

FIELD & FEEDLOT



NORTHWEST AREA EXTENSION

MARCH 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/>

Winter Time Udder Health in Dairy Cows:

It's winter time, and the BAD news is not really news to dairy producers who are all too familiar with the effects of cold temperatures and fluctuating temperatures: These weather conditions cause teat chapping and cracking, which in turn increase the risk of bacteria entry and mastitis. **This brief article summarizes the technical advice from Leo Timms, ISU State Dairy Specialist, on this timely topic.**

Defining the problem: If you are seeing a rise in herd SCC and increased mastitis incidence, how do you know it is related to winter time teat end damage? Here's what to look for on the teat ends:

- Small crack on teat end, sometimes with a white circular or horseshoe-shaped ring around teat opening
- Eversion or inversion of the teat end, along with vertical cracks
- Scabs on the teat end

How can this condition be prevented or minimized? The GOOD news is that a few simple practices can be effective in decreasing the occurrence of teat end lesions:

- Use pre-dips with proven germicide and skin conditioner. Rather than rubbing them dry before milking, blot the teats dry.
- Be sure milking equipment is cleaned and maintained. Vacuum levels that are too high cause teat end trauma, and

vacuum levels that are too low, and pulsators that are too slow lead to over-milking and teat end damage.

- Be sure milking routines are in place that allow good teat end stimulation and proper lag time between stimulation and machine attachment (about 90 seconds).
- After milking, ensure good teat coverage with a teat dip containing germicide and conditioner. Do not add conditioner to a commercial formulation --- this will dilute or deactivate the germicide.
- Before the cows exit parlor, blot dry the teat end to remove the drop of dip that gathers on the teat end.

Special notes:

Although it is tempting to apply salves or ointments to chapped teat skin, resist the urge to do this. Jars of salve can be great places for bacterial growth. Plus, the sticky salve attracts and holds dirt and bacteria on the teat skin. Avoid the salves and ointments, and keep with pre and post dips containing good germicide and conditioner.

In extreme cold (5 degrees and lower), consider going to a dry powder-based dip. These reduce the moisture that could lead to chapping, but the powder dips are lower in germicide action. Therefore, use only in the extreme cold below 5 degrees.

What if mastitis develops as consequence of teat end damage? This is certainly an unwanted result, but there may be some hopeful outcomes here: Collect a milk sample for culture. Culture results may indicate presence of *Strep dysgalactiae*, a bacteria that often enters in following teat skin damage. The good news is that this strep often responds well to antibiotic treatment. On the other hand, *Staph Aureus* mastitis infections may also occur following teat skin damage. If it is a new infection, treatment with the proper antibiotic and dosage and duration may bring successful outcomes. Work with your veterinarian on interpreting milk culture results and setting a treatment plan.

Sources:

"Controlling Winter Teat-end Lesions" [Teat News Letter 08](#), Leo Timms

"To Dip or Not to Dip? That is the Question (in Winter)", Fact Sheet 2007, Leo Timms

Field & Feedlot Public Comments Scheduled

By Kris Kohl, ISU Extension Ag Engineer Field Specialist

The Environmental Protection Commission proposed sweeping new regulations on manure application for frozen and snow covered ground. Frozen ground is defined as 2 inches or more of frost and snow covered ground is defined as 1 inch or more of snow.

The proposed rules will make surface manure applications illegal on frozen or snow covered ground at all times between February 15th and April 15th.

Between October 1st and February 15th for both liquid and solid manure, application is illegal:

- A. When .25 inches of precipitation is predicted in the next 48 hours
- B. When prediction of 40°F temperature in the upcoming 48 hours
- C. Application will be within 200 ft. of a tile inlet that is not plugged or sleeved
- D. Application will be within 800 ft. from high quality water resources
- E. Within 200 ft. from designated areas

Liquid manure application to the surface will always be illegal when 1 inch or more of snow is present between October 1st and April 15th. Liquid application will also be illegal on frozen ground with a medium p-index risk or slopes greater than 5%.

Solid manure applications to the surface will be illegal on snow covered slopes greater than 5%. Solid application is also illegal when the ground is frozen with medium P-index risk or slopes greater than 15%.

PUBLIC IS INVITED TO COMMENT:

- **March 18th, 2009:** 6:00pm at Dedham American Legion Center located at 302 Main St, *Dedham*, IA 51440.
- **March 23rd, 2009:** 6:00pm at The Orange City City Hall, located at 125 Central Ave SE, *Orange City*, IA 51041.

Written comments may be sent via email to:
clair.Hruby@dnr.iowa.gov

Check Stored Grain

By Paul Kassel, ISU Extension Field Agronomist

There is a concern that the 2008 corn crop may not store as well as corn from previous growing seasons. Corn produced in a cooler season (like 2008) often has a softer texture, somewhat lower test weight and lower protein content. Also, there are likely more immature, cracked and broken kernels in the 2008 corn crop than in previous year's corn crop. Therefore the 2008 corn crop may require more storage management than previous corn crops.

Consider the following when managing corn in storage this spring.

- Keep the grain cooled to 30 degrees F. This will likely require more aeration time than in previous years.
- Make plans to check grain during the busy spring season. Set up a time to check bins on a weekly basis.
- Remove the center core of grain from the bin. This will remove the corn that is at the greatest risk of storage problems. Also, this will increase air flow if grain fines are concentrated in the center of the bin.
- Make plans to finish drying corn that was not completely dried with natural air systems last fall. This can be accomplished best if temperatures are above 50 degrees F, air flow is greater than 0.5 cfm/bu and the grain moisture content is less than 20%.

