Dave’s Ramble

Tales of lean years raged within the farmer’s mind, a tempest of: drought, low commodity prices, high input costs, a strong dollar and weak world demand. He stumbled through the farm shop door while trying to grasp the impossible profitability of producing food from fodder.

“Behold,” shouted the Crops Master to weary farmer at his entrance; whose eyes were now fully captivated by the shiny new machine occupying nearly the entirety of the shop!

The farmer marveled at the contraption: a modern STEM wonder of hoppers, pipes, hoses, conveyors, robotics, lights; control panels, with buttons and levers; an idolatrous creation of steel, plastic, rubber, precious metals and rare earths, fully painted and illuminated.

The Crops Master, now beaming, could barely contain himself as he ordered the farm crew to “Load the 3-D Food Printer!” A trembling within the very heart of the machine commenced, as the Crops Master asked the farmer, “Would you like to have a grain or grass fed hamburger, on a white or whole wheat bun, with tomato, onion, lettuce, mayo and a pickle?” The farmer, now fully entranced, replied, “Yes, Please! A grass fed, but neatly grain finished burger on a toasted whole wheat bun, with the works.” The farm crew and the Crops Master loaded the machine with grass, oats, corn, soybeans, eggs, onion, lettuce, tomato, vegetable oil, vinegar and a cucumber.

The machine with a great whirring commotion, loosened brilliant lightning flashes of microwaves and shielded gamma rays; until into the hands of the farmer landed a delicious burger! Eagerly the farmer enjoyed the burger as he noticed a single soiled pipe coming from the latrine and a brightly displayed prominent red button that read “Reverse Process!”

Gagging and shouting “No don’t push the red button!” The farmer awoke from the night terror to some rather concerned looks from the wife and dog.

“I’ll take the lean years!” he mumbled.
2015 Pasture Walk
Anne Arundel County
May 1, 2015
9:00-11:40 am

Having trouble with pesky weeds in your pastures? Can’t seem to get the mud to just GO AWAY? Have farm projects to get done but don’t have the equipment? Come out to the Anne Arundel Soil Conservation and Maryland Horse Outreach Workgroup FREE pasture walk and get some great tips on how to help optimize your farms potential.

Location: Hopewell Farm, 7000 Solomon’s Island Rd., Owings, MD 20736 on May 1, 9 – 11:40 am. Topics include Heritage Horse Breeds, Controlling Pasture Weeds, and Farm Equipment Rental Program.

The event is open to the public and horse owners are strongly encouraged to attend.

Please RSVP by April 27, 2015 to Travis Gorleski at (410)571-6757 ext. 110 or email at travis.gorleski@maryland.gov

Landlord & Tenant Leasing Webinars
May 4 and May 11

UME, will be holding two webinars on landlord-tenant issues the first 2-weeks in May. Perfect topic for beginning farmers, anyone looking to get into becoming a farmer, or a landowner looking to lease there land out.

Sign up is available at https://arecleasingwebinar.eventbrite.com

Food Business Risk Management Class
Tuesday, May 12, 2015

Because consumers have grown more concerned about how their food was grown and processed, every food business owner (and every farmer who is selling products directly to the public) needs to understand the ways that he or she can lessen the liability associated with placing food products in the marketplace.

To respond to this need, Penn State Extension, in collaboration with the Maryland Rural Enterprise Development Center and University of Maryland Extension, is offering a one-day class, Managing Risk for Food Businesses, at the Maryland Agriculture Resource Center, 1114 Shawan Rd., Cockeysville, Maryland 21030, on Tuesday, May 12 from 9:15 a.m. to 3:30 p.m. Cost is $40.00 (includes lunch and all handouts,) payable by credit card or personal check.

For further details and to register go to: http://managingriskforfoodbusinesses.eventbrite.com

Crops Twilight
Barbecue & Ice Cream Social
CMREC Upper Marlboro Farm
August 6, 2015

You are invited to attend a Field Crops Research Twilight, Barbecue and Ice Cream Social at the Central Maryland Research & Education Center, 2005 Largo Rd., Upper Marlboro, MD on Thursday, August 6, 2015 from 4:30 to 9 pm. A barbecue dinner will be served at 4:30 pm followed by homemade ice cream prior to the evening tour. University of Maryland Extension Educators and Specialists will showcase their field crop, vegetable and fruit research plots.

Barbecue Begins at 4:30
Ice Cream Served at 5:15
Crops Twilight at 6:00

➢ Please arrive on time on time as the tour will start promptly at 6:00 pm. This event is free. However, a reserved meal ticket is required.

➢ If you need special assistance to participate, please contact the Anne Arundel County Extension office at 410-222-3906 by August 3.

For registration information contact any of the Southern Maryland Extension offices.
Goat Test Nominations Being Accepted April 15 – June 1

The nomination period for the Western Maryland Pasture-Based Meat Goat Performance Test is April 15 through June 1. Any goat producer may nominate up to five male goats, of any breed or breed cross, with or without registration eligibility. Eligible goats must have been born between January 1 and March 15, 2015, and weigh between 40 and 70 lbs. upon delivery to the test site on June 26.

This is the 10th year of the Maryland test. It was established in 2006 to evaluate the post-weaning performance of meat-type bucklings consuming a pasture-based diet, with natural exposure to internal parasites. While on test, goats are evaluated for growth, parasite resistance, and parasite resilience. The 10 top-performing bucks will be recognized.

For more information or to consign, visit the meat goat test blog at http://mdgoattest.blogspot.com. All documents pertinent to the test can be downloaded from the blog. Contact Pam Thomas at (301) 432-2767 x315 or pthomas@umd.edu to have a nomination packet mailed to you. Only nominations received by the deadline will be treated equally.

IPM Alert
Stanton Gill, sgill@umd.edu
Extension Specialist in IPM and Entomology for Nurseries/Greenhouses, Univ. of Maryland Extension
www.Extension.umd.edu/ipm - IPM Alerts

Good News for Biological Control of Slugs and Snails
In late March I traveled out to Salt Lake, Utah for the IPM International meetings. At the meetings I met with Dr. Parwinder Grewal, Department Head, of the University of Tennessee. Parwinder worked with us back in 2006 and 2007 in trying to find a beneficial nematode called Phasmarhabditis hermaphrodita that attacks slugs and snails. Phasmarhabditis hermaphrodita has been found in California. This can open the door to bringing the UK product here.

Sapsucker Damage
John Murphy of Murphy John’s on the Easternshore sent in this picture of sapsucker damage to his Austrian pine. The sapsuckers do this feeding injury in the fall just before their southward migration. Not much you can do at this time of year. Sometimes the damage is extensive enough that it will girdle a branch or trunk of a tree. We had picture submitted each year on plants such as sugar maple, Burford holly and even rhododendron.

