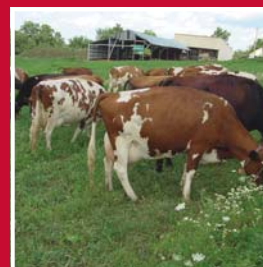


FIELD & FEEDLOT



ISU EXTENSION—NORTHWEST REGIONS

DECEMBER 2009 ISSUE

Extension Web Sites

Ag Decision Maker

<http://www.extension.iastate.edu/agdm/>

Beef Center

<http://www.iowabeefcenter.org/>

Manure Management

<http://www.agronext.iastate.edu/immag/>

Pork Center

<http://www.ipic.iastate.edu/>

ISU Extension Dairy Team

<http://www.extension.iastate.edu/DairyTeam/>

Selecting Seed For 2010

By Mark Licht, ISU Extension Field Agronomist

Selecting corn hybrids and soybean varieties are not only critical for attaining maximum yields, but also a way to manage risk. Therefore, it is equally as critical to have a sound strategy for seed selection as it is to have a sound strategy for marketing the expected grain.

Everyone starts out either looking at the new product catalogs or reviewing results from show plots, demonstrations, and/or single location replicated trials. These give a snapshot of performance at a single location under a single condition. What's the likelihood that 2010 will look like 2009? I'm not a meteorologist, but my guess is not very good. Multi-location and/or multi-year trials will be better indicators of how sturdy a hybrid or variety will be. Another way to judge good sources of information is to look for sources that are unbiased and/or randomize and replicate entries at many locations. One good source for this is Iowa State Universities Crop Testing program; <http://www.croptesting.iastate.edu>.

What should you look for after finding reliable sources of trial information and have collected product catalogs? Look for seed characteristics that you feel are important to you and fit your fields. The important part of the last sentence is "important to you and fit your fields." You know your goals and you know your fields better than anyone else. Yes, good seed dealers and crop consultants have a pretty good idea, but ultimately you know best.

Choose multiple hybrids and varieties as a way to spread your risk. Choose seed that performs well across a variety of locations and

years, but don't choose seed that is identical in all other traits. Plant seed with differences in maturity, insect/disease tolerance, genetic traits, and maturity. Even look at planting seed from multiple companies. Different genetic packages help spread crop production risk and increase the potential of having high yields.

What characteristics should you look for?

1. Yield, yield, and more yield. How are you going to maximize yield if you don't choose seed based on yield? Products that yield poorly in trials likely will yield poorly in your fields too.
2. Look at grain moisture and dry down potential. In 2009 Iowa farmers probably harvested more water than ever before. Hybrid genetics can help speed up grain dry down.
3. Choose the right maturity. Select a wide range of maturities to lengthen the harvest window. Keep planting long-season crops, but intermix some that are mid-season. Reserve early-season choices for June planting.
4. Standability. Poor early and mid-season standability may limit pollination and grain fill. If corn and soybeans fall down in the fall it is hard to harvest and likely grain is left in the field. Select seed to achieve good season long standability.
5. Insect and disease tolerance. Grow genetics that have tolerance or resistance to stalk rots, foliar diseases, and insects that have been past problems in your fields.
6. Genetically modified traits. There are more trait combinations available for 2010 than past years and that trend will likely continue as new traits are identified. Make sure to choose traits when and where they provide the needed benefits.

Using Eggshells As A Liming Source For Crops

Adapted from Paul Kassel and John Holmes, proceedings, "2006 Integrated Crop Management Conference." The original complete article with data charts can be found here: <http://www.agronext.iastate.edu/soilfertility/info/eggshell-lime.pdf>
Submitted By Joel Dejong, ISU Extension Field Agronomist

Iowa has become the leading egg producing state in the U.S. It's common to see large-scale egg laying units in many parts of Iowa, including NW Iowa. Several facilities have begun to

ship liquid eggs. One egg-breaking operation in northern Iowa produces approximately 15 tons of ground eggshells daily. The eggshells at most locations are ground, stockpiled, and applied to farm fields. Lately, I have had several calls from farmers who want to know if the eggshells have any value as a liming source, and if so, at what rate they should be applied. To help answer those questions, Kassel and Holmes implemented some research plots comparing pH response of traditional ag lime applications with eggshell applications. Traditional agricultural lime appeared to change soil pH more quickly and to a greater degree at both locations studied during the six months following application. Statistically, the material was significantly different at the Northern Iowa Research Farm (NIRF), but not at the Northwest Iowa Research Farm (NWRF). The rate response was highly significantly different at both locations.

