

Ag Notes

Harford County Newsletter

UNIVERSITY OF
MARYLAND
EXTENSION

University of
Maryland Extension

Harford County
Agricultural Center

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M—F 8:00 a.m.—4:30 p.m.

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Hello, Harford County!

It's hard to believe the year is nearly over! The 2018 growing season has proven to be one of the most challenging and frustrating seasons in recent memory. As we begin to wrap-up 2018 and get ready for 2019, winter is the time for many Extension meetings. The Harford County Mid-Winter Agronomy Meeting will be held on February 12, 2019 from 9-3:00 PM at Deer Creek Overlook. More details will come in the next issue, but you are more than welcome to register now by calling our office. A summary of additional Extension programs and regional conferences occurring this winter are listed below. Follow the links or call the number for additional details.

- ◆ [Northern Maryland Field Crops Day](#). December 6, 9-3 PM. Friendly Farms Restaurant, Upperco, MD. \$22 in advance, \$30 at the door. Call (410) 887-8090.
- ◆ [Turfgrass Nutrient Management Recertification](#). December 6, 8-1 PM. Carroll Community College, Westminster, MD. \$35. Call (301) 596-9413.
- ◆ Grain Marketing Workshop. (live stream from Chesapeake College) January 10, 8:30-11:30 AM. Harford County Extension Office, Street, MD. Free. Call (410) 638-3255.
- ◆ [Diversifying Your Farm Operation Workshop Series](#). January 8, 15 & 22, 12-3 PM. Call (410) 887-8090.
- ◆ [Carroll County Mid-Winter Farm Meeting](#). January, 17. Carroll County Extension Office, Westminster, MD. Call (410) 386-2760.
- ◆ [Tri-State Hay & Pasture Conference](#). January 17, 8:30-3 PM. Garrett College CTC, Accident, MD. \$20 in advance, \$25 at door. Call (301) 334-6960.
- ◆ [Farm Transfer Workshop](#). January 17, 8:30-3 PM. Baltimore County Extension Office. \$10. Register [online](#).



December 2018

The Extension Office will be closed on
December 24, 25, and January 1

- ◆ [Lambing & Kidding School](#). January 19, 9-4 PM. Howard County Fairgrounds. \$45 (youth) \$60 (adult). Register online or call (301) 432-2767 x315.
- ◆ [Central Maryland Vegetable Growers Meeting](#). January 24, 8:30-3:00 PM. Friendly Farms Restaurant, Upperco, MD. \$22 in advance, \$30 at the door. Call (410) 887-8090.
- ◆ [Beef Producer's Short-Course](#). January 25-26. Baltimore County Extension Office. \$75. Print and return the [registration form](#) by 1/18/2019 or call (410) 638-3255 and talk to Andy.
- ◆ [Urban Farmer Winter Meeting](#). Details to come. Contact Neith Little at (410) 856-1850 or ngliddle@umd.edu.
- ◆ [Ag Conservation Leasing Workshop](#). January 28, 8-3 PM. Baltimore County Extension Office. Register [online](#) or call (410) 827-8056.
- ◆ [Mid-Atlantic Fruit & Vegetable Convention](#). January 29-31. Hershey Lodge & Convention Center, Hershey, PA. \$75-\$165. Register [online](#).
- ◆ [Women in Ag Conference](#). February 12-13. Dover Downs Hotel & Casino, Dover, DE. Call Shannon Dill (410) 822-1244.
- ◆ [Harford County Mid-Winter Agronomy Meeting](#). February 12, 2019, 9-3 PM. Deer Creek Overlook. \$12 in advance, \$20 at door. Call (410) 638-3255. Details in next month's issue.

I hope to see you at some of our meetings this winter! If you have questions, feel free to contact me or the number listed. For a comprehensive list of programs, visit our [Extension Events](#) page.

I would like to wish you and your family a Merry Christmas, Happy Holidays, and a Happy New Year!

Until next time, -Andy

**Register
Now!**

The University of Maryland Extension has designed this short-course to provide producers educational information and hands-on training in several areas of beef production. Whether you're just thinking of starting your own beef production operation or have been in the industry for years, this short-course will have something for all.

