Hello, Harford County!

It’s hard to believe that we’re nearly finished 2017! Fortunately, we were blessed with a good growing season and above average yields for most crops. As we begin to wrap-up 2017 and get ready for 2018, winter is the time for many Extension meetings. As a reminder, the Harford County Mid-Winter Agronomy Meeting will be held on February 13, 2018 from 9-3:30 PM at Deer Creek Overlook. More details are on page 6. A summary of additional Extension workshops, meetings 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 7, 9-3 PM. Friendly Farms Restaurant, Uppercor, MD. $15 in advance, $30 at the door. Call (410) 887-8090.
- **Food For Profit**, December 14, 9-4 PM. Montgomery County Extension Office, Derwood, MD. $45. Call (301) 432-2767 x 338.
- **Farm Succession Workshop**, January 17, 9-2 PM. Deer Creek Overlook, Street, MD. Free. Call (410) 638-3255.
- **Grain Marketing Workshop**, (broadcasted live from Chesapeake College) January 18, 8-11:30 AM. Harford County Extension Office, Street, MD. Free. Call (410) 638-3255.
- **Central Maryland Vegetable Growers Meeting**, January 26, 8:30-3:30 PM. Friendly Farms Restaurant, Uppercor, MD.

$15 in advance, $25 at the door. Call (410) 887-8090.

- **Mid-Atlantic Fruit & Vegetable Convention**, January 30-Feb. 1. Hershey Lodge & Convention Center, Hershey, PA. $75-$165. Register online.

- **Carroll County Mid-Winter Farm Meeting**, February, 6, 9-3:30 PM. Carroll County Extension Office, Westminster, MD. Call (410) 386-2760.
- **Mid-Atlantic Small Flock Expo**, February 10, 9-3 PM. Carroll County Extension Office, Westminster, MD. $10 (18+), $5 (10-17), free for kids (<10) and FFA and 4-H members with proof of membership. Call (410) 742-1178.

- **Harford County Mid-Winter Agronomy Meeting**. Details on page 6.

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.

Also, please note that the **Harford County Extension Office will be closed December 13-15 for our office move, December 25 for Christmas, and January 1 for New Years**.

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

Until next time,

Andy
I get a lot of questions about certifications. What certifications should a farmer or landscaper or food entrepreneur get? What professional development certifications can UMD Extension help you work towards?

If you ask me that question, I’ll likely ask you to take a moment to think about why you want a certification. Do you want to make sure your business is complying with relevant regulations? Do you want to go above and beyond what is required to set your business apart from your competition? Is one of your customers asking for a specific certification? Are you looking for a job and hoping a certification on your resume will help you find one?

Being clear on what your goal is will help you figure out which certification you should work towards—and whether you even need one! If you don’t have a clear reason why you need a certification, maybe more informal educational opportunities would be a better place to start so you can learn and explore before taking the plunge.

Below are links to more information about the certifications I am familiar with that are relevant to farmers, landscapers, and food entrepreneurs. It is by no means a comprehensive list, so please let me know which ones I’ve missed that you think are important or valuable. I’ve gone through a couple of these certifications processes myself, as evidenced by my wall of paperwork.

**Legally required certifications:**

Nutrient management: In Maryland, farms that sell more than $2,500 gross per year or have more than 8,000 pounds of livestock are required to have an approved nutrient management plan. UMD Extension has a state-wide training program to help farmers become certified to write their own plans. Alternatively, county Extension offices also have Nutrient Management Advisers on staff who can write nutrient management plans for farmers. But even if a farmer chooses to have an Adviser write their nutrient management plan, all farmers who apply nutrients to 10 or more acres of cropland are required to get a Nutrient Applicator Voucher. UMD Extension offers annual Continuing Education trainings for this voucher at the county or city level.

Landscapers or anyone who applies nutrients to turf grass for hire are required to be “licensed by the Maryland Department of Agriculture (MDA) and must have at least one Certified Professional Fertilizer Applicator on staff.” Nurseries or greenhouses that sell over $2,500 per year also need nutrient management plans, but they use a different template and training from field crop farmers.

Pesticide use: Anyone who purchases or uses Restricted Use Pesticides must be a Certified Pesticide Applicator. UMD Extension’s website with study materials for this certification is online here. There are different categories of certification, in addition to the required “core” certification.

