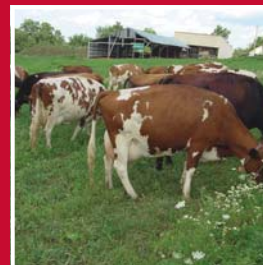


FIELD & FEEDLOT



ISU EXTENSION—NORTHWEST REGIONS

SEPTEMBER 2010 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/>

Weather Creating Forage Issues

By Beth Doran, ISU Extension Beef Program Specialist

Rain, rain, and more rain is reducing both forage quality and quantity for this winter, and livestock producers need to start planning NOW for winter feed needs!!

There are a variety of ways to reduce forage needs:

1. With high cow prices, cull non-producing or low-producing cattle. This includes poor-producing cows, cows with bad udders, open cows, late-calving cows and cows with poor dispositions.

2. Consider early weaning calves. Early weaning may reduce dry matter grass consumption of the cow from 20 to 35% and decrease her energy and protein requirements. This will allow the cow to add .4-.5 body condition score per month – essentially stockpiling body condition on her prior to winter.

3. Test forages and plan your winter feeding program now. Find out which feeds are best or poorest quality and feed according to stage of production. Feed the lowest quality feeds during mid-gestation and switch to better-quality feeds in late gestation, calving and early lactation.

4. Calculate your feed inventory needs. The Iowa Beef Center has a feed inventory worksheet, “Managing Cow Herd Feed Needs”, to determine mature beef cow feed needs, feeds available and a summary of feed shortage or surplus. This is at http://www.iowabeefcenter.org/Factsheets/Factsheets_cow-feed-needs.pdf

5. Make every affordable effort to reduce feed waste. Consider both storage and feeding losses. ISU has a free electronic spread-

sheet that can compare up to 8 hay storage methods at a time. The standard for comparison is bales stored on bare ground with no cover. Other methods include uncovered storage on gravel or pallets, outdoor covered storage, storage under roof, and storage in a new or existing building. For each method a total annual cost is calculated, which includes spoilage losses and tons of hay available to feed or sell. The spreadsheet can be downloaded from <http://www.extension.iastate.edu/agdm/crops/xls/a1-15haystoragecost.xls>. Tub grinding feeds and feeding total mixed rations will also reduce feed waste and the feed bill.

6. Correctly supplement low-quality feeds to meet nutritional demands. Supplementing low-quality feeds, such as cornstalks, with a protein supplement and small amount of grain, can provide a low-cost ration that will achieve acceptable performance for a cow in mid-gestation.

7. Use best-quality feeds for replacements and other young females (1st and 2nd calving heifers). These females not only have a higher energy and protein need, but also cannot consume as much feed as their older herd mates.

8. Consider other energy feeds. Corn silage can completely replace hay; whereas, whole shelled corn can be partially substituted for forage.

9. Co-product feeds can supplement energy and protein. Distillers grains are about 30% crude protein and may contain more energy than corn, depending on the method of processing. These co-products contain substantial fiber and should not have a negative impact on fiber digestion. Some producers have asked about the effect of co-product feeds on cow conception rates. University of Nebraska research reported no negative effect on reproduction when beef cows are supplemented with distillers grains as a protein or energy source. Replacement heifers fed dried distillers grains at .6% of their body weight had greater reproductive performance compared with control heifers. In the cow studies, distillers were less than 1/3 of the diet on a dry matter basis. If feeding distillers products, monitor sulfur and fat levels of the diet fed. Toxic levels of sulfur can cause polioencephalomalacia, and high fat levels may decrease fiber digestion.

For more information on managing feeds and dealing with flood-related issues, visit the Iowa Beef Center website at <http://www.iowabeefcenter.org/floodresources.html>

Maintaining Trust in the Pork Industry

By Mark Storlie, ISU Extension Swine Program Specialist
Submitted By Dave Stender, ISU Extension Swine Program Specialist

Pork producers and the pork industry have been dedicated to maintaining and enhancing the quality of pork production in the United States for decades. A new initiative, We Care, has been launched to demonstrate that producers remain accountable to established ethical principles and animal well-being practices even though pork production has changed over the years.

