agents, and regional agricultural marketing officials. The Maryland Chapter of the Farmer Veteran Coalition will also be meeting during the Expo.

This year's event will be held in the "N Room" at the Navy-Marine Corps Memorial Stadium, 550 Taylor

Avenue, Annapolis. Registration is required. The deadline to sign up is January 5, 2022. There is a \$25 fee for a table display space. There is no fee for buyers, but they must register. For more information on the expo or to register, visit the [Maryland's Best website](#).

You should attend this event if you are:

- A Maryland grower, watermen, seafood company, or processor interested in finding new markets for your products;
- A buyer from a grocery store, restaurant, hospital, school, or other venue looking to purchase Maryland grown or produced products; or
- A service provider in agriculture or local food (such as a UME county extension agent, food writer, etc.).

The types of local products that buyers will typically find are:

- Fruits and vegetables
- Meats (such as poultry, beef, and bison)
- Dairy products (cow, sheep, and goats milk/cheese; ice cream; yogurt; and butter)
- Seafood (such as crabmeat, oysters, and rockfish)
- Craft Beverages (beer, wine, spirits, juices, kombucha, coffee, etc.)
- Specialty products (including hemp products, sauces, baked goods, chocolate, soups, flour, etc.)

For questions or help registering, please contact Karen Fedor at (410) 841-5773 or [karen.fedor@maryland.gov](mailto:karen.fedor@maryland.gov).



**Maryland's Best Expo**

**Wednesday, January 19 (10 a.m.–2 p.m.)**  
**Navy-Marine Corps Memorial Stadium**

# Effect of Soil Fertility on Triticale Yield & Quality

Amanda Grev, Pasture & Forage Specialist | Sarah Potts, Dairy and Beef Specialist | and Jeff Semler, Principal Agriculture Agent  
University of Maryland Extension

Many producers recognize the value of winter forages, such as triticale, as a high-yielding and high quality forage for feeding livestock. The yield potential for winter forages is largely based on planting date and fall nitrogen availability; these two critical factors determine the number of fall tillers, which sets the yield potential for the following spring. Winter forages like triticale can also serve as a high quality forage source and can be a good source of protein, potentially making them a more economical alternative to other feed ingredients such as soybean meal for meeting ration protein needs.

It has been well established that nitrogen fertility can influence forage protein concentrations, but nutrient management regulations can limit nitrogen application rates due to the potential for nutrient leaching and runoff. Although this concern is valid, research from other states and preliminary research by our team in Maryland using higher nitrogen rates, has shown promise that triticale can take up additional nitrogen without increasing leaching losses.

The objectives of this study are to investigate the effect of increasing nitrogen fertility rates with and without sulfur on triticale forage to determine 1) the effects on forage yield, 2) if using a higher fertilization rate will increase the value of the forage through increased protein concentrations, and 3) the resulting implications of incorporating that forage into the ration for lactating dairy cattle. The research will include an initial field trial to assess soil nutrient status, forage quality, and forage yield under varying nitrogen and sulfur fertility treatments. This will be followed by a feeding study to assess dairy cow milk production and performance when fed the resulting forage, and then finally, an economic analysis to assess the effectiveness of the system.

## Methods

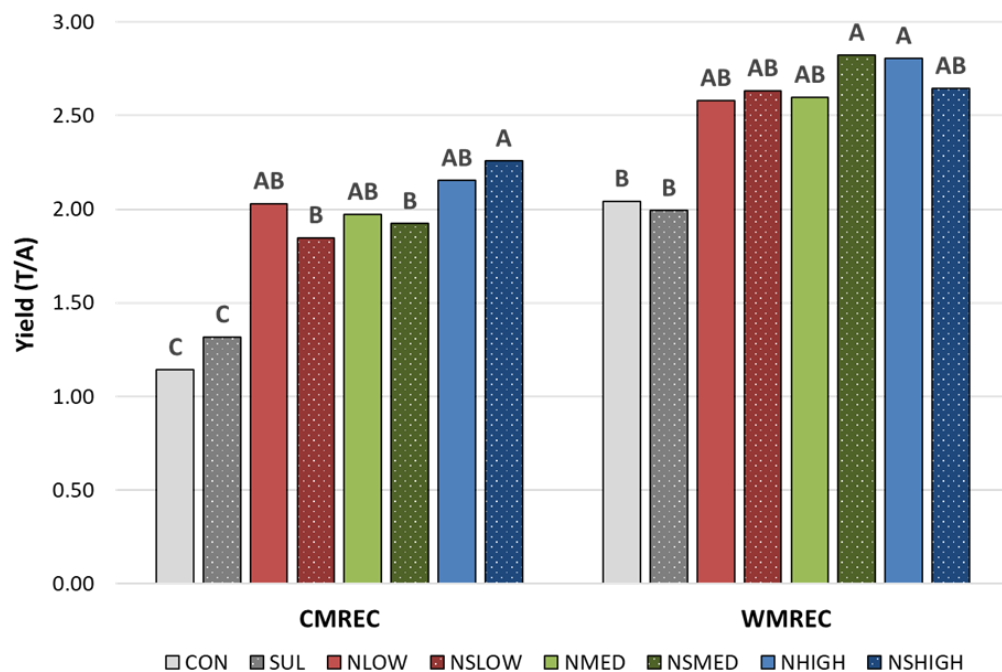
In the fall of 2020, triticale was established in replicated fields at both the Central (Clarksville) and

