

September 7, 2012 🌾 Volume 3, Issue 9



## In this issue

Cereal Cover Crops—What is the Optimum Seeding Rate?	1-2
Crop Reports	2-3
Agriculture Weather Report	3
Announcements	3-4
Upcoming Events	4-5
Did You Know	5

## Cereal Cover Crops – What is the Optimum Seeding Rate?

*Dr. Bob Kratochvil, Extension Agronomist*

We have reached cover crop planting season again. If you are participating in Maryland's Cover Crop Program, certain practices for planting cereals are mandated. Some of these practices, such as the seeding rates for cereal species, have little agronomic basis. Currently, the Cover Crop Program regulates the seeding rates at 2 bu/acre for rye and wheat and 2.5 bu/acre for barley. Are these the optimum rates?



University of Maryland Extension recommends that 1.5 million viable (germinable) seeds/acre be planted for wheat and barley produced for commodity grain. These rates have been identified as optimum via research. If a seeds/acre approach is best for commodity cereals, why shouldn't this approach also be used for cereal cover crops?

Let's look more closely at why the seeds/acre recommendation is used for commodity grains. Seed size varies considerably for the different cereal species as well as for different varieties within a species and for different years of production. I have seen wheat seed size vary by 5000 kernels/pound ranging from 10,000 kernels for a large seeded variety to 15,000 kernels for a small seeded variety. By knowing and using seed size, the amount of seed needed to attain the optimum seeding rate can be easily calculated. Let's assume that the two lots of seed described each have 90% germination. To attain the 1.5 million viable seeds/acre recommendation, 1.67 million seeds/acre (1,500,000 ÷ 0.9) must be planted for each seed lot. The large seeded variety (10,000 seeds/pound) would require 167 pounds or nearly 2.78 bu/acre. The small seeded variety (15,000 seeds/pound) would require 111 pounds or 1.85 bu/acre. Simply using the traditional volume method for planting commodity wheat (2 bu per acre) would either underestimate or overestimate how much seed is needed.

With funding support provided by the Maryland Grain Producers Utilization Board, I conducted a two year study at two Maryland research farms that had the objective of identifying the optimum seeding rate for three (wheat, barley, rye) cereal species used as cover crops. Seed size and germination varied by species; rye = 20,225 seeds/lb and 85% germination; wheat = 13,075 seeds/lb and 90% germination; and barley = 12,700 seeds/lb and 90% germination. In order to keep numbers smaller, from hereon I will discuss seeding rates using a seeds per square foot (ft<sup>2</sup>) rate rather than a seeds/acre rate. The number of seeds that were planted for each species for the volume rate treatment

Cont. pg. 2

was: rye = 52 seeds/ft<sup>2</sup>; wheat = 36 seeds/ft<sup>2</sup>; and barley = 35 seeds/ft<sup>2</sup>.

Comparisons were made between the volume rates and three different seeds/ft<sup>2</sup> rates for each of the species for amount of spring biomass production and amount of nitrogen uptake. For rye, the 30 seeds/ft<sup>2</sup> rate produced the same amount of biomass (1660 lb/acre) as was produced by the volume rate (52 seeds/ft<sup>2</sup>). For wheat, 25 seeds/ft<sup>2</sup> produced comparable biomass

(1510 lb/acre) to its volume rate of 36 seeds/ft<sup>2</sup>. And, for barley, 30 seeds/ft<sup>2</sup> had comparable biomass production (1700 lb/acre) as its volume rate of 35 seeds/ft<sup>2</sup>. Nitrogen concentration for the harvested biomass of each species was 2.2%, 2.4% and 2.05% for rye, wheat, and barley, respectively. Total nitrogen uptake for these species was very similar; 36, 36 and 34 lb/acre, respectively, for rye, wheat, and barley.

For each species, less seed was needed to attain the same amount of biomass production and nitrogen uptake than was needed to meet the state mandated volume rates. There is justification to change the seeding rates mandate for the cereal species that currently exists in Maryland's Cover Crop Program.

## Crop Reports

### Western

Washington County has enjoyed consistent showers in the past weeks. So soil moisture levels are at the proper levels for crop growth. Corn silage harvest is winding down for early planted corn. Some corn has been shelled with moisture levels in the low to mid-twenties. Soybeans are looking better and some very early varieties are starting to turn. Cover crop planting is in full swing in fallow ground and behind corn silage. Wheat will not be planted until late September. While not an optimum summer from the weather perspective, row crops have fared much better than hay and pasture. Timely rains have come during tasseling and pollination. Second cutting of grass hay is just now being taken off and alfalfa fourth cutting is complete. Peach harvest finished with a crop of excellent quality and size but at about 60% of normal quantity due to spring frost damage. Apple harvest is progressing ahead of schedule and the crop looks very good.

