

Ag Notes

Harford County Newsletter

UNIVERSITY OF
MARYLAND
EXTENSION

January 2021

2021
happy new year

Extension will be closed on January 1 for
New Years Day and January 18 for MLK Day.

University of
Maryland Extension

Harford County
Agricultural Center

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M—F 8:00 a.m.—4:30 p.m.

Extension.umd.edu/harford-county

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Hello, Harford County!

Despite the grand challenges that 2020 presented us all, we made it to the end and have 2021 to look forward to! All things considered, 2020 was a challenging but overall good year for many crops, direct-market sales, and commodity markets, which will hopefully continue into the new year. For now the Extension office remains closed to the public (call ahead to schedule an appointment if you must visit the office), but we look forward to the time where we can return to business as usual.

For those interested in fruit and vegetable programming, please join us for our virtual Central Maryland Vegetable Growers Day on January 28, 2021 from 8 to noon. Pesticide and nutrient management credits will be offered. More information is below.

Until next time and Happy New Year!

-Andy



Virtual 2021 Central Maryland Vegetable Growers Meeting

January 28, 2021 | 8-Noon | Online via Zoom

Registration is open! Visit <https://go.umd.edu/CentralMDVegMeeting>. There is no cost to attend this meeting, but please register ahead of time in order to get the Zoom login link. This meeting will satisfy credit requirements for Maryland Private Pesticide Applicators, Maryland Nutrient Management Voucher, and offer credits for Pennsylvania and Delaware pesticide and nutrient management.

This year's topics include:

Bt Sweet Corn Update—*Galen Dively, University of Maryland*

Fruit Rots & Fire Blight—*Kari Peter, Penn State*

Weed Management in Pumpkins—*Kelly Nichols, University of Maryland*

What's New with Day-Neutral Strawberries & High Tunnel Raspberries—*Kathy Demchak, Penn State*

Fertility Considerations For Small Fruit Plantings—*Haley Sater, University of Maryland*

Fertility & Pest Update in Tomato—*Jerry Brust, University of Maryland*

MDA Pesticide and Nutrient Management Updates

For those that cannot attend the live Zoom or have poor internet connection, you may request the meeting materials and recording by completing [this form](https://forms.gle/Aejz9HjVC2syP2rF9) (<https://forms.gle/Aejz9HjVC2syP2rF9>) or calling the Extension office. We will send you all of the materials on a USB flash drive and you can watch the program at your own pace and still receive credits.

Grain Marketing Webinar

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Registration: <https://go.umd.edu/grainmarketing2021>

This meeting will be virtual including speakers on various topics in grain marketing. Topics include local and national grain outlook for:

- tax considerations,
- crop insurance and agricultural law.

Agenda:

8:00 am Welcome— Shannon Dill, Extension Educator, Talbot County, University of Maryland Extension

8:15 am Agriculture Law and Crop Insurance Update
—Paul Goeringer, University of Maryland Extension

8:40 am Tax Update—
Henry Leonard, Certified Public Accountant, BSC Group, LLC

9:10 am Grain Marketing Outlook— Jay Pierce, Director of Risk Services, Nagel Farm Service

9:40 am Basis Tables and Grain Marketing Resources— Dale Johnson, Farm Management Specialist, University of Maryland Extension

10:00 am Announcements and Adjourn— Share link to resources and survey.

If you have any questions, please contact Shannon Dill at sdill@umd.edu.

January 8
9 AM—12 PM
Online via Zoom

2020 Soybean Variety Trials

The results of the 2020 Maryland Soybean Variety Trials are now available. Click on the link below to download the full report, or contact the Extension office for a hard copy. You may also view the report, along with past variety trial reports, at: <https://psla.umd.edu/extension/md-crops>.

[Click here to download the report](#)

MARYLAND AGRONOMY NEWS

A UNIVERSITY OF MARYLAND EXTENSION BLOG

Want to stay up to date throughout the year about Agronomy?

Check out the Maryland Agronomy Blog. It is a searchable site that includes past and present articles. You can also subscribe to get emails when new information is posted.