**Table 1.** Triticale fertility treatment descriptions.

Treatment	Nitrogen (lb/ac)	Sulfur (lb/ac)
CON	0	0
SUL	0	15
NLOW	50	0
NSLOW	50	15
NMED	100	0
MSMED	100	15
NHIGH	150	0
NSHIGH	150	15

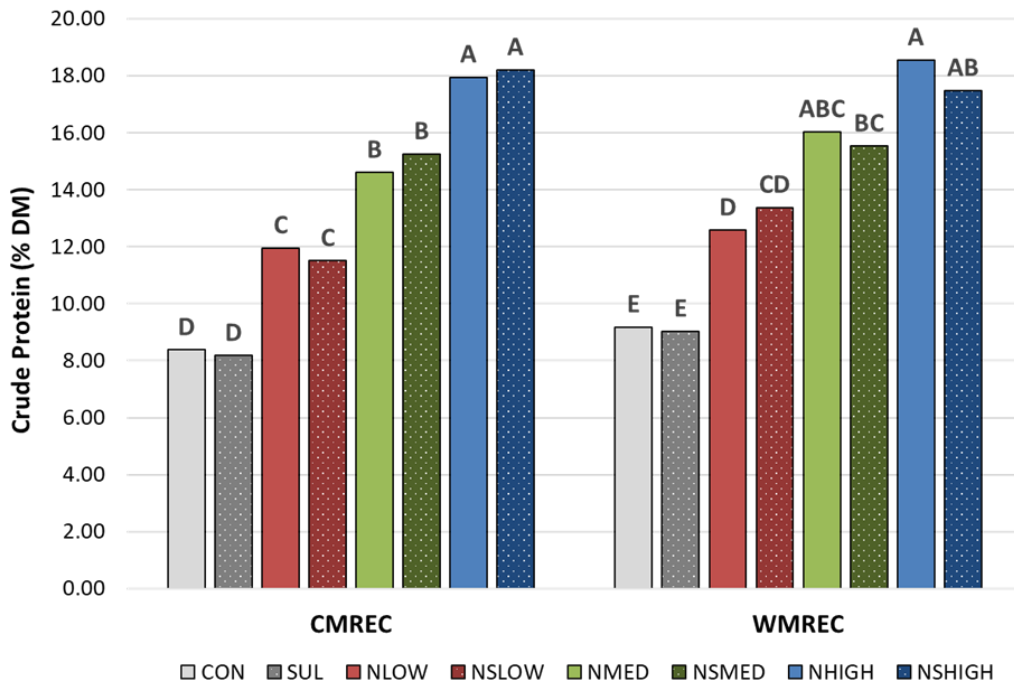
Western (Keedysville) Maryland Research and Education Centers. Fertility treatments included increasing levels of nitrogen with and without the addition of sulfur (Table 1). Fertility treatments were applied in March 2021, and soil nitrate samples were collected before and after fertilizer application to test for potential losses from nitrate leaching. Triticale plots were harvested when forage reached the boot stage on April 26 and April 27 at Keedysville and Clarksville, respectively. At both locations, plots were harvested mechanically using a forage harvester. Harvested forage was weighed for yield determination and samples were taken for forage quality analysis.

## Results



**Figure 1.** Forage yield (T/A) for triticale forage plots in Clarksville (CMREC) and Keedysville (WMREC). Within location, treatments without a common letter are significantly different ( $\alpha=0.05$ ).

Forage yields for the fertility treatments that included nitrogen were similar but were increased compared to the CON and SUL control treatments (Figure 1). This pattern held true at each location, with yields averaging 2.0 T/A at Clarksville and 2.7 T/A at Keedysville.



**Figure 2.** Crude protein concentrations (% DM) for triticale plots in Clarksville (CMREC) and Keedysville (WMREC). Within location, treatments without a common letter are significantly different ( $\alpha=0.05$ ).

