2019 Field Crop Budgets & Custom Farming Rates

Shannon Dill, Principal Agriculture Agent
University of Maryland Extension, Talbot County

The University of Maryland Extension has updated our grain website: extension.umd.edu/grainmarketing with new input data and spray programs for the 2019 field crop budgets. Also posted is the new 2019 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 2019 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.

<table>
<thead>
<tr>
<th>Cost Per Acre, 2019</th>
<th>Corn: No-Till</th>
<th>Corn: Conventional</th>
<th>Soybeans</th>
<th>Wheat</th>
<th>Wheat/Beans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$564.05</td>
<td>$618.82</td>
<td>$363.37</td>
<td>$436.88</td>
<td>$656.03</td>
</tr>
<tr>
<td>Increase</td>
<td>7%</td>
<td>10%</td>
<td>2%</td>
<td>20%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*New spray programs were added for herbicide resistant weeds and budgets for Palmer amaranth control were added as well.

2019 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

<table>
<thead>
<tr>
<th>Operation</th>
<th>Average ‘18</th>
<th>Average ‘17</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Preparation</td>
<td>$20.29</td>
<td>$21.74</td>
<td>-7%</td>
</tr>
<tr>
<td>Planting</td>
<td>$20.38</td>
<td>$20.33</td>
<td>0%</td>
</tr>
<tr>
<td>Field Applications</td>
<td>$10.88</td>
<td>$11.41</td>
<td>-5%</td>
</tr>
<tr>
<td>Grass &amp; Hay Production</td>
<td>$15.88</td>
<td>$13.11</td>
<td>17%</td>
</tr>
<tr>
<td>Harvesting</td>
<td>$72.70</td>
<td>$76.99</td>
<td>-6%</td>
</tr>
<tr>
<td>Labor</td>
<td>$32.34</td>
<td>$30.23</td>
<td>6%</td>
</tr>
<tr>
<td>Equipment Expenses</td>
<td>$62.78</td>
<td>$74.36</td>
<td>-18%</td>
</tr>
<tr>
<td>Average Total Change</td>
<td>$33.61</td>
<td>$35.45</td>
<td>-5%</td>
</tr>
</tbody>
</table>

*The accuracy of this survey depends on the number of realistic responses. If you would like to be added to the custom applicator list for future surveys list send your name and mailing address to sdill@umd.edu c/o MD Custom Rates.

A mail survey was conducted in the fall of 2018 to determine custom works charges in Maryland. Rates were collected from 48 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 new certified applicator training module for paraquat dichloride (also known as paraquat) is now available. The training was developed by paraquat manufacturers as part of EPA’s 2016 risk mitigation requirements and approved by EPA.

Paraquat is one of the most widely used herbicides in the U.S. for the control of weeds in many agricultural and non-agricultural settings and is also used as a defoliant on crops such as cotton prior to harvest. Paraquat is a restricted use pesticide for use only by a certified applicator. The restriction applies to mixing, loading, and applying paraquat, as well as other pesticide handling activities.

Since 2000, 17 deaths have been caused by accidental ingestion of paraquat. Many of these deaths resulted from people illegally transferring the pesticide to beverage containers and the victim later mistaking it for a drink. A single sip can be fatal. In addition to the deaths by accidental ingestion, since 2000, three more deaths and many severe injuries have been caused by the pesticide getting onto the skin or into the eyes of those working with it.

To help prevent these tragedies, certified applicators must now take paraquat-specific training before use, to emphasize that the chemical must not be transferred to or stored in improper containers. The training also covers paraquat toxicity, new label requirements and restrictions, consequences of misuse, and other important information.

The requirement for training is only one of several actions EPA has taken to prevent poisonings, including making label changes, restricting the use of all paraquat products to certified applicators only, and requiring closed-system packaging for all non-bulk (less than 120 gallon) end use product containers of paraquat.