<http://blog.umd.edu/agronomynews/>



Winter Weather & Small Flocks

*Dr. Jon Moyle, Maegan Perdue, Emily Lhaman, Dr. Jennifer Timmons
University of Maryland Extension*

In order to help the birds continue to be productive during the winter months, we suggest the following:

Protect your flock from the weather

- Check poultry housing and fix any leaking roofs that will allow moisture into the coop. Moisture can lead to increased levels of ammonia, as well as make it more difficult for the birds to stay warm. Damp air feels much colder than dry air so it's important to get the barn dry. Look for and fix any cracks or holes that will allow wind to blow into the building. Holes that allow fresh air to blow directly on the birds can chill them and lead to problems. Holes can be filled with spray foam insulation or by hanging a thick plastic sheet or tarp over problem areas.
- Situate the housing so that sunlight can enter during the day and heat the house during the winter. Trees that lose their leaves can help protect the birds from heat in the summer but allow the sun to shine in during the winter.
- Perches – Avoid materials like metal and plastic pipes when constructing perches as they will conduct the cold to the feet of the birds and can result in frost bite. Instead, use wood because it will not conduct cold. Preferably, perches should have a flat surface (like a 2x4) that will allow the birds to cover their feet with their feathers when on the perch to keep them warm. It is also important to avoid placing perches above food and water to prevent
- Insulation – While insulation is not necessary, it will help keep the heat generated by the birds in the coop and keep the coldest weather from entering the coop. If you are adding heat to a house, then insulation is a cheap way to get the most heating for your money. Insulation is also beneficial during the summer to keep heat out if the coop.
- Heat – Young birds will need a source of heat to survive and grow. As long as adult birds are protected from the wind and wet weather, they should not need any additional heat even during the coldest time of year.

While not necessary, adding heat to older birds will help them maintain egg production throughout the winter. Hens that are molting may need some extra heat (and or protection) until their feathers grow back.

- Gas heaters like propane and kerosene can be a fire hazard in a coop surrounded by flammable wood, bedding, and even feathers. Instead, consider heating lamps, bulbs, or other types of radiant heaters that have automatic shutoffs. However, you need to remain vigilant as even heating lamps can cause fires if not properly secured.

Ventilation

- Fresh air is important in order to provide oxygen for the birds as well as to remove carbon dioxide and moisture. Make sure that fresh air entering the building mixes with the internal (warmer) air before it gets to the birds.
- Ventilation is not only about adding fresh air but removing stale air. To allow ammonia and stale air to escape, be sure there is a vent or opening near the roof or ceiling of the coop to maintain air quality.

Water

- While water consumption typically declines in the winter, birds still need water to survive.
- Water that is frozen over is not available to the birds and they cannot break through the ice to access the water. So it is important to check/replace the water several times a day and make sure that it is not frozen.
- Another alternative is to keep the water warm. This can be done by using a heater that goes under the waterer. This will require an electrical source. Another way to keep water warm is to use a heat lamp so that it keeps the water warm. Be careful not to splash cold



water on a hot heat lamp as the bulb may shatter. Be sure the heated base you choose will not melt or damage your water receptacle, or start a fire if it comes in contact the litter in the barn.

- Other useful tips to prevent frozen water include:
 - Placing black rubber tubs in sunlight because they absorb the heat, will not crack, and are easy to break the ice out if it forms
 - Keep water agitated using ping pong balls that float and keep water from freezing.
 - Soda bottle filled with salt water placed in the water bowl.
 - Create a sunroom using old windows or clear

plastic. This acts as a greenhouse and will heat itself from sunlight.

Feed

- Birds will require extra energy during cold weather months so feed needs to be available at all times.
- Treats and scratch grains that are high in energy can be given to them in the evening to help keep them warm all night. Suet cakes containing birdseed, fed sparingly, can provide a quality source of additional fat to the diet. Remember to limit to 10% of total feed intake.