### Central

Regular precipitation has fallen across the area over the past few weeks providing adequate topsoil moisture for all crops. Corn for silage is more than 50 percent completed and corn for grain is maturing quickly. Full season soybeans have begun

to turn and double crop pods are filling quickly. Forages look good, and pastures are maintaining a healthy stand. Peach harvest has been completed for the year, and apples are currently being harvested, with what looks to be a good crop.

### Northeast

Weather issues are the hindrance to field work with heavy rain (5+ inches) in some areas and spotty showers in general. Overall corn looks good; however, shelling has not begun and silage harvest is progressing well. Soybeans are still in the green and filling pods. Hay producers are ready to get another cutting but the weather is not cooperating. Orders for cover crops are active.

### Southern

Southern Maryland has received some much needed rain over the last 2 weeks. Corn harvest is way ahead of schedule with low yield and early dry down allowing farmers to make quick work of the 2012 crop. Unfortunately, there are not many trucks or combines waiting to unload this year. Yield reports are variable, with most fields between 30-60 bushels per acre. Double crop soybeans have responded well to the moisture. Soybean Vein necrosis Virus was once again confirmed the second

week of August in St. Mary's and seems to be fairly widely distributed throughout the region. Other foliar diseases in beans are not at levels that would warrant spraying. There was some early podworm feeding in isolated fields, though pressure is low in most fields now. Stinkbugs (mostly Green and Brown with some BMSB) are the main concern as we enter the first week of September. The rain has really helped with pasture and hay fields. Most of the region should have at least one fall cutting of hay.

### Upper Eastern Shore

Top soil moisture in most of the region is sufficient, but there are still spots that are dry. Corn harvest is moving along slowly. Group 3 beans are turning and dropping leaves while late beans are filling pods. Podworm numbers in soybean are sporadic, while foliage feeders are more widespread. Brassica cover crops are being aerial applied. Hay and pastures have recovered with the recent rains.

### Lower Eastern Shore

Recent rains have prevented field work for the past week. A few farmers had started to harvest corn, but that has come to a standstill. Moisture was running high in the corn that was harvested before the recent rains. Podworms are widespread and active

in many soybeans fields. Pasture and hay conditions are improving. Out of field chipping potato harvest is completed. Early season cool nights have favored an excellent potato crop this year. Watermelon and muskmelon harvest is progressing well.

Timeline: This crop report is for the field observations from August 22 through September 6, 2012. Crop Report Regions: Western (Garrett, Allegany and Washington), Central (Carroll, Frederick, Howard, Montgomery), Northeast (Cecil,

Harford, Baltimore), Southern (Anne Arundel, Prince George's, Calvert, Charles, St. Mary's), Upper Eastern Shore (Kent, Queen Anne's, Talbot, Caroline), Lower Eastern Shore (Dorchester, Wicomico, Worcester, Somerset)

## Agriculture Weather Report

*Adam Caskey, Meteorologist*



Rainfall over the past few weeks put a dent in the drought in Maryland, especially where it was needed the most – on the Eastern Shore. Now just 9% of Maryland is in a “severe” drought, which only encompasses parts of Wicomico, Somerset and Worcester Counties according to the U.S. Drought Monitor. As far as rain goes over the next few weeks,

passing fronts should provide near to below normal precipitation at times, but of course the main source of moisture this time of year is tropical storms and hurricanes. The remnants of Hurricane Isaac recently brought some rain to Maryland, and another tropical system is not out of the question over the coming weeks. Climatologically speaking, now is

the peak of hurricane season (September 10<sup>th</sup>). In terms of temperatures, it looks as though the coming weather pattern should provide brief breaks from the heat and humidity with more September-like conditions for a few days at a time through mid-September, but you can still expect several 80°+ days.

## Announcements

### MDA is Offering Free Grain and Forage Testing to Maryland Farmers



#### *Farmers Urged to Check Crop Insurance before Chopping Corn*

With reports of drought like conditions coming in from farmers, the Maryland Department of Agriculture (MDA) is encouraging all farmers that use fertilizers containing nitrate on their corn and sudan-sorghum grasses, or who are concerned that the corn grain may have mold to work closely with their county extension agents before feeding it to their animals. MDA is offering testing for aflatoxins, nitrates and prussic acid, which may be

present in grain and forage. These compounds, which can sicken or be deadly to livestock, or even affect pregnancies, are often present in dry weather conditions.

