

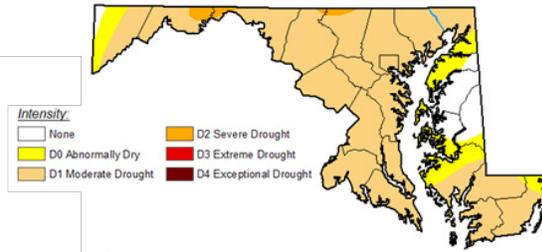
# AG NOTES

University of Maryland Extension | Harford County

## Hello Harford County!

Welcome to March! As you know, March 1 marks what many of us would consider the start of the growing season as manure applications are being made and soon more field preparations will be completed for the 2026 crop. As a reminder, you should have your pesticide and nutrient management credits and licenses renewed by now; but in the event that you still need credits, your final opportunities are listed in the table below. Also, a reminder to complete your paraquat training as it is required for purchasing or applying any paraquat products. A link to the approved training is in the table below. Please reach out to me if you have trouble accessing any of the links.

Additionally, our UME Crop Budgets have been updated for 2026 and are available for download. More information can be found on page 6 of this newsletter.



Regarding conditions leading into spring, according to the most recent Drought Monitor report, nearly all of Maryland (91%) is still abnormally dry (see image above), with all of Harford County still in a D1 condition (moderate drought). While this winter's snowfall has alleviated some drought conditions, we are still 7 inches below average since September and 1.5 inches below average since January 1. We will see how this plays out over the next month or two; as you know, conditions can change quickly here in Maryland.

Until next time,  
-Andy



Happy St. Patrick's Day!



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| Upcoming Programs For Pesticide & Nutrient Management Credits |  |  |
|---|--|--|
| Date & Time   | Program  | Location   |
| March 12, 2026<br>9:00-11:00 am                               | Private Applicator Exam (for new applicators)      | Harford County Extension Office                    |
| March 12, 2026<br>1:00-3:00 pm                                | Private Applicator Recertification Training        | Harford County Extension Office                    |
| April 2, 2026<br>6:00-8:00 pm                                 | Online Private Applicator Recertification Training | Live via Zoom<br>Register <a href="#">here</a>     |
| April 9, 2026<br>6:00-8:00 pm                                 | Online Nutrient Management Voucher Training        | Live via Zoom<br>Register <a href="#">here</a>     |
| Asynchronous  | Paraquat Training                                  | Self-paced online<br>Register <a href="#">here</a> |

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3525 Conowingo Rd., Suite 600  
Street, MD 21154  
M - F 8:00 AM - 4:30 PM  
[extension.umd.edu](http://extension.umd.edu)

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Senior Agriculture Agent  
(410) 638-3255  
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# Value Added Producer Grants in Delaware and Maryland

United States Department of Agriculture [press release](#)

## What Does the VAPG Program Do?

The Value-Added Producer Grant (VAPG) program helps U.S. agricultural producers enter into value-added activities that:

- Generate new products from raw agricultural commodities
- Create and expand marketing opportunities
- Increase producer income through enhanced product value and market reach

These grants support either:

- Planning activities (e.g., feasibility studies, business and marketing plans)
- Working capital needs (e.g., processing, packaging, advertising, inventory, and salaries)

## Who Gets Priority?

Applicants may receive priority consideration if they meet any of the following criteria:

- Beginning farmer or rancher
- Veteran farmer or rancher
- Socially disadvantaged farmer or rancher
- Small or medium-sized farm or ranch structured as a family farm
- Farmer or rancher cooperative
- Proposing a Mid-Tier Value Chain project

Additionally, 10% of total funds are reserved for:

- Beginning, veteran, and socially disadvantaged farmers/ranchers
- Mid-tier value chain proposals
- Food safety projects where the majority of funds improve market access

## Funding Overview

Total available funding is approximately \$25 million.  
Maximum grant amounts: Planning Grants: Up to \$50,000.  
Working Capital Grants: Up to \$200,000.

Matching Requirement: 1:1 match (100% of the grant amount), which may include cash or eligible in-kind contributions

Grants are awarded through a nationally competitive process based on criteria outlined in [7 CFR 4284, Subpart J](#).

