All about Cattle
Beth Doran, Beef Program Specialist

Managing the Feedlot Environment It’s spring, and this time of the year usually brings extra moisture. While needed for crops, moisture is not beneficial in the feedlot. Mud, manure and wet conditions reduce feed intake, increase the maintenance requirement, increase energy required by the animal to traverse the feedlot, reduce dressing percent and create conditions conducive to the development of Digital Dermatitis (Hairy Heel Wart).

The National Research Council reported 4-8 inches of mud reduced feed intake 5 to 15 percent. Severe mud (12-24 inches) depressed feed intake 15 to 30 percent. University of Nebraska researchers (Table 1) listed the potential effect of differing mud depths on average daily gain of feedlot cattle.

Table 1. Risk potential caused by mud, 21-39°F

<table>
<thead>
<tr>
<th>Mud Depth</th>
<th>Potential Loss of Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>No mud</td>
<td>0%</td>
</tr>
<tr>
<td>Dewclaw deep</td>
<td>7%</td>
</tr>
<tr>
<td>Shin deep</td>
<td>14%</td>
</tr>
<tr>
<td>Below hock</td>
<td>21%</td>
</tr>
<tr>
<td>Hock deep</td>
<td>28%</td>
</tr>
<tr>
<td>Belly deep</td>
<td>35%</td>
</tr>
</tbody>
</table>

So what is the solution to mud? First, design open lots with good drainage so moisture doesn’t accumulate. But, be careful to direct all feed yard effluent to either a holding basin or to a vegetative treatment area. **Do NOT release feedlot effluent to a ditch as this is an environmental violation.**

Provide ample bedding to keep the animal's hair coat dry and clean. Once the hair coat becomes wet and/or matted, much of its insulation value is lost. Usually an animal with a winter hair coat is comfortable when the temperature ranges from 18 to 77°F. However, animals with a wet hair coat may only be comfortable when temperatures range from 59 to 77°F.

Clean and scrape the lots frequently. Iowa Department of Natural Resources stated they are seeing a common issue: feedlots need to be scraped more often.

Remember that while concrete can help reduce mud and moisture, it doesn't totally eliminate it. Concrete lots and confinement facilities can still be wet and have manure.

Now that temperatures have risen, it would be a good time to check the water quality below your open lots. ISU Extension and Outreach has a test kit that quickly measures the ammonia level in the water. Kits are available at no charge from the following extension offices in northwest Iowa: Buena Vista, Cherokee, Clay, Lyon, O'Brien, Osceola, Plymouth and Sioux. If there isn’t a kit in your county office, please let us know that you would like to use a kit so we can make arrangements. All results from testing are confidential and remain with the producer.

**New Tools and Publications:**
Iowa Beef Center’s Cattle Bidder App – to help determine maximum bids on cattle feeder purchases. For Android 2.2 phones and tablets. See more info about the app, including a link to download it: [www.iowabeefcenter.org/news/CattleBidderapp.html](http://www.iowabeefcenter.org/news/CattleBidderapp.html)

Available from Ag Decision Maker at: [www.extension.iastate.edu/agdm/](http://www.extension.iastate.edu/agdm/)

- Live Cattle Basis – B2-42 (Feb 2015)
- Feeder Cattle Basis – B2-43 (Feb 2015)
- Feeder Steer-Heifer Price Spread – B2-45 (Feb 2015)
- Historic Hog and Lamb Prices – B2-10 (Feb 2015)
- Historic Cattle Prices – B2-12 (Feb 2015)
- Iowa Beginning Farmer Tax Credits and Loan Programs – C4-30 (Feb 2015)
Ethanol Coproduts for Beef Cattle
• The Processes and Products – IBCR 200A (December 2014)
• The Changing Distillers Grains for Feedlot Cattle – IBCR 200B (December 2014)
• Factors Affecting the Economics of Corn Coproduts in Cattle Rations – IBCR 200C (December 2014)
• Distillers Grains for Beef Cows – IBCR 200D (December 2014)
• Handling and Storage Considerations – IBCR 200E (December 2014)
• Avoiding the Negative Effects of Dietary Sulfur – IBCR 200F (December 2014)

Producer Surveys
• Iowa Beef Center 2014 Cow-Calf Producer Survey – IBC 101
• Iowa Beef Center 2014 Feedlot Operator Survey – IBC 102

Beef Feedlot Systems Manual – PM 1867 Revised (Jan 2015) featuring five styles of facilities, cost analysis and system considerations. Just released!!