Topic areas that will be covered include: determining daily operating costs, understanding EPD's, Veterinary Feed Directive, body condition scoring, forage sampling and storage, nutrition, nutrient management, pasture management, as well as many others.

Educational resources will include: body condition score guides, determining your unit cost of

production, budget workbooks (cowherd system and purchased cows), estrus sync planner, grazing and hay records spreadsheets, resource binder, and USB electronic file resources.

January 25-26

*Baltimore County
Extension Office
Cockeysville, MD*

To participate in the Maryland Beef Producer's Short-Course, please submit a completed [application](#) and registration fee of **\$75 by January 18, 2019**. All educational materials, meals (dinner and lunch), and breaks are included. **Enrollment is limited to 30 participants**, and applicants will be notified of their status no later than January 22, 2019.

Please contact Andy Kness at (410) 638-3255 or via e-mail at akness@umd.edu with any questions or concerns. More information can also be found [online](#).



Photo: Edwin Remsberg/University of Maryland

2018 Corn Hybrid Trial Results

The University offers a fee-based, corn hybrid performance-testing program to seed corn companies. The results from these replicated trials provide agronomic performance information about the corn hybrids tested at five Maryland locations considered representative of the state's geography and weather conditions. Data from the hybrid trials can assist you in choosing corn hybrids with good yield stability in Maryland. Results from the University of Maryland 2018 corn hybrid trials have been posted and are available to view on our [website](#). If you'd like to request a hard copy of the report, call Andy at (410) 638-3255.



EPA Announces Changes To Dicamba Registration

EPA Office of Pesticide Program Updates

On October 31, 2018, U.S. Environmental Protection Agency (EPA) announced that it is extending the registration of dicamba for two years for “over-the-top” use (application to growing plants) to control weeds in fields for cotton and soybean plants genetically engineered to resist dicamba. This action was informed by input from and extensive collaboration between EPA, state regulators, farmers, academic researchers, pesticide manufacturers, and other stakeholders.

“EPA understands that dicamba is a valuable pest control tool for America’s farmers,” said EPA Acting Administrator Andrew Wheeler. “By extending the registration for another two years with important new label updates that place *additional* restrictions on the product, we are providing certainty to all stakeholders for the upcoming growing season.”

The following label changes were made to ensure that these products can continue to be used effectively while addressing potential concerns to surrounding crops and plants:

Dicamba registration decisions for 2019-2020 growing season

- Two-year registration (until December 20, 2020)
- Only certified applicators may apply dicamba over the top (those working under the supervision of a certified applicator may no longer make applications)
- Prohibit over-the-top application of dicamba on soybeans 45 days after planting and cotton 60 days after planting
- For cotton, limit the number of over-the-top applications from 4 to 2 (soybeans remain at 2 over-

the-top applications)

- Applications will be allowed only from 1 hour after sunrise to 2 hours before sunset
- In counties where endangered species may exist, the downwind buffer will remain at 110 feet and there will be a **new 57-foot buffer** around the other sides of the field (the 110-foot downwind buffer applies to all applications, not just in counties where endangered species may exist)
- Clarify training period for 2019 and beyond, ensuring consistency across all three products
- Enhanced tank clean out instructions for the entire system
- Enhanced label to improve applicator awareness on the impact of low pH’s on the potential volatility of dicamba
- Label clean up and consistency to improve compliance and enforceability

The registration for all dicamba products will automatically expire on December 20, 2020, unless EPA further extends it.

EPA has reviewed substantial amounts of new information and concluded that the continued registration of these dicamba products meets FIFRA’s registration standards. The Agency has also determined that extending these registrations with the new safety measures will not affect endangered species.

Learn more: <https://www.epa.gov/ingredients-used-pesticide-products/registration-dicamba-use-genetically-engineered-crops>

Northern Maryland Field Crops Day

The 2018 Northern Maryland Field Crops Day will take place on **December 6, 2018** at **Friendly Farm Restaurant**. Topics for this year’s meeting include: head scab management in small grains, nitrogen management, herbicide resistance, pyrethroid insecticide use in field corn, tilled vs. no-till rain demonstration, on-farm anaerobic digestion, employer legal responsibilities with pesticide use and worker protection safety, and growing barley for malt.

