During the 2007-2008 and 2008-2009, a study funded by the Maryland Grain Producers Utilization Board was conducted to investigate the effectiveness of different cover crop planting methods. The study was done at two locations each year using two cereal species, rye and wheat, that were planted at two dates (early October and early November). Planting methods evaluated were no-till drilled seed; broadcast seed with light soil incorporation by disking; broadcast seed followed by stalk chopping; broadcast seed followed by corn stalk rolling with a packer, and broadcast seed only. For the broadcast seed only treatment, two rates of both wheat and rye were tested; 2 bu/acre and 3 bu/acre.

Any planting method that incorporated the seed into the soil consistently established stands the quickest with the highest number of emerged seedlings, produced the most biomass and absorbed the most nitrogen regardless of soil moisture conditions, fluctuations in temperature, timing of rainfall events, and planting date. The study confirmed the importance of planting cover crops early as those treatments had approximately twice the nitrogen uptake in the biomass by the following April compared with late planted cover crops.

Though it is not a recommendation by the University of Maryland for establishing cover crops, the study did show that there is some benefit to broadcasting seed with no soil incorporation as a means of establishing cover crops. While this method is highly dependent upon rainfall and mild temperatures for success, it does provide some nitrogen immobilization over the winter months and therefore provides some benefit to water quality. Broadcasting seed as a method of stand establishment will have the best chance of providing those benefits if the cereal cover crop is seeded late in the summer or very early in the fall to take advantage of warmer temperatures and rainfall that would encourage early germination. The results for broadcast seeding of wheat and rye suggested that increasing the seeding rate for broadcast establishment is warranted, since the higher rates (3 bu/acre) for both wheat and rye had greater biomass production and nitrogen uptake than the standard rates.

While the wheat and rye within the same planting method were often not significantly different from each other, the differences that did occur always indicated that the rye achieved a higher seedling count maximum, greater biomass production, or higher nitrogen uptake in the specific site for a certain planting date. These findings support MDA’s current practice of providing an
incentive to farmers who plant rye as a winter cover crop since rye generally has the ability to remove more nitrogen from the soil than other cereal grains.

The results of this research are useful for considering future changes to the Winter Cover Crop Program in Maryland. As a result of the May 12, 2009 Executive Order that calls for Federal oversight of a renewed Chesapeake Bay clean-up effort, there will likely be new emphasis placed on agricultural best management practices, including cover crops. Increasing incentives will encourage more people to plant cover crops, but there will always be barriers to getting the cover crops planted early since harvesting cash crops is a priority and time and labor are usually limited. Therefore, in order to increase the number of acres that are planted to cover crops each year, MDA may want to consider allowing broadcasting as a method of cover crop seeding that will be paid for only if an acceptable stand is established in the fall. If this becomes an option, farmers may be more inclined to participate in the program and get the cover crop seeded quickly after harvesting the cash crop to increase their chances of getting a good stand established and being paid for their efforts. Broadcasting will give farmers an option that will require less time and enable them to cover more ground at a very busy time of year. This may result in acres being planted to cover crops that would otherwise remain fallow over the winter. While broadcast seeded cover crops are not as effective at removing nitrogen from the soil as fields established with a no-till drill or any other type of light tillage, it is arguably a better method of addressing agricultural nutrient inputs to the Bay when compared to no cover crop at all.

Wheat Production Basics

Dr. Robert Kratochvil, Agronomic Crop Production

Variety Selection
Choose varieties that have good agronomic characteristics including yield potential, disease resistance, lodging tolerance, and test weight. Information about the agronomic performance of wheat varieties grown in this region is compiled by the agronomists and breeders at the region’s Universities and posted at their respective websites. The University of Maryland’s web address for this information is www.mdcrops.umd.edu.

After you have selected your varieties, find outlets where you can purchase certified seed to ensure that you will be planting wheat that is clean, free of weed seeds, and has been laboratory tested to verify its germination.