Thank Goodness We are Not in California
This may be one our worst early springs with the cold and wet weather so far. Easter came early which helped push early sales and the weather was not the worst. Actually, it was pretty good for 2015 – 60 – 70 F. We now have a long selling season until Mother’s Day – which is the good news. The other good news is we are not in California. The governor of California, Jerry Brown, just announced that the state will restrict water use by 25% for urban areas. Agriculture will not be restricted since they are already taking the brunt of the drought impacts so far. Over 400,000 acres were taken out of production in 2014 due to drought. It will be worse this year. The mountains in California did not get the snowfall they needed. Oregon and Washington State reports the lowest snowfall in 25 years.

The prediction for the next 30 years is severe drought for the southwest of America. Brown is planning to encourage people to substitute their lawns for drought tolerant plants. They plan to put in incentives to get people to switch to drought tolerant plants.

So, next time you want to complain about the weather just remember the people in the southwest and be thankful you live on the East coast.

Fruit Trees
Over the least 5 years I seen a surge in the number of Maryland nurseries planting fruit trees to sell to their customer base. Also, several arborist are now maintaining fruit trees for customers. If you are growing fruit trees in the nursery try to get all of the pruning done in the next week. You can generally go up until bloom time for pruning.

Phosphorus Paradox
View the video at:
https://www.youtube.com/watch?v=qCZ89Tj5BRM&feature=youtu.be
Dormant oils and fixed copper should go on this week on apples and pears. I put my on last week in Westminster but this week is still ok in most parts of the state. The Easternshore may be further along on bloom development. The oil is for scale and overwintering aphid eggs. The fixed copper is to help reduce fireblight. You can do this up to green tip stage on apples and pears.

Peaches need an application of fixed copper before the buds show any color which should coming on soon. This reduces peach leaf curl and bacterial diseases.

**Ambrosia beetles**

We checked the alcohol baited traps in the early part of the week and --- to be added to later in the week.

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**Vegetable Crop Insects**

By Joanne Whalen, DE Extension IPM Specialist

**Cabbage**

Be sure to watch for imported cabbage worm (ICW) and diamondback moth larvae (DBM) within a week of transplanting. As a general guideline, treatment is recommended if you find 5% of the plants infested with larvae. If DBM is the predominant species, be sure to select an insecticide that is effective for this insect pest since it can be difficult to control. The pyrethroids have not provided effective control of DBM in many cases, especially where resistance has been documented. Please refer to the Commercial Vegetable Recommendations for suggested chemical controls.

**Peas**

As soon as plants emerge, be sure to sample on a weekly basis for pea aphids. Cool weather will favor an increase in populations. On small plants, you should sample for aphids by counting the number of aphids on 10 plants in 10 locations throughout a field. On larger plants, take 10 sweeps in 10 locations. As a general guideline, a treatment is recommended if you find 5-10 aphids per plant or 50 or more aphids per sweep.

**Potatoes**

As soon as plants emerge, be sure to sample fields for Colorado potato beetle adults, especially if an at-planting material was not used. A treatment should not be needed for adults until you find 25 beetles per 50 plants and defoliation has reached the 10% level.

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**Agronomic Crop Insects**

By Joanne Whalen, DE Extension IPM Specialist

**Small Grains**

In most years, the potential for overwintering insects to cause crop damage is a result of both winter and spring weather conditions. Despite the cold winter weather in 2015, cereal leaf beetle caused economic damage in a number of small grain fields last season. Although we did not see any beetles while sampling small grains this past week, we should begin to see adults emerging soon. Beetle adults do not leave overwintering sites until daily high temperatures are consistently above 60°F. Treatment thresholds are not based on adult beetle counts; however, detection of the first adults can give us an idea of when egg laying will begin. Treatment decisions are based on the number of eggs and/or larvae per 100 tillers. Please see the following link for more information on insect identification, sampling and treatment thresholds at: [http://extension.udel.edu/factsheet/cereal-leaf-beetle-control-in-small-grains/](http://extension.udel.edu/factsheet/cereal-leaf-beetle-control-in-small-grains/)

There is also very good information from North Carolina about when it may or may not pay to tank mix an insecticide with your nitrogen application at: [http://entomology.ces.ncsu.edu/2015/03/tank-mixing-an-insecticide-for-cereal-leaf-beetle-in-wheat/?src=rss](http://entomology.ces.ncsu.edu/2015/03/tank-mixing-an-insecticide-for-cereal-leaf-beetle-in-wheat/?src=rss)

**Timothy**

Be sure to watch for an increase in cereal rust mites which are favored by cool temperatures. Symptoms can appear as retarded growth, leaf curling, stunting, and plant discoloration. Injured plants appear to be drought stressed even when adequate moisture is available for plant growth.

As a general guideline, treatment is recommended in fields with a previous history of cereal rust mites and/or when 25% of the plant tillers exhibit curled tips of the new leaf blades within several weeks following green-up. The use of a 20x-magnifying lens is often necessary to find mites on leaves. The only effective and labeled material on timothy is Sevin XLR Plus. Be sure to read the label for information on the number of applications per season as well as the days to harvest. For effective rust mite control, the use of the higher labeled rate and at least 25 gal/acre of carrier to get good coverage of leaf surfaces generally results in better control.

**Alfalfa**

Be sure to begin sampling for pea aphid and alfalfa weevil. When sampling for aphids and weevils, collect a minimum of 30 random stems throughout a field and place them top first in a white bucket. For aphids, you want to count the number present per plant as well as any that have dislodged from the stem into the bucket. As a general guideline, you should consider a treatment in alfalfa less than 10 inches tall if you find 40-50 aphids per stem. The treatment threshold for alfalfa 10 inches or taller in height is 75-100 per stem. Although beneficial insects can help to crash aphid populations, the recent cool temperatures have slowed their activity. As a general rule, you need one beneficial insect per every 50-100 aphids to help crash populations. For alfalfa
weevil, you will want to record the number of weevil larvae per stem. The following thresholds, based on the height of the alfalfa, should be used as a guideline when making a treatment decision: up to 11 inches tall – 0.7 per stem; 12 inches tall – 1.0 per stem; 13 – 15 inches tall – 1.5 per stem; 16 inches tall – 2.0 per stem and 17 – 18 inches tall – 2.5 per stem

Field Corn
During our sampling for slugs this past week, we have observed low levels of adult marsh and grey garden slugs. We have not yet seen any signs of grey garden slug egg hatch. In general, the grey garden slug causes the majority of damage in our corn fields. Therefore, scouting for eggs and watching for egg hatch will help identify potential problem fields. For more information on scouting for slugs eggs, please watch the following video from Ohio State University:
http://oardc.osu.edu/ag/pageview3.asp?id=2087

Understanding the Lime Requirement
By Jarrod Miller
Agent, Agriculture & Natural Resources
University of Maryland
jarrod@umd.edu

The pH scale, a measure of Hydrogen (H) concentration, was created by a scientist 100 years ago to describe the acidity of beer. This scale also provides a benefit or the agricultural producer, aiding in the determination of nutrient availability and the necessity to lime their soils.