For more information on this and other topics, visit the University of Maryland Extension website at extension.umd.edu

Spotted Lanternfly Egg Masses

Amy Duke, Penn State [press release](#)

In the world of the spotted lanternfly, autumn cues egg-laying season, which leads homeowners perturbed by the pest to ponder, “What should I do about egg masses?”

The answer, in short, is to “scrape, smash and squash.” But new research also suggests that several oil-based insecticides can be effective in destroying egg masses when applied in the weeks before egg hatch.

“The more egg masses we destroy now, the fewer we will have to deal with next season,” said Heather Leach, spotted lanternfly extension associate in Penn State’s College of Agricultural Sciences. “Citizens are critical partners in helping to slow the spread.”

She added that adult females can lay up to two egg masses, each containing 30 to 50 eggs. While the adults cannot withstand winter temperatures, their egg masses can.

“Come spring, these masses will unleash the next generation of the ravenous insect intruders,” Leach said.

Identifying egg masses can be tricky, even for citizens who are committed spotted lanternfly sleuths, because there can be a lot of variation in appearance. In general, egg masses are about 1.5 inches long and brown or grey in color. They contain rows of small eggs, roughly the size of a sharpened pencil point. Eggs within a mass are yellow or brown.

Egg mass cases that were laid up to two years ago still can be found on trees and other structures, Leach pointed out. “The easiest way to distinguish a fresh egg mass from an old one is to check for the presence of

emergence holes, which are a perfect oval at the top of each egg. If these are present, the nymphs have hatched from it.”

As for where to find eggs, the answer is dismaying. “Pretty much anywhere,” said Dennis Calvin, associate dean and director of special programs in the college. “While many egg masses are found on trees, they also can be found on lawn furniture, cars, trailers, outdoor grills and on many other surfaces. That is why it is so important for citizens to scout their properties for egg masses.”

Additionally, Calvin said that most egg masses on trees will be higher than a reachable distance of 10 feet; however, he does not recommend using ladders or climbing trees to reach them.

The most effective way to destroy egg masses is to scrape them off using a plastic card or putty knife. Then, place the masses into a bag or container with rubbing alcohol or hand sanitizer, which can



A wooden post abundant with spotted lanternfly egg masses. Spotted lanternfly females prefer to lay eggs next to already existing egg masses.

5 be disposed of in the trash. They also can be smashed or burned. A step-by-step video on removing egg masses can be found at extension.psu.edu/how-to-remove-spotted-lanternfly-eggs.

A newer method to deal with spotted lanternfly egg masses was hatched from studies done between February and April in 2018 and 2019. These findings suggest that some insecticides containing paraffinic and/or mineral oils — commonly used in fruit systems as insecticides to control soft-bodied insects — are effective in destroying eggs masses. Many of these oils are available at local garden centers.

When oils were applied at a solution of at least 3%, they were effective in killing up to 75% of treated eggs. The research also found that soybean oil had a similar effect when applied at a 50% concentration.

“Oils, when applied at the correct time and with good coverage, can offer some control of egg masses and have very little effect on non-target species,” said Greg Krawczyk, an extension tree-fruit entomologist and research associate professor. “The use of oils provides not

only a safe, environmentally friendly option but also provides control to some egg masses that are not accessible for physical removal or smashing.”

However, for masses that are within a reachable area, smashing or scraping the eggs will provide greater efficacy than the oil-based products currently available, he added. Research is continuing this winter to find other potential insecticides and optimize timing to use against egg masses.

Citizens should inspect their vehicles and any items they are transporting before moving them. A spotted lanternfly checklist, which can be found at <https://extension.psu.edu/spotted-lanternfly>, can help guide people through this inspection process.

**Editor’s note: Harford and Cecil Counties are in the Spotted Lanternfly Quarantine Zone. Any spotted lanternfly egg masses should be destroyed. If you find any egg masses or spotted lanternflies, you should report them to the Maryland Department of Agriculture at (410) 841-5920 or email dontbug.maryland.gov.*

Survey On Fruit Rot Diseases

All growers of tree fruit and/or small fruit: Please take a few minutes to fill out this fruit rot survey!

