

# FIELD & FEEDLOT



ISU EXTENSION & OUTREACH—NORTHWEST REGIONS

FEBRUARY 2013 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/>

## Things to RuminatE On

By Beth Ellen Doran, ISU Extension & Outreach Beef Program Specialist



ISU and the University of Nebraska Extension are teaming up to offer a Feedlot Roundtable at six Iowa locations on Thursday, February 21 from 12:45-3:45 p.m. The Sac County Extension Office will be a host site for northwest Iowa.

The Feedlot Roundtable is offered annually in Nebraska for feedlot operators and allied agri-business professionals. Through a cooperative agreement to share livestock educational resources and technology, the Feedlot Roundtable will be available in Iowa via internet.

The webinar program formally begins at 1 p.m. with Dr. Temple Grandin presenting “Animal Welfare Challenges Facing the Beef Feedlot Industry.” This is a timely issue as there is discussion about future auditing of feedlots to assure cattle are being raised humanely.

Jim Robb, director of the Livestock Marketing Information Center in Denver, Colorado, will follow with “Market Outlook and Key Issues Related to Formula Pricing.” Formula pricing is an ongoing issue. Currently, more cattle are being bought on a grid price, which reduces the number of cattle being sold on the open market and may be harmful to cash market sellers of fed cattle.

The afternoon will conclude with an overview of ISU beef research. Dr. Stephanie Hanson, ISU Animal Science, will discuss current research on campus and Dr. Dan Loy, Iowa Beef Center Director, will focus on applied research and Extension projects.

Pre-registration is encouraged to plan for materials and refreshments.

Please pre-register by Feb. 19 to [lpaysen@iastate.edu](mailto:lpaysen@iastate.edu) or call 712-662-7131. Cost is \$10 per person payable at the door.

### Animal Husbandry (and Welfare) Reminders

Good animal husbandry is an important part of doing business. It not only helps optimize animal performance, but it also shows the public that animal welfare is a routine protocol for cattle producers. Hence, there are three reminders I'd like to share.

Winter Bedding – will help improve feed efficiency and carcass merit. A study at the Carrington Research Extension Center in North Dakota compared three levels of wheat straw bedding for finishing steer calves during the winter. The bedding treatments were no-, modest- and generous-bedding (2x modest). Feed intake was not affected by bedding level. Bedded cattle gained faster. Generous-bedded cattle gained 3.53 pounds, modest-bedded steers gained 3.69, and steers with no bedding gained 2.83. Feed efficiency tended to improve overall for bedded steers. Carcass quality traits were also positively affected by bedding. Dressing percentage in the no-bedding group was greatly reduced, potentially due to increased manure tags on the hide. Twenty-three percent of the carcasses from steers with no-bedding graded choice, versus 45 and 63% for the modest- and generous-bedded steers. Economic returns favored the bedding treatments. When returns were calculated on a grade and yield basis, the advantage for bedding increased to \$61.76 for modest-bedding and \$81.61 for generous-bedding. Bottom-line: it pays to bed!

No Regulation – exists in Iowa concerning the docking of cattle tails. However, it is recommended that producers employ this practice only if medically necessary. Occasionally, a feedlot animal may have its tail stepped on, which can cause infection. If this occurs, there is the potential for the infection to spread to the spine and for the animal to become incapacitated. To prevent this, it may be medically necessary to apply a band to the tail to ultimately remove the infected part of the tail and return the animal to normal health. If there is medical necessity, the band should be applied so that it resides between the vertebrae in the tail (not on the vertebrae) in order to minimize animal discomfort.

**Monitoring Cow Body Condition Now** – can prevent problems later. The majority of Iowa cows are now entering the last trimester of pregnancy, and their energy needs are increasing. At calving, the cow should be a body condition score of 5.5 or greater. But, because of drought, many cows came into winter thinner than usual.

Cows that calve in a body condition score of less than 5.5 are more prone to calving difficulty, take longer to return to estrous and produce milk lower in immunoglobulins. In addition to being smaller, their calves take longer to stand and nurse and are more susceptible to disease and calf scours.

It's imperative that you monitor body condition score every couple of weeks and increase the ration energy as needed. Nutritional demands are greatest in early lactation. This is a time when it is expensive and extremely difficult, if not impossible, to increase the body condition of the cow. Bottom-line: if you need to increase cow body condition, do it now!

## Regional Swine Conferences Scheduled

By Dave Stender, ISU Extension & Outreach Swine Program Specialist

### Efficiency

Northwest Iowa Pork producers can take a fresh look at efficiency. Dr. John Patience is working on a five million dollar grant to learn more about ways to help pigs grow faster using less feed. Last fall a conference was held in Des Moines bringing in world renown experts to discuss what is known about ways to improve efficiency. Over the past year ISU Extension has researched the topics more fully and developed fact sheets to help producers use less feed per pound of pork produced. This is especially important during times of high feed cost.

There will be regional swine conferences from 1 pm to 4 pm in the following locations to help producers stretch feed dollars:

- ⇒ February 25, Carroll Extension Office
- ⇒ February 26, Sheldon NCC building A room 119

### Topics for the conference will include:

- Rationing Corn for Pigs, where Extension specialists will evaluate replacing corn with DDGS usage or other low energy feed to stretch corn inventories, taking into consideration differences in DDGS composition from oil extraction and the consequences on pig performance. This segment will explore opportunities for ration development to get the biggest bang for your buck from that feed bill.