## Who May Apply?

Eligible applicants include:

- Agricultural producers (including harvesters and steering committees)
- Agricultural producer groups
- Farmer- or rancher-cooperatives
- Majority-controlled producer-based business ventures

Applicants must demonstrate that they: Own and produce more than 50% of the raw commodity; Will retain greater revenue from the value-added product than from the raw commodity alone

## How to Check Eligibility

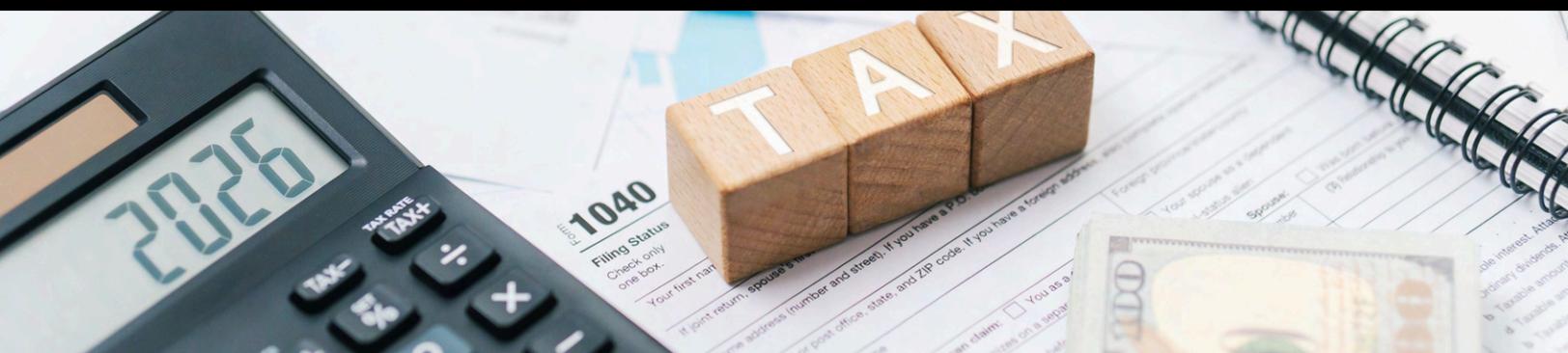
A VAPG Self-Assessment Survey is available to help determine your eligibility. While not required, it is strongly encouraged before beginning the application process.

Take the [VAPG Self-Assessment Survey](#).

## Application

Applications for the VAPG program must be completed through the Grant Application Portal (GAP) (<https://vapg.rd.usda.gov/>) and are due 1:00 p.m. ET on April 22, 2026.

If you have difficulty accessing the full announcement electronically, please contact: Program Management Division, Phone (202) 720-1400.



## Business Marketing Workshop

March 12, 2026 | 5:30 PM - 7:30 PM  
CONVERGE Center, 1201 Technology Drive in Aberdeen

Join Harford County Department of Economic Development on Thursday, March 12 for: "Marketing That Moves the Needle: Practical Strategies for Growing Business." This free workshop from Maryland's Small Business Development Center (SBDC) that will offer practical, actionable information on:

- Building a cohesive marketing strategy across digital, social, and traditional channels
- Using social media and digital marketing to increase visibility and engagement
- Measuring performance and adjusting for better results

Participants can register here: [bit.ly/LevelUpMarketingBiz](https://bit.ly/LevelUpMarketingBiz) or contact Emily Dickerson, (410) 638-3338.

### AIR Deadline Pushed to April 1

Your nutrient management Annual Implementation Report (AIR) is now due April 1 to the Maryland Department of Agriculture (MDA). The deadline has been extended by one month due to printing issues. The green forms should be completed and **mailed** to the address on the form. Alternatively, you can complete your AIR online at Maryland [OneStop](#) and search for "2025 AIR." Two nutrient management CEUs will be offered to those that complete the form via OneStop. Questions regarding your AIR can be directed to Craig McSparran (410-991-3114).