This short survey linked below is a part of multi-state research collaboration that aims to help us understand the impact and role of anthracnose (fruit rot) diseases caused by the fungal pathogens in the *Colletotrichum* genus and to prioritize grower concerns and challenges. All responses are anonymous. No personal information will be collected.

Anthracnose diseases in tree- and small-fruit crops may go by many names (bitter rot of apple, anthracnose of peach/blueberry/strawberry, ripe rot of grape, crown rot of strawberry, etc.) but many of them are caused by the same fungal pathogens: *Colletotrichum* species.

We appreciate your help in providing this valuable feedback from your farm operations and thank you for taking your time to help us set the research goals for 2021 and 2022 (please click on the link below to start the survey):

https://uky.az1.qualtrics.com/jfe/form/SV_d59ecltm2mqbbw1.

If you have questions, please contact Kari Peter, Tree Fruit Pathologist, Penn State: (717) 677-6116 Ext. 223 or kap22@psu.edu.



Introducing Maryland's new Conservation Buffer Initiative. This pilot program provides a new funding option for farmers who want to plant streamside buffers on their farms to improve the health of local streams and the Chesapeake Bay.

Maryland's Conservation Buffer Initiative offers many features that farmers have asked. These include attractive incentive payments, a buffer option for field ditches, more flexible site management, and shorter contract terms.

Program Highlights

Three types of buffers are eligible for funding and free technical assistance under this pilot: forest buffers planted next to waterways, grass buffers planted next to waterways or field ditches, and watercourse access control areas adjacent to pastures. Here's how the program works:

- Farmers receive a one-time payment for enrolled land with 75% paid when the contract is executed and 25% paid when the project is completed.
- Payment rates range from \$500/acre for an existing grass buffer to a maximum of \$3,500/acre to install a riparian forest buffer with fencing.
- Mowing and hay harvesting are allowed; nutrient applications are not.
- Contracts are for 5 or 10 years.
- Soil conservation districts provide free technical assistance to get your buffer installed.
- All work must be completed by June 30, 2022.

Apply online or by mail between **January 11, 2021 and February 5, 2021** at bit.ly/MDA_Buffer.

Qualifying Land

- Cropland next to a stream or ditch that has an established cropping history in pasture, commodity crops or hay.
- Cropland next to a watercourse or field ditch that has been historically enrolled in a conservation program for at least one year out of the last five years, 2014 –2019.
- Field ditches are not eligible to establish woody conservation buffers.
- Existing buffers or agricultural lands that are actively enrolled in state (MACS) or federal programs (CRP, CREP, EQIP, etc.) or mandated by an easement are not eligible for this program.

Eligibility

- Farmers and landowners who are responsible for the management of eligible lands may apply.
- Farmers who lease lands must certify an active lease for the term of the buffer, or provide an agreement from the landowner.
- Applicants who are ineligible to participate in USDA or state cost-share programs due to deceptive practices or nonconformance are ineligible to participate in this program.
- Farmers and landowners must be in good standing with the Maryland Nutrient Management Program, the Maryland Agricultural Water Quality Cost-Share Program and the Maryland Agricultural Land Preservation Foundation Program, if applicable.
- A current Nutrient Management Plan Certification is required and must be submitted with the application.
- Additional restrictions may apply.

How to Apply

- Download the [application](#).
- Complete the application and submit with 1.) A map that shows the location and acreage of the buffer; 2.) A signed Nutrient Management Plan Certification Form
- Email your application to: conservation.buffer@maryland.gov between **January 11, 2021 and February 5, 2021** or mail to Maryland Department of Agriculture, c/o Conservation Buffer Initiative, 50 Harry S. Truman Parkway, Annapolis MD 21401
- Questions? Call your local soil conservation district.

Funding

Funding for Maryland's Conservation Buffer Initiative is provided by the Chesapeake and Atlantic Coastal Bays Trust Fund and the Environmental Protection Agency.