We Care is a joint effort of the Pork Checkoff, through the National Pork Board, and the National Pork Producers Council. It acknowledges the commitment of pork producer on six fronts: to produce safe food; to protect and promote animal well-being; ensure practices to protect public health; safeguard natural resources; provide a safe work environment; and contribute to a better quality of life in their communities.

The pork industry already offers numerous programs, including Pork Quality Assurance Plus® (PQA Plus®) and Transport Quality Assurance® (TQA), to support animal well-being and maintain a safe, high-quality supply of pork.

The industry's Pork Quality Assurance Plus program identifies best practices in food safety and animal care. It was originally introduced in 1989 and has become the quality assurance model for other industries and abroad. The program is continually improved to include new science-based practices and address the consumer's requests.

Today's marketplace holds businesses and industries to higher standards, looking for them to act responsibly. Consumers want assurances that their suppliers are working toward achieving a greater good. Trust in farmers has eroded as people have lost direct connections to the farm and farm structure changed. Certification programs like Pork Quality Assurance Plus and Transport Quality Assurance demonstrate to the consumer and market chain our commitment to re-gain trust.

No one has more on the line when it comes to responsible and ethical animal production than U.S. pork producers themselves. We Care helps encourage pork producers, enlighten new employees, inform public leaders and educate consumers that pork producers are doing things right.

For additional information about the "WE CARE" program, visit the www.porkcares.com or call 800-456-7675.



Sudden Death Syndrome of Soybeans

By Paul Kassel, ISU Extension Field Agronomist

Sudden Death Syndrome (SDS) of soybean has shown up again this year in northwest Iowa. This year SDS is more widespread, has affected more fields and has affected a greater proportion of those fields. Sudden Death Syndrome was discovered in Iowa in the mid 1990's and has spread since then. Northwest Iowa was bypassed by SDS initially – but SDS has made its way into the area the last couple of years.

The following are some details on the SDS disease.

- SDS is a species of Fusarium. There are several Fusarium species that are common fungal diseases of corn and soybean.
- SDS survives in the soil and survives on crop residue. It is likely spread by soil movement caused by erosion and farm equipment movement.
- Soybean cyst nematode (SCN) makes the symptoms of SDS worse - likely because the SCN makes an entry point for SDS in the root.
- SDS infects the plant shortly after germination. The soybean plant harbors the disease until the reproductive stages of soybean. Then the toxin that the SDS pathogen has produced moves within the soybean plant. That toxin then begins to kill the leaves and ultimately the entire soybean plant.
- Cool wet conditions early in the season may increase the amount of infection of the SDS fungus. This may have occurred the second week of May in northwest Iowa in 2010.
- SDS will appear to spread in the field. However, the infection has occurred early in the season and symptoms will develop in the field at different rates.
- The wet summer weather in 2010 likely made the symptoms of SDS worse by creating another stress to the soybean plant.
- The degree of damage to the soybean crop will depend on the timing of the arrival of SDS. If plants begin to die from the foliar symptoms of in late July – yield impacts are understandably high. Later season expression of SDS will have less impact on soybean yields.
- SDS can survive in the soil for several years. A long term rotation out of soybean will not eliminate or even reduce the potential for SDS problems.
- Soil compaction problems make SDS worse. This may be one reason we are seeing more SDS this year – because of the lack of soil freeze/thaw during the 2009/2010 winter season.
- High yield environments – such as early planting, high soil fertility, productive soils, narrow rows, etc - often increase the incidence of SDS.
- No-till may or may not influence the level of SDS.
- Fungicide seed treatments are ineffective in preventing or managing SDS.

The following are some guidelines for managing SDS.

- Management of SDS can be vague, difficult and ineffective. There is no silver bullet for the management of this disease. Contradictions on management strategies may occur. However, the following are some ideas for your consideration.
- Make plans to improve soil drainage.
- Select resistant/tolerant varieties. Little if any resistance or tolerance is present in early group two soybean varieties – so this will be difficult.
- Spend some time observing local plots and observe SDS infection in adapted varieties. Make some notes on variety selection for next year.
- Make plans to soil test for SCN this fall. High levels of SCN may mean you need to grow continuous corn.
- Select SCN resistant soybean varieties.