The pH scale is considered acidic between 0 to 6, neutral at 7, and alkaline (basic) from 8-14. While it may seem natural that a neutral pH is best for crop growth, there are many reasons that mildly acidic soils benefit producers.

Acidic soils have a greater concentration of H in their soil solution, but toxicity due to H is not important until you go below pH 4.5. Free aluminum (Al) in the soil water is of greater concern, picking up in concentration when your pH drops below 5.5. Aluminum has toxic effects on root growth, therefore lowering crop production. Current lime requirements take into consideration the amount needed to reduce the available Al in the soil, rather than attempting to reach a neutral pH.

Determination of lime requirement is based on both active and reserve soil acidity. Aluminum can cause additional acidity when released into the soil solution, reacting with water to release acidity (H):

\[ \text{Al}^{3+} + 3\text{H}_2\text{O} \leftrightarrow \text{Al(OH)}_3 + 3\text{H}^+ \]

When lime is applied to a soil it will neutralize any H in the soil water, but Al and H (held in reserve on your CEC) can replace that acidity. How well a soil is buffered against pH change will control the total amount of lime needed to raise soil pH.

An additional reason to be wary of a pH approaching neutrality is plant access to micronutrients. Precipitation of micronutrients (Cu, Zn, Fe) into solids occurs with higher pH. This can be compounded by the clay/sand content and so will vary across the geographic provinces of Maryland.

Due to the toxicity of Al, liming recommendations should not be ignored. However, considerations for the loss of micronutrients at greater pH should also be considered for nutrient management. In future articles we will explore the variability in pH and lime response across Maryland and how a range in soil properties may interact with pH and nutrient availability.

MD Grain Marketing Site Updated for 2015: Field Crop Budgets and Custom Rates
By Shannon Dill
Principal Agent, Agriculture & Natural Resources
University of Maryland
sdill@umd.edu

The University of Maryland Extension has updated www.extension.umd.edu/grainmarketing site with new input data for 2015 crop budgets. Also posted is the 2015 Maryland Custom Rate Survey.

Crop Budgets
Cost of production is very important when making decisions related to your farm enterprise and grain marketing. 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 2015 Maryland enterprise budgets were developed using average yields and estimated input cost based upon producer and farm supplier data. The figures presented are averages and vary greatly from one farm and region to the other. It is therefore crucial to input actual farm data when completing enterprise budgets for your farm.

How to Use University Enterprise Budgets:
The enterprise budgets can be used as a baseline for your operation. Make changes to these budgets to include your production techniques, inputs and overall management.

The budgets are available electronically in PDF or Excel online at: www.extension.umd.edu/grainmarketing.

Use this document as a start or reference to create your crop budgets. If you have problems downloading any of these budgets contact information is located on the website.
2015 Custom Rate Survey Now Available

Financial and economic considerations such as limited capital, untimely cash flow, insufficient labor, small acreage or other reasons require farmers to hire custom service for field operations.

Custom work charges are determined by demand and supply and are negotiated between farmers and custom operators. The purpose of the publication is to provide information on custom work charges in Maryland and to provide data to assist in decision making regarding purchasing equipment.

Custom Work Charges

A mail survey was conducted in the fall of 2014 to determine custom works charges in Maryland. Rates were collected from 77 custom operators and farmers, and summarized for the state. Participants indicated the rates they charge for various field operations. The charges reported in this publication may serve as a guide in determining an acceptable rate for a particular job where little other information is available. The charges can also be compared with costs and returns and may be used as a basis for working out more equitable charges for both the custom operator and customer. These are available online at: www.extension.umd.edu/grainmarketing or contact your local Extension Office.

A Second Horse Tests Positive for Equine Herpes Virus (EHV-1)

A horse that was at the same breeding facility as a Montgomery County horse that was recently diagnosed with the mutant neurotropic form of Equine Herpes Virus (EHV-1) has tested positive for EHV-1. This second horse, which is still at the breeding facility, had no symptoms and was diagnosed as the result of lab tests. Both EHV-1 positive horses are under care by private veterinarians and are in strict isolation, according to protocol.

The Montgomery County horse had been at the breeding facility for more than two weeks before returning home on Monday. While at the breeding facility and during her first day home, she exhibited no signs of illness. On Tuesday, the horse began showing mild respiratory and neurological signs and was seen by a private veterinarian, who reported the suspected neurological illness to the Maryland Department of Agriculture (MDA), as is required by law. Laboratory tests conducted by MDA confirmed the diagnosis. Following a Disease Investigation Protocol, MDA tested horses that were in close contact with the sick horse at the breeding facility. That investigation discovered the second positive horse.

All horses that were exposed to the two positive horses are currently free of symptoms and are being monitored daily. All appear healthy. Both farms will remain under quarantine to ensure the virus is contained. As of today, MDA believes the virus is contained to these two farms and is not aware of any other EHV-1 cases in the state.

MDA’s Animal Health Program continues to monitor the situation closely. Owners should contact their private veterinarians to arrange for EHV testing if a horse exhibits significant temperature elevations or neurologic signs. Veterinarians are required to report equine neurologic syndrome to MDA.

WANTED: STINK BUGS

University of Maryland Researchers Seeking Thousands of Live Stink Bugs

By Sara Gavin
Communications Coordinator
University of Maryland

As the weather turns warmer, stink bugs stowed away for the winter in houses and buildings will start to seep out of cracks and crevices much to the dismay of residents all over the region. Before simply getting rid of the pests, however, scientists at the University of Maryland are urging people to collect them and donate them to research.

Galen Dively, Ph.D., an Extension specialist in integrated pest management and entomology professor at the university, says his lab collected roughly 13,000 stink bugs last fall, most of which died due to a suspected virus that causes colony collapse.
“We really need bugs,” says Dively, who heads up a team of graduate students all dedicated to studying the invasive Brown Marmorated Stink Bug (BMSB) and figuring out how to eradicate it. “If you have a large stink bug population in your home or office or school, our lab would really appreciate you capturing the little critters.”

Dively suggests collecting the bugs in household items like plastic food containers or old coffee cans, throwing a piece of apple inside for food and poking holes in the lid. However, he cautions not to throw the bugs together inside confined spaces like Ziplock bags as the pests will “stink” each other to death. Dively and his colleagues are offering to come pick up collections of at least 50 stink bugs or more. Contact the researcher at: galen@umd.edu or 202-812-9828.

The BMSB was accidentally imported from Asia to North America in the late 1990s and with few known natural enemies in this country, quickly became a nuisance inside homes, office buildings and warehouses. Although the insect doesn’t bite humans, it lays hundreds of eggs during its lifetime and is particularly dangerous to farmers because of the fact that it will feed on almost anything.