Food safety: I’ll talk about voluntary food safety certifications below. But large-scale farms that grow food commonly eaten raw are required to comply with the federal Food Safety Modernization Act (FSMA). The Maryland Department of Agriculture and UMD’s food safety team are working together to build a training program to help farmers understand FSMA. Keep your eye out for programs soon, including a training on November 27 in Cecil County.
Value-added food businesses have their own set of food safety regulations to comply with. Some of them will need to comply with the Preventative Rule within FSMA. At UMD Extension, Ginger Myers has gathered together a wealth of resources for value-added food producers on her Ag Marketing website. In particular, you may find helpful this list of relevant licenses published by the MDA and MD Department of Health and Mental Hygiene. If you look at that list and feel overwhelmed, consider attending a Food for Profit workshop. You can keep an eye on the statewide calendar here.

**Voluntary certifications:**

There are several voluntary certifications that farmers can pursue to add value to what they produce and open the doors to specialized markets.

Maryland Good Agricultural Practices (GAPs) is a voluntary food safety certification for Maryland fruit and vegetable growers. UMD and the MDA work together to offer trainings to help farmers achieve this certification.

**USDA Organic** is a national certification for farmers who use organic practices. UMD Extension has an article on organic production and certification here. MDA has a state-level organic certification program. There are also several other private certifications out there.

**Resume enhancing certifications:**

Several of the certifications above are relevant to individuals, not just businesses. But again, it’s important to think about your goals. Before you work towards a certification to list on your resume, you should at least have a field of work in mind that you are interested in, if not a specific type of job. Even if you’re not ready to apply, it’s worth reading job advertisements in that field to see what qualifications are valued. Then you can find certifications to pursue that will demonstrate your skill in those qualifications.

I work in the field of agricultural education, so I am certified as a Nutrient Management Adviser, a Pesticide Applicator, and a Certified Crop Adviser (CCA). Farms and landscaping companies might need their employees to become certified as Pesticide Applicators or Fertilizer Applicators. Food businesses might need their employees to gain food safety certifications. Having these certifications as an applicant for a job on a farm, landscaping business, or food business, would be a way to demonstrate your training and dedication to the field. But you will need job experience and/or classroom education to enable you to apply the skills and knowledge needed. Being able to pass a test is just a small part of being able to do the job.

**Keep learning**

A professional certification is about more than passing a test once. It is a commitment to lifelong learning and self-improvement. That’s what UMD Extension education is about too.

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**Starting a small farm for local markets**

This ten-week series meets Wednesday nights from late January through March and is meant to be an introduction at a basic level to a variety of important farming topics, including soil science, marketing, pest management, farm finances, food safety, crop rotation and livestock. Extension educators and specialists from across Maryland will teach intro-level classes and Future Harvest CASA will bring in experienced farmers to share their practical knowledge.

**Dates:** Wednesday nights, 6:30 to 9:00 PM, January 24 through March 28, with April 4 saved as a snow date

**Location:** Baltimore County Extension Office, 1114 Shawan Road, Cockeysville, MD

**Cost:** $10 per session, or $60 for all ten sessions.

**Partners and sponsors:** University of Maryland Extension, Future Harvest CASA, USDA-NIFA grant #2016-70017-25503

**Registration:** Contact Neith Little, agriculture extension educator, Baltimore City at nglittle@umd.edu or (410) 856-1850.
Growing Hops in Maryland: An Update

Bryan Butler, Principal Agent, Agriculture
University of Maryland Extension, Carroll County

In an effort to support the new and rapidly growing brewing industry in Maryland, 24 varieties of hops have been established at the University of Maryland Agricultural Experiment Station in Keedysville, Maryland through a joint partnership with Flying Dog Brewery. Although not the first hops planting on a research farm, this planting is about ½ acre and contains 24 varieties replicated three times and is being managed intensively with regard to fertility, irrigation, and pest management using IPM principles. Current varieties in the trial are:


The following information is being generated from what we are learning from the planting in Maryland. This will be a living document and will be updated as we continue to learn about the ins and outs of hop production in Maryland. This document is intended to be less a recipe for production but more a menu for growers to select what works in your own operation and ideas for solutions to challenges that limit production in our hot, humid, pest rich environment.