## Ag Plastic Recycling Program Suspended

Contact Sarah Randall with questions or concerns [srandall@menv.com](mailto:srandall@menv.com) | (410) 638-3417

Sarah Randall, Senior Lead for the Recycling Program with Maryland Environmental Service in Harford County, shares that the agriculture plastic recycling program is suspended until further notice. Sarah explains that the company that accepted the ag plastic from Harford County was sold and is no longer accepting ag plastic. They are disappointed about this development and are working to find alternative options.

The ag plastic recycling program has been very successful in Harford County and Sarah's office will keep us informed if a new vendor is secured and the program can be reinstated. In the meantime, direct any questions or concerns to Sarah Randall at [srandall@menv.com](mailto:srandall@menv.com) or (410) 638-3417.

## Equine Health and Wellness Seminar

Presented by

University of Maryland Extension and South Mountain Equine

Join us for an educational evening for horse owners and equine professionals.

This is **FREE** to attend but you must register.

**NEW  
DATE!**

**April 2 • 6-8 pm**

CMREC - Headquarters Building  
4240 Folly Quarter Road, Bldg 671  
Ellicott City, MD 21042

Register here

<https://go.umd.edu/equinehealth>

- **Dr. Caity Cosentino** - Incorporating Equine Medical Manipulation (chiropractic) and Acupuncture in your Horse's Care
- **Dr. Brooke Alnwick** - Joint Juice: An Introduction to the Products Utilized for Joint Disease in Horses
- **Dr. Justin Sobota** - From Blind to Guided: The evolution of imaging and our treatment



SOUTH MOUNTAIN EQUINE

Equal Opportunity Program

UNIVERSITY OF  
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EXTENSION



# What Vegetable Growers Need to Know About New Isocycloseram Insecticides

Veronica Yurchak, Commercial Vegetable Specialist  
University of Maryland Extension

Recently registered products with Syngenta's new Plinazolin® technology introduce a new mode of action for vegetable crops, offering growers an important resistance-management tool. Below is an overview of the different formulations, how this new mode of action works, regional performance, and key considerations to keep in mind as you plan your spray programs.

Plinazolin technology contains the novel active ingredient isocycloseram, which belongs to IRAC Group 30 (isoxazolines). The EPA has approved four formulations labeled for use in vegetables. Three formulations are foliar-applied products for use in brassicas, fruiting vegetables, cucurbits, and leafy greens (Incipio™), potatoes (Zivalgo™), and onions (Vertento™). An additional formulation has also been registered for use as a seed treatment in beans and peas (Equento™). All products are expected to be registered and available within Maryland ahead of the 2026 growing season.

## New mode of action - How it works

As the first Group 30 insecticide registered for foliar application in vegetables, isocycloseram has no known resistance or cross-resistance with other insecticides and can therefore play an important role in managing insect resistance challenges in various vegetable crops. After application, isocycloseram remains active on plant surfaces. Insects are then exposed when feeding on treated leaves, stems, or fruit, or when crawling across treated surfaces. Once inside the insect, the pesticide quickly overstimulates the nervous system, leading to paralysis and eventual death. While it acts primarily as a contact insecticide, some limited movement into plant tissues does occur. Because ingestion of treated plant material is the main route of exposure, Plinazolin products are mainly effective against chewing pests, with additional efficacy against some sucking pests.

## Pest Control Efficacy & Resistance Management

Regional efficacy trials have demonstrated strong performance against several key vegetable pests. In Maryland and Virginia, foliar applications have provided very good control of stink bugs, thrips, and spider mites in tomatoes. Virginia trials have also shown very good control of Colorado potato beetle in potatoes and flea beetle in Chinese cabbage. In New York onion trials, isocycloseram delivered similar control of allium leafminer as compared to the leading recommended products. Additional trials have further indicated good control of fruitworm (*Helicoverpa zea*) in tomatoes as well as other caterpillar pests in various cole crops.

Despite good *H. zea* control in tomatoes, control of corn earworm (*H. zea*) in sweet corn has been less consistent, and there are currently no isocycloseram products registered for foliar use in sweet corn. Isocycloseram products are also not registered for use on many piercing-sucking pests due to inconsistent/weak pest control performance. For example, trials have shown inadequate control of both aphids and whiteflies; therefore, it is not registered for controlling these pests.