PRIORITY FUNDING

The EPA has added additional funding for the following priority watersheds:

- Little Pipe Creek
- Deer Creek
- Monocacy River
- Big Pipe Creek



Tips For Starting Disease-Free Transplants

Kim Leonberger, Plant Pathology Extension Associate & Emily Pfeufer, Extension Plant Pathologist
University of Kentucky



Many home gardeners and commercial growers have placed their seed orders or have the seeds saved from last year safely tucked away. In the coming months it will be time to start those seeds in transplant trays.

However, many vegetable growers start their seeds only to have them come up, wither, and die (Figure 1).

Worse is when plants establish, only to become diseased after transplanting. The good news is that there are many steps that can be

taken to prevent disease before it occurs. The following recommendations can prevent disease issues and aid in establishing a vegetable garden. While diseases may still occur

Figure 1. Vegetable growers may experience frustration when seeds come up only to wither and die. (Photo: Michelle Grabowski, University of Minnesota Cooperative Extension Service).

once plants are transplanted, as a result of pathogens (disease-causing organisms) in the field, diseases are often less severe and growers suffer fewer losses.

Purchase disease-free seed

When purchasing seeds from suppliers it is important to note if seeds are certified disease-free. This means that these seeds have been tested and found to not be infected with diseases of concern. Information about whether or not seeds are certified disease-free can be found on seed packets or by asking your seed supplier.

Treat seed

Many home gardeners choose to save seeds from special varieties from year to year. However, pathogens may be present on the exterior and/or interior of seeds. This is

also true of seeds that may be purchased but are not certified disease-free. In order to kill pathogens hot water seed treatment may be used for certain types of vegetables. In this process, seeds are placed in a water bath at 100°F to prepare them for the heat treatment. After five minutes, seeds are transferred to a second water bath and treated at a specified temperature, typically between 118 and 125°F, for a specified period of time. The temperature and treatment time varies depending on the type of seed being treated. Reference Cornell University's Vegetable MD Online article entitled "[Managing Pathogens Inside Seed with Hot Water.](#)" There are certain types of vegetable seeds that cannot be heat treated, such as peas and beans. Often, these seeds can be purchased pre-treated with fungicide.

Surface sterilize transplant trays

Reused transplant trays can harbor pathogen propagules, which can cause seedling diseases. If trays are to be used again, they should be thoroughly cleaned with all soil and plant debris removed. After removing soil and plant matter, trays can be sterilized using a solution of one part household bleach to nine parts water (10% bleach). Pots and metal stakes can be sterilized in a similar way. Ensure that trays have been rinsed with fresh water and are completely dry before planting.

Pasteurize planting media

Planting media can also contain pathogen propagules that may infect seeds or seedlings. It is recommended to always use new planting media for starting seeds, and most purchased media is typically pathogen-free. If media is suspected of being infested with pathogens, pasteurization (heating up soil) can eliminate them. To pasteurize, put thoroughly moistened soil in a cake pan and heat at 200°F for 46 – 60 minutes, or put in a glass pan in a microwave oven for 15 – 20 seconds.

Great resources are just a click away!

Andrew Kness
Extension Agent,
Agriculture and
Natural Resources



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Dates to remember

- 14 & 19 Jan.** Delaware-Maryland Virtual Forage Conference. 9-noon. Free. Register online: go.umd.edu/forage.
- 25 & 31 Jan.** [Urban Farmer Winter Meeting](#). 1-5 PM, online. Free. Register [online](#) or contact Neith Little nglittl@umd.edu.
- 28 Jan.** [Virtual Central MD Fruit & Vegetable Growers Day](#). 8-12:15pm. Free. Register at: go.umd.edu/CentralMDVegMeeting or call the Extension office.
- 08-11 Feb.** Mid-Atlantic Fruit & Vegetable Convention. Virtual conference. Registration opens soon: www.mafvc.org.

Check out these additional online resources from

 Maryland Grain	 Ag Law Initiative
 Agronomy News Blog	 Women in Ag
 Nutrient Management	 Plant Diagnostic Lab
 Extension Website	

Other winter meetings available online:

www.go.umd.edu/WinterAgMeetings

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