After the yield potential for a variety, I consider test weight to be an extremely important trait. It can be affected (reduced) if the harvest season is plagued with periods of rainy, wet weather. When wheat is harvest ready, the kernels are dense and compact. If a rain event occurs followed by unsuitable weather for rapid drying of the harvest canopy, the kernels will absorb moisture and swell, losing their original compact size. Even though subsequent dry weather returns the crop to a harvest ready condition, the kernels will not return to their original compact size. Instead, they are slightly larger. When test weight is measured, there are fewer kernels comprising the test weight sample resulting in a lower test weight. Depending upon the severity of the rainy, wet period, test weight reductions from slight (less than one pound/bushel) to severe (four to five pounds/bushel) can occur. Both high and low test weight varieties will suffer similar reductions but by starting with a 59 lb/bu wheat versus a 57 lb/bu variety, there will be a smaller price penalty. Of course, this last statement depends upon whether pre-harvest sprouting occurred that caused reductions in falling number, an important baking characteristic for many soft red winter wheat products.

Another important agronomic consideration is to choose more than one variety especially if you are producing substantial acreage. As you select varieties, pay attention to their flowering or heading dates. By selecting varieties that have different flowering dates you will be helping to reduce your risk for Fusarium (scab) infection. Wheat is most susceptible to Fusarium infection during flowering although some infection is possible during early kernel development. Wheat at flowering that is experiencing temperatures ranging from 65-85°F and extended periods of rainy, wet weather is most susceptible to infection. By having varieties with a range of flowering dates, you provide an opportunity to avoid infection by not having your entire crop at the same stage of development at the same time.
Planting Date

Wheat should be planted by a date that will allow it to germinate, emerge, and have adequate growth and development during the fall so that it is healthy when it enters the winter dormancy period. It is important to not plant too early, a practice that can result in more growth than necessary during the fall causing the wheat’s crown to possibly be overly stressed before it enters the dormant period. Planting too early also increases the potential for Hessian fly infestation. Hessian fly prefers wheat over barley or rye as its primary host. Hessian fly infestations have increased in prevalence during recent years because of the use of wheat planted early for cover crop purposes and with the increase of no-till planting of double crop soybean into wheat stubble that can have varying levels of volunteer wheat.

The Hessian fly life cycle requires the presence of wheat seedlings where it can lay its eggs upon the young leaves. The eggs hatch within a few days and the larvae migrate to the whorl and ultimately to the crown area below ground. Severe, early leaf feeding can result in plants dying causing stand problems in the fall. The larvae that migrate to the underground crown eventually enter a pupae stage that allows them to overwinter. In the spring, a new generation of adults will hatch from the pupae. These adults repeat the egg-laying cycle producing larvae that will migrate into the wheat stems, killing tillers, feeding on the stems causing them to be weakened, and increasing the potential for lodging to occur. Significant infestations of Hessian fly will result in reduced yields by causing small, poorly filled wheat heads that contain kernels of poor quality.

The Hessian fly does not survive freezing temperatures. Fly-free dates that are associated with the average first-frost date have been identified for the Mid-Atlantic region. In Maryland, the fly-free dates range from late September in the northern and western counties to October 9-11 for the Lower Eastern Shore counties. By planting within an approximate three-week period following the fly-free date for your area, you will be reducing your risk for Hessian fly infestation while ensuring that you will accumulate an adequate amount of heat-units to establish a healthy wheat crop as it enters the winter dormant period.

Planting during this window has also proven to optimize yield with the ideal time to plant closer to the beginning of the three-week period rather than later in the window. And, if planting does not occur until after the end of the window, yield reductions of approximately 10% per week can be expected up to about Thanksgiving.

Seeding Rate

The long-time volumetric standard for planting wheat, two bushel per acre, should not be used if you want to achieve the plant population, 1.3 to 1.4 million plants per acre, needed to optimize yield. To achieve this population, two seed characteristics need to be considered, germination rate and seed size. A seed lot with a germination rate of 95% will require less seed to be planted than a seed lot that has 85% germination. One of the primary reasons to purchase certified seed is the assurance that you have pure seed that has excellent germination. So, if your seed lot has a germination rate of 90%, to attain the population goal of 1.3 to 1.4 million plants, you will want to plant approximately 1.5 million seeds per acre.

Though wheat seed is relatively small, it does vary in size from large (approximately 10,000 seed per pound) to small (15,000 seed per pound). If you simply set your drill to plant two bushel per acre, you will under-plant if you have a large-seed variety and over-plant with a small-seed variety.