View the paraquat:
- Training module and list of FAQs,
- Summary of mitigation measures, and
When it Comes to Nitrogen Leaching, Not All Cover Crop Practices Are the Same

Ian Goralczyk, Nathan Sedghi, and Ray Weil
University of Maryland, Department of Environmental Science & Technology

Cover crops are subsidized by taxpayers for use on more than 600,000 acres of agricultural fields in Maryland as part of an initiative to protect water quality and the Chesapeake Bay. As cover crops grow and take up nutrients, the water leaching from fields is cleaned up, especially with regard to nitrogen. However, the way that cover crops are typically managed may not be optimal for improving water quality. The Weil lab’s previous work has shown that the effectiveness of cover crops in reducing N leaching during the winter is dramatically affected by how early the cover crops are established, with cover crops planted in mid-October having little impact on N leaching compared to those planted a month earlier. The challenge is to find ways of getting cover crops established in early September, a time frame usually not possible with the typical practice of drilling cover crop seed after harvesting the corn or soybean cash crop. For this reason we studied a mixed species cover crop (radish, rye, and crimson clover) that was interseeded into standing soybeans canopies as compared to the standard practice of post-harvest drilling, and a no-cover crop control. We conducted the replicated experiment on two coastal plain fields with soils of contrasting textures formed in silty/clayey sediments, and in sandy sediments.

This experiment was established at the Beltsville Facility of the Central Maryland Research and Education Center, with funding from Shore Rivers, LLC and the Maryland Soybean Board. The early planted cover was planted by broadcasting seed into a standing soybean canopy at leaf yellowing using a hiboy air-seeder on September 11, 2017. In each field, suction lysimeters were installed (Figure 1) to one-meter depth and samples were collected using a 85 kPa vacuum approximately every two weeks between December 17, 2017 and May 7, 2018. Soil pore water samples were filtered to remove particulate matter and frozen until they were analyzed for NO3-N and NH3-N on a LaChat® Flow Injection Analyzer.

![Figure 1. Nitrate-N concentrations in porewater from 1 m depth in fields of contrasting soil texture. Average of all sample dates during the 2017-18 winter-spring leaching season (N=33). Error bars are one standard error.](image)
One field had a silt loam surface texture and a clay loam subsoil (Russet-Christiania Complex). The other field had a loamy sand surface texture and sandy loam subsoil (Evesboro-Downer Complex). By utilizing fields of contrasting soil textural classes we can determine the effectiveness of these cover cropping methods with a range of soil conditions in order to broaden the scope of this study.

Cover crop use made a major difference in nitrate concentrations measured in the porewater collected at 1 m depth (Figure 2). Nitrate concentrations were reduced most where cover crops were established the earliest. As expected, the nitrate concentrations in the leaching water, as well as the impact of early cover crop establishment, were greatest on the sandy soil site.

While there were some individual samples that exceeded the EPA safe drinking water standard for nitrate-N (10.0 ppm), the average of all individual treatments was below this standard, and nitrate concentrations were consistently lower for the early interseeded cover crop treatment. A major reason why lower nitrate concentrations at one meter depth were observed for cover cropped plots is that the nitrate was taken up by cover crops roots and largely translocated to the aboveground plant tissue. This process captures the N before it leaves the potential rooting zone and recycles it to the surface soil where it may be released for use by future crops. This release could lead to decreased need for fertilizer nitrogen application to the following corn crop. Our data suggest that if similar cover crop interseeding practices (using aerial or ground-based methods) were applied on a large scale on commercial farms, the reduction in nitrogen loading to the Chesapeake Bay could be substantial. We can also conclude that early-planted cover crops are effective for reducing nitrate leaching on soils with a range of textural classes.

While these results are promising, it is important to note that they represent only one year out of a three year project, and that more data will be collected on different fields and with different cover cropping methods. We hope to provide farmers with guidance on optimizing cover crop species mixtures, planting dates and methods in order to enhance the impact of cover crops on nitrogen pollution while also improving soil health and farm profitability.
In October 2018, the U.S. Environmental Protection Agency (EPA) approved revised labels for Engenia (EPA Reg. No. 7969-345), FeXapan (EPA Reg. No. 352-913), and Xtendimax (EPA Reg. No. 524-617). While the EPA revised labels, they also announced the registration extension on dicamba for two years for “over-the-top” use on dicamba tolerant cotton and soybean plants.

Changes for 2019:

- Only certified applicators may purchase and apply dicamba; no longer may those working under the supervision of a certified applicator may make applications.
- For the 2019 growing season and each season thereafter, all applicators must complete the annual dicamba training provided by one of the registrants of a dicamba product approved for in-crop use with dicamba-tolerant crops.
- Post-emergent dicamba treatments must be applied prior to 45 days after soybean planting, or R1 stage, whichever comes first.
- Applications will be allowed only from 1 hour after sunrise to 2 hours before sunset.
- In counties where endangered species may exist, the downwind buffer will remain at 110 feet. There will also be an additional 57-foot buffer required around the sides of the field. For a list of counties requiring additional protection measures check out the EPA endangered species website.