While the BMSB is known as more of a nuisance in the summer and fall months, Dively says it only takes a couple of warm days to coax them out of their winter hiding spots. Dively and his research team are currently studying some of the BMSB’s natural predators – parasitic wasps who feed on the bug’s eggs – and testing the effectiveness and safety of various spray treatments.

Missed the 2015 Bay Area Fruit School?  
February 25, 2015

Videos are on the web at QACTV:
If any of you would like to view the presentations of our recent Bay Area Fruit School, please go the follow website:

http://agresearch.umd.edu/wye/extension-programs-wyerec/2015-bay-area-fruit-school

Mr. Ben Beale, UME St. Mary’s County  
Performance of Rabbit-eye, Southern Highbush & Northern Highbush Blueberry Cultivars  
Video Coverage (link is external)

Mr. William Marose, Marose Ag Consulting  
Tree Fruit Pests: The New, the Bad and the Ugly  
Video Coverage (link is external)

Dr. Kelly Hambry, UMD Plant Sciences and Landscape Architecture  
Spotted Wing Drosophilla  
Video Coverage (link is external)

Dr. Chris Walsh, UMD Plant Sciences and Landscape Architecture  
Asian Pear Variety Performance  
Video Coverage (link is external)

Dr. Kari Peters, Tree Fruit Pathology, Penn State Fruit Research Center  
Basics of Nematode Management  
Video Coverage (link is external)

Dr. Dennis vanEngelsdorp, UMD Department of Entomology  
Honey Bee Health: Factors Driving Honey Bee Losses  
Video Coverage (link is external)

Dr. Kari Peters, Tree Fruit Pathology, Penn State Fruit Research Center  
Fruit Tree Disease Management Following a Wet Year  
Video Coverage (link is external)

Cassandra Swett, UMD Plant Sciences and Landscape Architecture  
Major Blueberry Disease Management Strategies and 2015 Updates on Pre-bloom to Bloom Time Fungicide Use for Grey Mold Control in Strawberry  
Video Coverage (link is external)

Dr. Chris Walsh, UMD Plant Sciences and Landscape Architecture  
Apple Tree Architecture  
Video Coverage (link is external)

MDA Representative  
MDA Pesticide Hot Topics  
Video Coverage (link is external)

Ag Law Update & Videos
By Paul Goeringer  
Research Associate and Extension Legal Specialist  
Agriculture & Resource Economics  
lgoering@umd.edu

The following publications have been added to the website:

When Can the Government Enter Your Farm? by Sarah Everhart

Using a Business Organization Structure to Limit Your Farm’s Liability by Ashley Newhall and Paul Goeringer

Legal Liability of Saving Seeds in an Era of Expiring Patents by Paul Goeringer

Model CSA Contract
In addition to the publications, we are adding short youtube videos over legal issues http://umaglaw.org/videos.html. Right now we have videos on leasing, contracting, and what is a law/regulation. We should have some additional ones available in the future over premise liability, defenses to negligence, and adverse possession. Along with that we continue to post shorter pieces at http://umaglaw.org/publications-library.html, many of which are cross posted on the UME website as well.

Job Posting:  
Agronomy Program Manager

University of Maryland, Wye Research and Education Center, Queenstown, MD. Duties: Working with scientists, coordinate and implement research, demonstration and educational projects for agronomic crops.

Min. Qual.: BS in Agronomy or related field, 5 years of farm-related experience including research plot design and
staff supervision. Salary commensurate w/experience, with base salary $55,200.


The Maryland Rural Enterprise Development Center (MREDC) Announces the Addition of Three Online Resources

- **Food Processing-Cottage Food Industry-Business Law and Labeling & Packaging.** A “cottage food product” is a nonhazardous food that is sold at a farmer’s market or public event. The Department of Health and Mental Hygiene (DHMH) must adopt specified regulations to carry out Cottage Law. Get all the resources and facts about the law, labeling and packaging at this new resource on MREDC. https://www.extension.umd.edu/mredc/specialty-modules/cottage-food-business-law-md

  Two enterprises trending in Maryland and beyond are honey bee enterprises and hops production. Varying circumstances make for great growth potential of these enterprises in Maryland!

- **Honey Bee Enterprise Resource Page:** https://www.extension.umd.edu/mredc/specialty-modules/honey-bee-enterprise

- **Hop Production Resource Page:** https://www.extension.umd.edu/mredc/specialty-modules/hop-production

**MDA ANNOUNCES NEW SPECIALTY CROP GRANT PROGRAM**

*Application Deadline is May 8*

ANNAPOLIS, MD (April 2, 2015) – The Maryland Department of Agriculture (MDA) today announced a competitive grant program to fund projects that solely enhances the competitiveness of specialty crops. The Specialty Crop Block Grant Program was established by the 2014 Farm Bill.

MDA will administer funds totaling approximately $340,000. Of this amount, Food Safety, Market Enhancement and Pest Management will be a priority for projects with a minimum level of $15,000. MDA intends to fund projects that can produce the highest degree of measurable benefits to Maryland specialty crop producers in relation to each dollar spent and need to have the support from specialty crop producers. Grants will be reimbursement grants.

**Specialty crops** are defined by the U.S. Department of Agriculture as fruits, vegetables, tree nuts, dried fruits, horticulture, and nursery crops.

MDA is seeking applications from eligible non-profit organizations, government entities, for-profit and organizations for projects that aim to promote or enhance the production of and access to Maryland specialty crops. Applicants must reside or their business or educational affiliation must be in Maryland. Potential applicants are encouraged to call Karen Fedor at 410-841-5773 to discuss proposals.

Electronic grant applications must be submitted by 4:00 p.m. on May 8, 2015. Paper applications must be postmarked by May 8, 2015.

For questions about the grant application or to download the application, contact Karen Fedor at Karen.fedor@maryland.gov or 410-841-5773.

*# # #*

**Phosphorus Management Tool Regulations Published in the Maryland Register; 30-day Public Comment Period Ends May 4**

ANNAPOLIS, MD (April 3, 2015)– The Maryland Department of Agriculture (MDA) announced that newly proposed Maryland Phosphorus Management Tool (PMT) regulations were published in today’s Maryland Register. MDA will offer a 30-day public comment period on the proposed regulations ending May 4. The purpose of the regulations is to establish a multi-year process for farmers to transition from the Phosphorus Site Index to the Phosphorus Management Tool, which can better identify potential risk of phosphorus loss from farms.

“I thank Governor Hogan for his leadership in moving these revised regulations forward. We appreciate the agriculture and environment communities collaborating on these phosphorus regulations,” said Agriculture Secretary Joe Bartenfelder. “The PMT reflects our best understanding, based on a national body of science, of how phosphorus moves from farm fields into our rivers and streams. Maryland farmers have always embraced science-based policy and these regulations further demonstrate how committed Maryland farmers are to restoring our treasured Chesapeake Bay.”