Pre-registration is \$22.00, or \$30.00 at the door and includes all-you-can-eat lunch. To register to attend or get more information call the University of Maryland Extension, Baltimore County Office at (410) 887-8090. Or you can sign up on Eventbrite at <https://fcd18.eventbrite.com>. **Make checks out to BCEAC.**

SAVE THE DATE: FEBRUARY 12, 2019

The **Harford County Mid-Winter Agronomy Meeting** will be held on February 12 at Deer Creek Overlook. Topics will satisfy pesticide applicator credits and nutrient management voucher training. Look for details in next month’s newsletter. Register by calling (410) 638-3255 or e-mail akness@umd.edu

Using Actigard® & Microbials in Tomato

Jerry Brust, IPM Extension Specialist
University of Maryland



Fig. 1. Row on right had fungicides+Cu applied, row on left same fungicides+Cu plus Actigard applied.
Image: Jerry Brust, University of Maryland.

Two very bad foliar diseases of tomato are bacterial spot *Xanthomonas campestris* pv. *vesicatoria* and bacterial speck *Pseudomonas syringae* pv. *tomato*. I conducted a study looking at Actigard, fungicides+copper and microbial plant biostimulants for management of bacterial spot or speck in staked tomato. This study consisted of the tomato cultivar BHN 964 with 10 plants per rep, 4 reps arranged in a randomized complete block design.

The 4 treatments were: 1. Control (no fungicides or copper) 2. Fungicides+copper as recommended by the 2018 Mid-Atlantic commercial vegetable recommendatoinis guide 3. Actigard + the recommneded fungicide and copper sprays (this treatment will be refered to as the 'Actigard treatment') and 4. Microbial biostimulants. Actigard is a systemic compound containing the active ingredient acibenzolar-S-methyl. It elicits a mode of action in many plants (including tomato) that mimics the natural systemic activated resistance (SAR) response. The microbial biostimulant (M-BS) cocktail I used is a concoction of my own that I came up with over the last few years of working with biostimulants. The M-BS cocktail consisted of mycorrhizae and *Trichoderma harzianum* strain t-

22 both applied to the roots starting with plants in the greenhouse and every 2 weeks in the field. The foliar M-BS *Streptomyces* spp. and *Beauveria bassiana* strain GHA were applied every 2 weeks in the field starting ~2 weeks after transplanting. Disease ratings and marketable yield/plant (which includes culling unmarketable fruit from the harvest

weight) were recorded and subjected to an analysis of variance and Tukey HSD mean separation test.

Results: I normally average about 16 lbs of tomatoes per plant for a tomato trial, this year the average was 12 lbs/plant. This demonstrates the tremendous disease pressure that tomato plants experienced this season. In figure 1 on the right hand side are tomatoes that were treated with fungicides and copper. The row to the left was the Actigard treatment. You can see that the foliage of the Actigard treatment is in much better condition compared with the fungicide+copper treatment. Figure 2 shows the amount of foliage damage to tomato plants from bacterial spot infection in late August 2018. The control had the worse rating