So, how do you achieve the planting goal with your drill? You need to calibrate it for each of your seed lots, a relatively easy task. First, mark a known distance in an area where you can make a few calibration runs; a distance of 50 feet is often sufficient. Set the drill for a known seed setting using the chart provided for the drill (i.e. two bushel per acre is a good place to start). Next, put enough seed in the drill to cover the seed hopper and attach small zip lock bags under 4-5 of the seed units where they attach to the seed hopper. Make a test run with the drill in the ground and at the ground speed you will use when planting. Collect the bags of seed and weigh (if you have a scale that can weigh small amounts) or count the number of seed collected to determine how much seed each unit is planting and then calculate the average.

With this information, you can estimate the amount seed that would be planted at the setting you have used. An easy way to determine this is to calculate the length of row necessary for one unit to plant one acre. If you have a drill with 7 inch row spacing, the length of row required is 74,674 feet. If your drill has 7.5 inch row spacing, the length of row necessary for an acre is 69,696 feet. To achieve 1.5 million seed per acre, you need to plant 20 seeds per foot for the 7 inch drill and approximately 21.5 seed per foot with the 7.5-inch drill. For the 50 foot test run, you want to collect 1,000 seeds for the 7-inch drill and 1,075 seeds for the 7.5-inch drill. If you have not achieved the seed rate goal at the drill setting you have used, adjust it accordingly and make another test run, repeating the calibration steps until you are satisfied with your result.
Getting Ready to Plant in the Spring

Mark Sultenfuss, Program Manager - Field Crops Research

You might not realize it now, but when you take the combine into the field in the next couple of weeks, you are taking the first step to prepare your seedbed for the next crop you plant. Of course, our first and most important concern is what the combine will do with the crop in front of it. Take your time and get it right. Make sure that from the tips of the corn head or platform to the chopper and chaff spreader on the rear it maximizes productivity and gives you every kernel or bean that it can take in. If you need help with these adjustments or taking yield checks to see what your field losses are, give Jenny Rhodes, me, or your combine dealer a call and within a few minutes a fresh set of eyes can help you determine the cause of your field losses.

Once you get the machine adjusted for harvest, then look for ways it is handling the residues you will have to deal with to plant your small grains, cover crop, or next spring’s corn or soybeans.

Some things to observe:
What condition are the remaining corn stalks in? Are they real tall because the combine was run at a speed faster than the stalk rollers could bring the stalk through the stripper plates? If this is the case, you’ll have long, tall corn stalks that need to be sized so they do not interfere with planting or tillage. Are you going to have to mow them or disk them to size them, causing an extra pass to do that? You really want the stalks adequately pulled through the corn head and processed so the microbes can start the decomposition process and so that stalk segments do not interfere with the next operation.

Try to have the ears separated about 60-75% up in the stripper plates. This can be accomplished by adjusting stalk roller speed and ground speed. Move the stripper plates together so you have fewer smaller ears pass through them. Be sure to keep them centered over the stalk rollers and slightly narrower in the front. This adjustment can be a bear to do manually if they have not been adjusted recently, but worth the trouble when you can get an extra few bushels. If the small ears or ends pass through the stripper plates, you might have trouble with volunteer com next year. Remember that if this was Roundup Ready corn, those volunteer plants will be Roundup Ready too!

Are the combine tires running over corn rows? This can be a situation that is remedied by using spacers to align combine tires to run between corn rows. Otherwise you may be incurring high tire wear from the cornstalks or knocking corn stalks over so you are unable to pick them up when mowing or shredding the stalks. These longer stalks may take longer to decompose than shorter stalks resulting in a varying seedbed zone and/or planting conditions when you plant your next crop.

What is the ground like after we run the combine over it? Are we driving on soil that is too wet to be driven on with such heavy weight? Consider the amount of compaction that has occurred after a combine, and possibly a tractor and grain cart, drives over it. If the soil is dry, those secondary vehicles may not do much damage, but if it is wet, they may be causing significant, unnecessary compaction. Also, consider what those machines are doing to the corn stalks. Are they knocking them over too? Perhaps, it would be better for the field to unload on the ends and avoid unnecessary compaction except on the ends.

What about the residue coming out of the back of the machine? Is it broken and chopped adequately to start the decomposition process, yet not so small as to blow or wash away with the first wind storm or rain event? Is the residue spread evenly? Can your chopper spread as wide as the swath that the header takes? If it can, does it do it? You can make several adjustments to the chopper to make it spread wider. Take a walk behind the machine and see how it is spreading the finer residues. Those fine residues will break down at a faster rate than the course ones, causing nutrient release differences. You want to avoid having the smaller residue pieces deposited in strips behind the machine. I have seen this lead to “mysterious” streaks in wheat the following spring.