Farm Safety: Spring Planting Brings Farm Safety Reminders
Melissa O’Rourke, Farm & Agribusiness Management Specialist

Farming is a dangerous occupation, and in the midst of spring planting, taking safety seriously can prevent mistakes that could lead to injuries.

Setting realistic goals and being well-prepared for planting season are a couple of the most important safety tips to remember at this time of year.

ISU Extension and Outreach encourages farm producers, professionals and farm families to think about farm safety every day – but especially as spring planting approaches.

When the first planting dates approach, producers feel naturally rushed to get out into the field and work long hours to get the crops in when conditions are good.

And while stress is a natural part of life, too much stress can cause health problems and accidents. Especially when working long hours, everyone should take short breaks to get re-energized. Long hours and stress lead to fatigue, and that’s when poor decisions are made that impact farm safety.

Also, because accidents and injuries do occur, it’s important to have an accident response plan in place. Extension and Outreach reminds farm producers and families to discuss what an on-site first-responder should do if faced with an emergency situation. Make sure everyone knows that the primary objective is to call 911 get professional help for the injured and make sure both the responder and the injured person are not in further danger.

Whether working with youth or adults during the spring planting season, make sure to match age, ability and training with farm chores.

Everyone needs to understand the risks of each task, and how dangerous the agricultural industry can be. Take extra caution when assigning tasks to be sure that a specific chore that is not beyond their mental, emotional or physical ability of the worker – whether younger or older.

ISU Extension and Outreach suggests the following guidelines to limit injuries and reduce risk:
• Develop rules for your farm appropriate to the age and stage of each family member and employee.
• Encourage youth involvement in farm safety projects through 4-H or FFA.
• Conduct your own farm safety audits and remove or reduce hazards.
• Teach youth proper safety skills and be a role model to them.

Keep safety at top-of-the-mind awareness on the farm. Take just those few extra moments to pause, take a deep breath and ask the question – is this safe?

Extension and Outreach has a series of “Safe Farm” publications that contain valuable information on safe farming techniques and tips. These can be found on the Extension and Outreach website at www.extension.iastate.edu.

Call on me to conduct on-farm safety sessions, such as short “farm safety breakfasts” or “lunch and learn” safety sessions for farm families and employees. To schedule such an event on your farm, contact me through the ISU Extension and Outreach office in Sioux County at 712-737-4230 or email morourke@iastate.edu.

Swine PEDv Update
Matt Swantek, PhD., Swine Program Specialist

As spring begins, 4-H members, FFA youth and families begin their preparation for swine projects. Awareness heightens for Extension and Outreach swine specialists of spring wean-Ins and biosecurity. The severity of the Porcine Epidemic Diarrhea virus (PEDv) and its devastating effect on the pork industry led to changes in how many county fairs conducted their swine contests last year. There were a number of different approaches taken to try to prevent the introduction or transmission of this virus. As each new piece of information became available, it was passed on to county extension staff who conveyed it forward to the county fair board and swine supervisors. Because of these efforts there were no apparent evidence of the virus at the fairs nor were there any incidents of the virus report back to the county offices by any exhibitor. Everyone did a great job with successful swine shows for exhibitors and families last year.

However, the virus is still present in Iowa (see Figure 1) and biosecurity measures cannot be lowered.

After the non-terminal Georgia Junior National Livestock Show (Feb. 18-21, 2015), it was found that two pigs had PEDv during the fair. Roughly 500 4-H and FFA exhibitors showed approximately 1,300 swine with around 90 Georgia counties participating in the show. The Georgia Department of Agriculture (GDA) expects to find positives in all areas of the state where show pigs were raised and housed. Before this PEDv break, Georgia was one of the 21 states that had no reported cases.
GDA responded immediately with biosecurity measures to prevent further spread of the disease. As a part of that response, inspectors visited premises who reported possible clinical symptoms of PEDv. Sampling from those visits resulted in three additional positives from the original findings. At the time of this writing, there were seven cases found.