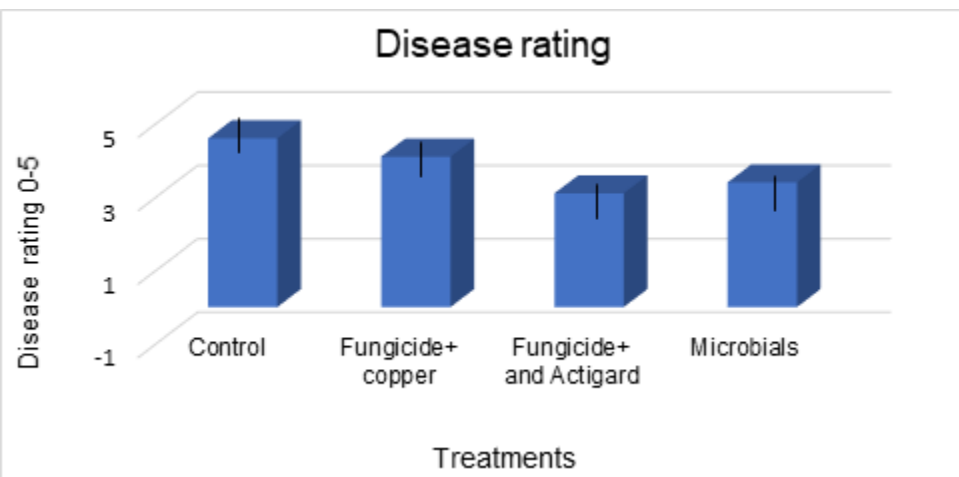


Fig. 2. Disease rating of tomato plants. 0=no disease; 1= 1-10% foliage diseased 2= 11-20% foliage diseased; 3= 21-35% of foliage diseased; 4= 36-60% of foliage diseased; 5= >61% of foliage diseased.

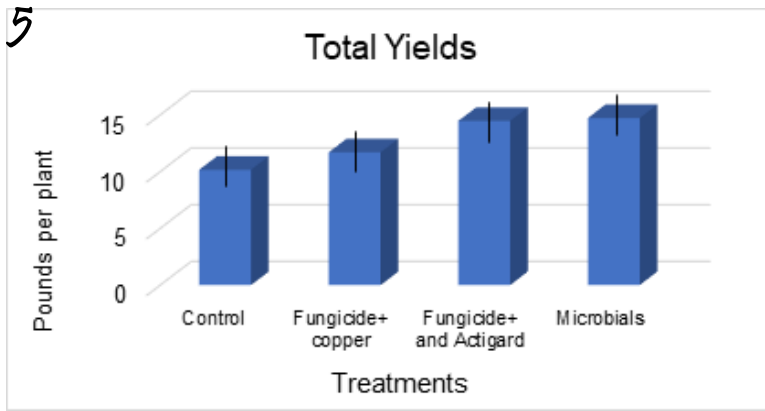


Fig. 3. Total yields of marketable fruit per plant (harvests 1-10)

for bacterial spot and was significantly greater than the Actigard treatment or the M-BS treatment. The fungicide+copper spray treatments had only slightly reduced ratings for bacterial spot compared with the control. *Xanthomonas* spp. have developed a tolerance for copper and it is not as effective of a control. For total marketable yields (fig. 3) the Actigard and M-BS

treatments were significantly greater compared with the fungicide+copper and the control treatments. The fungicide+copper treatment did not significantly differ from the control in total marketable yields, but was numerically greater.

Using Actigard this year in tomatoes significantly increased marketable tomato yields compared with just using a fungicide and copper spray program. Foliage was less infected by bacterial pathogens in the Actigard treatment and the plant was better able to produce unblemished fruit. The microbial biostimulants did very well in reducing the incidence of bacterial spot and increasing marketable yields. This is what biostimulants are supposed to do-help plants overcome stressful situations, in this case too much rain and disease, and improve the quality of the fruit. But my experience with them has shown that this outcome usually is not achieved or if it is, it is achieved by small increments and not significantly.

Manage Residue to Stay Ahead of Diseases

Andrew Kness, Agriculture Extension Agent
University of Maryland Extension, Harford County

High tunnels and greenhouses offer many benefits to vegetable producers, however they also present additional management challenges in regard to plant diseases. For many of the same reasons that plants thrive in high tunnels, so do overwintering plant pathogens.

Many economically important vegetable diseases overwinter in the soil or on plant residue. Out in the field, soil and residue are exposed to various weather conditions, chilling temperatures, and extended freezes throughout the winter. In the field, these conditions help kill overwintering plant pathogens, which reduces the inoculum load for the subsequent growing season. However, high tunnels and greenhouses buffer weather conditions and insulate from freezing temperatures, and as a result, pathogens inside them have a much greater probability of survival and wait at the ready to infect your next crop. This is why high tunnel and greenhouse sanitation is important, and fall is a good time to sanitize.

After your crop has been terminated or has reached the end of its production cycle, remove all plant debris; fruits, leaves, stems, and roots. You can dispose of them in the trash, a compost pile (preferably at least 500 feet away from the production area), or burn it. The goal is to remove all debris that could harbor and overwinter plant pathogens. Even if you had a good, clean year in respect to disease, it is still a good practice to always remove plant residues from high tunnels.