At both locations, forage crude protein (CP) concentrations were lowest for the CON and SUL treatments (average 8.7% CP) and increased with increasing fertility, with the NHIGH and NSHIGH treatments containing the greatest amount of protein (average 18% CP; Figure 2). Across all fertility treatments, the addition of sulfur did not further increase forage CP concentrations, likely because fields were not limiting in sulfur prior to this experiment.

Neutral detergent fiber concentrations did not differ between fertility treatments at either location, averaging 51% across all locations and treatments. Similarly, total digestible nutrients did not differ between fertility treatments at either location, averaging 65% across all locations and treatments.

At both locations, nitrate concentrations in soil samples taken both pre- and post-fertilizer application remained minimal, indicating no additional nitrogen losses due to leaching.

### Conclusions

Overall, these preliminary results indicate that additional nitrogen fertility can influence forage protein concentrations, and that triticale can take up additional nitrogen without increasing leaching losses.

### Future Plans

At the Clarksville location, triticale with similar fertility treatments (low, moderate, and high nitrogen) was also planted on a larger field scale, harvested, and ensiled using Ag bags. This forage is currently being used for a feeding

study happening this fall. Dietary treatments include triticale silage grown under low, moderate, and high nitrogen fertility compared to a control ration made up of a corn silage/alfalfa base; for the triticale dietary treatments, triticale silage is being included in the ration at 30% DM. The goal of this feeding study is to test the effects of triticale incorporation on feed intake, milk production, milk components, and health parameters when included in the diet of lactating dairy cows.

Following this feeding study, an economic comparison of the cost of meeting ration protein needs through increased soil fertility (i.e. increased triticale protein concentrations) versus through traditional sources such as soybean meal or alfalfa will also be completed. The entire study will also be repeated with similar methodology in 2022.

## Grain Marketing Update

January 14, 2021 | 8:30 –11:00 am | Online via Zoom

This will be a virtual meeting including speakers on various topics in grain marketing. Speakers include marketing specialists, traders and more.

**Topics include:** Local and national grain outlook for

2022; Tax considerations; Crop insurance; Crop budgets.