Records must be generated within 72 hours of application instead of 14 days. Must also include planting date on records. Record keeping forms for Engenia, FeXapan, and Xtendimax may be found online on the product website.

Please note this is not a comprehensive list of label changes for each dicamba product. I would encourage all applicators to read in detail all requirements on each specific product label. To find local dicamba trainings, please consult your local extension agent or Maryland residents may take the online training.

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Equine Nutrient Management Training

David Ruppert, Agricultural Nutrient Management Program Coordinator
University of Maryland, College Park

An equine nutrient management training class will be offered on May 2, 9 AM—3 PM at the Maryland Department of Agriculture in Annapolis, MD. This training provides participants with an overview of Maryland’s nutrient management requirements, best management practices, and basic soil conservation techniques for farms. Additional topics include cost-share and other financial incentives for large and small equine operations, pasture management techniques, basic fertility for pastures and hay, setbacks, buffers, and manure management, including storage and handling. The Farm Stewardship Certification and Assessment Program (FSCAP) and Maryland’s Watershed Implementation Plan (WIP) requirements will be discussed. Instructors are university and government experts.

Owners and operators of equine operations, boarding stable license holders, and anyone involved in the equine industry who desires greater knowledge of environmental responsibility on their farms should attend. Please complete and return the registration form by April 26, along with $30 fee. Registration includes all educational materials, breakfast, and lunch. For registration forms or more information, visit our website or call (410) 841-5959.
New UMD Pasture Management Specialist

Dakota State University, followed by a research internship at Kentucky Equine Research in Versailles, KY. Amanda received her M.S. and Ph.D. in Animal Science from the University of Minnesota, where her research focused on the interaction between animal nutrition, forages, and pasture management. Her office is located at the Western Maryland Research & Education Center in Keedysville.

Learn more about Amanda on our faculty directory webpage, https://agnr.umd.edu/about/directory/amanda-grev. Amanda can be reached by phone at (301) 432-2767 or by e-mail at agrev@umd.edu.

Meet Dr. Amanda Grev! Amanda joined the University of Maryland Extension team in January and serves as the new Pasture Management Specialist. A native of Rochester, MN, Amanda completed her undergraduate degree in Animal Science at North Dakota State University, followed by a research internship at Kentucky Equine Research in Versailles, KY. Amanda received her M.S. and Ph.D. in Animal Science from the University of Minnesota, where her research focused on the interaction between animal nutrition, forages, and pasture management. Her office is located at the Western Maryland Research & Education Center in Keedysville.

Learn more about Amanda on our faculty directory webpage, https://agnr.umd.edu/about/directory/amanda-grev. Amanda can be reached by phone at (301) 432-2767 or by e-mail at agrev@umd.edu.

UMD Extension Jobs Openings

Nutrient Management Advisor, Allegany County:

Nutrient management advisors develop nutrient management plans for agricultural producers to balance nutrient inputs with crop requirements, thus enhancing production potential, improving farm profitability, reducing excess nutrient inputs into the Chesapeake Bay and enabling producers to comply with the Water Quality Improvement Act of 1998. Apply online at ejobs.umd.edu and search job # 124706 by April 15.

Agriculture Extension Agent, Wicomico County:

The Extension Agriculture Educator is responsible for planning, organizing, developing, implementing, and evaluating Extension educational programs for the agricultural community. Specifically, this position will provide leadership and delivery of educational programming related to fruit and vegetable growers, commercial horticulture, and general agronomy. The position will conduct applied research that supports the educational program. The Educator will facilitate partnerships with local and state agencies, elected officials, communities, landowners, residents, and industry and environmental groups in developing economic opportunities while protecting, as well as advocating for a science-based, responsible approach to handling the state’s natural resources. The faculty member will be on track for tenure and promotion to a higher rank in accordance with University policy and UME tenure guidelines within a timeframe defined. Apply online at ejobs.umd.edu and search for job # 103476 by April 15.
Evaluating Wheat Stands

Andrew Kness, Agriculture Agent
University of Maryland Extension, Harford County

The 2018 growing season was a record year in terms of precipitation and is one we would all like to soon forget. However, a soggy fall made it very difficult to seed the 2019 wheat crop and may have lingering effects. Persistent rains delayed planting or forced growers to plant into less-than-ideal field conditions, which may have affected seed establishment and/or plant emergence. As wheat begins to green up and as we approach planting season, it may be a good idea to consider evaluating your wheat stands to help you determine if you should keep the crop for grain vs. a cover crop, consider alternate uses, or terminate it to replant a different crop.