You will also need to sanitize any equipment or

materials inside the high tunnels that you will be reusing. This is especially important for managing bacterial diseases such as bacterial spot, speck, or canker, and for some viral diseases as well, which can overwinter in wooden stakes. Wood is very difficult to effectively sanitize, so if you're fighting bacterial diseases in tomatoes, for example, it is recommended to dispose of wooden stakes that came in contact with the affected crop and replace with new ones, or switch to metal or plastic that can be sanitized. To sanitize metal or plastic materials, use a 10% bleach solution and be sure to rinse thoroughly with clean water when finished. Some pathogens can also overwinter on structure materials, so posts and beams that contact the crop should also be sanitized with a bleach solution. It is also a good practice to sanitize tools at the end of the season, as well as throughout the season, to avoid spreading pathogens to new locations on your farm or to new high tunnels.

Thoroughly sanitizing your high tunnels and greenhouses can be time-consuming, but can help improve your disease management. Remember, one of the most effective disease management practices for soilborne and residue-borne diseases is to prevent the spread and carryover of inoculum. If you would like additional information, feel free to contact myself or your local ag agent.

Handling Crabby Customers this Holiday Season

Ginger Myers, Marketing Specialist
University of Maryland Extension

Unreasonable customers are always a pain, but they're especially prevalent and stressful during the holiday shopping rush. To help you cope with difficult shoppers this holiday season, consider these seven tips from customer-service experts.

1. REMEMBER: THE CUSTOMER IS ALWAYS RIGHT

Acknowledge that the customer is upset and ask them to tell you the problem. Listen carefully, and if you think it will help, rephrase their complaint to make it clear that you understood what they said. Sometimes an unhappy customer just wants to be heard.

The old "customer is always right" philosophy may still be the best approach for dealing with obnoxious shoppers. Customer service experts have long said that a happy customer tells one or two friends, while an unhappy customer tells several—or in the age of social media, hundreds of his closest strangers. And these statistics can be magnified by the emotions related to holiday shopping.

2. APOLOGIZE SINCERELY

"I'm so sorry" are three short words that mean a lot, and are not used often enough.

3. TRAIN EMPLOYEES TO COPE WITH PROBLEM CUSTOMERS

Have solutions already in mind and train your staff on how and when to offer them. If you can make an upset customer feel special and prioritized it will go a

long way towards curbing any bad attitude they might have about purchasing from you again. Possible solutions include replacement of the item, a discount this time or next, or a complimentary item or gift card.

4. KNOW WHEN TO CALL FOR HELP

Almost everyone is familiar with the phrase, "I want to speak to your manager". Encourage your staff to handle problems as they can. But, if the customer is getting out of hand, be it yelling or inappropriate language, be sure a manager is there to help step in and take the customer aside to resolve the problem.

5. KNOW WHAT NOT TO DO

There is nothing worse than throwing rudeness back in a customer's face, it can only lead to more disputes and a manager will definitely have to get involved. Also no tweeting, posting, or picture sharing to social media about the situation. It makes your business look unprofessional.

6. DON'T TAKE IT PERSONALLY

Remember, the customer is not angry with you, they are displeased with the performance of your product or the quality of the service you provide. Your personal feelings are beside the point.

7. AS A LAST RESORT, BE WILLING TO LOSE THE CUSTOMER AND THE SALE

If you offer your best plan for resolving a problem and the customer is still being difficult, it's okay to part company and refund the purchase price.

Diversifying Your Operation Workshop Series

January 8, 15 & 22

12 PM—3 PM

Baltimore County Extension Office
Cockeysville, MD

Come join us in a three-part series to learn how to diversify your operation. We will talk about agri-tourism and how it might be right for your operation, adding value-added products, and marketing and pricing farm-raised meats. Guest speakers will include: UME's Ag Marketing Specialist, Ginger Myers, UME's Ag Law Specialist, Paul Goeringer, local farmers, and many more! Agenda to be available soon. Light snacks and refreshments will be served. **Registration is \$5** and can be completed online via Eventbrite at <https://dyo18.eventbrite.com> or call the Baltimore County office at (410) 887-8090. Contact Erika Crowl at the Baltimore office if you have any questions.