#### **Free Grain/Forage Testing for Drought-Affected Crops**

The Maryland Department of Agriculture's State Chemist Section is offering free testing through the University of Maryland Extension Offices. A sample information sheet that describes how to obtain a representative sample along with how much and how to store the sample can be found on the MDA web site. To find a local extension office, visit [www.extension.umd.edu](http://www.extension.umd.edu). For grain or forage sampling instructions and a submission form, log onto [www.mda.maryland.gov/pdf/silage\\_sampling.pdf](http://www.mda.maryland.gov/pdf/silage_sampling.pdf).

### Commercial Feeds

In addition to the above, the State Chemist Section Inspections staff will be increasing its surveillance of susceptible commercial feeds for aflatoxin.

For more information about testing or questions about sampling contact your county agent or Ken McManus, Laboratory Manager, at MDA at 410-841-2721.

### Accepting Applications for LEAD Fellowships

The LEAD Maryland Foundation is seeking applications for its next class of LEAD Fellows. Applications are due October 1, 2012. Program information and the application form are available on the organization's web site [www.leadmaryland.org](http://www.leadmaryland.org).

The LEAD Maryland Foundation (LEAD) is a partnership 501(c)(3) nonprofit organization dedicated to identifying and developing leadership for Maryland's agriculture, natural resources, and rural communities.

This new class will be "Class VIII (2013-2014)" and will join 157 others who have completed the LEAD program training, first offered in 1999. The new class will be selected in late 2012 and will begin meeting in February 2013. During 2013 and 2014, Fellows will complete a series of nine multi-day seminars held at various locations throughout Maryland and Washington DC. Additionally, Fellows will complete a travel study tour. LEAD invites farmers to apply for the Fellowships. At minimum, half of each

class must be farmers, growers, producers, foresters, and watermen. As Fellows learn a tremendous amount from each other, it is important that grain producers and other grain industry emerging leaders are included within each class. For more information, please contact Susan R. Harrison at 410-827-8056 or [leadmd@umd.edu](mailto:leadmd@umd.edu)

### 2012 Pesticide Container Recycling Program from MDA

Maryland Department of Agriculture's **Pesticide Container Recycling Program** will be accepting clean, empty



containers from June 1 through September 30, during normal business hours. Containers will be collected from their current owners, for safe disposal and recycling.

Containers must be cleaned (triple-rinsed or pressure-rinsed) according to label directions.

Please remember to remove lids and label booklets from the containers prior to drop-off.

Call 410-841-5710 for hours of operation and drop-off location instructions. Collection dates and venues can be found at this link, <http://www.mda.state.md.us/pdf/recycle.pdf>

## Upcoming Events

### The 2012 Delmarva Poultry Conference



The University of Delaware and the University of Maryland in

cooperation with the Delmarva Poultry Industry will hold their annual poultry conference September 26, 2012 at the Roland E. Powell Convention Center in Ocean City, MD. For more information and to register, please contact Lisa Collins at 302-856-2585 x702 or [lcollins@udel.edu](mailto:lcollins@udel.edu). Register before September 10th and save \$15 on registration costs!

### Farming: Pencil to Plow - Entrepreneurship Training

The Salisbury Area Chamber of Commerce Foundation and the University of Maryland Extension have combined their technical expertise to offer "Farming – Pencil to

Plow", an eight (8) week entrepreneurial training course designed for aspiring small farmers and those producers interested in diversifying their operation. The course starts on **September 17, 2012** and ends on November 5, 2012. Each class is held on Monday from 6:00-9:00pm of each week. Information will be presented by experts in the agriculture field, including University of Maryland Extension educators along with local agencies, who will cover topics key to enhancing successful farming.

Course material will include developing a business plan, understanding your customer base, marketing, awareness of regulation, and more. Participants who complete this training course will have a prepared business plan to present to potential lending sources.

The cost of the course including meals and materials is \$30. Please register by September 7, 2012 as space is limited. To register, contact Joe Giordano at (410) 860 6664 or visit <http://worchester.umd.edu/Agriculture/index.cfm>.

### ARONIA TWILIGHT TOUR on September 19, 2012

The University of Maryland Extension and the Mid-Atlantic Aronia Growers Association are sponsoring an Aronia Field Day at Fair Spring Nursery from 3:00 -7:00PM on Wednesday, September 19th, 2012.