Report from The Conference on Water Quality for Small and Medium-Sized Livestock Farms

By Tom Olsen, ISU Extension Farm Management Program Specialist

Fifty “Extension to Agriculture Professionals” from 10 mid-west land-grant universities met in a three day conference. This was the second year of a three-year commitment to network together. The goal is to share each state’s unique work on our common water quality issues. The focus is small and medium-sized livestock farms. We met this year at University of Wisconsin, Pioneer Farm, in Belmont, Wisconsin. The hope is that through leveraging each other’s work we can better address the environmental issues that face us. I would like to comment on a few of the presentations and tours.

Feedlot Runoff and EPA Regulations

Chris Henry, U of Neb. Extension, is doing some unique design work for handling water runoff from small feedlots in order to comply with the new regulations from the re-enforcement of the Clean Water Act. Basically, using a fairly simple pumping and sprinkler system, runoff is applied to forage crops. His ideas are intriguing though perhaps more formal and expensive than the solutions designed by our own extension engineer, Dr. Kris Kohl, kkohl1@iastate.edu. Well worth a look for an animal feeding operation with run-off to the “waters of the state.”

Integrating Waste Streams and Food Production

John Vrieze, Baldwin Dairy (Wisconsin), <http://vriezefarms.com/default.aspx> presented some of his innovative work from his dairies. He is integrating solid separation of manure, anaerobic digestion, greenhouses, and fish farming with his conventional dairy operation. The sale of lettuce and tilapia as well as conventional dairy products into the twin cities market looks to be profitable. Though not every part of his operation appears practical for all dairies, there are some ideas that may become useful.

What Goes In, Comes Out

Presentations from university research at Nebraska, Purdue, ISU,

and KSU discussed the evolving changes in livestock diets and how they impact costs, animal performance, manure values, and land base needs for manure application. Adapting to the increased use of ethanol by-products is a continuing discussion. There are several publications that are a part of these discussions. Wendy Powers, Michigan State, has done work on the changes in air emissions from changing livestock diets.

Pasture Management

Ben Bartlett, Michigan State, has done considerable work on managing grazing by controlling the water sources. He advocates systems which bring the water up from the creeks and ponds utilizing various pumping systems. Joel DeRouchey, KSU, has researched various hay feeders and feeding locations to minimize feed loss and pasture loss. A tour of the UW-Platteville Pioneer Farm showed their on-going research on pasture run-off and the impact of different cattle crossings on stream bank stabilization.

Other Manure Issues

The problem of foaming hog manure pits has been researched by David Schmidt at the University of Minnesota. His answers are no more definitive than what has been found at ISU; the work continues. Top-dressing winter wheat with manure was presented by Glen Arnold at Ohio State and Joe Lally, ISU, discussed winter rye as an option for a cover crop. U of Minn. Discovery Farms is doing research on dry manure stockpiles and also nutrient loss from various tiling systems. This is just a taste of what our Midwest Land-grant Universities are doing to address livestock and manure issues. If specific areas are interesting, contact your local Ag Extension Program Specialists or search out our colleagues in the surrounding states.

Preparing for Fall Manure Application: The TOP TEN List Guidelines from IMMAG—Iowa Manure Management Action Group

Compiled by Angie Rieck-Hinz (IMMAG agronomist), Shawn Shouse and Greg Brenneman (Ag Engineers)

- Follow your Manure Management Plan.
- Know and follow Land Application Separation Distances
- Maintain your Manure Applicator Certification
- Develop an Emergency Action Plan
- Take manure samples and update soil samples
- Calibrate your application equipment
- Apply at appropriate and legal times
- Consider your neighbors
- Be safe
- Manure pit safety

For the full document and details, see the IMMAG website www.agronext.iastate.edu/immag/ or contact your local ISU County Extension office to access this from the IMMAG website.