Establishment of the Maryland Hop Yard

Soil/Site preparation: It is critical in our climate that you select the best site possible. This will help to reduce the negative effects of Maryland weather. The site should have well drained soil, full sun, good air circulation, avoid frost pockets, and accessibility. Soil should be tested at least one year in advance of planting to ensure time to develop a nutrient management plan and for soil amendment to react in the soil to make the proper adjustments. Pay particular attention to pH, P, and K. Be aware of the previous crops, potential herbicide carryover and the existing weed population, i.e. perennials-these absolutely should be controlled prior to planting to help reduce weed challenges in the establishing hop yard. Sod establishment in the fall prior to the year of planting will help facilitate activities in the hop yard, prevent soil erosion and help to suppress weeds. Tall fescue should be planted between rows in spring or fall of previous year. Availability of water is needed for irrigation.

Variety selection: This is the primary goal of the partnership project. We are screening 24 varieties in an effort to identify varieties that might be better suited to be grown in Maryland while still processing the characteristics desired for brewers to make high quality beer.

Planting: April-Early May

Fertility: All nutrients and soil pH, except for Nitrogen, should be addressed based on soil test results prior to planting. Nitrogen should be applied the first week after planting, three weeks later, and three weeks later. Total of 75 lbs. nitrogen per acre.

Weed control: Apply Glyphosate pre-plant to rows to burn down all weeds prior to planting. Use burndown product as needed to control weeds in the row the first season. Avoid burning hops with drift from burndown products.

Irrigation: Regular and consistent watering is essential. Plants can grow 10 inches a day and need water but should not have “wet feet.” This means that you want to maintain adequate moisture in the soil profile but do not want puddling of water on the surface or for the soil in the hop yard to have a “muddy” texture. Irrigation should be run as often as four days per week during hot, dry periods.

Trellis: Able to support a cable 18 feet high to allow the hops to reach their full potential, well anchored posts with a cable at 18’. Posts are 4’ in the ground with plants spaced 3.5’ x 14’. It is important that your
row spacing is suited to your equipment and that, when the plants are fully mature, operations in the hop yard can continue without damaging the plants.

**Training/Pruning:** Use one string per plant and encourage all the growth of the plant to climb the string. This will help the plant establish a strong root system and may help to produce a light crop the first season.

**Pest Control:** Weekly Integrated Pest Management (IPM) scouting is a must for successful hops production in Maryland. Rapid deployment of control measures can make all the difference between success and failure of a new planting. This consists of walking the rows observing overall condition of your plants, looking at vigor, color of foliage, discoloration or browning of leaves and presence of insects or mites. It is important to be examining both the upper and lower surfaces of the leaves with a magnifying glass or hand lens to see mites or early infestations of leafhoppers. Major pest issues in order of impact on our current planting include: Downy Mildew, Leafhoppers, Mites, Alternaria Cone Disorder, Fusarium Cone Tip Blight, and Japanese Beetles.

**Management of the Established Maryland Hop Yard**

- **Fertility:** First week of April, fourth week of April, third week of May, second week of June. Total of 180 lbs. nitrogen per acre.

- **Weed control:** February Glyphosate plus Chateau, spring burndown.

- **Irrigation:** Regular and consistent watering is essential but avoid “wet feet.” Irrigation should be run as often as four days a week during hot, dry periods.

- **Spring Pruning:** This can be done mechanically or with a desiccant. Either way, the critical objective is to completely remove all green tissue above the soil to encourage the plant to push up new strong bines from the crown.

- **Training/Pruning:** Two strings per plant, select two or three healthy strong undamaged bines per string.

- **Pest Control:** Weekly Integrated Pest Management (IPM) scouting is a must for successful hops production in Maryland. Below is a sample schedule based on the IPM scouting and control measures taken in the hop yard at Keedysville.