As with any new chemistry, stewardship is critical. Growers should carefully follow label directions and rotate among insecticide modes of action throughout the season. Rotate between different IRAC groups for successive pest generations and avoid more than two consecutive applications of the same mode of action. Specific application requirements for resistance management are included on the label for several pests, including diamondback moths. To further delay resistance development, insecticides should be used as a part of a diverse integrated pest management strategy inclusive of both chemical and non-chemical pest control tactics.

## Protecting Pollinators and Non-Target Organisms

Isocycloseram is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues on blooming crops and weeds. Avoid applications to blooming crops, restrict spray timing to hours when bees are less active (very early mornings and evenings), and implement buffer zones and measures to reduce drift. While non-target data is limited, it should be assumed that isocycloseram applications will negatively impact insect natural enemies.

As part of the EPA strategy to protect endangered species, newly registered or renewed insecticides may be subject to additional application restrictions. Directions for determining additional restrictions for all isocycloseram products can be found under the "Restrictions and Precautions" section of the labels.

## Human Toxicity

The EPA completed human health risk assessments as part of the registration of isocycloseram and found "no human health risks of concern when isocycloseram is used according to the registered labels." This means that under expected uses, dietary exposure (through food residues) and other general human exposure should not pose a health risk when label directions are followed. Consult the label for full PPE requirements.

The full article can be viewed on our [website](#).

## Upcoming Seminar: Understanding Eminent Domain

March 25, 2026 | 6:00 PM  
Baltimore County Agriculture Center, Cockeysville

The University of Maryland Extension, the Department of Agricultural and Resource Economics, and the Agriculture Law Education Initiative will host a free workshop, "Understanding Eminent Domain," on Wednesday March 25, at 6:00 p.m. at Baltimore County Ag Center in Cockeysville, Maryland. The workshop is designed to help landowners better understand how eminent domain and utility easements may affect their property, particularly in relation to proposed electric transmission lines. There is no cost to attend, but registration is encouraged by March 20.

This educational program will explain how eminent domain works, what landowners can expect during utility easement negotiations, and the options available to protect landowner rights and pursue fair compensation. The session is intended for landowners, farmers, and community members who want to stay informed and prepared when facing potential infrastructure projects that affect private property.

"Landowners often have questions and concerns when approached about easements or potential transmission projects," said Paul Goeringer, Principal Faculty Specialist and Extension Specialist in agricultural law with the University of Maryland. "This workshop provides practical, plain-language information to help landowners understand the process and make informed decisions."

Participants can register online at <https://go.umd.edu/BCEminWork>. For additional information, interested individuals may [lgoering@umd.edu](mailto:lgoering@umd.edu).

*University of Maryland Extension programs are open to all and will not discriminate against anyone because of race, age, sex, gender identity or expression, sexual orientation, marital status, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.*

## UME Grant for Improving Soil Health and Water Quality

University of Maryland Extension [press release](#)  
Farmers of all sizes can apply for cost-share to participate

Expanding upon previous successful programs that advance water quality improvement through managing agricultural run-off using thoughtful, site-specific implementation of cover crops at field scale, the University of Maryland Extension (UME) is launching a new advanced cover crop initiative.

The new project is designed to shift the Maryland farmer paradigm of cover crops as a "defensive" conservation practice to an "offensive" agronomic practice to benefit current and future production efficiency while simultaneously advancing water quality improvement and soil health outcomes.

In collaboration with long term partner Future Harvest (FH), consultation from Colorado State University (CSU) Institute for Research in the Social Sciences, and matching support from Maryland Department of Agriculture (MDA), UME received a grant endowed by the National Fish and Wildlife Foundation's Innovative Nutrient and Sediment Reduction Grant Program. The award is to expand the adoption of cover crops throughout the Chesapeake Bay region by focusing on site-specific, purposeful cover cropping to optimize agronomic and environmental benefits.