More information is available by checking this article by Charles Hurburgh from Iowa State University <http://www.extension.iastate.edu/CropNews/2009/0206hurburgh.htm>

This University of Minnesota has some good general information on grain storage and drying. <http://www.extension.umn.edu/topics.html?topic=4&subtopic=44>

Swine Update

By Dave Stender, ISU Extension Swine Field Specialist

EPCRA Rule

There is an Environmental Protection Agency (EPA) rule that is called Emergency Planning and Community Right to Know Act (EPCRA) under section 304. Some swine operations are required to report air release of ammonia. The trigger for requiring a report is 100 pounds of ammonia (or other potentially hazardous gas) on any day.

The problem is that the actual amount of ammonia released is not well established. Many producers signed up for a consent agreement with the EPA a couple years ago to fund a study to help determine some base line numbers regarding the ammonia release levels. That study is called the National Air Emissions Monitoring Study, which is scheduled for completion at the end of 2009 with the final report to be complete in 2011. Swine producers who have done the consent agree do not have to report until the study is done.

The emergency release notification requirements for continuous releases require an initial telephone call directed to the community emergency coordinator for the Local Emergency Planning Committee (LEPC) and to the State Emergency Response Commission (SERC). A written notification must then be submitted to those LEPCs and SERCs within 30 days of the phone call.

The best estimate of ammonia release is somewhere around 40 pounds of ammonia release for every 1000 large swine. Large is defined as over 55 pounds. Therefore the swine operations that need to comply with this rule would be operations that have over 2500 head on feed or 10,000 small pigs less than 55 pound. Operations that have a consent agreement with the EPA do not need to submit a report at this time.

This is not the most straightforward set of rules. Additionally, the forms that need to be submitted have been labeled as not user friendly. If you are a large swine operation (over 2500 inventory) that did not do a consent agreement and have not yet made the initial phone call, it is not too late yet. You may want to get in touch with Dave Stender (712) 261-0225 or Kris Kohl (712) 732-5056 to get some assistance in filling out the forms. It only takes about 15 minutes to comply with this rule once you know how to complete the forms. One last caution, don't let this one slip by without doing the paper work because the fines are potentially hefty.

Market Access

Market access is becoming an issue for pork producers as welfare standards are going to be required at some packing plants. Hormel has recently sent a letter to all swine producers that to sell pigs to them beginning January 1st, 2010 they will need welfare certification. Three of these certification requirements include Pork Quality Assurance (PQA Plus) for the individual; PQA Plus site certification (note: a premise ID will be necessary for the PQA Plus site certification); and Transport Quality Assurance (TQA) for anyone that handles pigs. The requirement for TQA will include farrowing/gestation units that raise pigs for operations that sell market hogs to Hormel. Other packers are now planning to implement similar standards at some point in the future. We will be hosting a series of training opportunities to help producers comply with these new requirements.

Environment

Producers are watching the new and proposed rules regarding manure application on frozen ground. Producers should also now know that there are rules about selling manure and the restriction of putting more than 100 pounds of nitrogen from manure on ground going into a soybean crop is in place. The best site with manure law changes is the IMMAG site <http://www.agronext.iastate.edu/immag> - to find the site type IMMAG in your search engine on the internet.

The Economy

All this at a time when pork producers need a boost in the prices they get paid for market hogs. The losses have been substantial and the prolonged period of less than optimal margins is wearing on producers. The industry is not very flexible regarding fixed assets; nobody wants to underutilize expensive facilities or worse yet leave them empty. Risk management is a more important factor in many operations. The economic downturn has made risk management more difficult at the same time it has become more important. There is risk management and outlook information on the ag decision maker web page, <http://www.extension.iastate.edu/agdm/ldmarkets.html> - Contact your local extension office for help through these uncertain times.

Fixing Drainage Issues

By Tom Olsen, ISU Extension Farm Management Specialist

In the prairie pot-hole regions of North Central Iowa, the penalty in 2008 for below-average subsurface drainage systems was extreme. Or rather, the bonus for high-investment tiling plans was quite large. "Too many drown-outs. Zero is hard on the yield average."

The cost of fixing drainage issues in the field can be daunting, as viewed by both landlord and tenant. The high up-front cost must be amortized by higher yields over several years. These costs and returns are hard to quantify and even harder to share in a rental agreement. It is possible to establish a long-term plan to both improve the productivity of the land, while equitably assessing the cost.

Drainage investment is fairly straightforward when the land is owner-operated. Solutions may take several years to accomplish, but incremental investments can be made and depreciated.

It is possible for tenants to pay for drainage, and depreciate the cost. To be fair, there will need to be rental agreements which reflect this investment, by perhaps a several year commitment or a cash-out agreement. If the lease is terminated early, the landlord will pay the tenant a sum representing the "un-used" tiling investment.

If the landlord pays and depreciates the tile, rents can be negotiated to reflect production increases. This does not necessarily repay all the total tiling cost in just a few years, as the investment is very long term and a portion of the return may be as much to the market value of the land as the productive value.

Drainage Workshops in March

Two workshops will be held in North Central Iowa, to outline solutions to drainage issues. The five main sessions are listed below:

- Planning a project, tile sizing and design, Kris Kohl
- Economics and Rental Agreements, Tom Olsen
- Long Term Benefits of Tiling, Matt Helmers
- Controlled Drainage-Irrigation Potential, Matt Helmers
- Field Experience with Controlled Drainage, Kris Kohl

Locations: \$40 Registration (\$10 discount with phone RSVP)

- March 17, 10am-3pm
Buena Vista Co. Extension Office
AEA Building, 824 Flindt Drive
Storm Lake IA 50588
(712) 732-5056
- March 20, 10am-3pm
Zion Lutheran Church
1005 11th Ave. N, Humboldt IA 50548
(712) 332-2201