Hello, Harford County!

As we say goodbye to the national dairy month of June and welcome the national ice cream month of July, it only seems fitting to sit back and enjoy a bowl of ice cream. Ice cream is one of the most enjoyed deserts in my house—and nationwide, as production of ice cream and other frozen dairy products totals about 1.5 billion gallons annually! In fact, the average American eats about 48 pints of ice cream per year. About nine percent of the milk produced by U.S. dairy farmers is used to make ice cream.

People have made and consumed frozen treats for thousands of years, but the first known frozen treat recipe utilizing milk was brought to Italy from the Far East by Marco Polo. Then called “cream ice,” it was regularly eaten by the royalty in England and France in the mid-1500s. Ice cream wasn’t available to the general public until about 1660 where it was first served from a café in Paris. However, since refrigeration was difficult, ice cream remained a rare treat for most until the late 19th century. In 1851, Baltimore’s own Jacob Fussell, a milk dealer, was the first to invest in the large scale manufacture of ice cream.

There are many types of frozen deserts made with dairy, but the USDA has strict standards about what types of products can be labeled as “ice cream.” Ice cream must contain at least 10 percent milk fat and a minimum of six percent non-fat milk solids, and it must weigh at least 4.5 pounds per gallon. Frozen yogurt (1/2 to 6% milk fat), sherbert (1-2% milk fat), and sorbet (made without dairy) aren’t technically ice creams at all.

Scientifically speaking, ice cream is a colloid, or a mixture where one substance is microscopically dispersed throughout another substance. In the case of ice cream, fat molecules are suspended in a mixture of water, sugar, and ice. To form ice cream, the mixture must be whipped and frozen at the same time. This whipping also introduces air into the mixture, which allows the ice cream to acquire its creamy, smooth texture rather than freezing into a block of ice. If you’ve made ice cream at home, you’ll know that the end process of this mixing and freezing is “soft serve” ice cream. To become scoopable, the ice cream must then be frozen at a very low temperature to ensure it hardens without forming ice crystals.

If you love ice cream and want to sample what Maryland’s local creameries have to offer, be sure to check out Maryland’s Best Ice Cream Trail before September 9. The trail includes farms stretching from Ocean City to Washington County. Of the eight farms on the trail, Harford County boasts two—Broom’s Bloom in Bel Air and Keyes Creamery in Aberdeen which just opened its doors last month. I look forward to visiting at least a few of the creameries on the trail this summer! (To learn more about the Ice Cream Trail, visit www.marylandsbest.net)

Sincerely,

Sara

The Harford County Extension Office will be closed on July 4 and 5 in observance of Independence Day.
The Maryland Department of Agriculture (MDA) has released the results of a statewide pesticide use survey—the first such report since 2004. The report covers usage in 2011 but was conducted in 2012 by the U.S. Department of Agriculture National Agricultural Statistics Service (NASS). The survey, which was voluntary, include farmers, private applicators, commercially licensed businesses, and public agencies that are permitted by MDA to apply pesticides. The overall response rate was 51%, which is considered an excellent response for a survey conducted solely by mail. According to the survey, more than 16.5 million pounds of pesticides were used throughout Maryland in 2011. The majority—68% of the total—were pesticides used as wood preservatives. Herbicides accounted for 21% of total usage; insecticides accounted for 5%; and fungicides for 3%. Since the last pesticide survey was conducted in 2004, fungicide use has declined 84%; herbicide use has declined 46%; and insecticide use declined 5%. For a copy of “Maryland Pesticide Statistics for 2011,” visit http://www.mda.maryland.gov/documents/MD_Pesticide_Stats_2011.pdf.

The U.S. Environmental Protection Agency (EPA) has recently approved two Maryland Department of Agriculture requests for specific exemption under section 18 of FIFRA. This exemption allowed the use of the products listed below to control brown marmorated stink bugs. These exemptions expire on October 15, 2013. If you plan to apply any of these products, there is additional information that you need to know; contact the Extension Office for the full details regarding these specific exemptions.

- **Dinofuran** on pome and stone fruit in Maryland orchards; Venom Insecticide, manufactured by Gowan Company, LLC.
- **Bifenture EC and Bifenture 10DF**, manufactured by United Phosphorus, Inc., on apples, peaches, and nectarines.
- **Brigade WSB**, manufactured by FMC Corporation, on apples, peaches, and nectarines.