Grain, livestock, and specialty crop farmers, including small acreage and urban producers, will be invited to apply to participate in the project. Interested farmers will choose from a list of cover cropping practices and will be offered a free consultation to identify which practice or combination of practices will best address the needs of their crop fields. Farmers accepted into the program will be provided with financial payment. The project runs to December 31, 2027. Applications will open in March. For more information contact [shirsh@umd.edu](mailto:shirsh@umd.edu) or (410) 651-1350.

To learn more about cover crops in Maryland, visit <https://go.umd.edu/CoverCropIntro>.

*This work is supported by the National Fish and Wildlife Foundation's Innovative Nutrient and Sediment Reduction Grant Program Project 78444.*



## 2026 Field Crop Budgets

Shannon Dill, Principal Agriculture Agent and Assistant Director of Operations  
University of Maryland Extension

The University of Maryland Extension has updated [go.umd.edu/grainmarketing](http://go.umd.edu/grainmarketing) site with new input data for the 2026 field crop budgets.

### Crop Budgets

Cost of production is very important when making decisions related to your farm enterprise and grain marketing. UME Winter Crop Production Meetings surveys consistently report a high percentage of farmers believe input costs are among the greatest challenges facing their farm operation, especially given recent commodity prices and input costs. Enterprise budgets provide valuable information regarding individual enterprises on the farm. This tool enables farm managers to make decisions regarding enterprises and plan for the coming production year. An enterprise budget uses farm revenue, variable cost, fixed cost, and net income to provide a clear picture of the financial health of each farm enterprise.

The 2026 Maryland enterprise budgets were developed using average yields and estimated input costs based on producer and farm supplier data. Fertilizer prices, pesticide availability, and fuel expenses have fluctuated greatly. The figures presented are averages and vary greatly from one farm and region to the other. It is crucial to input actual farm data when completing enterprise budgets for your farm.

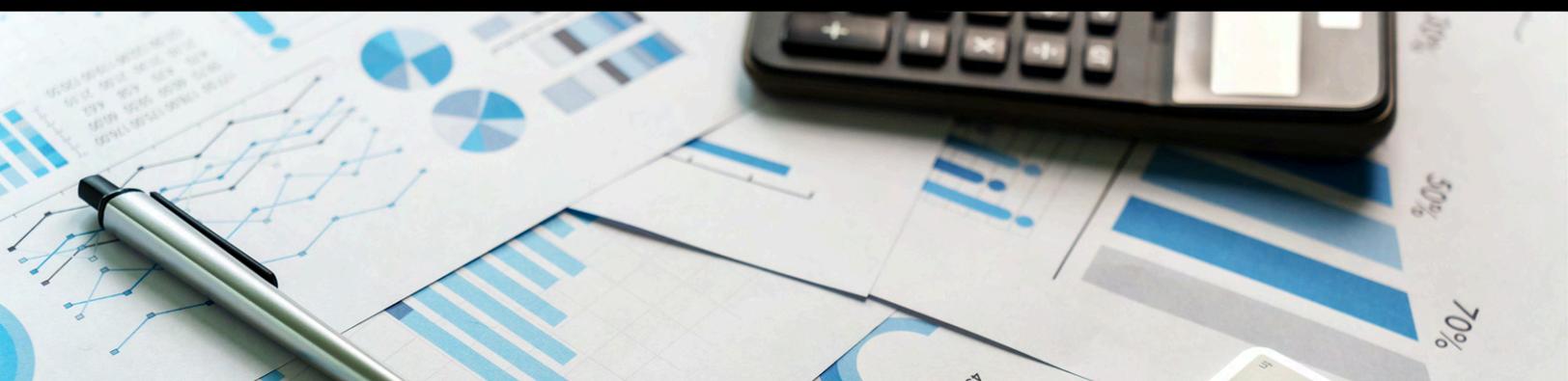
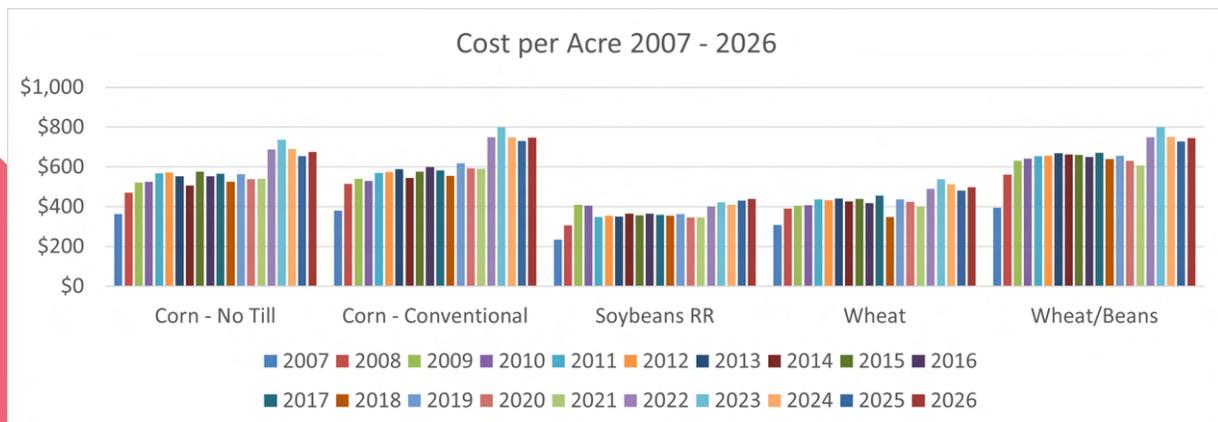
### How to Use Enterprise Budgets