Soil pH changes in the eggshell treatments stop increasing as early as eighteen months following application for rates greater than 1000 lb. ECCE / acre (ECCE is Effective Calcium Carbonate Equivalent, a measure of how pure the calcium carbonate is in a given ton of product being used to raise pH in the soil. If you want to review more on pH, see John Sawyer's presentation posted on the web at this site: <http://www.agronext.iastate.edu/soilfertility/presentations/soilphliming04.pdf>). As soil pH increases the rate of change slows. The soil pH change for the low ECCE rates of eggshells surpassed the agricultural lime treatments as early as eighteen months following application. This would suggest that the ECCE of the eggshells was actually higher than the analysis reported. Thirty months after application the soil pH change appeared to plateau at the 4000 lb. ECCE rate at both Sutherland and Kanawha. The soil pH change has slowed because the soil pHs at both sites have risen to 6.5 or greater in these treatments. As soil pH approaches 7.0 it becomes more difficult to change the pH; therefore, the pH change has slowed or even stopped in these plots as the pH approaches 7.0. The soil pH change continued to remain constant 54 months after application (2006) at Kanawha. This would indicate that the eggshells continue to react with the soil keeping the soil pH high.

No corn yield response was attained at either location from liming, regardless of the material. In 2006 the Sutherland site had a significant soybean yield response. The eggshells appeared to increase the soil pH more efficiently at the lower ECCE rates. Soybean yields at Kanawha were unaffected by liming rate or material in 2003 and 2005.

The research conclusion? Ground eggshells are an effective liming source. The standard procedure used to determine ECCE underestimated the liming ability of eggshells. It appears that the ECCE should be 2-2½ times greater than the current method predicts.

Visit the web site of the article listed above, or contact your local extension office for a copy of that article if you are considering the use of eggshells for raising soil pH.

Stay Safe When Pumping Pits

Submitted By Jerry Weiss, ISU Extension Swine Program Specialist
Taken from the Pork Check-off Special Edition Report

Recent news reports of flash fires and explosions in livestock buildings while a liquid pit manure was being agitated and pumped reinforce the need for safety at all times when working on a swine farm.

Liquid manure in pits undergoes slow decomposition, which creates several gases including methane and hydrogen sulfide, both of which are flammable. The rate of gas release from manure can be drastically increased when the manure is stirred during pumping. This increase is especially true for hydrogen sulfide, which can have a lethal paralyzing effect in addition to being flammable, noted Shawn Shouse, an Iowa State University (ISU) Extension area agricultural engineer.

Strict safety protocols, along with proper ventilation and agitation practices, can minimize the risk of flash fires and explosions during manure pumping. Below are tips from ISU and the Pork Checkoff.

- **Review your emergency action plan** with all workers and have emergency contact numbers available at the site. The Pork Checkoff's Pork Production System, available at www.pork.org/workersafety offers tips on developing and implementing an emergency action plan. It also includes sections on hazardous gases and fires.
- **Prior to agitation or pumping, turn off electrical power** to any non-ventilation equipment and extinguish any pilot lights or other ignition sources in the building.
- **Fully open all ventilation** curtains or ventilation pivot doors but leave walk-in doors locked to prevent human entry.
- **Run ventilation fans** at maximum speed.
- **Ensure that all people** are out of the building.
- **Clearly tag all doors**, noting that the building is unsafe for entry during agitation and pumping.
- **Agitate the manure** keeping the jet of pressurized manure below the liquid surface. Don't let the jet of manure strike walls or columns in the pit.
- **Stop agitation** when the manure level does not allow agitation below the liquid surface.
- **Continue maximum ventilation for 30 minutes** after pumping has ended before re-entering the building.
- **Never enter a building or manure storage structure** when liquid manure is being agitated or pumped.



Remember to tag all doors during pit agitation and pumping. You can order these free tag from the Pork Store on the Pork Checkoff's Web site at pork.org.

Northwest Iowa Sheep Meeting

By Dennis DeWitt, ISU Extension Livestock Program Specialist

Mark your sheep calendar for the annual Northwest Iowa Sheep meeting on Saturday, January 9, 2010. Registration starts at 6:00 pm with the meal begin served at 6:30 pm. It will be held in the Sanborn Community Center. You will not want to miss this year's special speaker. Dr. Justin Luther, University of Wisconsin, River Falls, WI has agreed to come the 300+ miles to talk with us. He will be sharing "Managing Inputs to Reduce Reproductive Slip-page" and the FDA approval of CIDR for Sheep. This progester-one CIDR is a steroid hormone that allows out-of-season breeding in sheep. If you have any questions, please call Joan Hoogen-doorn, NWISPA Secretary at home: 712-472-2170 or cell 712-470-1713. You also may contact Dennis DeWitt at 712.260.0019.