Also, don’t forget to take notes of things you see in the corn field. For instance, are the plants uniform in spacing, stalk diameter, height and ear placement? Do you have plant spacing gaps? Are the gaps in certain rows? Do you have barren stalks? Remember, one missing ear of corn in every 17.4 foot segment of 30-inch row corn (1/1000 acre) is worth about 7 bushels per acre. At current corn prices, that’s over $30 an acre! Figure out what you can do to get that ear back next year. Do you see weed problems? Are they in certain areas of the field? Are they the result of sprayer skips or sprayer problems? Do you want to spray those perennial weeds that you see with an herbicide this fall before a frost?

Now is the time to begin getting ready for next spring’s planting. The combine is the first tool to get the seedbed in shape for a great stand next spring. Don’t underestimate the effects of what you are doing now on the next crop’s seedbed. Most importantly, be careful!
Loss Reporting Tips for Crop Insurance

Dr. Wes Musser, Farm Management Specialist

With reduced yields due to drought and other poor growing conditions, reporting losses on your crop insurance is very important. This article presents loss reporting tips to help you with these reports.

Forms with titles of “Summary of Protection” or “Schedule of Insurance” should have arrived within a few weeks after you filed your acreage report with your crop insurance agent. These forms reflect the information on which your 2010 protection is based. Compare it to your acreage report to make sure that it is correct. If you find discrepancies, contact your insurance agent immediately to get it corrected, otherwise they could adversely affect your premium bill and/or claim payment. Any corrections that were needed should have been done before now so this is just a reminder to make for sure no errors are on these forms.

Reporting Crop Damage: The crop insurance policy requires that damage be reported within 72 hours of discovery to your crop insurance agent. Ask your agent for instructions on how to proceed. Don’t destroy evidence of damage until a loss adjuster evaluates it.

Also, promptly report your crop damage to the Farm Service Agency (FSA/USDA). This report may be important if you become eligible for a crop disaster payment under the SURE program. The deadline for submitting applications for 2008 crop year SURE payments to the county FSA/USDA office is September 30, 2010.

For spring planted crops, check the yield/revenue potential of your crops. You’ll soon be thinking about fall harvesting of those spring planted crops. Remember the crop damage reporting requirements (if a loss is anticipated): The insurance policies require that written notice be given to your crop insurance agent (for each crop by unit (FSA farm #)):

- Within 72 hours of discovery of damage or loss,
- 15 days before harvest begins, and
- Within 15 days after harvesting is completed but not later than October 20 for corn insured as silage and December 10 for grain corn and soybeans.
- Don’t destroy evidence of damage until a loss adjuster evaluates it!

Prior Authorization is Required to Leave Sample Rows for Yield Determination: If loss adjusting workload does not permit appraising damaged crop acreage before you are ready to start cutting silage, prior authorization must be obtained from your insurance company’s crop insurance agent, before sample row areas can be left for later yield determination. For this reason, it’s important that notice of damage be filed with your crop insurance agent as early as you determine that damage occurred so that harvesting is not delayed.

Cutting Damaged Corn for Silage: If you plan to cut damaged grain type corn for silage, it’s important that the grain content be determined before harvesting regardless of whether you insure on a tonnage or grain yield basis. If you insured on a grain basis, a loss is determined by comparing the revenue or yield guarantee to the appraised yield (times the October CBOT average price for the December contract for CRC). If you insured and harvested on a tonnage basis and your grain content is below normal (less than 4.5 bushels per ton), the grain content appraisal becomes the basis for quality adjustment which may reduce the amount of silage tonnage that counts against your guarantee.

Contact your crop insurance agent for more details, and see the RMA/USDA Web at: WWW.RMA.usda.gov

Crop Reports

Central
Continued dry weather has resulted in very small soybeans on plants that have beans present. Most full season beans are shedding leaves and double crop beans are turning. Corn silage harvest is nearly complete except for a few very late plantings. Grain corn harvest is underway, but yields are low and mold and/or sprouting is present on most ears. Pasture and hay fields are green from the half inch of rain on Sunday, but little to no growth has occurred over the past month or more.