The Hogan Administration and lawmakers, together with stakeholders from the agriculture and environment communities, reached consensus on the PMT regulations on March 18. As part of the consensus, two changes were made to regulations Governor Hogan proposed on February 23.
The proposal that appear in the Maryland Register today maintains two key enhancements of the February proposal that were volunteered by the agricultural community. The enhancements:

1. Enact an immediate ban of additional phosphorus on soils highest in phosphorus. Upon adoption of the regulations, fields with a soil Fertility Index Value (FIV) of 500 or greater will be banned from receiving additional phosphorus until the PMT is fully implemented, currently scheduled for 2022. These are the fields that are at the highest risk of phosphorus potentially leaving the farm and entering nearby waterways.

2. Provide comprehensive information on soil phosphorus conditions statewide. Beginning in 2016 and every six years thereafter, soil test phosphorus data will be collected for all farms in Maryland subject to nutrient management plan requirements. This data will provide the MDA with accurate soil fertility data to monitor trends in phosphorus levels and help identify potential areas to redistribute newly available manure.

Today’s proposal also includes two key changes that address concerns of legislators and the environmental community.

1. The implementation schedule is more clearly defined and includes giving farmers no more than two, one-year extensions at set points. The new timeline also establishes 2024 as the deadline for full implementation.

2. A new expert advisory committee will be formed to evaluate the infrastructure and capacity available to manage additional manure as farmers transition to the PMT. The advisory committee will make recommendations to the Secretary to provide any extensions and only if the infrastructure is not in place. The 20-member PMT Advisory Committee will be comprised of government, university, farmers, manure haulers, alternative use industries, biosolids, and environmental interests. Members will be appointed by the Maryland Secretary of Agriculture.

Comments on the proposal may be sent to Joseph Bartenfelder, Secretary, Maryland Department of Agriculture, 50 Harry Truman Parkway, Annapolis, Maryland 21401, or call 410-841-5880, or email to pmtnfo.mda@maryland.gov, or fax to 410-841-5914. Comments will be accepted through May 4, 2015. A public hearing has not been scheduled.

# # #

MDA Reminds Marylanders to Protect Local Waterways and the Chesapeake Bay by Following the Lawn Fertilizer Law

ANNAPOLIS, MD (April 2, 2015) – The Maryland Department of Agriculture (MDA) reminds homeowners and lawn care professionals that they can make a difference for local streams and the Chesapeake Bay by following Maryland’s Lawn Fertilizer Law.

The law took effect October 1, 2013 with the goal of protecting the Chesapeake Bay from excess nutrients entering its waters from a wide range of non-agricultural sources including golf courses, parks, recreation areas, athletic fields, businesses and hundreds of thousands of urban and suburban lawns. The law applies to both homeowners who fertilize their own lawns and lawn care professionals hired to apply fertilizer to residential, business and public properties.

“Turf grass is the largest crop in the Chesapeake Bay Watershed,” said Maryland Agriculture Secretary Joe Bartenfelder. “Research shows that the way we care for our lawns, like any crop, can make a difference for the Bay.”

Lawn care professionals must be licensed and certified by MDA to apply fertilizer to the lawns that they manage. This helps ensure that they understand the science behind turf management and the environmental practices they will need to follow to protect waterways from excess fertilizer. MDA encourages homeowners to verify that their lawn care provider is certified by visiting www.mda.maryland.gov/fertilizer.

The law helps homeowners and professionals maintain healthy lawns without using unnecessary amounts of nutrients. It prohibits most lawn fertilizer products from containing phosphorus—a key nutrient that contributes to the Chesapeake Bay’s “dead zones.” It also limits the amount of nitrogen contained in lawn care products and requires part of this nitrogen to be in a slow release form.

Maryland has about 1.1 million acres of turf grass – most of it in single family residences. That represents 18 percent of the state’s total land area and more than any single agricultural crop. Lawn fertilizer accounts for 44 percent of all fertilizer sold in Maryland.

**Homeowners can make a difference for the Bay this spring by following these best management practices:**

- Skip the spring fertilizer. Fertilizing lawns in spring promotes excessive top growth at the expense of roots.
- Sharpen lawnmower blades. A cleaner cut looks better and is healthier for the grass.
- Raise the cutting height of the mower. Taller grass shades out weeds and needs less water. A three inch cut length is ideal for most lawns.
- Leave grass clippings on the lawn. They provide free fertilizer all season long.

**If you fertilize:**

- Follow the directions on the fertilizer bag.
- Do not apply phosphorus to lawns unless a soil test indicates that it is needed.
• Do not apply fertilizer to sidewalks or other impervious surfaces. Clean up excess fertilizer.
• Keep fertilizer applications 10 to 15 feet from waterways.

For more information, visit www.mda.maryland/fertilizer.

State Agriculture Department Encourages Participation in Pesticide Use Survey

Survey is the only comprehensive measure of pesticide use in Maryland

ANNAPOLIS, MD (April 9, 2015) – The Maryland Department of Agriculture (MDA), which is responsible for enforcing the Maryland Pesticide Applicator’s Law, today announced that the 2014 Pesticide Usage Survey is officially underway. MDA encourages everyone who receives a survey in the mail to complete and return the form. The report is being conducted by the U.S. Department of Agriculture National Agricultural Statistics Service (NASS).

“This survey will provide us with comprehensive information about what pesticides are being used around the state and what trends are developing,” said Agriculture Secretary Joe Bartenfelder. “This crucial data will help agriculture and industry professionals understand what is being used, and it will provide public and environmental health experts with information that can help them focus their research and monitoring efforts.”

This is the eighth pesticide use survey MDA has conducted since 1985. The survey is sent to all farmers, private applicators, commercially licensed businesses and public agencies that obtain a permit from MDA to apply pesticides. Additionally, the survey is sent to a randomly sampling of farmers who are not certified applicators. While the survey is voluntary, high response is important to ensure the compilation of the most accurate information.

Maryland is the only state in the Chesapeake Bay region to comprehensively survey pesticide use. The 2014 survey, for the first time, includes questions related to the time of year the product is applied and which crop is targeted for application. This additional information is being collected as a result of the Pesticide Use Information and Reporting Workgroup, which was formed following legislation passed in 2013. Pesticides are defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. They can take the form of bait, liquid, powder or spray. Commonly used pesticides include insecticides, herbicides (weed killers) and rodenticides.