The National Pesticide Information Center has released this new app which works on mobile devices and desktops. The app allows you to search for pesticides by name, site, pest, EPA registration number, registrant, or search for a combination of these. When you find the right result, you can bookmark it, bring up the federal label, and browse the product’s ingredients, registered use sites, signal word, formulation, and more. You can download the app at http://npic.orst.edu/mapl—check out http://bit.ly/12gvoyW for a 3-minute tutorial.
Did you know that Maryland has a law against allowing certain types of weeds to spread on your property? In 1969, the late former Harford County State Senator Bill Amoss introduced this law which prohibits the propagation of certain species of plants declared to be noxious. This group of weeds includes **Johnson Grass, Canada Thistle, and Shattercane**. Although it is not illegal to have these weeds growing on your property, state law does require that a landowner eradicate or control noxious weeds in order to discourage them from going to seed. Seeds from noxious weeds propagate profusely, robbing farmers and landowners of valuable crop fields.

Since the mid 1990s, Harford County has participated in a program to assist landowners in eradicating these noxious weeds. This program is administered within the Department of Public Works, Division of Environmental Services and works in cooperation with the Maryland Department of Agriculture. In response to complaints, requests, or observation of a noxious weed, the program will contact owners and offer plant management plans at no cost. The landowner has the option of taking care of the site him or herself, through mowing or cultivating, or the program can provide herbicide applications at minimal charges. Labor rates range from $45.00 to $100 per hour. Special discounts are provided to farmers and owners of agricultural land.

The program also provides services to the Maryland State Highway Administration in Harford County to eradicate these plants when found growing within State Highway right-of-ways. They, too, are held accountable for eradicating these weed species.

In addition to noxious weeds, this program surveys, tracks, records, and strives to minimize the growth of a federal noxious weed called Giant Hogweed (*Heracleum mantegazzianum*). This plant is commonly mistaken for cow parsnip (*Heracleum lanatum*) and angelica (*Angelica atropurpurea*) and resembles a “Little Shop of Horrors” plant, reaching heights of over fourteen feet with leaves up to 5 feet in diameter. The plant’s clear, watery sap reacts with sunlight and can cause severe skin irritation, including painful, burning blisters to the skin. Scarring of the skin may persist for several years. This plant has even earned its own Hotline (1-877-464-9333).

For more information on the Noxious Weed Program, contact Kim Ayres at 410-638-3637 or Jim Calao, Maryland Department of Agriculture, Plant Protection/Weed Management at 410-841-5320.

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**Nutrient Management Certification Exam**

The Maryland Nutrient Management Certification Exam will be offered Friday, August 2, at locations in Annapolis, Salisbury, and McHenry. Individuals who provide nutrient recommendations, professionals who provide technical assistance or are engaged in the development of waste management systems, nursery personnel, and farmers interested in developing nutrient management plans for other farmers are encouraged to take the exam. The cost is $50; government employees and farmers who have previously taken the exam are exempt from the certification fee. The application deadline is July 26. For registration forms, call the Maryland Department of Agriculture at 410-841-5959.
Soil Testing and Testing Results

By Patricia Hoopes, Nutrient Management Advisor

Soil testing is the basis of developing nutrient recommendations for maximum production of agronomic crops. Therefore, dependable recommendations demand good soil sampling techniques. A brochure is available at the office on soil sampling procedures or online at http://extension.umd.edu/sites/default/files/_images/programs/anmp/Soil_Samp_Producer.pdf.

Soil sampling for nutrient management plans only require the basic soil test provided by the soil testing labs. Soil test results must also be less than three years old. In general the basic soil test includes testing for nutrients including phosphorus (P), potassium (K), calcium (Ca), and magnesium (Mg); pH; organic matter (OM); and cation exchange capacity (CEC).

The nutrient results of the soil test will not measure all of the nutrients present in the soil. They will measure the amount of nutrients in the soil that are expected to be plant available during the current growing season. The levels of the different nutrients can be grouped into nutrient classes: low, medium, optimum and excessive. By knowing the nutrient class, a prediction of the crops response to additions of a particular nutrient can be determined. The chart below is applicable for the University of Maryland nutrient FIV levels. (As an example, a phosphorus level of FIV 30 would indicate that a phosphorus application following the recommendation would give a possible increase in crop yield, whereas a phosphorus level of FIV 110 would indicate that a yield increase would be unlikely if more phosphorus was applied.)

Phosphorus and potassium levels in the soil determine if additional nutrients are needed for maximum crop production. If additional nutrients are needed beyond soil level, they will be reflected in the recommendations. The recommendations are crop dependent.

Excessive phosphorus levels can result in a need for a Phosphorus Management Tool (PMT) analyses to be completed prior to additional applications of phosphorus. The PMT will require that the soil analysis include a Phosphorus Saturation Ratio (PSR). This is a new test requirement that is not included in all soil analyses.