Please register at <https://go.umd.edu/grainmarketingupdate>

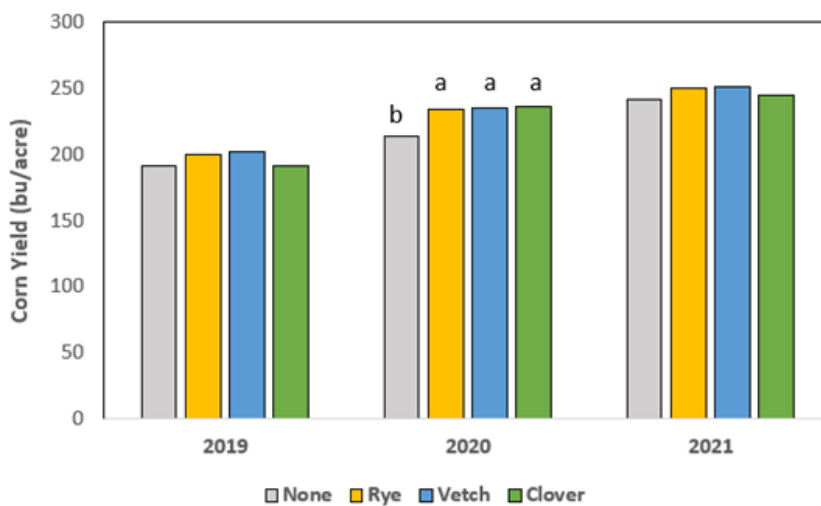
# Corn Yields Following Cover Crops

Jarrod Miller, Extension Agronomist  
University of Delaware

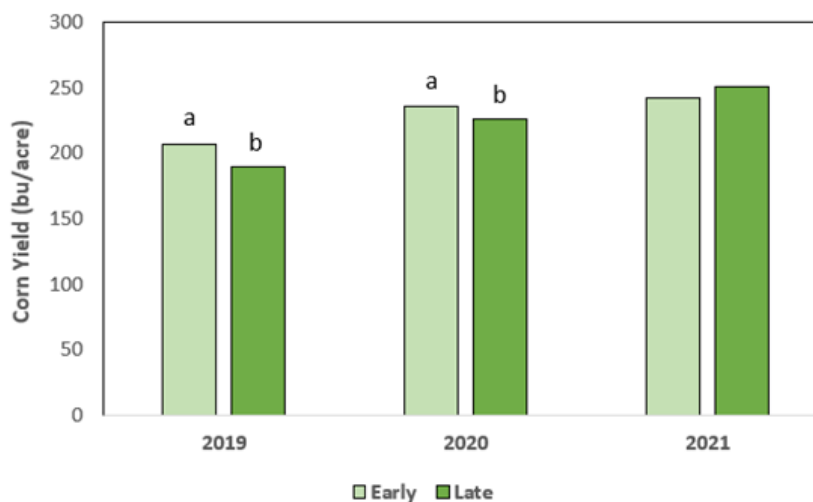
This fall marks the end of a three-year study sponsored by the Delaware NRCS to look at cover crop mixes and their effects on subsequent grain crops. On a sandy loam soil, we planted corn into bare plots, as well as plots containing rye, a rye/clover mix, and a rye/vetch mix. Cover crop biomass was burned down (terminated) either two weeks ahead or at planting (green).

We saw no effect of cover crop type on subsequent corn yields in 2019 and 2021 (Figure 1); however, corn yields in 2020 were higher in plots with cover crops than corn planted into the bare soil (Figure 1). We attribute the yield bump in 2020 to the protection that the cover crop biomass provided during early corn growth (V2/V3) during a late May freeze. Burning cover crops down two weeks prior to planting also significantly boosted corn yield (+15 and +10 bu/A in 2019 and 2020, respectively); there was no effect of cover crop termination timing on corn yields were similar in 2021 (Figure 2).

While planting a legume with rye did not significantly increase corn yield, it also did not result in yield decline. Overall, planting winter cover crops to reduce erosion, maintain living roots, or just improve soil health can be done without limiting potential corn yields. However, planting green may cause corn yield losses depending on the year and field conditions.



**Figure 1.** Corn yields in 2019, 2020, and 2021 harvested from plots with different winter cover crops. Bars with the same letter were not statistically different.



**Figure 2.** Corn yields in 2019, 2020, harvested from plots with different cover crop termination timing (early or planting green). Bars with the same letter were not statistically different.

## Harford County Mid-Winter Agronomy Meeting

Save the date for the 2022 Harford County Mid-Winter Agronomy Meeting taking place on February 15, 2022 at Deer Creek Overlook. Details to follow in the January newsletter. We look forward to seeing you there!



## Maryland Beginning Farmer Series



This course is designed for people in Maryland who are considering or in the beginning stages of starting a farm as a business. Topics covered will include business planning, marketing, crop production, livestock husbandry, soil health, pest management, food safety, and regulations and certifications. Additional elective resources will cover more specialized topics, such as organic production, urban agriculture, and direct marketing to local customers.

This 9-week course will be offered in a blended in-person and online format.

- The class will meet on Thursday evenings, from 7 to 8:30 pm, from February 10 through April 7, 2022.
- The course kick-off session on February 10 and the final class and graduation ceremony on April 7 will be held in person. Small groups of students will meet in person at the local Extension office at one of several locations across the state of Maryland. These in-person locations will be determined by the locations of the students who register for the course.
- In weeks 2 through 8 of the course, students will complete at-your-own pace homework on the course website on eXtension.org Campus and will

meet online each Thursday from 7 to 8:30pm for a live class using the software Zoom.

This course does not provide college credit or a certification. To complete the course, students will need to both attend the weekly class and complete weekly homework on the course website.

By actively engaging in this program, participants will:

- Understand each of the topics covered at a beginner's level, so they will be prepared to take more advanced trainings in future.
- Decide what they need to learn more about next to launch their farm business.

Two course textbooks will be used, with supplementary readings and videos from additional sources. Both course textbooks are available for free digitally. Hard-copies of the course textbooks can be purchased to be picked up at the Feb 10 in-person kick-off session.

Course registration is \$65 plus Eventbrite fees. If this is a financial barrier, please contact Neith Little at [nlittle@umd.edu](mailto:nlittle@umd.edu) to request a scholarship application.

Register online at <https://www.eventbrite.com/e/maryland-beginning-farmer-success-course-tickets-214841074437>.

## Organic Grain Workshop

**December 10, 2021 | 12:00pm– 2:00pm**

Interested in \$30 soybeans or \$10 corn? Want to increase water and nutrient availability in organic grain fields?

Join this FREE virtual program to hear from farmers and researchers about transitioning to organic grains

and organic grain farming best management practices.

Continuing education credits for pesticide and nutrient management will be offered at this event.

To register, call Somerset Extension Office at (410) 651-1350 or email Sarah Hirsh at [shirsh@umd.edu](mailto:shirsh@umd.edu).