Deadline to Apply Manure: December 15

Maryland Department of Agriculture [press release](#)

The Maryland Department of Agriculture reminds farmers that **December 15** is the last day to spread manure and other organic nutrient sources on cropland. Farmers may resume nutrient applications on March 1 as long as fields are not saturated, snow-covered, or hard-frozen.

To avoid nutrient losses on farmland and to reduce runoff into waterways, spreading manure in the winter is prohibited by Maryland's Nutrient Management Regulations. Liquid manure sources generated on the farm must be stored in structures. The department is authorized to work with farmers to prevent overflows from storage structures in the winter and to minimize impacts to water quality. In these circumstances,

farmers must contact the Nutrient Management Program for authorization before any spreading can take place.

Temporary field stockpiling of "stackable" organic nutrient sources with 60 percent or less moisture content is allowed when all other storage options are unavailable. "Stackable" organic nutrient sources should not be applied to fields in winter under any conditions.

Farmers should contact the Nutrient Management Program at (410) 841-5959 if they have storage concerns or questions regarding the regulations. For additional information, visit the program's [website](#).

Conservation Leasing Workshops

This winter, the Agriculture Law Education Initiative (ALEI) and the Harry R. Hughes Center for Agro-Ecology, Inc. will be hosting workshops to teach agricultural service providers, landowners and farmers how to communicate about and draft a farm lease to incorporate conservation practices. The interactive workshops will equip participants with: communication tools for discussing conservation values; leasing strategies; examples of lease language for commonly used practices; and educational materials for future use

The workshop series kicks off with an informational webinar on November 15th. Register today for a workshop in your region.

Central Maryland: January 28, 2019 Baltimore County Ag Center, 1114 Shawan Rd., Cockeysville, MD.

All workshops will be from 8:00 a.m. to 3:00 p.m. and Nutrient Management Voucher Credits are available! Lunch is provided to all participants free of charge. For more information and to register: <https://agresearch.umd.edu/agroecol>.

January 28

8 AM—3 PM

Baltimore County Extension Office

Cockeysville, MD

Nutrient Management

General Interest

Great resources are just a click away!

Andrew Kness

Andrew Kness
Extension Agent,
Agriculture and
Natural Resources



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Back-issues of this publication can be found at: <https://extension.umd.edu/news/newsletters/657>

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Dates to remember

- 6 Dec.** Northern MD Field Crops Day. 8:30-3PM. Friendly Farm Restaurant, Upperco, MD. \$22 in advance, \$30 at door. Register [online](#) or call (410) 887-8090.
- 19 Dec.** Women in Ag Webinar: Using an LLC to Strengthen Your Farm Operation. 12 PM. Free. Register [online](#).
- 8, 15, & 22 Jan.** Diversifying Your Operation. 12-3PM. Baltimore County Extension Office, Cockeysville, MD. \$5. Register [online](#) or call (410) 887-8090.
- 10 Jan.** Grain Marketing Update. Live webinar broadcasted at the Harford County Extension Office. 8:30-11:30AM. Free. Call (410) 638-3255 to register.
- 17 Jan.** Carroll County Winter Agronomy Meeting. Call (410) 386-2760 or email plcoffey@umd.edu to register.
- 17 Jan.** Farm Transfer Workshop. 8:30-3PM. Baltimore County Extension Office, Cockeysville, MD. Register [online](#).
- 24 Jan.** Central MD Vegetable Grower's Meeting. Friendly Farm Restaurant, Upperco, MD. \$22 in advance, \$30 at door. Details to come. Register by calling (410) 887-8090.
- 25-26 Jan.** Beef Producer's Short Course. Baltimore County Extension Office, Cockeysville, MD. \$75. Register [online](#) or call Andy Kness, (410) 638-3255.
- 28 Jan.** Conservation Leasing Workshop. 8-3PM. Baltimore County Extension Office, Cockeysville, MD. Register [online](#).
- 12 Feb.** Harford County Mid-Winter Agronomy Meeting. Deer Creek Overlook, Street, MD. Details to come.
- 12-13 Feb.** Mid-Atlantic Women in Ag Conference. Dover Downs, Dover, DE. Register [online](#) or call Shannon Dill (410) 822-1244.

December 2018