The University of Maryland, College of Agriculture and Natural Resources programs are open to all and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry, or national origin, marital status, genetic information, or political affiliation, or gender identity and expression.

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Roundup Ready Patents and Seed Saving

The first generation of Roundup-Ready® soybeans (RR1) will come off patent in 2015. Although this patent is expiring, seed saving could still be prohibited. Monsanto’s website reports that most RR1 beans could still be protected by varietal patents.

Paul Goeringer, on the University of Maryland Ag Law Blog, also notes that companies may use contracts to limit seed saving. Both the buyer and seller would be liable for violations of these contracts, and the U.S. Supreme Court has consistently ruled in favor of seed companies.

Many seed suppliers are simply not going to stock RR1 beans this year, and those that do will probably have you sign a contract not to save the seeds. A company called Agro Protection (www.agroprotection.com) makes “farm visits” on behalf of their clients intellectual property to make sure farmers will be compliant.

Prior to saving seed for next year, Paul Goeringer recommends 1) reviewing any purchase agreements 2) checking the label for current patents, and 3) checking with each seed company.

Worcester County Open House
Celebrating 100 Years of Extension!

Thanks to everyone who came out and visited us during the Blessing of the Combines!

The event was a big success and we picked up quite a bit of foot traffic. Hopefully we see you all out here again next year!

UME Agriculture Contacts

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Grain Crops, Forage
Somerset Office, 410-651-1350

Jon Moyle, Poultry Specialist,
LesRec, Wicomico County

Jessica Flores, Agriculture FEA
Livestock, Forage, Equine & Poultry
Worcester Office, 410-632-1972

Ginny Rosenkranz, Horticulture FEA
Commercial Horticulture
Wicomico Office, 410-749-6141

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If you use social networks like Facebook, you may have heard that they compile your personal data to sell advertisements. Or maybe you have seen how Google’s mail service, Gmail, scans your emails to directly advertise to you. The term **Big Data** is a reference to the massive amounts of information collected about consumers. This data is just raw numbers and requires complex analysis to uncover any relationships. To address this growing job market, Universities like N.C. State and Stanford have created majors in data analysis.

**Big Data in Agriculture**

Agriculture is not exempt. As a producer of commodities, Ag Data could provide instant marketing numbers for crop yields. According to a New York Times article from last fall, companies like Monsanto have taken notice. Monsanto has purchased the Climate Corporation to help predict crop yields. They also bought Precision Planning, a company that uses variable rate technology. According to the Times, if Monsanto can analyze the data correctly, they would be able to sell new services based on their insights.

Recently the American Farm Bureau Federation (AFBF) tried to create guidelines for the use of this data with John Deere, Monsanto, and DuPont Pioneer (Plume, 2014). The AFBF is concerned that real time yield data could be used to manipulate the market as well as land prices. Although the NRCS soil survey has always provided crop yields for each series, Ag Data could create much more accurate numbers. This data could be provided to the real estate market, lowering the value of less productive ag land. This data could be faulty though, as soil type is not the only factor in yield.

**Where do we go from here?**

Farmers who use precision ag equipment should have the same concerns as anyone who downloads a smart phone app. You should read the fine print and see what data is being collected as well as what your rights are. Do you own the data, or does the company own the data? If the farmer is taking most of the risk, do they deserve most of the reward. Precision ag equipment has the ability to maximize profitability on the farm, but you should be aware of how others may be using your hard work.

This can also provide a great opportunity for rural kids interested in mathematics and science. There will be a lot of job openings in data analysis, and a background in agriculture wouldn’t hurt anyone’s resume in this case. In addition, newer technologies like unmanned aerial vehicles (UAV) are leaving the battle fields and will need qualified operators. Regardless of what side of this new frontier you fall on, the technology is here and we all need to understand how to use it.