The enterprise budgets can be used as a baseline for your operation, and you can change these budgets to include your production techniques, inputs, and overall management. The budgets are available electronically in PDF or Excel. Use this document as a start or reference to create your own specific crop budgets. Contact information is on the website if you have problems downloading any information.

### 2026 Crop Budget Summary

Cost per acre expenses for 2026 have increased 2-3% over 2025. Based on data received, cost of production estimates include:

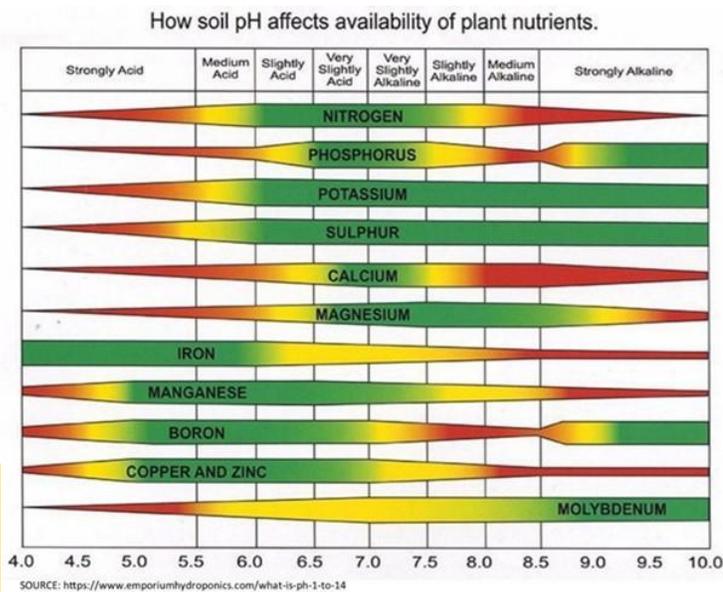
- No-till corn: \$675/acre
- Conventional till corn: \$747/acre
- Soybean: \$439/acre
- Wheat: \$497/acre
- Wheat/double-crop soybean: \$744/acre



## The Importance of pH and Liming Material

Kelly Nichols, Agriculture Agent  
University of Maryland Extension, Montgomery County

"If I were stranded on a desert island and could do only one part of the soil test to determine how to grow food, I would test for pH." This statement, made by Dr. Doug Beegle, my soil fertility professor from Penn State, highlighted how important soil pH is. For most agronomic crops, the ideal pH is between 6.0 and 6.5. Alfalfa and barley prefer a bit higher pH of 6.5-7.0. Between the pH of 6 and 7, nutrient availability is at its optimum. Outside that range, key nutrients such as nitrogen, phosphorus, and potassium become more tightly bound to other nutrients and unavailable for the crops to take up (Figure 1). Below 6.0, nutrients such as iron, copper, and aluminum become more available, and in some cases could result in toxicity to the crop.