All commercial applicators must be registered and permitted with MDA. Restricted use pesticides may only be applied by, or under the direct supervision, of a licensed applicator. For a searchable database of licensed applicators as well pesticides that can be applied in Maryland, see: http://mda.maryland.gov/plants-pests/Pages/pesticide_db.aspx

Brief overview of MDA’s Pesticide Regulation Section, see: http://mda.maryland.gov/Documents/ag_brief/AgBrief_PesticideReg.pdf

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Secretary of Agriculture Warns of Poisons in the Home

Tips to Protect Children and Pets from Accidental Exposure or Poisoning

ANNAPOLIS, MD (April 10, 2015) – Secretary of Agriculture Joe Bartenfelder is warning Maryland residents with small children to be aware of the danger posed by many common household chemicals and to make sure they are kept safely away from children and pets. Although drugs, caustic chemicals such as drain cleaner, and poisons such as insect sprays are commonly of most concern to parents and pet owners, other materials are also dangerous and may be stored in less secure areas.

“Many consumers will soon be stocking up on lawn and garden chemicals for spring,” said Secretary Bartenfelder. “Outdoor chemicals are sometimes stored in locations that are out of sight of adults, but those locations, such as barns and sheds, may be appealing to curious children. Dangerous substances in those areas should also be secured.”

A pesticide is any bait, liquid, powder or spray used to kill a pest. Commonly used pesticides include insecticides, herbicides (weed killers) and rodenticides.

Product labels are the key to safely storing, handling and disposing of chemicals. Consumers are urged to read and follow all label instructions and to adhere to the following general rules:

• Store products out of reach of children and pets. Keep all pesticides and harmful household products locked in a cabinet, a utility area with lots of ventilation or airflow, and/or in a garden shed. Child-proof safety latches may also be installed on cabinets and can be purchased at your local hardware store.

• Store flammable products outside your living area and far away from places where they could catch fire. Keep flammable products away from portable heaters, electric baseboard heaters, around furnaces and outdoor grills.

• Never store pesticides or other household products in cabinets where food is stored, or near food intended for people or animals. Never store pesticides where you keep medicines.

• Always store household products in their original containers so that you can read the label for directions.

• Never transfer pesticides or other household products from their original, labeled containers, especially not to
other containers that children may associate with food or drink.

- Teach children that “pesticides are poisons” and something they should not touch.
- Before applying pesticides (indoors or outdoors), always remove children and their toys as well as pets and their toys and bowls from the area. Keep them away until the pesticide has dried or as long as is recommended by the label.
- If your use of a pesticide is interrupted (perhaps by a phone call), always make sure to leave the container out of the reach of children while you are gone.

The National Poison Center hotline is 1-800-222-1222. Call this number any time if you think someone has been exposed to toxic substances. If the person is not breathing, is unconscious, or having seizures, call 911 right away. For general information on poison control, visit www.mdpoison.com.

The National Pesticide Information Center provides objective, science-based information about pesticides and pesticide-related topics to enable people to make informed decisions about pesticides and their use. Call 1-800-858-7378 or visit npic.orst.edu.

Pesticides, to be effective, are toxic to plants or animals and vary in the range of toxicity to humans. The degree of hazard to humans or pets can be reduced if pesticides are applied according to label directions and if the appropriate precautions are followed by the applicator and the customer. Therefore, selecting a pest control service is just as important as selecting any other professional service. To help protect consumers and ensure they are getting the service they paid for, MDA reminds consumers to deal only with a MDA-licensed firm. For general information on pesticides, contact MDA’s Pesticide Regulation Section at 410-841-5710 or visit www.mda.maryland.gov/plants-pests/Pages/pesticide_regulation.aspx.

USDA Seeks the Public’s Help to Stop Invasive, ‘Hungry Pests’

Three, New Invasive Species Recently Found in the United States

Washington, D.C. (April 2, 2015) – April is Invasive Plant Pest and Disease Awareness Month and the U.S. Department of Agriculture (USDA) is asking the public to help prevent the spread of invasive pests. These pests cost our nation an estimated $120 billion each year in damages to our environment, agriculture, and native species. USDA’s Animal and Plant Health Inspection Service (APHIS) has identified 18 “Hungry Pests” as some of the most destructive invasive species that people can unknowingly spread in the things they move, pack, and bring home from vacations.

“We can all play a role in stopping the spread of invasive pests during the course of our regular activities, from enjoying the outdoors to travelling to internet shopping,” said Osama El Lissy, deputy administrator of APHIS Plant Protection and Quarantine program. “USDA-APHIS remains vigilant in safeguarding our nation from invasive species abroad, at our borders, and across the country, but it’s critical that each of us does his or her part to prevent the introduction and establishment of invasive species in a new area.”

Hungry Pests attack plants, crops and trees, and they can wipe out entire species, from citrus trees (including oranges, lemons, and grapefruits) to ash trees (used to make furniture, flooring, and baseball bats). Because they have no natural enemies here, invasive species can spread unchecked by nature. This month, USDA-APHIS is adding three new insects that we want people to help us stop: the coconut rhinoceros beetle, old world bollworm, and spotted lanternfly.

The coconut rhinoceros beetle – which, like its name, looks like a miniature rhinoceros – is destroying many species of...
palm trees, including date, oil, and the iconic coconut palm of Hawaii. The beetle uses its horn to bore into the palm crowns to feed on sap, which exposes the palm to disease. The old world bollworm is a serious threat to agriculture and could disrupt commercial production of many major commodities, including corn, cotton, small grains, soybeans, peppers, and tomatoes. The spotted lanternfly destroys a wide range of fruits and hardwood trees, and it could greatly impair the nation’s grape, orchard, and logging industries.

Every day, USDA-APHIS and its partners work hard to keep invasive pests and diseases out of the United States and control those that may slip in. USDA-APHIS asks everyone to join this effort to help stop the spread of Hungry Pests through a few simple actions:

- Don't move firewood; instead, buy firewood where you plan to burn it.
- Buy plants, including ones online, from reputable sources.
- Don't bring or mail fresh produce or plants out of one state or into another.
- Declare plants and produce to U.S. Customs and Border Protection officials when returning from international travel.
- Don't move plants or produce outside quarantined areas.
- Wash dirt from outdoor gear and tires before going to or returning from fishing, hunting or camping trips.
- Clean lawn furniture and other outdoor items before moving them to a new location.

USDA-APHIS is also introducing a new curriculum, “Hungry Pests Invade Middle School,” to encourage students across the country to learn more about invasive pests and the simple steps everyone can take to stop them. The goal is to educate young people about invasive pests, how they got here, the damage they cause and ways to stop them from spreading. Teachers may access the national, standards-based curriculum free of charge at www.hungrypests.com/resources/educators.php.

To learn more, go to www.HungryPests.com. The website includes photos and descriptions of 18 Hungry Pests, an online tracker of federal quarantines by state, and phone numbers to report signs of an invasive pest.

USDA Observes Kick Off of the International Year of Soils

WASHINGTON, Jan. 6, 2015 – The U.S. Department of Agriculture (USDA) today begins its celebration of the International Year of Soils to highlight the importance of healthy soils for food security, ecosystem functions and resilient farms and ranches.