**Showdown: August**

Tuesdays—7pm

Thursdays 11:30pm

Sundays—6am

**NEW EPISODES: November 2014!**

Maryland Farm and Harvest is online! Watch all of the episodes over the internet:

[http://video.mpt.tv/program/maryland-farm-harvest/](http://video.mpt.tv/program/maryland-farm-harvest/)
Delaware and Maryland Crop Insurance Workshop

When: Sept 9th, 2014  
Time: 8:30 am to 3:30 pm  
Where: Doubletree Hotel, 210 Holiday Ct, Annapolis, MD 21401

The plans for this year’s Delaware and Maryland Crop Insurance Workshop are being finalized with expert speakers to discuss insights into current issues impacting the federal crop insurance program. This year’s workshop will include Dr. Joe Glauber, Chief Economist for USDA; Juan Garcia, Administrator for Farm Service Agency-USDA; Stephen Frerichs, American Society of Farm Managers and Rural Appraisers; Pat McMillan, Maryland Department of Agriculture; and Gene Gantz, USDA-RMA.

The Workshop will be held at the Doubletree Hotel in Annapolis and lunch will be provided. Please make plans to attend today. To register today for free!

Annie’s Project: Managing for Today and Tomorrow

Classes to prepare your farm for Future Generations

The University of Maryland and Delaware Cooperative Extension will conduct Annie’s Project; Managing for Today and Tomorrow, during the fall of 2014, conveniently located at Chesapeake College in Wye Mills, MD. Women are generating a cultural tide in American agriculture that is moving management, assets and opportunities to a new wave of agriculturalists across the country. Managing for Today and Tomorrow focuses on the management processes and decisions needed to make successful transitions. It includes hands-on activities, interaction with local professionals and up to date resources, staying consistent with the popular format of Annie’s Project. Participants of all ages and experience levels will practice tasks to increase confidence in setting goals, nurturing effective family conversations, and defining the farm legacy.

Managing for Today and Tomorrow will focus on the decisions made during succession, business, estate and retirement planning and will be combined to form a plan for the future.

The course is open to all and will be three sessions starting on Thursday, September 4, 2014 9:00 a.m – 2:00 p.m. The cost of the entire course including meals and materials is $60. Please register by August 28 - space is limited. For more information and to register, visit the website www.extension.umd.edu/annies-project or call 410-758-0166. If you require special assistance to attend the classes please contact the site at least two weeks prior.
Agricultural Research Updates

Soil Health and Fertilizers
Microbes are often a forgotten part of nutrient cycling in agricultural production. A new soil test developed by the ARS in Temple, TX observes how microbial processes contribute to plant available nutrients. Research has shown that this test can reduce fertilizer use by 30 to 50%, possibly resulting in savings to the producer. It is available for use at university and commercial testing labs.

Source: Agricultural Research Service

Soil Phosphorus and Conservation Tillage
Conservation tillage practices like No-Till have effects on the distribution of P in the soil surface. Inorganic P (such as Mehlich-3 extracted P) was higher in the surface of No-till soils, while organic P accumulated deeper in the soil profile. This may be important to determining the availability of P to crops with shallow root systems.

Source: Journal of Environmental Quality, 2014, 43 (4) :1431-1441

Barley as a Fish Food
A new process can transform Barley into a high protein fish food. The nutrients in this alternative fishmeal could be up to 95% available to fish. This barley protein could be less expensive than most fishmeal.

Source: Agricultural Research Service

Ammonia, nitrous oxide, and Broiler litter
Research in Mississippi observed that re-using litter in poultry houses for three years didn’t increase emissions of N₂O or NH₃. This was compared to houses where litter had only been used for a single year. The authors suggest this may benefit farmers who can’t change out litter every year.


Using Tree Tannins to reduce Manure Odor
Natural tannins in tree leaves from the quebracho tree can reduce compounds that create manure odor. These tannins, when added to swine manure in a lab, reduced hydrogen sulfide and methane emissions by 90%.

Source: Agricultural Research Service

Preventing water beading with Ag Products
A nanoparticle coating made from wheat proteins can prevent water beading on glass surfaces. The material can be sprayed on glass and ready in one minute, increasing visibility.

Source: Agricultural Research Service

Modern Corn Hybrids and Nitrogen Use
DuPont Pioneer has observed that their modern hybrids may need more nitrogen later in the season. They suggest that not all of the nitrogen corn uses during reproduction is translocated from plant leaves, and some additional nitrogen may be needed in the soil.