The test for pH measures the acidity level of the soil on a scale of 0 to 14. A pH of 7 is neutral where below 7 is acidic and greater than 7 is alkaline or basic. When pH indicates the soils is acidic, liming materials are used to neutralize the soil or bring the soil closer to a basic level. The lime recommendation takes into consideration the pH level of the soil as well as the crop to be grown.

Crushed limestone is the most widely used liming material. Limestone is composed mainly of calcium carbonate. Some limestone, particularly dolomitic limestone, also

<table>
<thead>
<tr>
<th>Soil Test Fertility Index Value</th>
<th>Soil Test Category</th>
<th>Likelihood of Yield Response to an additional application of nutrient</th>
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<tbody>
<tr>
<td>0-25</td>
<td>Low</td>
<td>Likely</td>
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<tr>
<td>26-50</td>
<td>Medium</td>
<td>Possible</td>
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<tr>
<td>51-100</td>
<td>Optimum</td>
<td>Unlikely</td>
</tr>
<tr>
<td>&lt;100</td>
<td>Excessive</td>
<td>Unlikely</td>
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Late Blight Outbreak Confirmed in Montgomery County

The first outbreak of late blight in Maryland this season was confirmed in Montgomery County. The plants were collected on June 14 and confirmed infected by University of Maryland on June 18. University of Maryland does not yet know the strain, but samples have been sent to Cornell for testing. The affected tomato field is conventionally managed and has received fungicide applications. All growers are advised to scout their fields and be on a preventative fungicide schedule. Conventional growers should consult University of Maryland publication EB235 for fungicide options, and organic growers should apply OMRI approved copper fungicides.

Crops Twilight Barbecue and Ice Cream Social

A barbecue dinner will be served at 4:30 followed by homemade ice cream. The tour will begin at 6:00 p.m. University of Maryland Extension educators and specialists will showcase their field crop, vegetable, and fruit research plots. Tour highlights will include vegetable IPM and reduced risk control methods; field crop research updates; meadow orchard concept and fruit research update for apples, peentos, blueberries, and beach plums; and a vineyard research update for wine grapes. The event is free, but a reserved meal ticket is required. For more information or to reserve your spot, contact David Myers at the Anne Arundel County Extension Office at 410-222-3906.

The organic matter (OM) levels give an idea as to amounts of humus, bio-mass, residuals, and by-products present in the soil. Organic matter works to increase earth worm and microbial activity, loosens clay soils which improves drainage, slowly releases nutrients to plants, and holds water for plant uptake. Cover crops can improve organic matter levels. For more information, request Nutrient Manager Vol. 2 Issue 2 or view online at: http://extension.umd.edu/sites/default/files/_images/programs/anmp/Cover_newsltr.pdf.

CEC measures the cation exchange or ability of the soil’s clay sized particles to hold nutrients like calcium, magnesium, and potassium in reserve. A soil with a high CEC will be able to release these nutrients into the soil solution, making them available to plants, when levels of these nutrients become low in the soil.

Although most soil labs offer a basic soil testing package that will fulfill nutrient management plans requirements, remember that labs report these results in different ways; results from different labs are not necessarily comparable. A variety of chemical extracts, extraction procedures, and reporting forms make it necessary to convert results to a standard form to compare results.

In developing nutrient management plans, soil test results are all converted to the Fertility Index Value (FIV). The University of Maryland FIV makes it easier to compare nutrient levels and make recommendations for various crops using one scale. Furthermore, recommendations are based on research by our University of Maryland scientist on our own Maryland soils. When this information is combined with the proven yield generation for a given agriculture operation and a management history, a true customized recommendation is generated.

Keep in mind that it is important that the soil analyses and nutrient management plans reflect current crops and management of your operation. That is why nutrient management plans are only good for a period of time. Expiration dates are clearly marked on the nutrient management plans. Check the date on your plan today.

Additional information on Nutrient Management can be found at extension.umd.edu/anmp.
Pasture Management Seminars In Baltimore and Cecil

Our University of Maryland pasture management gurus are taking their education seminar on the road! Join us at one of our featured locations to learn skills that will enable you to produce productive pastures, reduce feed costs, and protect the environment. After the morning seminar presentations, participants will enjoy an afternoon of hands-on skill practice and tours of hosting farms. The cost is $35 per person and includes printed materials, morning refreshments, and lunch. Registration is available online (see links to the right) as well as via paper form; contact the Harford Extension office at 410-638-3255 for a form. Registration is due August 31 so don’t delay! Questions may be directed to Jennifer Reynolds at 301-405-1547 or jenreyn@umd.edu.