**Sample Hop yard Activity Schedule from 2017 Trials**

- 2/15/17 – Chateau (6oz/A) + Gramoxone (1pt/A) on 2016 planting only
- 3/24/17 – Champ (1.3pt/A)
- 3/29/17 – Roundup PowerMax (1qt/A) on new hops yard to kill fescue strips for tillage

- 3/31/17 – 2017 hops arrived, transplanted to larger pots
- 4/03/17 – drenched with Ridomil Gold SL (8oz/A rate - 0.8oz/10gal, 5 gal treats 50 plants)

  - Fertilized with urea at a rate of 50lb N/A (each rep 50sq.ft. 1.84oz/rep)

- 4/10/17 – Scythe @ 100gpa @5% solution to burn down early growth

- 4/20/17 – planted 2017 hops trial
- 4/21/17 – strung all hops

  - Fertilized with urea at a rate of 50lb N/A (2016 & 2017 planting)

- 5/02/17 – Phostrol (2.5pt/A)
- 5/09/17 – Applied Dakota herbicide to 2017 planting
- 5/10/17 – Applied Scythe herbicide spot spray to 2016 planting

- 5/12/17 – Fertilized with urea at a rate of 50lb N/A (2016 & 2017 plantings)
- 5/15/17 – Applied M Pede (2% solution) and Ranman @ 2.5oz/A (2016 & 2017 plantings)
- 5/22/17 – Applied Phostrol (2.5pts/A) (2016 & 2017 plantings)
- 5/25/17 – Applied Scythe herbicide spot spray to 2017 planting

- 6/01/17 – removed lower foliage (2016 planting)
- 6/03/17 – Applied M Pede (2% solution) + Pristine (28oz/A) (2016 & 2017 plantings)
- 6/08/17 – Applied Brigade WSB (16oz/A) + Ranman (2.5oz/A) (2016 & 2017 plantings)
- 6/14/17 – Applied Scythe herbicide spot spray (2016 & 2017 plantings)
- 6/16/17 – Applied M Pede (2% solution) + Pristine (28oz/A) + Acramite 50WS (1.33lb/A)
- 6/22/17 – Applied M Pede (2% solution) + Phostrol (2.5pt/A) (2016 & 2017 plantings)
- 6/29/17 – Applied Brigade WSB (16oz/A) + Ranman (2.5oz/A) (2016 & 2017 plantings)
- 7/07/17 – Applied Malathion 5 (1pt/A) + Phostrol (2.5pt/A) (2016 & 2017 plantings)
- 7/14/17 – Applied M Pede (2% solution) (2016 & 2017 plantings)
- 7/20/17 – Applied M Pede (2% solution) + Phostrol (2.5pt/A) (2016 & 2017 plantings)
- 7/27/17 – Applied M Pede (2% solution) + Phostrol (2.5pt/A) (2016 & 2017 plantings)
Mark your calendar for University of Maryland Extension, Harford County’s annual Mid-Winter Agronomy Meeting. This year’s meeting will take place on February 13, 2018 at Deer Creek Overlook in Street, MD. Check-in starts at 8:30 AM with refreshments. The program will begin at 9 AM and conclude around 3 PM. Topics this year include: herbicide resistance management and dicamba use, soybean and wheat disease management, seed saving laws and considerations, grain bin safety, MDA pesticide and nutrient management updates, and local agriculture agency updates. Topics satisfy requirements for Maryland private applicator and nutrient management voucher training. Registration includes a hot lunch and is now open; $12 before 2/2/2018 and $20 after and at the door. Checks can be made to “HC EAC” and payment mailed to our new office location after December 18: University of Maryland Extension—Harford County, Suite 600, 3525 Conowingo Rd., Street, MD 21154.

Need a nutrient management plan?

Even though we’re moving, Tricia is still working on plans! So if you still need a plan, call or e-mail Patricia Hoopes at the Harford County Extension Office.

(410) 638-3255 | phoopes@umd.edu

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### 2017 Maryland Corn Hybrid Yield Tests

The results of the 2017 University of Maryland Corn Hybrid Yield Test conducted by University of Maryland Extension Agronomist, Dr. Bob Kratochivil, have been published. The full report can be viewed [here](#), or call me at the office and I will print a copy for you. The purpose of the trials are to provide data to growers to aide in their seed selection. As a general rule of thumb, it is better to select a hybrid with good yield stability across multiple locations rather than the top-yielding hybrid at one location. I have pulled out some of the better performing hybrids from the test based on relative yield and placed them in the table below as a quick summary. The hybrids I’ve listed outperformed the average yield for the trial in at least 4 of the 5 test locations. I highly recommend viewing the entire report. You can call or e-mail me with questions: (410) 638-3255, akness@umd.edu.

