Nutrient Management Update

As many of you know we have had a transition in our Nutrient Management Program, we are pleased to welcome Ashley Stevens to our staff. In the coming months, Ashley will be working with many of you to update your plans. With the recent changes in the regulations, our workload has also increased and we will be doing things differently than in the past.

The changes in regulations will increase the demands on the time needed to update and write plans thus soil sampling will need to be done by the operator or their designee. Both soil and manure samples should be submitted directly to the testing labs by the producer. We have the necessary forms, bags and bottles available here at the Extension Office for you to pick up and use. If you need a soil testing probe, we have several available for loan.

Nutrient Management plans will be updated on a first come first service basis. It is the producer’s responsibility to contact us and make arrangements for an update.

New this fall is the Fall Soil Nitrate Test (see separate article in this newsletter), we are happy to accommodate as many of you as we can however, it is extremely important that you follow the procedures below:

1. Contact Ashley to ensure her availability, at (301) 791-1304 or ashley90@umd.edu
2. Take proper soil samples (we can provide you with instructions).
3. Drop off dry soil sample at the Extension Office.

We cannot accept wet soil samples, with the anticipated demand we do not have enough space to dry your samples, you must dry them before you drop them off.

If you have additional questions, please feel free to contact JeffSemler at 301-791-1304 or jsenler@umd.edu. Thank you in advance for your cooperation so we can continue to provide you with high quality assistance.

Save The Date

Mark your calendars now, December 5 will be our Agronomy Day/Ag Forum. We will have a guest speaker this year, Dr. John Tooker whose research interests include slugs in corn and the relationship with different cover crop systems. You can also earn both Private Pesticide Applicator and Nutrient Management recertification credits. More details to follow.
Fall Soil Nitrate Test

The nutrient management regulations that became effective on October 15, 2012 prohibit fall nitrogen applications on wheat or barley that will be harvested as grain unless the need for nitrogen is demonstrated by the results of a Fall Soil Nitrate Test (FSNT). Research findings indicate that there is nitrogen present in the soil after corn harvest. The “left over” nitrogen may be sufficient to support the growth and development of wheat or barley in the fall.

The FSNT can be conducted by most commercial soil testing laboratories and also by nutrient management advisors located in each University of Maryland Extension County office. Dry soil samples must be delivered to our office. If you wish to have the samples analyzed by a nutrient management advisor, please contact the advisor to coordinate before dropping off the samples.

The FSNT is only required if the wheat or barley will be harvested as grain. It is not required for cover crops or small grains that will be harvested as silage. For more information on the FSNT, including soil sampling instructions, please refer to Extension Brief EBR-15,


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**COLLEGE OF AGRICULTURE & NATURAL RESOURCES**

**The College in Your Backyard**

*We’re closer than you think! Spend a day on the farm with us at the College of Agriculture and Natural Resources (AGNR) Open House*

**Saturday □ October 5, 2013 □ 10AM-3PM**

Central Maryland Research & Education Center - Clarksville Facility
4240 Folly Quarter Road
Ellicott City, MD 21042

**FREE ADMISSION - RAIN OR SHINE!**

- Hay wagon farm tours
- Horses, cows, calves & turtles
- Student organization food booths
- AGNR College information
- Hatching chicks
- Hands-on Activities for all
- Bird Watching & butterflies
- Master Gardener "plant clinic"
- Prizes and much more!

For more information and directions visit [www.agnr.umd.edu/openhouse](http://www.agnr.umd.edu/openhouse) or call 301-596-9330
University of Maryland Extension has developed a comprehensive 4-session course to grazing and pasture management. This course is geared not only to the full-time livestock producer but to the small part time and backyard farmer as well.

Participants will receive two highly recognized texts; Weeds of the Northeast, and Southern Forages as well as an informational workbook for enrolling in the course. Class sessions will be a combination of classroom and hands-on learning.

Cost of the course is $25 Per person. Please make checks payable to Washington County EAC.

Farm Transition Planning: Are you ready for the unexpected?