Conservation Grants for Management-Intensive Grazing

Source: Maryland Department of Agriculture press release

The Maryland Department of Agriculture (MDA) has announced that, beginning July 1, conservation grants will be available to farmers who want to establish pasture for a management intensive grazing (MIG) system for their livestock. The newly-funded practice involves planting quality forage species suitable for establishing a management intensive grazing system or renovating and converting a pasture previously used for continuous grazing. Sometimes referred to as rotational grazing, a management intensive grazing system divides pastures into several areas called paddocks. Livestock are not allowed to graze plants below a specific height. Allowing paddocks to rest and recover until the next grazing rotation improves vegetative cover, protects the soil from erosion, distributes manure more evenly in pastures, and protects water quality. Beginning July 1, conservation grants covering up to 87.5 percent of the cost to establish a pasture to be used within a MIG system will be available to farms through the Maryland Agricultural Water Quality Cost Share (MACS) program. The maximum allowable rate for this practice is $50,000 per farm. To apply for the grants and to receive free technical assistance in designing your system, contact the Harford Soil Conservation District at 410-838-6181x3.

Fall Horse Seminars Offered in Harford County

Mark your calendars now for these seminars to be offered at the Harford County Extension Office! More details will be printed as the dates approach.

<table>
<thead>
<tr>
<th>Date</th>
<th>Seminar Title</th>
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<tr>
<td>09/10</td>
<td>Trailering Horses: Beyond the Basics</td>
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<tr>
<td>10/16, 23</td>
<td>Formulating a Ration for Your Horse</td>
</tr>
<tr>
<td>11/20</td>
<td>Horse Care 101 for New Owners</td>
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<tr>
<td>12/05</td>
<td>Horse Keeping on a Budget</td>
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In light of concerns expressed by farmers about what action they should take to ensure they maintain crop insurance coverage should the recent wet weather cause poor quality on small grains, Maryland Grain Producers Utilization Association (MGPA) approached the Risk Management Agency (RMA) to get advice for Maryland farmers. Below is the advice MGPA received. Although not an official RMA document, this information comes as guidance and has been reviewed by RMA.

If you have poor quality grain, in order to protect your rights under your crop insurance policy, it is imperative that you always report any damage in the required timeframes and seek advice from your insurance company (through your insurance agent) before proceeding with harvesting or destruction of the damaged crop. Failure to do so may jeopardize your claim. Crop insurance policies require that farmers notify their company within 72 hours of noticing a loss. It is important that farmers be proactive in checking their fields to determine if there is any damage to the crop before harvest.

Quality adjustments are available for loss in value for conditions such as low test weight, damaged kernels, and shrunken or broken kernels. Discounts made for crop insurance loss purposes may not be the same as those seen at the elevator. For example, quality discounts begin when the test weight is less than 51 pounds, defects are above 15 percent or grade is U.S. No. 5 or worse. RMA discount factors for wheat are constructed by compiling and using loan discount data from the Farm Service Agency and national average loan rates for the past 10 years. These discount factors remain uniform between the Actual Production History and Revenue Plans of insurance throughout all counties in Delaware, Maryland, North Carolina, New Jersey, New York, Pennsylvania, Virginia and West Virginia.

Quality adjustments are based on samples obtained by the adjuster or other disinterested parties authorized by the insurance provider such as an elevator employee (per 2013 Loss Adjust Manual (LAM) Par. 96 B for grading/analyzing, page 265 and Par. 102, K, page 306 for mycotoxins). Harvested and delivered production samples taken from each conveyance and then blended may be accepted under certain conditions. It is very important that producers work with their insurance provider if they believe they have quality losses.

Summary: If you have poor quality grain, contact your insurance agent before harvesting, and while evidence still intact in the field, file notice of damage and request an inspection by a loss adjuster. As you complete harvesting any units with damaged grain or low production, notice of loss must again be filed promptly by unit with the insurance agent.

If you must harvest and deliver grain to an elevator before the damage is evaluated by an adjuster, ask your agent to obtain authority from the insurance company for the elevator to take a representative sample from each load.

The following process should be followed when your insurance company has agreed to allow the elevator to pull representative samples. When you arrive at the elevator, you will need to let the elevator know whether samples for quality determinations should be taken for non-mycotoxins, mycotoxins, or both.

1. The elevator should take a representative sample from each load and label it with your name, load number, name of farm and field number/name so that the insurance unit of origin can be determined from which the grain was harvested. This sample should be in addition to the quality determinations that the elevator makes for the purchase or storage of the grain.