In order to accurately determine wheat stand you will need a yard stick (or any three-foot long stick) and a calculator. Place the stick along a row and count the number of plants in that three-foot section. Record this number and repeat this several times at random locations across the field that are representative of the field as a whole. I would recommend doing this at 15-20 locations to get an accurate average. Take your average and multiply it by four. Divide this number by your row width (in inches). The equation looks like this:

\[
\text{Plants per sq. ft.} = \frac{(\text{Average # of plants per 3 ft. of row}) \times 4}{\text{Row width in inches}}
\]

Example:

\[
\begin{align*}
\text{Plants/ 3 ft. of row:} & \quad (48+41+38+36+28+51+42+39+48+43+18+29+56+49+45)/15 = 40.7 \\
\text{40.7} & \quad \div 4 \\
\text{7} & \quad = 23.6 \text{ plants per sq. ft.}
\end{align*}
\]

Alternatively, if your wheat is broadcast or flown on, you can calculate the number of plants per square foot by counting the number of plants in a 1 ft. x 1 ft. square or any other standardized form of measurement as long as you’re consistent (for example, you could use a hula hoop; just calculate it’s area).

To achieve maximum yield potential, stands should be at least 22 plants/sq. ft. You may want to consider alternatives for stands fewer than 12-14 plants per square foot.

<table>
<thead>
<tr>
<th>Plants/sq. ft.</th>
<th>Yield Potential (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-35</td>
<td>100</td>
</tr>
<tr>
<td>22-28</td>
<td>100</td>
</tr>
<tr>
<td>18-21</td>
<td>90-95</td>
</tr>
<tr>
<td>15-18</td>
<td>75-80</td>
</tr>
<tr>
<td>12-14</td>
<td>60-70</td>
</tr>
</tbody>
</table>

*Information from the Penn State Agronomy Guide

Checking Soil Types At Home and In The Field

Jarrod O. Miller, Extension Agronomist, University of Delaware

While some precision agriculture software provides soil maps as a layer along with satellite imagery and yield maps, information on soil types is free and accessible to all growers. Soil surveys have be digitized and are available to anyone with an internet connection.

Web soil survey is one option to review soil types, but a more user-friendly website is UC Davis Soil Web (https://casoilresource.lawr.ucdavis.edu/gmap/). Sitting at a home computer, anyone can find fields by typing in an address to observe a satellite photo with soil boundaries. Standing in any field, a cellphone with good reception can zoom to the location you are standing. Soil maps are the easiest way to check under your feet without digging.

In Figure 1 we can observe a field south of the Harford County Extension office. Using the mouse or your cellphone touch screen, select the field/soil map unit will create a red (x) and bring up the soil series names (on the left of Figure 1). There may often be many choices for soil series, reflecting the variability in the field. Choosing the dominant soil name would be valid for general observations. South of the Harford Extension Office (Figure 1), the MsB2 map unit is dominated by the Montalto soil (85%).

By selecting the Montalto series (clicking the name in blue), a soil profile with horizon names and colors appears (Figure 2). Next to the soil profile are other options you can select, including particle size or organic matter content with depth. The organic matter content...
of the Montalto series (Figure 2) is expected to be 2% at the surface, quickly dropping to less than 0.5% below 50 cm (20 inches). This doesn’t mean the entire field has this much organic matter, but it is good for comparing soils under production. These soil maps can be useful to those who want to explain differences in yield or growth across their farms, and can be used as an additional guide to soil sampling. If you would like help exploring these soil maps, contact your county extension office.

Figure 1. The UC Davis Soil Web map near the Harford County Extension Office

Figure 2. The Montalto series can be explored further for horizons, clay content, or organic matter.
Managing Fusarium Head Blight

Alyssa Koehler, Extension Plant Pathologist
University of Delaware

When it comes to controlling Fusarium Head Blight (FHB) and keeping deoxynivalenol (DON) levels low, it is important to have an integrated approach. Considering the disease cycle of FHB (Figure 1), the FHB pathogen (*Fusarium graminearum* and other *Fusarium* sp.) is able to grow on crop residues from corn and small grains. In your field rotation plan, try to avoid planting wheat or barley into corn residue; this will help to reduce the amount of initial inoculum in your field. As the pathogen grows on debris, it eventually releases spores that can be rain dispersed or moved through air currents. While the grain is flowering, spores land on the head or anthers, colonize these tissues, and move into the grain head. Once inside the grain, water and nutrient movement is disrupted which results in the bleached florets we associate with FHB (Figure 2). Shriveled and wilted “tombstone” kernels can reduce yield and result in grain contaminated with mycotoxins. DON, also referred to as vomitoxin, is a health hazard to humans and animals. Wheat heads colonized later in development may not show dramatic symptoms, but can have elevated DON.