**Figure 1.** The green areas indicate high availability to the crop, while the red areas indicate low or no availability to the crop.

Over time, the pH of soil naturally decreases. So, to increase the pH, we add lime. The soil test results will provide the amount of lime needed to increase pH to the optimum level. The lab uses the current soil pH and acidity of the soil to determine how much lime is needed (your soil test may report the acidity, which is measured in milliequivalents per 100 grams [meg/100 g]).

Let's say your soil test result says that you need 2 tons of lime per acre to increase the pH to 7.0. Does that mean you can put on 2 tons of whatever liming material you like

best? Not quite. The results are given based on the assumption of using calcium carbonate, which is considered pure limestone and given a rating of 100% calcium carbonate equivalent, or CCE. All other liming materials are compared to calcium carbonate and given their own CCE (Table 1). For example, burned lime has a CCE of 178%. This means that it has more acid-neutralizing activity than pure calcium carbonate; therefore, less material is needed to obtain the same neutralizing activity as pure lime. Wood ashes, on the other hand, has a CCE of 40%; therefore, more material needs to be applied in order to adjust the pH.

Don't forget to take the price into consideration when comparing liming materials! For example, if ground shells are really cheap, that's great; but it has a lower CCE, so you'll need to apply more.

For more information, [click here](#) (Soil Fertility Management PDF) to read the Soil pH Management and Determining Lime Rates fact sheet.

**Table 1.** Examples of common liming materials and their calcium carbonate equivalent.

| Liming material   | Calcium carbonate equivalent (CCE) | Equivalent to one ton of pure limestone (lbs) |
|---|------------------------------------|---|
| Ground limestone, calcitic limestone, calcite, hi-cal lime, calcium carbonate | 100%                               | 2,000   |
| Burned lime, quick lime, unslaked lime, calcium oxide                         | 178%                               | 1,120   |
| Hydrated lime, builders' lime, slaked lime, calcium hydroxide                 | 134%                               | 1,490   |
| Dolomitic limestone, hi-mag limestone, calcium magnesium carbonate            | 95-109%                            | 1,830-2,100                                   |
| Ground shells   | 80-90%                             | 2,200-2,500                                   |
| Calcium silicate slag   | 70-80%                             | 2,500-2860                                    |
| Marl  | 40-90%                             | 2,220-5,000                                   |
| Wood ashes  | 40%                                | 5,000   |



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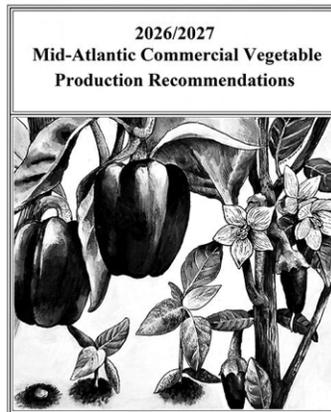
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## Dates to remember

- 12 Mar.** Private Applicator Pesticide Exam. 9-11 AM. Harford County Extension Office. Free. Register by calling (410) 638-3255 or email [akness@umd.edu](mailto:akness@umd.edu).
- 12 Mar.** Private Applicator Recertification. 1-3 PM. Harford County Extension Office. Free. Register by calling (410) 638-3255 or email [akness@umd.edu](mailto:akness@umd.edu).
- 12 Mar.** Business Marketing Workshop. 5:30-7:30 PM. Converge Business Center, Aberdeen. Free. Register [online](#).
- 25 Mar.** Eminent Domain Workshop. 6 PM. Baltimore County Ag Center, Cockeysville. Register at [go.umd.edu/BCEminWork](http://go.umd.edu/BCEminWork).
- 01 Apr.** Annual Implementation Report (AIR) due to Maryland Department of Agriculture.
- 02 Apr.** Equine Wellness Seminar. 6-8 PM. Central MD Research & Education Center, Ellicott City. Free. Register at [go.umd.edu/equinehealth](http://go.umd.edu/equinehealth).



Get your copy of the 2026-2027 Commercial Vegetable Production Guide or contact the Extension office for a print copy.



March 2026