The program will include the latest information about Aronia culture, organic certification, development of the Maryland Aronia Growers Association, Question and Answer time and a tour of Fair Spring Nursery. The program will end with a cook-out for mingling and question/answers.

Fair Spring Nursery is located in northern Caroline County at 18150 Templeville Road, Maryland, MD 21649 [www.fairspringnursery.com](http://www.fairspringnursery.com)

## Pasture and Grazing Management Workshop Planned for Livestock and Horse Owners.



For more information, please contact Kayla Parmar at 410-651-6070 or by email at [kjparmar@umes.edu](mailto:kjparmar@umes.edu). To register, visit [www.umes.edu/1890-mce](http://www.umes.edu/1890-mce). The registration fee, which includes educational materials and lunch, is \$15 per person.

## Food for Profit Workshop to be held October 10

"Food for Profit" is a one-day workshop designed to help you work through the

maze of local and state regulations, food safety issues, and business management concepts that all must be considered in setting up a commercial food business. The course will be held at the University of Maryland Extension - Calvert County, Community Resources Building, 30 Duke Street, Conference Room 105, Prince Frederick, MD 20678 on Wednesday, October 10, 2012 from 9:00 a.m. to 4:00 p.m. This popular Penn State Extension's course is co-sponsored by the Maryland Rural Enterprise Development Center, University of Maryland Extension, and the Southern Maryland Agricultural Commission.

## AgBiz Masters Program

AgBiz Masters is an interactive educational learning series organized by Mid-Atlantic Farm Credit for young, beginning and minority farmers. This is a 2-year, self-paced, online educational series that by the end of the 2 years, attendees will have a

completed business plan based on their actual farm numbers and information. There are also 3 face-to-face classes held within Delmarva that are transmitted via video conference to other locations throughout the Mid-Atlantic region.

This course was designed by Dr. David Kohl, a very well-known economist from Virginia Tech. Registration for this upcoming year is open until October 31, 2012. It is open to all young and beginning farmers – not just MAFC customers. The cost is only \$125 per person/couple/business partners per year. Register at [agbizmasters.com](http://agbizmasters.com) by October 31, or send your \$125 registration fee to:

Raechel K. Sattazahn  
c/o Farm Credit AgBiz Masters  
900 Bent Creek Blvd.  
Mechanicsburg, PA 17050  
Fax 717.796.9830

---

## SIGN-UP TO RECEIVE "AGRONOMY NEWS"

If you would like to receive this newsletter via email please contact Rhonda Barnhart at [rbarnhar@umd.edu](mailto:rbarnhar@umd.edu). The subject line should be: Subscribe Agronomy News 2012.

If you would like a hard copy 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](http://www.extension.umd.edu).



## Did You Know

America's corn farmers exported \$10 billion worth of corn during the year 2011

---

## A Big Thank You!!



Maryland Grain Producers' Utilization Board and Maryland Soybean Board are both recognized for their financial contributions that support the publication and distribution of this newsletter. This is another example of the work that is accomplished with the checkoff dollars these two organizations manage.

---

**This edition of Agronomy News is brought to you by:**

**University of Maryland Extension Field Faculty:**

*Ben Beale, Ag & Natural Resources Educator, St. Mary's County*  
*Dave Martin, Ag & Natural Resources Educator, Baltimore County*  
*Jeff Semler, Ag & Natural Resources Educator, Washington County*  
*Jim Lewis, Ag & Natural Resources Educator, Caroline County*  
*Richard Nottingham, Ag & Natural Resources Educator, Somerset County*  
*Stanley Fultz, Dairy Science Agent, Frederick County*  
*Sudeep Mathew, Ag & Natural Resources Educator, Dorchester County*

**University of Maryland Extension Specialist:**

*Dr. Robert Kratochvil, Agronomic Crop Production*

**University Partner:**

*Adam Caskey, Meteorologist, ABC-7, WJLA-Washington DC*



Agronomy News is published by University of Maryland Extension, Ag & Natural Resources Profitability Impact Team.

Sudeep Mathew, Editor

Agronomy News subscriptions are free on the internet at:  
[www.mdcrops.umd.edu](http://www.mdcrops.umd.edu)

To subscribe or more information:  
Agronomy News  
University of Maryland Extension  
501 Court Lane, Room 208  
Cambridge, MD 21613  
410-228-8800  
Email: [rbarnhar@umd.edu](mailto:rbarnhar@umd.edu)