<table>
<thead>
<tr>
<th>Very Early &amp; Early Maturing</th>
<th>Mid-Season Maturing</th>
<th>Full-Season Maturing</th>
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<tbody>
<tr>
<td>Pioneer P0339AM (204.8 bu/A)*</td>
<td>Dekalb DKC61-88RIB (215.3 bu/A)</td>
<td>Dekalb DKC64-35RIB (223.7 bu/A)</td>
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<tr>
<td>TA Seeds TA583-28RIB (200.1 bu/A)</td>
<td>Dekalb DKC62-20RIB (213.5 bu/A)</td>
<td>Dekalb DKC65-20RIB (221.4 bu/A)</td>
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<tr>
<td>Pioneer P0604AM (209.7 bu/A)</td>
<td>Doebler’s RPM 4917AM (219.6 bu/A)</td>
<td>Dekalb DKC66-75RIB (221.9 bu/A)</td>
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<td>Doebler’s RPM 5018AM (218.6 bu/A)</td>
<td>Dekalb DKC67-44 (221.0 bu/A)</td>
</tr>
<tr>
<td></td>
<td>Doebler’s RPM 5125AM (214.7 bu/A)</td>
<td>Doebler’s RPM 5818AM (217.1 bu/A)</td>
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<tr>
<td></td>
<td>Dyna-Gro D50VC30 (215.1 bu/A)</td>
<td>Hubner H4744RC2P (219.4 bu/A)</td>
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<tr>
<td></td>
<td>Hubner H12G624 (215.6 bu/A)</td>
<td>Hubner H6663CSS (223.1 bu/A)</td>
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</table>

*Yield following the hybrid name is the average yield for that variety across the five test locations.
Online Soil Podcasts

It’s more than dirt! Check out the online podcast series about soil intended for farmers, educators, and students. Host, Natalie Lounsbery, is a cover crop enthusiast, graduate student and farmer. Interviewees are some of the leaders in soil health. Full transcripts available at www.soilpodcast.com. This project was supported by a grant from Northeast SARE (www.nesare.org). Listen online: https://soundcloud.com/user-143491918.

Harford County Agriculture Land Preservation

The deadline for the next round of submissions for the Harford County Agricultural Land Preservation Program is January 15, 2018. This year there is also a new, $1,000 per-acre bonus incentive for properties in the Jarrettsville and Creswell areas. For more information and to find out if you qualify, please contact Bill Amoss at (410) 638-3235 or wdamoss@harfordcountymd.gov.

Maryland Dairy Scholarship

The Maryland Dairy Industry Association is offering two $500 and one $1,000 scholarships to Association members or their dependents. Applicants must be graduating high school seniors, undergraduates enrolled in a two or four-year college, or graduate/professional school students. Applications are due January 10, 2018. For an application, call (301) 349-0750, e-mail secretary@marylanddairyindustry.org, or visit http://ansc.umd.edu/extension/scholarships. Additional association scholarships are also available through the link.

After 26 years at our Forest Hill location in the old Klein’s Building, the University of Maryland, Harford County Extension Office will be moving to the new Harford County Agricultural Center in Dublin. The office will be closed December 13-15 for the move. Thank you for your patience, and we look forward to serving you at our new location!

Our new office contact information!

Address: University of Maryland Extension, Suite 600
3525 Conowingo Road
Street, MD 21154
Phone (unchanged): (410) 638-3255

Great resources are just a click away!

Andrew Kness
Extension Agent
Agriculture and Natural Resources

facebook.com/HarfordAg

akness@umd.edu

Extension.umd.edu/Harford-county

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

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Dates to remember

7 Dec. **Northern Maryland Field Crops Day.** 9-3 PM. Friendly Farms Restaurant, Upperco, MD. $15 in advance, $30 at the door. Call (410) 887-8090.


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30 Jan–1 Feb. **Mid-Atlantic Fruit & Vegetable Convention.** January 30-Feb. 1. Hershey Lodge & Convention Center, Hershey, PA. $75-$165. Register online.

6 Feb. **Carroll County Mid-Winter Farm Meeting.** 9-3:30 PM. Carroll County Extension Office, Westminster, MD. Call (410) 386-2760.

9 Feb. **Women in Ag Conference.** Dover Downs Hotel & Casino, Dover, DE. Call Shannon Dill (410) 822-1244.

10 Feb. **Mid-Atlantic Small Flock Expo.** 9-3 PM. Carroll County Extension Office, Westminster, MD. Call (410) 742-1178.

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