## Pesticide Training

The pesticide recertification training originally scheduled for November 23 at the Harford County Extension office had to be canceled. The new training date will be **December 20, 1-3pm**. This training course will satisfy the requirements for private applicator recertification. To register, please call the Extension office at (410) 638-3255 or email [akness@umd.edu](mailto:akness@umd.edu).

*December 20*

*1:00—3:00 p.m.*

*Harford County Extension Office*

# MDA Certified Local Farm Enterprise Program

Sarah Everhart, Legal Specialist  
University of Maryland, Agriculture Law Education Initiative

Last week at the 7th Agricultural & Environmental Law Conference, attendees heard from numerous experts on a variety of topics - if you missed the conference you can check out the recorded presentations on the [ALEI webpage](#) on December 1, 2021. Presenters for *Strengthening Local Food Systems Through Law and Policy: the Role of Food Policy Councils and the Certified Local Farm Enterprise Program* discussed the concerns within Maryland's food system that have come to light over the past few years and the solutions that are being explored by state and local stakeholders.

The recently established Certified Local Farm Enterprise Program (CLFEP) spearheaded by the Maryland Department of Agriculture (MDA) is one effort that will encourage state agencies, including public four-year universities, to achieve an overall goal of purchasing 20% of their food from MDA's directory of certified local farm enterprises.

A certified local farm enterprise is one that meets specified nutrient management requirements in current Maryland law and is certified by MDA. The program regulations are currently in development but scheduled to be finalized by the end of 2021. Meanwhile, MDA has started compiling the [Certified Local Farm Enterprise Directory](#) to help state purchasers connect with qualifying producers.

According to Maryland State Delegate Lorig Charkoudian, who co-wrote the legislation that created the CLFEP, the motivations for the purchasing standard include increasing consumption of local foods. According to Del. Charkoudian, another benefit of the CLFEP is acknowledging the internalized costs Maryland producers incur when they comply with nutrient management plans and implement practices that reduce pollutant run-off into the Chesapeake Bay. Out-of-state

producers can become certified local farm enterprises but, in order to do so, they must operate with a nutrient management plan. The CLFEP requirement for nutrient management compliance equalizes the playing field between Maryland and out-of-state growers who are not legally required to have nutrient management plans.

## How can my farm become a certified local farm enterprise?

**Register.** Complete the [short online application](#) – you can also fill it out by hand, just print the [online form](#) and mail it to MDA. NOTE - starting in December, the application will be available only via [Maryland OneStop](#).

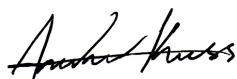
**Farm verification.** MDA will verify that you have a nutrient management plan. Out-of-state producers, who may not be required by their state law to have a plan, can still qualify for the directory if they can provide proof that they satisfy the program's nutrient management plan requirements.

**Certification.** Producers will receive notification that their farm is certified once the nutrient management plan is verified. Contact information, list of products, and certification number will be placed in the certified local farm enterprises public directory for state agencies to access. MDA will ask for updates to directory information once a year.

**What is the cost to become a Certified Local Farm Enterprise?** There is no cost to become a Certified Local Farm Enterprise.

Anyone with questions can reach out to the CLFEP Director Karen Fedor by Phone: (410) 841-5773; or email, [karen.fedor@maryland.gov](mailto:karen.fedor@maryland.gov).

General Interest



Andrew Kness  
Extension Agent,  
Agriculture and



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

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



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



*Great resources are just a click away!*

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## *Dates to remember*

- 03, 10, 17 Dec.** Backyard Farming Webinar: Flock Fridays. 12 PM. Free. Register [online](#) or contact [mperdue@umd.edu](mailto:mperdue@umd.edu).
- 06, 13, 15, 20 Dec.** Farm Stress Management Webinar Series. 9 AM. Free. Register [online](#).
- 08 Dec.** MDA Nutrient Management Update. 9 AM. Free. Register [online](#).
- 20 Dec.** Private Applicator Recertification Training. 1-3 PM. Harford County Extension office. Free. Call (410) 638-3255.
- 21 Dec.** Private Applicator Pesticide Exam. 9-11 AM. Baltimore County Extension office. Call (410) 887-8090.
- 27 Jan.** Central MD Vegetable Grower's Day. 8-1:30 PM. Friendly Farm Restaurant, Upperco. Details to come.
- 01-03 Feb.** Mid-Atlantic Fruit & Vegetable Convention. Hershey, PA. <https://www.mafvc.org/>.
- 15 Feb.** Harford County Mid-Winter Agronomy Meeting. Deer Creek Overlook, Street. Details to come.

# December 2021