"Healthy soil is the foundation that ensures working farms and ranches become more productive, resilient to climate change and better prepared to meet the challenges of the 21st century," Agriculture Secretary Tom Vilsack said during an event today at USDA headquarters. "We join the world in celebrating this living and life-giving resource."

With an increasing global population, a shrinking agricultural land base, climate change and extreme weather events, the nations of the world are focusing their collective attention to the primary resource essential to food production—the soil. The United Nation's Food and Agriculture Organization (FAO), working within the framework of the Global Soil Partnership, spearheaded the adoption of a resolution by the UN General Assembly designating 2015 as the International Year of Soils. The year of awareness aims to increase global understanding of the importance of soil for food security and essential ecosystem functions.

"Most people don’t realize that just beneath our feet lies a diverse, complex, life-giving ecosystem that sustains our entire existence," said Jason Weller, chief of USDA's Natural Resources Conservation Service (NRCS). "We are helping producers unlock the power of soil health as part of an important and very successful national campaign. Our campaign demonstrates our renewed commitment to soil conservation and soil health."

NRCS is coordinating activities to mark USDA's involvement in the International Year of Soils. Nearly 80 years ago, NRCS, formerly the Soil Conservation Service, was created to improve the health and sustainability of our nation's soils. The agency's original mission continues to this day – providing assistance to producers looking to improve the health of the soil on their land.

Conservation that works to improve soil health is one of the best tools NRCS has to help landowners face these impending challenges – and maintain and improve their productivity with the use of soil management systems that includes cover crops, conservation tillage and no-till and crop rotations. These systems reduce sediment loss from farms and ranches, buffer the effects of drought, flood and other severe weather; sequester carbon and create biodiversity in our rural landscape.
“International Year of Soils provides an opportunity for us to learn about the critical role soil conservation and improved soil health play in the economic and environmental sustainability of agriculture,” Weller said. Working with the Soil Science Society of America (SSSA) and other partners, NRCS will be showcasing the importance of soil with monthly themes created by SSSA:

**January:** Soils Sustain Life
**February:** Soils Support Urban Life
**March:** Soils Support Agriculture
**April:** Soils Clean and Capture Water
**May:** Soils Support Buildings/Infrastructure
**June:** Soils Support Recreation
**July:** Soils Are Living
**August:** Soils Support Health
**September:** Soils Protect the Natural Environment
**October:** Soils and Products We Use
**November:** Soils and Climate
**December:** Soils, Culture and People

For more information, visit NRCS’s soil health webpage or the International Year of Soils webpage.

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**Record Low Snowpack in Cascades, Sierra Nevada**

WASHINGTON, March 11, 2015 – Warm temperatures in February contributed to further snowpack decline in the Cascades and Sierra Nevada, according to data from the third 2015 forecast by the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). Snowpack in Nevada, Utah and Idaho also fell further behind normal.

"Nearly a third of our SNOTEL sites in the Cascades and Sierra Nevada are reporting the lowest snowpack ever measured," NRCS Hydrologist Cara McCarthy said. "For the first time, some sites were snow-free on March 1st. These areas can expect reduced summer streamflow."

Recent storms helped relieve dry conditions in the Southwest. However, drought conditions persist in California, Nevada and Utah, as well as in parts of Arizona, New Mexico, and Colorado. Areas in Washington and Oregon also remain in drought. In Western states where snowmelt accounts for the majority of seasonal water supply, information about snowpack serves as an indicator of future water availability. Streamflow in the West consists largely of accumulated mountain snow that melts and flows into streams as temperatures warm in spring and summer. NWCC scientists analyze the snowpack, air temperature, soil moisture and other measurements taken from remote sites to develop the water supply forecasts. The Cascades of Oregon and Washington have received near normal levels of precipitation this water year, but it’s mostly fallen as rain instead of snow. Rainfall captured by reservoirs in those states will help mitigate dry spring and summer months.

NRCS monitors conditions year-round and will continue to issue monthly forecasts until June. The water supply forecast is part of several USDA efforts to improve public awareness and mitigate the impacts of climate change, including drought and other extreme weather events. Through the creation of the National Drought Resilience Partnership, launched as part of the President’s Climate Action Plan, federal agencies are working closely with states, tribes and local governments to develop a coordinated response to drought.

Since 1939, USDA has conducted snow surveys and issued regular water supply forecasts. Other resources on drought include the U.S. Drought Monitor. For information on USDA’s drought efforts, visit the USDA Disaster and Drought Information webpage. And to learn more about how NRCS is helping private landowners deal with drought, visit the drought resources webpage. View information by state.

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**EPA Approvals of Maryland's Requests of Section 18**

- EPA recently approved Maryland's request to re-certify a Section 18 for **bifenthrin to control Brown marmorated stink bugs on apples, peaches and nectarines.** For full details go to: [https://extension.umd.edu/sites/default/files/_docs/Bifenthrin%20BMSB%20Infor%20Packet.pdf](https://extension.umd.edu/sites/default/files/_docs/Bifenthrin%20BMSB%20Infor%20Packet.pdf)
- EPA request for a specific exemption under Section 18 of FIFRA, to allow use of **HopGuard®II to control varroa mites in honeybee colonies.** For full details go to: [https://extension.umd.edu/sites/default/files/_docs/2015%20Section%2018%20Potassium%20Salt.pdf](https://extension.umd.edu/sites/default/files/_docs/2015%20Section%2018%20Potassium%20Salt.pdf)

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**EPA Pesticide Program Updates**

**From EPA’s Office of Pesticide Programs**

**Pesticide Web Apps Now Available from NPIC**

The National Pesticide Information Center (NPIC) has developed four mobile Web applications (apps) to help consumers and pesticide applicators quickly find pest control solutions, insect repellents, and other information on pesticides when they are on the go. The apps work within most smart phone and tablet browsers, making it easier for users to get this important information when they aren’t at a computer.
The following Web apps are available:

- **Pesticide Education & Search Tool** (PEST) – Designed for the general public as they search for pest control solutions, this app brings together product search functions and new pest control information in an easy-to-understand format. Users can find ways to control pests without pesticides using a strategy called integrated pest management (IPM). They can also view product formulations, ingredients, signal words, and pests controlled.

- **Mobile Access to Pesticides and Labels** (MAPL) – Designed for the general public and applicators who need to access pesticide labels on mobile devices, this app complements EPA's computer-based Pesticide Product Label System. Users can search for pesticide products by name, use site, type of pest, EPA Registration Number, registrant, or by using a combination of these search terms.

- **Insect Repellent Locator** (IRL) – Designed to help the general public find information about all of the EPA-registered products to repel mosquitoes, ticks, or both.

