

Virginia Cooperative Extension



FARM NOTES

February 2012

Upcoming Meetings

February 27th. Fence Law Meeting. New Market Fire Hall. 6:30 p.m. – 9:00 p.m. No need to register in advance.

February 28th. Poultry Litter to Energy Meeting. James Madison University Memorial Hall. 3:00 p.m. – 6:00 p.m. For more information, contact Craig Honeycutt honeycce@jmu.edu.

March 9. Forum for Rural Innovation. Lee-Jackson Conference Center, Winchester. \$40 registration fee. 703-777-0426

March 16. Cover Crop Twilight Tour. 4:00 PM Jeff Jennings Farm. 1777 Longs Road, Luray. No need to Register.

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Pilot Project to Cost Share Slug Management in No-till Corn and Soybean

Virginia Cooperative Extension will implement year 2 of a pilot cost share program related to cost share for slug management in no-till corn and soybean. This program is being paid through a Grant provided by NRCS. Farmers who wish to participate should contact the Shenandoah County Extension Office (540-459-6140). The deadline for application is March 15 2012. All acres enrolled must be no till corn or soybean.

- All acres must be located in Shenandoah, Page, Clarke, Frederick or Warren Counties.
- Participating Farmers are guaranteed the cost-share program will at minimum pay 50% of the cost of a single application of slug bait to 50% of all enrolled acreage provided that 50% of the farmer's enrolled acreage needs slug bait. Approval for slug bait application will be based on actual feeding pressure in the field during the growing season. The maximum payment will not exceed 50% of the cost of a single application of slug bait to all enrolled acreage approved for slug bait. Farmers must document that slug bait was actually applied to be eligible for cost share payment. Receipts for the purchase of slug bait and custom application charges (if appropriate) will serve as documentation.

For example: A farmer enrolls 200 acres of corn and 100 acres of soybean in the cost share program. The farmer is eligible for cost share of half the cost of bait and application to 150 acres. If this farmer needs to treat all of their enrolled acreage, they will only be eligible for cost share on 150 acres.
- Virginia Cooperative Extension will hire a field scout to monitor all enrolled acres. The Extension Agent will verify, approve (or not approve) fields for slug bait application based on actual feeding pressure in the field during the growing season.
- **We will likely be able to cost share on any no-till corn or soybean acres (enrolled or not) that has slug problems. So if you have slug injury call me (459-6140 or 333-3227).**

Soil Nitrate Testing for 2012

This summer, soil nitrate testing will be available to all farmers in this region. The purpose of offering this service is to increase the use of soil nitrate testing in the Northern Shenandoah Valley. Here are a few details:

- Samples will be analyzed at Inboden Environmental at 5790 Main Street, Mt. Jackson, VA 22842, 540-477-3300.
- In 2012 all samples submitted to Inboden Environmental **will cost the farmer (or agribusiness) \$5 per sample**. Virginia Cooperative Extension will cover the remainder of the cost).
- All samples should come from a farmer or from someone who has permission to submit samples from the respective field.
- Anyone submitting a sample must provide Inboden with a name and address so that Inboden can bill you for your portion of the cost. Inboden will bill either farmers or Agribusinesses.
- All samples must include, at minimum, the name of the farmer, contact information for the farmer (and, if appropriate the name and contact information for the person submitting the sample), and sample identification that includes both the farmer's name and field name/ number.
- If samples are submitted by a farm supply representative or consultant, the results will be reported to that person.
- VCE reserves the right to speak directly to any farmer for which samples are submitted.
- A goal will be to attempt to provide sample results within 24-36 hours (receive samples one day, dry overnight, and analyze/report results the next morning).
- Go to the following web site (www.ext.vt.edu and type "Nitrogen Soil Testing for Corn.")
- The Lord Fairfax Soil and Water Conservation District is offering cost share for soil nitrate testing. The program will pay a portion of the cost to collect soil nitrate samples, for laboratory analysis and if needed a portion of the cost to apply sidedress nitrogen. Please call 540-465-2424 or 1-800-528-3276 to inquire.

Summary of Soil Nitrate Testing for 2011

There were 235 soil nitrate samples collected and analyzed in 2011. The data in Table 1 shows the results for the past six years. The difference between 2010 and 2011 is dramatic. Here is what I think happened. I believe there was significant leaching and denitrification in the spring which made our soil nitrate levels lower than average. At least this was the main factor that caused soil nitrate to be low.

Table 1: Soil Nitrate Test Summary

Year	2011	2010	2009	2008	2007	2006
Number of Samples	235	412	204	213	217	144
Median Nitrate-N Concentration (ppm)	15	25	18	25	27	30

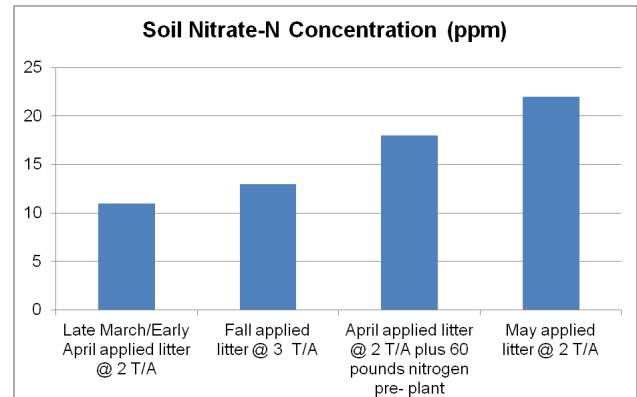
A question that I often get from farmers is "How much nitrogen will I lose if I apply poultry litter to corn fields in the fall or in February (with no cover crop)? The chart on page 3 shows some of the 2011 soil nitrate data from fields that received poultry litter at different times. Nutrient management standards allow manure applications within 30 days from planting a crop. Thus, poultry litter applications after March 20th are consistent with the standard.