Beef Forum 2010

Wednesday, December 16

Clay County Regional Events Center, Spencer
9 a.m. – 4 p.m.

Careful, quiet handling of cattle will help improve productivity. Research studies have shown that stresses imposed by handling and transport can have a detrimental effect on weight gain, rumen function, reproductive function, immune system and profitability. Quiet handling improves animal welfare also.

- 9:00 am** **Displays & Registration - Fee \$10.00**
(Financial support provided by ten sponsors)
- 9:30 am** **"A New Era of Higher Prices and Costs: Do Old Beef Production Rules Apply?"** Dr. John Lawrence, ISU Beef Center Director
- 10:15 am** **"Animal Care/Animal Welfare/Compromised Cattle/Dead Disposal"**
Brian Waddingham, Iowa Beef Industry Council
Dennis DeWitt, ISU Livestock Specialist, 33 yrs
- 11:15 am** **"Disposition-Convenience Trait or Economically Important"**
Darrell Busby, ISU Beef Specialist, 35 Years
- 12:00 pm** **Beef Luncheon – "Celebrating 103 Years of Iowa Beef Educators"**
- 1:15 pm** **"Impact of Genetics on Performance, Carcass Traits and Profit"**
Daryl Strohbehn, ISU Beef Specialist, 35 Years
- 2:00 pm** **"Effective Stockmanship and Stewardship"**
Curt Pate, Clinician & Rancher
- 3-4:00 pm** **Live Demonstration at Spencer Sale Barn for "Low Stress Beef Handling"**
Curt Pate, Clinician & Rancher

Effective stockmanship can be achieved if four basic behavior principles are the focus of handling livestock. In today's harsh economic conditions and close scrutiny of the beef industry, it

is important to improve management skills that increase performance and income without adding costs. Effective Stockmanship can provide improved animal welfare and performance, as well as a sustainable quality of life.

For program questions or to register, please contact Dennis DeWitt at dewitt@iastate.edu or 712-260-0019.

Late Harvest and Crop Insurance Coverage

By William Edwards, ISU Extension Economist

Iowa and other Corn Belt states are experiencing one of the latest and slowest harvest seasons on record. Some producers have had concerns about whether their crop insurance coverage will be still be in effect if harvesting drags into December.

The standard policy for corn and soybeans in the Midwest states that Dec. 10 is the end of the insurance period. However, producers may request their insurance company allow them additional time to complete harvesting. This can be granted when timely notice is given to the agent and the delay is due to an insured cause, such as wet weather or snowfall. This will allow any claims to be settled based on actual harvested production rather than an appraisal in the field.

If insured acres are still unharvested by early December, producers should contact their crop insurance agents and request additional harvest time beyond Dec. 10. Producers are required to make an honest effort to harvest the crop during the extended period if conditions allow, or to document why they were unable to do so with a written record and even photos.

The Risk Management Agency, which regulates multiple peril crop insurance policies, recently issued a program announcement regarding wet harvest conditions. The full text is at <http://www.rma.usda.gov/news/2009/11/wetharvest.html>. The standard crop insurance policies cover quality losses due to low test weight, foreign material and mold, as well as low yields and prices. However, increased drying costs and charges are not covered.

More information on crop insurance is available at <http://www.extension.iastate.edu/agdm/cdcostsreturns>. You may also contact Ron Hook, rhook@iastate.edu, 712-754-3648 or Tom Olsen, tolsen@iastate.edu, 712-210-3171, for more information concerning crop insurance provisions.

POCAHONTAS COUNTY

Dear Extension Friends,
As challenges face families, businesses, farmers, schools and communities, remember to talk about the stress you are feeling. Talk with your family, your clergy, friends or a doctor. There are stress resources available on the Pocahontas County Extension webpage: www.extension.iastate.edu/pocahontas

Think positive!



Nancy Jenson
County Extension Education Director

IOWA
Concern



1-800-447-1985

You may also call the toll free Iowa Concern Hotline. The hotline gives confidential assistance and referral for stress, legal questions and financial concerns.

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