North East
Dry weather continues. Corn harvest has started with noticeable yield reductions from last year. Soybeans are rapidly turning color and dropping leaves. Winter cover crop and small grain field preparation and planting are under way. Late season hay is light, however the harvest weather is perfect.
Southern
Conditions are once again very dry. Recent, but spotty rains will help with getting cover crop acres up and will help some double crop beans. Corn harvest is ahead of schedule given the very dry conditions and limited crop. Most farmers are now done with corn harvest and are moving on to planting cover crops. Unfortunately, a lot of acres of soybeans that rebounded after the August rain have now been caught in the latest dry period during pod fill stage. Most full season beans are beginning to yellow and dry down. Pasture and hay conditions suffered in the last 2 weeks.

Upper Eastern Shore
The entire region is dry again. Corn harvest is over half complete in the southern part and well underway in the northern part of the region. Dryland yields are variable (10-160 bu/acre) depending on where and when it rained. Irrigated corn yields are off a little with yields between 200-250 bu/acre. The warm nights may have reduced irrigated yields. Soybeans are dying on hills and sandy spots, while on the heavier soil types they are hanging on. Summer vegetables are finishing up. Cover crop seeding is well ahead of last year, but will need some moisture to germinate and grow. With the extended late season drought, there has been quality hay made recently, which will be needed to make up for reduced late summer pasture growth.

Lower Eastern Shore
Corn harvest is mostly complete with overall depressed yields and low test weights. Soybeans are beginning to turn and drop leaves. Insect pressure is light at this time. Dry conditions persist throughout the area with high fire danger warnings.

Upcoming Events

Poultry Farm Management Workshop on September 29th
The University of Maryland Extension is conducting a one-day workshop for new and existing poultry farmers on Delmarva. A variety of topics will be addressed including, site management and maintenance, mortality, manure handling, litter management, windbreaks/vegetative environmental buffers, concentrated animal feeding operation regulations, nutrient management, comprehensive nutrient management plans, EPA inspections and emergency preparedness. The workshop will be held at Chesapeake College, Economic Development Center, Room EDC 27, Route 50 & 213, Wye Mills, MD 21679 from 8:00 am to 3:30 pm. Registration cost is $30 which includes refreshments, lunch and materials. For more information contact Jeri Cook at 410-742-1178 or jcook2@umd.edu.

Organic weed control training program on September 30
A one day hands on training program on organic/sustainable weed control in vegetable crops will be held Thursday, September 30 from 9:00 am to 3:00 pm at the University of Delaware Research & Education Center, 16483 County Seat Highway, Georgetown, Delaware.

This program will cover stale seed bed, multi-year cover cropping, tractor mounted implements, principles of flaming, ORMI approved herbicides and mulching techniques for weed suppression. Register: 302-856-2585 ext. 540 or email: adams@udel.edu

Western Maryland Goat Field Day, Sale, & Skillathon to be held Oct. 2, 2010.
The 3rd Annual Western Maryland Goat Field Day and Sale will be held Saturday, October 2, 2010, 9 AM to 2 PM at the Washington County Agricultural Education Center near Boonsboro, Maryland. Bucks from the Western Maryland Pasture-Based Meat Goat Performance Test will be offered for sale by public auction. These bucks will all meet Gold, Silver, and Bronze standards for growth, parasite resistance, and parasite resilience. In addition, they all will meet minimum standards for reproductive and structural soundness. The sale will also include an invitational doe sale.

All of the goats will be sold via silent auction. The bidding period will be from 10 a.m. to 2 p.m. The field day will be held from 9 a.m. to 12 noon. Dr. Paul Kuber, a research animal scientist from Ohio State University, will be the featured speaker. Dr. Kuber will demonstrate cuts from a goat carcass, talk about potential grading standards, and prepare products for tasting.

Running concurrent to the field day will be a skillathon for youth ages 8 to 18. In the skillathon, youth will be tested on their knowledge of meat, dairy, and fiber goats. Pre-registration for the skillathon is requested by September 24. For additional information, contact Susan Schoenian at (301)432-2767 ext. 343 or sschoen@umd.edu or visit the web site at http://mdgoattest.blogspot.com.
Visit AGNR Open House on October 2nd

Have you marked your calendars for Saturday, October 2? This is the day the College of Agriculture and Natural Resources will showcase its academic, research, and Extension programs at the 2010 AGNR Open House.

Please join us and for a fun day with wagon tours and other interactive agriculture programs. For more information and directions visit www.agnropenhouse.umd.edu or call 301-596-9330.