As we think about 2019 in-season disease management strategies, a well-timed fungicide application can help to reduce disease severity and DON levels. It is important to remember that fungicides can help to reduce disease levels and DON (traditionally around 50% reduction on a susceptible variety) but they do not eliminate FHB or DON. To try to maximize the efficacy of fungicides, it is important to apply at the correct timing. Fungicides for FHB are most effective when applied during flowering in wheat and at head emergence in barley. As wheat approaches heading, the Fusarium Risk Assessment Tool (www.wheatscab.psu.edu) is a forecasting model that uses current and predicted weather forecasts to predict FHB risk. This tool is historically about 70% accurate, and can help you assess your risk for developing FHB as your wheat approaches flowering. The pathogen that causes FHB infects through the flower, and rainfall 7 to 10 days prior to flowering increases spore production and risk of infection. Optimal wheat fungicide application is at early flowering (10.5.1) to about 5 days after. For initial signs of wheat heads beginning to flower, look for yellow anthers in the middle of the wheat head. When resistance against FHB, but you can select wheat varieties with partial resistance. The University of Maryland sets up a misted nursery to compare FHB index and DON levels across local wheat varieties to aid in variety selection decisions https://scabusa.org/pdfs/UMD-UDE_Misted-Nursery_Factsheet-2018.pdf. Unfortunately, barley does not have any resistance to FHB. At this point in the season, rotation order and variety are established, but you can consider these factors as you plan for next season.

**Figure 1.** Fusarium Head Blight Disease Cycle. For more information on the FHB disease cycle visit https://www.apsnet.org/edcenter/disandpath/fungalasco/pdlessons/Pages/Fusarium.aspx Image: apsnet.org.

In addition to rotation considerations, seed selection is another important piece of FHB management in wheat. There is no complete host resistance against FHB, but you can select wheat varieties with partial resistance. The University of Maryland sets up a misted nursery to compare FHB index and DON levels across local wheat varieties to aid in variety selection decisions https://scabusa.org/pdfs/UMD-UDE_Misted-Nursery_Factsheet-2018.pdf. Unfortunately, barley does not have any resistance to FHB. At this point in the season, rotation order and variety are established, but you can consider these factors as you plan for next season.

**Figure 2.** Wheat head showing bleached florets from Fusarium Head Blight. Image: A. Koehler, Univ. of Delaware.
at least 50% of main stems are flowering, you will want to initiate fungicide applications. As the flowering period continues, anthers will emerge from the top and then the bottom of the wheat heads (Figure 3). Anthers can stay attached after flowering but usually become a pale white.

Method of fungicide application is also important. Flat fan nozzles pointed 90° down are great at covering foliage; however do not do a good job of covering the heads, which is where the product needs to be located. Use nozzles that are angled forward 30-45° down from horizontal (30 degrees is better than 45) or dual nozzles angled both forward and backward. Research has shown that a single forward angled nozzle or nozzles angled forward and backward allow for significantly more product to contact the head and increase fungicide efficacy. Optimal spray volume is 10 gallons per acre.

Triazole (FRAC group 3) fungicides that are effective on FHB include Caramba (metconazole), Proline (prothioconazole), and Prosaro (prothioconazole + tebuconazole). This year, a new mixed mode of action product is on the market, Miravis Ace. This product contains propiconazole (DMI, FRAC 3) and pydiflumetofen (SDHI, Group 7). On the label, application can begin at Feekes 10.3 through 10.5.2. Although this product can be applied at the earlier timing, preliminary data has shown that optimal FHB control and lower DON levels are achieved at the 10.5.1 timing or a few days beyond this timing. If you spray too early, heads that have not emerged will not be protected by the fungicide application. Rainfall during flowering can increase levels of FHB and delay the ability to get into fields to apply fungicides. The expanded application window of Miravis Ace may offer options if periods of extended rainfall are in the forecast. However, if the weather allows, 10.5.1 to about 5 days after appears to provide the best control to reduced DON. We will be collecting local data on optimal application timing in Georgetown this spring. As a reminder, fungicides containing strobilurins (QoI’s, FRAC 11) should not be used past heading because these fungicides can result in elevated levels of DON.