Source: DuPont Pioneer
Awards and Grants

Jessie Flores won an award for her poster at the 2014 NACCA Conference in Mobile, AL. The poster described the success of the Lower Shore program Pencil to Plow, which helps beginning farmers explore the business side of agricultural production. Congratulations Jessie!

The Maryland Department of Agriculture awarded Planet Found a grant to explore anaerobic digestion and nutrient extraction of poultry litter. This project is currently being constructed on the Lambertson Farm in Worcester County.

Backyard Poultry 101 Workshop

Do you know what is fact or fiction in raising a backyard flock of birds? Join the University of MD Extension to learn the “bird basics” of small flock management and have your bird questions answered by poultry experts and specialists. This is a free program!

Where: Ocean Pines Library, Berlin
When: October 22, 2014, 1:00—3:00 p.m.

Pre-register by October 20th:
Jessie Flores (jflores@umd.edu) or call 410-632-1972

Nutrient Management Updates

Fall Soil Nitrate Tests

If you want to fertilize wheat and barley with Nitrogen this fall, you are required to take a fall soil nitrate test (FSNT). You are only allowed to apply Nitrogen if the FSNT comes up as insufficient.

This test can be performed through your local extension office, a private consultant, or even soil samples you take from the field.

Private Pesticide Application — Recertification

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<th>Date</th>
<th>Location</th>
<th>Time</th>
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<tbody>
<tr>
<td>October 20, 2014</td>
<td>Somerset County Extension</td>
<td>6-8pm, Pesticide Recertification followed by Nutrient Voucher</td>
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<tr>
<td></td>
<td>(410)-651-1350</td>
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<tr>
<td>November 17, 2014</td>
<td>Wicomico Extension Office</td>
<td>6-8pm, Pesticide Recertification followed by Nutrient Voucher</td>
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<td>(410)-749-6141</td>
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<tr>
<td>December 15, 2014</td>
<td>Snow Hill Lions Club</td>
<td>6-8pm, Pesticide Recertification followed by Nutrient Voucher</td>
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<td>(410)-632-1972</td>
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New Private Pesticide Applicator Certification

Starting 2015, the cost for the new private pesticide applicator training class is $10.00. Pre-registration is required and no payment will be accepted the day of the training. Visit http://www.eventbrite.com/e/new-private-pesticide-applicator-certification-training-exam-tickets-12463293045?aff=eorg to register or contact Jessie at 410-632-1972.

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<tr>
<th>Date</th>
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<tr>
<td>March 4, 2015</td>
<td>Wicomico Extension Office</td>
<td>1-3pm, Training</td>
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<td></td>
<td>(410)-749-6141</td>
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<tr>
<td>March 11, 2015</td>
<td>Wicomico Extension Office</td>
<td>1-3 pm, Test</td>
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<td>(410)-749-6141</td>
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EXTENSION EVENTS

9/4    Annie’s Project: Managing Today for Tomorrow - Chesapeake College, Wye Mills
9/09   Crop Insurance Workshop - Annapolis
10/20  Pesticide Recertification + Nutrient Voucher - Extension Office, Princess Anne
10/22  Backyard Poultry 101 Workshop - Ocean Pines Library, Berlin
11/17  Pesticide Recertification + Nutrient Voucher - Extension Office, Salisbury
12/15  Pesticide Recertification + Nutrient Voucher - Lions Club, Snow Hill

OTHER EVENTS

10/11  Wicomico County 4-H Fair - Wright’s Market on Route 50

Somerset Ext. Office ~ 30730 Park Drive ~ Princess Anne, MD 21853 ~ 410-651-1350 ~ Fax 410651-0806
Wicomico Ext. Office ~ P.O.Box 1836 ~ Salisbury, MD 21802 ~ 410-749-6141 ~ Fax 410548-5126
Worcester Ext. Office ~ P.O.Box 219 ~ Snow Hill, MD 21863 ~ 410-632-1972 ~ Fax 410632-3023

Want to receive this newsletter electronically? E-mail jjarod@umd.edu and type LES AG Newsletter into the subject line.