Every farm business faces a host of risks from weather, disease, markets and ever changing ag policies. However, there are five major risks every farm transition plan should consider and develop contingencies to address them. They are the dreaded five D’s: death, disability, divorce and disagreements. Any of the dreaded five D’s can create a situation that can seriously damage or even cause the farm business to fail. It is essential for all farms, and particularly those developing a farm transition plan, to develop plans that will reduce these important risks.

Most farmers are optimistic by nature and sometimes forget that even the best laid plans can and do fail. Discussing and planning for the five D’s is not a pleasant task, but nonetheless it is a task every farm business should address as it establishes goals and makes plans for the future. It is not possible to eliminate these risks, but University Extension Specialists recommend using proper planning to reduce the likelihood these negative events can impede or even destroy the farm transfer or farm business.

Death: Although not a pleasant thought, we all will eventually die. Furthermore, farming is the single most dangerous occupation in the United States. What would happen to your farm business if the person providing the lion’s share of management and/or labor were to meet with an untimely death? Is a plan in place to pass the assets down to the next generation with the farm still having the ability to operate? Is there someone who is capable of stepping into the shoes of the deceased and providing an adequate level of management and/or labor so the farm business can continue to thrive?
Do you protect the farm assets with life insurance or other strategies more suitable to your situation? Regardless of the tactics employed the farm business and transition plan must discuss and plan for this possibility and employ a strategy that will aid the younger generation in gaining control of key farm assets needed to insure success in the case of a premature death of an older family member who owns most of the farm assets. Or what happens if the wrong person dies first?

Disability: Again, farming is a dangerous activity and unfortunately provides many opportunities for disabling injuries. Also, as family members grow older they may be affected by illnesses that prevent or limit their ability to function as a productive member of the farm management team. Disability or income continuation insurance can provide the dollars to cover some of the expenses during a fixed period of disability. Make sure your policy is not one that has limits on the total dollars or length of time they will cover. Even though such insurance is a good strategy, the first line of defense should focus on prevention. Every aspect of the farming operation should be scrutinized to identify potential safety and/or health problems. Don’t hesitate to spend some dollars to hire safety experts who can often see hazards you fail to identify. Provide regular safety training for all farm family members and employees. Don’t make the mistake of assuming your farmstead is safe and/or that everyone understands safety procedures. When it comes to farm accidents it is often easy to think “it will never happen to me.” Don’t allow yourself, your farm family members or your employees to ever take safety for granted.

Disaster: Most often when we think about a disaster we think of something like a tornado, flood or major drought. However, any event that can have a major impact on your farm business and threaten its survival is a disaster. For example, a major disease outbreak in the herd, contaminated feed, stray voltage, a manure spill or other environmental contamination is a potential disaster. Any one of these events can put your farming operation in financial jeopardy. Have you considered all of the possible disasters that could occur on your farm? Does your insurance policy cover such disasters and is the level of coverage adequate to really protect your farm business from failure? Some disasters may also be preventable. For example, is your manure handling procedures and equipment analyzed regularly to decrease the likelihood of a major spill? Do you have a contingency fund or non-farm investments that could be used to help your business recover in the event of a disaster?

Divorce: Nobody plans on divorce, but the cold hard fact is that nearly one of every two marriages end up in divorce. It has been my experience that most divorces start out amicable but almost inevitably end up hostile. It is important to have a marital property agreement listing all assets and debts along with all ownership and management responsibilities. Even then divorce decrees and court-ordered property settlements may disregard such prior agreements. Again, prevention is key. Recognize that farming can place a great deal of stress on all parties, even those not directly involved in the day to day operation of the farm. Be proactive in cultivating a healthy marriage relationship. Don’t take your spouse for granted. Communicate, communicate, communicate!