Closing Thoughts about the 2010 Season

Sudeep Mathew, Editor-Agronomy News

This year we at the University of Maryland Extension introduced this state wide newsletter “Agronomy News” to serve the Maryland Agriculture family. The idea was to reach every farming community irrespective of our challenges with funding and reducing resources. Through our 23 county offices the Agronomy News reached over 80,000 subscribers. This will be the last issue for this season and we will start next year in April. I would like to thank all the people who wrote articles, helped distribute and the folks who send us the inspiring encouragements. In order to serve you better I ask you take 60 seconds in completing this brief survey electronically in this following link.
http://www.surveymonkey.com/s/3YYPJJS

For those who prefer to complete it in paper version the survey is included at the last page of this Agronomy News.

As the Land Grant University for the State of Maryland we have served the land with full dedication since 1856. The present financial crisis is putting an enormous burden on our programs. The University of Maryland Extension and Agricultural Experiment Station needs your support to continue the legacy of Maryland farming. I urge you to communicate this with the law makers so that we can continue to deliver our programs. This season all of our Ag Agents walked the farms and fields with you trying to help you growers achieve the best crop possible. Our Extension Specialists continued to provide new, science based information to help you attain profitable production. Moreover University of Maryland Extension nutrient management advisors in every county helped farmer’s write their nutrient management plans free of charge. We are humbled to have the opportunity to work with and to serve the people involved in Maryland’s most important industry.

The 2010 production year started with a great planting season where most of our growers were able either to plant in time or ahead of schedule. Then we were hit by drought where most of our corn growers suffered varying levels of poor corn pollination and growth. As a silver lining this week I have heard some irrigated corn yields over 250 bu./acre. For the most part, our vegetable growers did fairly well as the disease pressure was low. Watermelons averaged 30 tons/acre and potatoes reached a record high yield of 500 cwt./acre. Many of our fruit and vegetable growers were faced with the influx of Brown Marmorated Stink Bug this year. Plans are underway to work with USDA in developing strategies for Stink Bug management for next year. And, as our soybean crops are getting ready for harvest, we are anxiously awaiting to see how well they tolerated the dry weather. In summary, drought was the spotlight of this year’s crop production.

With over 9 billion folks to feed by 2050, I have no doubt that we who work in agriculture are going to be major contributors during the 21st century. We live in very complex world. We need to constantly remind the public about the ways that we help feed, fuel and sustain their lives. There is a collective need for all of us to engage and rally support for this message so that the need to support agriculture will be a priority for our lawmakers. I would like to leave a final thought from our first President, George Washington, “I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture.”

Did You Know

By 2050, farmers will have to grow as much food as they have produced since farming began (10,000 BC).
SIGN-UP TO RECEIVE “AGRONOMY NEWS”

If you would like to receive this newsletter via email for next year, please contact Rhonda Barnhart at rbarnhar@umd.edu. The subject line should be: Subscribe Agronomy News 2011.

Have the newsletter mailed to you; please contact your local county extension office to sign-up for the mailing list. The list of local county offices can be found at www.extension.umd.edu.
Agronomy News 2010 - Evaluation Survey

Please take some time to complete this brief survey. Complete and return to us with your thoughts and comments. Use additional sheets if needed. If you need any assistance in completing this survey please give us a call at 410-228-8800. Please return the completed survey to: Agronomy News, University of Maryland Extension, 501 Court Lane, P. O. Box 299 Cambridge, MD 21613.

What best describes you?
A. Grain farmer
B. Vegetable farmer
C. Fruit farmer
D. Dairy/Poultry/live stock
E. Ag Industry
F. Government
G. Education
H. Others ....................................

How many acres do you farm?
A. None
B. <50
C. 51-100
D. 101-200
E. 201-500
F. 501-1000
G. 1001-1500
H. 1501-2000
I. 2001-2500
J. 2501-3500
K. >3501

Your overall rating of the value of the articles presented in the Agronomy News?
A. Extremely valuable
B. Valuable
C. Neutral
D. Not valuable

How much do you think Agronomy News helped increase your net income ($/acre)?
A. 0
B. 1-10
C. 11-20
D. 21-30
E. 31-40
F. 41-50
G. >51

Rate the increase of your knowledge you gained through Agronomy News?
A. Very great
B. Moderate
C. Very little
D. None