The number of cases in Iowa is nearly half from a year ago at this time; most have been found in finisher barns (Figure 1) and very few cases have been reported for sow herds. However, similar to a year ago, there has been an increase in the last two months of up to 40 cases per week compared to October and November 2014 averages of 20 per week. If farms experience the PEDv there is a mandatory reporting that must be completed. Through the efforts of Iowa State University veterinarians, the reporting forms and procedures have been made simple and easy to complete and follow found here: http://aasy.org/pedv/regulation/HerdMgmtSCED.pdf

Figure 1

It is the responsibility of the supervising veterinarian or veterinary practitioner to report any PEDv cases during the county fair. To help reduce the spread of this disease it is suggested that swine shows be terminal contests with all hogs going to market afterwards. This still remains the decision of the fair board and swine supervisors but exhibitors should be aware of the disease risk for animals that return home.

The disease can be spread by pig-to-pig contact and by contaminated equipment, chutes, trailers, vehicles, clothing and personnel via fecal matter. All equipment should be cleaned and disinfected and all sick animals isolated. It is important to observe your herd regularly for evidence of disease.

The incubation period for PEDv is 12-36 hours. Symptoms can emerge four to five days after exposure and vary widely depending on the age of the pig affected. Symptoms include off-feed, vomiting, diarrhea and increased mortality. Pigs can may still be shedding the virus up to six weeks or longer after expressing the symptoms.

Continue to be vigilant with biosecurity and keep it as a top priority throughout the year.

Crop Planning
Paul Kassel, Crop Specialist

Fieldwork has not really begun in my area as of this writing. However, farmers are busy preparing machinery for the spring.

One activity that can be easily overlooked is crop planning. The process of writing down all your plans for each field can help reduce potential mistakes or confusion during the busy spring months.

Think through each input and activity for each field. This kind of written plan will force you to double check things like herbicide selection and placement of hybrids and varieties.

The intent of this plan is to get all the info recorded for each field on one piece of paper. Consider an electronic copy that can be shared on a smartphone or a tablet. It is important to get a copy of this in each family member/employees hands and/or each tractor or pickup.

These are some items to consider for each field plan.

- Field name and legal description
- FSA field acres and FSA number
- Previous crop
- Fall fertilizer/manure – amount and analysis
- Spring fertilizer/manure
- Nitrogen rates for corn fields
- Fall tillage and intended spring tillage
- Hybrids/varieties – include maturity, traits, SCN, etc.
- Planting rate
- Pre-plant and post-emergence herbicides
- Insecticides and or fungicides
- A field map - like an FSA map - for each field
- Planned restricted use pesticide applications

Some additional thoughts for your field plan include the following.

Consider placement of varieties. Did you get a Soybean Cyst Nematode (SCN) resistant and/or Sudden Death Syndrome (SDS) tolerant variety for fields that are adjacent to fields that had SDS last year? It is difficult to predict SDS occurrence – but starting with SCN/SDS varieties will help.

Record your use of Restricted Use Products (RUP). Products like atrazine, atrazine package mixes, Balance Flaxx, Corvus, Aztec, Fortress and others are restricted use. A copy of ISU publication ICM-1 Integrated Crop Management and Pesticide Application will be useful for RUP record keeping.

Double check your nitrogen rates. Consider the use of the Corn Nitrogen (N) Rate Calculator http://extension.agron.iastate.edu/soilfertility/nrate.aspx. The Corn N rate calculator uses your nitrogen cost and current corn grain price to figure the economic return to N from recent N rate research data. Typical N rates for corn following soybean is around 130 lb/a of fertilizer nitrogen and 180 lb/a of fertilizer nitrogen for corn following corn fields ($0.45/lb. N cost, $3.50/bushel corn grain value).
Mark Your Calendars:

April 18  Food Safety Quality Assurance • Primghar
April 20  Youth Mental Health First Aid Course • Orange City
April 25  4-H Beef Workshop  Rock Rapids • Rock Rapids
April 25  Youth Insect Zoo Event Orange City (a.m.) Primghar (p.m.)
May  2   Youth Advance Sewing Workshop • Primghar

Plymouth County Fair — July 29-August 2, 2015

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