Disagreements: There are many opportunities for conflicts to arise in a farm business. There can be disagreements over business goals, management decisions, capital allocations, sharing of farm profits, work hours, etc. It has been my experience in working with farm families that such disagreements among farm family members hold the potential to be the most dangerous of the five D’s. Many a farm family has been torn asunder permanently by such disagreements. This can result in family members leaving the farm business and departing with substantial assets that make continuation of the farm business impossible or at least very much disrupts current and future operations. Unfortunately, it can lead to physical violence and a permanent rupture of the family relationship. Once again, communication is the key to come to a resolution. It is critical for every member of the farm family to understand their role and expectations of performance. It is also important that a farm transition plan be formulated with specific timetables on asset transfer and ownership, and advance planning in case farm family members decide to sever their relationship with the farm business. It is essential that differences between farm family members be resolved in honest and open discussion where each farm family member is able to express their feelings and opinions and feel their feelings and opinions really matter. Preparation is the key to surviving any one of the five D’s. Don’t ever grow so smug as to think your farm business is immune. Cultivate honest and open communication among farm family members and non-farm spouses so issues can be addressed before they cause suspicion and distrust to develop and spoil relationships. Assume any one of the five D’s is a possibility on your farming operation and plan accordingly.

~Craig Thomas, Michigan State University Extension
Cereal Cover Crop Seeding Rates - What is Acceptable?  
Dr. Bob Kratochvil

Maryland’s Cover Crop Program is viewed as the most successful water quality improvement initiative in the Chesapeake Bay region. Low seed germination was widespread in 2008 as a result of the severe Fusarium outbreak in the region. Low seed germination is again an issue for 2013 as a result of sporadic Fusarium outbreaks in some areas and some pre-harvest sprouting caused by the rainy harvest experienced this year. The Program’s recommended seeding rates for cereals are: rye (112 lb or 2 bu/acre); wheat (120 lb or 2 bu/acre) and barley (120 lb or 2 ½ bu/acre). The question that many are asking is: How do I attain an acceptable stand when the germination of my seed lot is below the standard of 80%?

MDA is recommending that you contact your Extension office to get assistance regarding what an acceptable stand is. This article will hopefully help you adjust to low germination cereal cover crop seed.

University of Maryland Extension recommends that farmers planting cereals for commodity production use a seeds/ft$^2$ approach which allows compensation for seed lot size variation. The Maryland Cover Crop Program mandates volume rates (2 bu/a for rye and wheat; 2.5 bu/a for barley) when any of these species are planted as a cover crop. A two-year study that was funded by MGPUB compared cover crop performance of these three species when planted at volume and three seeds/ft$^2$ treatments. The results of that research are the basis for the following cover crop seeding rate recommendations for the cereal species. Examples of seeding rates for low germination seed lots for the three cereal species are provided in the Recommendations below.

Summary of Research Findings

- Two years of research indicated that the seeding rates for cereal species used as cover crops can be less than the volume rates described by the current Maryland Cover Crop Program regulations.
- This research indicated that seeding rates for the cover crop program should be defined as seeds/ft$^2$ because this method accounts for the variations in seed size that can occur among species and for different seed lots within a species.
- Regardless of species planted, when a seeds/ft$^2$ method is used, it is important to know both the seed size and germination of the seed lot to be used.
- Planting cereal cover crops at a seeds/ft$^2$ rate should result in cost-savings because a lesser amount of seed would be required. An exception would occur when seed size for the species used is exceptionally large.
- Amount of N uptake that will occur will vary by amount of residual N present at a location. Amount of N uptake will generally be greater for earlier planted cereal cover crops than for later planted cereal cover crops.

Recommendations

- The following seeding rate recommendations require that cereal cover crops be planted using a tillage practice that incorporates the seed into the soil, i.e. planting with a grain drill or broadcasting seed followed by incorporation with either a vertical tillage implement or a disk. The goal is to establish as uniform a stand as possible.
- Rye cover crop should be planted at 30 - 35 viable (adjusted for seed lot germination) seeds/ft$^2$. Example: a rye seed lot with 85% germination would require 35 - 41 seeds/ft$^2$ be planted. Low germination example: a rye seed lot with 75% germination would require 40–47 seeds/ft$^2$ be planted.
- Wheat cover crop should be planted at 20 - 25 viable seeds/ft$^2$. Example: a wheat seed lot with 90% germination would require 22-28 seeds/ft$^2$ be planted. Low germination example: a wheat seed lot with 70% germination would require 29–36 seeds/ft$^2$ be planted.
- Barley cover crop should be planted at 24 - 30 viable seeds/ft$^2$. Example: a barley seed lot with 90% germination would require 27 - 33 seeds/ft$^2$ be planted. Low germination example: a barley seed lot with 75% germination would require 32-40 seeds/ft$^2$ be planted.
Football isn't the only fall activity with field goals. After silage harvest, cover crops just make a lot of sense. They can:

1. Help reduce erosion by intercepting the impact of raindrops on the bare soil surface, slowing down the velocity of runoff, and improve soil aggregation – which makes soil less erodible
2. Take up nutrients from the soil, protecting these nutrients from leaching losses over the winter and transforming them so they become available to the next crop
3. Improve soil structure because growing roots penetrate dense layers and break up tight soil, fine roots and root-associated fungi improve soil aggregation, and root exudates feed organisms active in the soil structure formation process
4. Increase organic matter by adding roots and above-ground crop residue, which are the foundation for humus formation
5. Suppress weeds, especially winter annuals
6. Supply livestock feed either for over-winter grazing or harvest in fall or spring

Right now is the time to get ready by making sure you have the seed in store and the drill in shape for no-till planting of the cover crops after corn silage.

It is recommended to have a tractor, operator, drill and seed ready at corn-silage harvest to enable the drill to follow the silage harvester; we have learned that timing is everything when it comes to cover crops.

A lag of two weeks can make a huge difference in cover crop growth in our climate. Since 2010, Penn State has demonstrated many different cover crops after corn silage on Pennsylvania dairy farms.

Here are some of the solos or mixtures they've tried:

**Cereal rye**

This is really our tried-and-true crop that is virtually fireproof. It can be established in all of Pennsylvania after corn-silage harvest, even into late October, and still successfully survive the winter.

It can produce very good silage in the spring as long as it is harvested at the right time, which can be challenging if the weather doesn't collaborate. If harvested after soft-dough stage, the feed quality declines rapidly.

Seeding rate should be approximately 112 pounds per acre (2 bu per acre). Aroostock proved a very winter hardy and high-biomass variety, while Huron was a variety that produced less biomass but with a wider window for high-quality harvesting in the spring.

**Rye and oat mix** (84 pounds or 1.5 bu per acre rye and 70 pounds or 2.5 bu per acre oats)

This mix proved to be a high fall and spring biomass producer. In the southern parts of our state, a lower rate of rye might be combined with a higher rate of oats for high-quality and tonnage forage production in the fall.

For high production, it is important to plant this mix immediately after August silage harvest. The rye guarantees living cover in the spring.

**Annual ryegrass and crimson clover** (10 pounds per acre and 15 pounds per acre, respectively)

This has become a very popular mixture for high-quality forage production in the spring. Because it includes a legume, it does not need high rates of manure application to flourish – the legume supplies N to the ryegrass.

It is very important to select winter-hardy varieties of ryegrass and crimson clover for our environment and to plant as early as you can after silage harvest. If the cover grows taller than 8 inches before December, it is advisable to mow it off (3 to 4 inches tall) to guarantee winter survival.

**Triticale and crimson clover** (84 and 15 pounds per acre, respectively)

The triticale is a hybrid of wheat and cereal rye. It does not grow as fast as rye in the fall but can produce high tonnage in the spring and a wider harvesting window than cereal rye for high-quality forage. When mixed with crimson clover, it even makes a higher-protein mix.

These are just some ideas for cover crops after corn silage. Whatever you do, please make sure you don't miss this opportunity to conserve soil and make good use of manure nutrients after corn silage.

Adapted from article written by: Sjoerd Duiker, Associate Professor of Soil Management and Applied Soil Physics, Penn State Extension
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**Ag Calendar**

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<td>October 10, 24:</td>
<td>AGNR Open House</td>
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