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The fact that it rained buckets in late April/early May 2011 is out of our control. Keep in mind that the May applied litter was applied after most of the big rains had ended. This is why those results are higher than the March/April applied litter. I am presenting the data to help farmers understand the financial and water quality implications of applying litter too soon.

It has been my experience that farmers who apply poultry litter at 3 T/A (or 2 T/A plus 60 pounds of preplant N) shortly before planting corn routinely get soil nitrate readings of 25-30 ppm or higher (provided it does not rain buckets shortly after corn planting). Soil nitrate readings of 25-30 ppm are adequate to grow a full corn crop with no additional N needed. The fields represented by these samples had soil nitrate readings of 18 ppm or lower. This means the farmers had to purchase and apply more N.



Thoughts for the Spring 2012

- Start scouting wheat for cereal leaf beetle pressure in late March. This will ensure that you are early enough to treat at the right time. <http://pubs.ext.vt.edu/444/444-350/444-350.html>.
- In December 2011 I found significant numbers of aphids in rye and a few fields of orchardgrass with some aphids. I believe that this spring we are at high risk of having aphid problems in orchardgrass, timothy and maybe small grain.
- Farmers who applied all their nitrogen pre-plant to corn in 2011 generally needed to apply more nitrogen sidedress anyway (because the big rains leached it away). I believe farmers come out financially ahead by applying ½ to ¾ of their N needs at planting and plan to apply 40 to 100 pounds N per acre sidedress. We can use the soil nitrate test to refine the sidedress application rate.
- Slug bait works and Lannate shows a lot of promise. The key is to be prepared to take action the day you start planting corn and soybean. That way when you see slug feeding pressure you can act quickly.
- I keep begging a few farmers to plant some fields using both row cleaners and no row cleaners (for example take a six row corn planter and put three up and three down with all other planting techniques equal including variety). Plant five or six passes through the field so that you have five to six alternating strips with and without row cleaners.
- I have scouted several rye fields in which most of the tillers started heading in the fall. These fields will likely have poor yields in the spring (especially if the existing growth is allowed to remain). If possible, I believe it is a good idea to graze these fields during the winter and hope for new re-growth in the spring.
- In January I scouted 10 barley fields that had lush fall growth in Shenandoah County. One field had plants with a few tillers that had begun attempting to head this past fall. These tillers were dead (and were brown) whereas the other tillers were green. There is a very good possibility that plants that begin to prematurely develop heads (i.e. prior to early March) will have sterile heads at harvest or die completely. To check on the status of your fields, cut some plants within 1/2 inch of the soil surface. If the stem is hollow or if there are joints visible on the above ground portion then the head has already begun moving up.
- When scouting Barley fields with lush fall growth, I noticed most of these fields had a lot of aphids and a few fields with significant powdery mildew. Several of the fields were above threshold for aphid pressure. If the fields will be harvested for grain they would likely benefit from an insecticide application on a warm day in March. Fields with powdery mildew should also be treated with a fungicide. One reason to check fields soon is to make sure the heads have not started moving up because if this happens too early the field might have too few potential heads to keep for grain. The pest management guide has recommendations for both insecticide and fungicides.

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Dear Friend:

Enclosed is the current issue of Farm Notes. If you need further assistance in crop science, soil science, or waste management, feel free to contact me at 540-459-6140.



Robert A. Clark
Extension Agent, Agriculture

The information given herein is for educational purposes only. References to commercial products or trade names are made with the understanding that no discrimination is intended and no endorsement by Virginia Cooperative Extension is implied.

If you are a person with a disability and desire any assistive devices, services, or other accommodations to participate in these activities, please contact Robert A. Clark, Extension Agent, Agriculture, at the Shenandoah County Office of Virginia Cooperative Extension at 540/459-6140 during business hours of 8:00 a.m. and 5:00 p.m. to discuss accommodations five days prior to the event.

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Screening Large Animal Mortality Compost

I received a grant to field test screening bones from large animal mortality compost. The table below summarizes some of the results. Overall the screen worked well. All four farmers were willing to land apply the screened material (whereas they were not willing to apply the compost prior to screening because of the bones). A full report is available at the VCE Shenandoah web site [http://offices.ext.vt.edu/shenandoah/programs/anr/Screening_Beneficial Re-Use_Report.pdf](http://offices.ext.vt.edu/shenandoah/programs/anr/Screening_Beneficial_Re-Use_Report.pdf)



Screening Bones from Large Animal Mortality Compost

	Farm #1	Farm #2	Farm #3	Farm #4
Hours Screen Used	7	3	7	1
Tons of Screened Material (fines)	100	22	71	4
Tons of Coarse Material (bones and other)	48.5	4	71	1
Density of Screened Material (fines) lb./yd ³	1,136	1,016	1,535	1,100

Our next step is to see if there is enough interest from farmers to justify having a screen located in the Shenandoah Valley. Many thanks to NRCS, the Virginia State Dairymen Association and Shenandoah RC&D for providing funding for this effort.