The elevator should maintain the sample until an adjuster makes arrangements to pick up the sample(s) to make further determinations necessary to adjust your loss. Note: the sample(s) must stay in the possession of the elevator until they are picked up by the adjuster.
**Mid-Atlantic Precision Ag Equipment Day**

**August 7, 2013**
Caroline County 4-H Park
Denton, MD

Practical and informative advice will be given on precision seeding, economics and practical implementation of planter section control, modifying equipment for variable rate application, variable rate irrigation, and much more. Come learn from some of the top, nationally-recognized speakers in agriculture equipment and machinery engineering. The event is free to attend, and lunch will be available for purchase. Advanced registration is recommended. For more details and to register, call 410-228-8800 or 410-758-0166.

**The Commodity Classic**

**July 25, 2013**
Queen Anne’s 4-H Park
Centreville, MD

The Commodity Classic is an educational event for grain producers hosted by the Maryland Grain Producers Association, Maryland Soybean Board, Maryland Grain Producers Utilization Board, and the Mid-Atlantic Soybean Association. This year’s featured keynote speaker will be Dr. Jay Lehr, economist and futurist who will speak on the impact of advancing technologies on the local, regional, national, and global economy. Lunch and informational displays will be set up at 11:00 a.m. The business meeting begins at 1:00 p.m., followed by speakers and concluding with the famed crab feast and pork and chicken barbecue. Entry prior to 2:30 p.m. is $10, and after 2:30 p.m. the entry fee is $20. There is no entry after 3:30 p.m. Advanced registration is required. For ticket information, contact the MGPA office at 410-956-5771. MGPA members receive a free ticket.

**Green Cleaning for a Healthy Home**

**July 16, 2013**
6:30 p.m.—7:30 p.m.
Harford County Extension Office
Forest Hill, MD

Learn how to make your home healthier inside and out from Dr. Virginia Brown, Family and Consumer Sciences Educator, and Ruth Leubecker, Master Gardener. Find out how your household products from the lawn to the bathroom can impact the health of you, your family, and Maryland’s environment. The program will be followed by a discussion of green living and the opportunity for each person to make two green cleaners. Participants will receive a recipe book for household green cleaners. This program will be geared toward adults, but children may attend with an adult. Registration is required by July 2 by calling the Harford County Extension Office at 410-638-3255.
The 26th annual Harford County Farm Fair will be held July 25 through July 28, 2013. Highlights of this year’s fair include the 3rd annual Farm Fair 5K on July 21; prayer breakfast, antique tractor pull, Miss Harford County Farm Bureau Contest, and fireworks on July 25; Lucas Oil truck and tractor pulls and 2nd Annual Farm Fair talent contest on Friday and Saturday evenings; farm baby costume, pie eating, and watermelon eating contests, as well as coon mule jumping contest and 4-H livestock auction on July 27; and horseshoe pitching, literary spelling bee, food and wine fiesta with farmer’s and artisan’s market, seasonal sensations culinary competition, and fresh baked peach pie contest on July 28. Open class catalogs are now available at local libraries, the Extension Office, and all locations of the Mill. The catalog provides information about how you can participate in the may Farm Fair contests and competitions. Farm Fair hours are 10:00 a.m.—10:00 p.m. on Thursday, Friday, and Saturday and 10:00 a.m.—6:00 p.m. on Sunday. Parking is available on Tollgate Road and Vale Road with satellite parking at Red Pump Elementary and Patterson Mill Middle/High School. For more information, visit www.farmfair.org or call 410-838-8663.

Harford Christian Team Wins MD Envirothon

A five-member team of high school students from Harford County is the winner of the 23rd annual Maryland Envirothon—an outdoor natural resource competition that challenges students to identify and categorize living resources, perform soil surveys, and solve other complex natural resource issues. More than 100 challengers from 17 counties across Maryland took part in this year’s competition. The event was held June 19-20 in Garrett County. At this year’s competition the Harford County Harford Christian School scored 461 points out of a possible 500. They were followed by teams from Carroll (430 points) and Montgomery (429 points). As winners of the Maryland Envirothon, Harford Christian School of Harford County team members will represent the state at the 2013 North American Envirothon, which will be held at Montana State University from August 4-9. More than 50 teams from the United States and Canada are expected to compete at the national event. During the past five years, Maryland teams have consistently placed in the top 10 percent at national competitions.

Great resources are just a click away!

Jeff Myers
Area Extension Director
Harford, Baltimore, and Carroll Counties

Sara Meagher Bhaduri Hauck
Faculty Extension Assistant
Agriculture and Natural Resources

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Extension.umd.edu/Harford-county
facebook.com/HarfordAg
July 2013

Harford County Newsletter

Ag Notes

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