Figure 3. From left to right Feekes 10.5, Feekes 10.5.1 (beginning flowering), Feekes 10.5.2 (flowering growth stage), Feekes 10.5.3 (full flower). Image: C. Knott, Univ. of Kentucky [https://mccracken.ca.uky.edu/files/identifying_wheat_growth_stages_agr224.pdf](https://mccracken.ca.uky.edu/files/identifying_wheat_growth_stages_agr224.pdf)
Currently, 0% of the State is abnormally dry. One-month outlook predicts a 40-50% probability of warmer than normal temperatures through April. There are equal chances for above, normal, and below average amount of precipitation for the month of April for most of the state; with part of the Eastern Shore with a 33-40% probability of above-average rainfall.

March 26, 2019  
(Released Thursday, Mar. 28, 2019)  
Valid 8 a.m. EDT

### Intensity:
- D9 Abnormally Dry
- D3 Extreme Drought
- D1 Moderate Drought
- D4 Exceptional Drought
- D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**
Eric Luebehusen  
U.S. Department of Agriculture
Other Publications & Resources From University of Maryland Extension

University of Maryland
VEGETABLE & FRUIT HEADLINE NEWS (published monthly during the growing season)

University of Maryland
TPM/IPM REPORT (published weekly during the growing season for nurseriesmen and greenhouse growers)

Great resources are just a click away!

Maryland Grain: http://extension.umd.edu/grain

University of Maryland Agronomy News Blog: http://blog.umd.edu/agronomynews/

Agriculture Law: http://extension.umd.edu/aglaw

Agricultural Nutrient Management Program: http://extension.umd.edu/anmp

Women in Agriculture: http://extension.umd.edu/womeninag

University of Maryland Plant Diagnostic Laboratory: http://extension.umd.edu/plantdiagnosticlab

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Crop Reports

Western Maryland
Soil temperatures have been hovering in the low to mid-40’s for the last two weeks. The extended forecast predicts a stretch of 70+ degree days, and soil temperatures may climb above 50 degrees quickly. Reports from The National Weather Service indicate that precipitation in March in Frederick was approximately one inch above normal. A few vegetables such as onions and garlic have been planted. The dry weather has allowed for pasture and hay greenup fertilizer to be applied. A lot of the early corn fertilizer has also gone out. Small grain is finally starting to break and the first shot of N got on in the last two weeks. –Kelly Nichols & Matt Morris

Northern Maryland
Winter and early spring in northern MD has been wet. Right now the region is about 1-3 inches above average precipitation depending on where you are. Wet weather has delayed most all field preparation operations. The past week or so has been dry enough for tractors to start rolling and catching up. Most all wheat for grain has had it’s first shot of nitrogen and is now greening up nicely; but fields are variable. Fertilizer applications in less-than-ideal conditions has left a lot of ruts in fields, so compaction is likely to be an issue this year. Several farms have attempted to remedy this with subsoilers. Soil temperatures are creeping up slowly but are still in the low to mid 40’s. -Andy Kness

Upper & Mid Eastern Shore
Most of the fields are in good shape (moisture wise), which has been conducive for early field work. The 1st application of fertilizer has been made on small grain with very little “wet spot” problems. Burn down herbicide applications are being made for early corn and soybean plantings. Most important; lime and manure applications followed by vertical tillage are progressing quickly and efficiently for a change. Hay is greening up, but off to a slow start. -Jim Lewis

Lower Eastern Shore
The region is greening up with cover crop growth. No acreage has been reported yet to Somerset County Soil Conservation for cover crop burndown. As of now, the ground is wet and too cold for planting. Corn planting is anticipated to start between April 19th-22nd. Some of the ground is beginning to be worked with turbo-tilling and other practices. –Sarah Hirsh

Southern Maryland
Farmers are busy preparing for planting. Field conditions remained wet until 2 weeks ago. Farmers are now playing catch up with most operations running later than normal. Everyone is busy spreading litter/manure, applying herbicides and completing field operations before planting commences in a couple of weeks. Many fields have soils that are in poor condition suffering from compaction and ruts as result of the continual rain. When fields have finally dried out, they are commonly hard and difficult to work with poor structure and little soil tilth. Small grain crops are approaching jointing stage now and only in fair condition. There is a lot of variability across wheat and barley fields this year. The first application of nitrogen has been made. Hayfields are greening up now.–Ben Beale