- **Pesticides and Local Services** (PALS) – Designed for one-click dialing! Users can find contact information on pest control, reporting pesticide incidents, applicator licensing, pesticide disposal, and much more.

For more information on these apps visit [http://npic.orst.edu/webapps.html](http://npic.orst.edu/webapps.html).

**Distribution of Certain Mouse and Rat Control Products Ends**

On April 1, 2015, Reckitt Benckiser ceased all distribution of 12 d-CON products that do not meet EPA's current safety standards. EPA reached an agreement with Reckitt, the manufacturer, to cancel these products because they are sold without a protective bait station and pose risks to children and pets. Additionally, eight of the 12 products pose unacceptable risks to certain wildlife. Retailers may sell and consumers may buy these products according to the label until stocks are exhausted. Users of these d-CON products must read and follow the product label instructions.

Household rodenticide products that comply with the Agency's safety criteria are widely available and are required to be sold and used with a bait station in most use scenarios. EPA encourages consumers to use rodenticide products with bait stations, as proper use of a bait station reduces the risk of accidental exposure to children, pets, and non-target wildlife.

- **Learn more about the cancellation of these 12 d-Con products.**

**EPA Recognizes National Healthy Schools Day; Encourages Smart, Sensible, Sustainable Approach to School Pest Control**

Protecting children's health where they live, learn, and play is a top priority for the EPA. Today, April 7, 2015, is National Healthy Schools Day, a day dedicated to promoting healthy school environments for children. Today and throughout the year, EPA supports the use of Integrated Pest Management (IPM), a safer, healthier and usually less costly option for effective pest management in schools.

Children in the United States face risks from exposure to pests and pesticides in schools. EPA encourages the use of IPM, a smart, sensible and sustainable approach to pest control that focuses on addressing the underlying issues that make schools attractive to pests. Schools that practice IPM may see a noticeable improvement in attendance and academic performance.

IPM reduces the risks from pests and pesticides for students and staff by reducing sources of food, water and shelter for pests in school buildings and grounds. An IPM program takes advantage of all pest management tactics, including the judicious and careful use of pesticides when necessary.

EPA's Center of Expertise for School IPM serves as a resource for school districts seeking to develop and implement an IPM program. The Center provides information and tools that school administrators, facility managers, and pest management service providers can use to create a safer learning environment for children. For more information, contact the Center of Expertise for School IPM at school.ipm@epa.gov.

For more information on school IPM, visit [http://www.epa.gov/pestwise/ipminschools/](http://www.epa.gov/pestwise/ipminschools/)

Healthy Schools Day is coordinated by Healthy Schools Network, Inc. in cooperation with the EPA to promote EPA's environmental health guidelines and programs for schools and children's health.

For more information on Healthy Schools Day, visit [www.nationalhealthyschoolsday.org](http://www.nationalhealthyschoolsday.org).

**EPA Site Quick Finder**

**About EPA’s Pesticides Program**

Overview of EPA's program evaluating potential new pesticides and uses, providing for special local needs and emergency situations, reviewing safety of older pesticides, registering pesticide producing establishments, enforcing pesticide requirements, pesticide issues in the works, overview of risk assessment in the pesticide program

**Types of Pesticides**

Pesticides are often grouped according to the type of pest they control or by chemical or source.

* type of pest, chemically-related
Frequently Asked Questions
Answers to questions from the public.

Fact Sheets
Search general interest and technical fact sheets, health and safety, regulatory actions, specific chemicals

Information Sources
Additional information of general interest, General information, hotlines, information centers, databases

Pesticide Program Reports
Reports produced by the Office of Pesticide Programs Annual Reports, Performance Management & Accountability, Pesticide Industry Sales and Usage, Progress Reports, Restricted Use Products Reports

Pesticide News Stories
Pesticide related articles appearing in news media

Publications | Glossary | A-Z Index |
County Website Features:
Anne Arundel County Extension website: http://extension.umd.edu/anne-arundel-county

Ag Newsletter Production Pointers
The current and past agricultural newsletter additions are available for viewing or copy at: https://extension.umd.edu/anne-arundel-county/agriculture/anne-arundel-county-agnr-newsletter#

Ag Bulletins
An agricultural bulletin page is also available for viewing or copy under our hot topics section at: http://extension.umd.edu/anne-arundel-county/agriculture/agriculture-bulletins

Ag Web Modules
New website features in Anne Arundel County - Agricultural Program Teaching Modules: http://extension.umd.edu/anne-arundel-county/agriculture/farm-production-web-modules

1. Pasture Management
2. Pasture Herbicides
3. Handling Tall Fescue Toxicity Events
4. Modern Vegetable Production Technology for Early Market
5. Vegetable Herbicides for Controlling the Top 10 Weeds of Southern Maryland
6. Sustainable Low Input Strip-Till & No-Till Vegetable Planting Tactics
7. Fruit Establishment Tactics to Maximize Our Coastal Plain Advantage
8. Vineyard and Orchard Weed Control
9. Vineyard Establishment Supplies & Equipment

Gardening questions? Pest Problems? The Home and Garden Information Center can help!
Visit the HGIC website at: http://extension.umd.edu/hgic

Farmer School
On-Line Farming Education Series

Module 1: Introduction to Farming & Course Orientation: “Tomorrow’s Farmers”
Module 2: The Science and Stewardship of Soils
Module 3: Fundamentals of Farm Machinery
Module 4: Plants that Farmers Grow
Module 5: Integrated Pest Management

Future Module Topics:
• Farm Business and Enterprise
• Development Modern Vegetable Farmer
• Modern Fruit Farmer
• Grain Farming
• Pasture and Hay Management
• Livestock that Farmers Raise

Whether you grew up on a farm or not, the web modules will open your eyes to the world of farming. A course designed for the young and old alike. It just may make a farmer out of a “city kid” or a “hayseed.”

After viewing the series in its entirety take the Final Exam. All participants receiving a final Exam Grade of 70% or above will receive a “Certificate of Farming Competency,” compliments of the Anne Arundel County Extension Office.

4-H News
Amanda Wahle, 4-H FEA
University of Maryland

Are you between 8 and 18 or know someone who is? If so have you considered joining 4-H?

The Anne Arundel County 4-H program is growing and is always looking for new members and volunteers. The program has community clubs located throughout Anne Arundel County but is also looking for volunteers and members to lead new groups. There are a variety of projects members can participate in including animal science, environmental sciences and human sciences. We are also looking for adults to do seminars or presentations to help 4-Hers learn how they can further their projects.

To receive more information, please contact Amanda Wahle in the Anne Arundel Extension Office at 410-222-3900 or at: awahle@umd.edu
Thanks for Partnering
Thanks for partnering with the University of Maryland Extension, and supporting our programs. I also hope you enjoy this newsletter. If you are no longer interested in receiving this newsletter, please call or write the office for the removal of your name from the mailer.

R. David Myers, Principal Agent
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