Additionally, selling lighter weight pigs uses less corn, but there are other factors to consider before you make that decision. The specialists will discuss a more holistic approach to avoid erroneous conclusions, bringing the packer grid, seasonal price direction, sorting skill and margin over feed cost into the equation.

- Feed management and technology to reduce feed cost will focus on particle size, pelleting, feeder management, feeder design, and how to more effectively manage feeders and the feed system to reduce inputs and improve the bottom line.
- Discuss how variances in rations may influence nutrient content in your manure and analyze potential dietary cost savings relative to nutrient value in manure.

Additional speakers/topics will include Dr. Phil Gauger, Assistant Professor, ISU College of Veterinary Medicine exploring Practical Swine Diagnostic Applications and Oral Fluid Testing, and Dr. Lee Schulz, Livestock Economist, Iowa State University with a session on: Looking Ahead: 2013 Livestock and Grain Economic Outlook. Contact your local Extension Swine Specialist for more information.

- **PQA Plus Training** will be available from 9:30 a.m. - 11:30 a.m. prior to each regional conference. These sessions are sponsored by the Iowa Pork Producers Association and will be free for those who pre-register. For more information or to pre-register, contact IPPA at (800) 372-7675 or [tbettin@iowapork.org](mailto:tbettin@iowapork.org)

### Improving Pork Quality

Pork eating characteristics have become increasingly important to various segments of the pork chain including the consumer. Recent consumer preference studies have shown a willingness to pay a premium for pork that is extra tender from a higher pH quality carcass. The most consistent quality measure on a pork carcass is the pH reading.

Low or inferior quality pork is light in color has a high purge loss, has a low ultimate pH, has high cook loss, may be dry and usually contains one or more off-flavors. The pork will also tend to be tougher to eat as palatability traits decrease with the pH reading.

Contrastingly, high or superior quality pork is darker in color, has no or low purge loss, is extremely tender and juicy, is not chewy and contains no off-flavors. The flavor of high-quality pork is unique and not dependent on the fat concentration.

Pork can be measured for quality. Routinely, ultimate pH is reached after 24 hours from stunning; however, minor changes may be noted for up to 48 hours after stunning. Depending on the muscle type, most pork will have pH values between 5.6 and 5.9. Extremely light, low quality pork will have lower pH values, some as low as 5.1. A small percentage of pork in the normal population will have pH values greater than 6.0. There is a booklet written by Dr. David Meisinger, Assistant Vice President, Pork Quality, Ó 1999 by the National Pork Producers Council in cooperation with the National Pork Board called 'A System For Assuring Pork Quality'. This booklet outlines 10 opportunities for invention to ensure top pork quality.

The areas producers control that impact pork quality include; genetic inputs, nutritional inputs, on-farm hog handling, handling hogs during transport, and pre-slaughter handling. A certification program called transport quality assurance addresses handling hogs to minimize pork quality issues.

Keeping the metabolism of the hog in the normal range is called aerobic metabolism. If the handling process reaches anaerobic metabolism, the result is a lactic acid build-up in the blood. As the lactic increases some pigs stop all movement in order to recover a normal blood pH level. The goal of handling pigs is to minimize these types of situations. Correct pig handling is a win-win prospect, more value to the producer and higher quality pork for the consumer.

## Herbicide Resistant Weeds

By Paul Kassel, ISU Extension & Outreach Field Agronomist

Herbicide resistance is a very popular topic in production agriculture. The development of weeds that are resistant to herbicide is not new. For example, a handful of weeds developed resistance to atrazine in the 1980s and waterhemp developed resistance to Pursuit herbicide in the early 1990s. Those issues of herbicide resistance were a concern at the time, but newer herbicide technology quickly solved the problem. As an example, Roundup Ready technology and glyphosate use



was available in the mid-1990s and provided good weed control performance for a number of years.

The current issue of waterhemp resistance to glyphosate herbicide is a little more concerning since there is no new technology to replace the current technology. One could argue that the forthcoming dicamba resistance and 2,4-D resistance technology may solve a lot of herbicide resistance issues. However, this new herbicide technology may not be widely available until 2015 or later.

An Iowa Soybean Association funded survey conducted by Mike Owen and Bob Hartzler of ISU evaluated herbicide resistance in Iowa in 2011. Weed samples were collected by Extension and industry personnel in 2011 and 2012. About 60% of the 2011 samples were recently evaluated. The remaining samples will be evaluated in 2013.

The results of this survey show the following levels of resistance to glyphosate by waterhemp weeds in Iowa.

- ◆ 95% resistant to Pursuit
- ◆ 58% resistant to atrazine
- ◆ 54% resistant to glyphosate
- ◆ 6% to Cobra (PPO family of herbicides)
- ◆ 28% to Callisto (HPPD family of herbicides)

The survey results also showed that waterhemp weeds were resistant to multiple herbicides.

- ◆ 29% resistant to Pursuit, atrazine and glyphosate
- ◆ 37% resistant to three herbicide sites of action
- ◆ 32% resistant to two herbicide sites of action
- ◆ 2% were resistant to all five herbicide sites of action tested in this study

This study was done with postemergence applications of these herbicides. Soil applied versions of these products may react differently.

However, this information shows that weed control of common waterhemp may continue to be a major challenge. For example, the level of resistance of waterhemp to Callisto is a concern. Callisto and other HPPD herbicides – like Balance Flexx, Impact, and Laudis – are popular corn herbicides. These products have been an effective tool for managing waterhemp and other hard to control broadleaf weeds in corn.

The management of glyphosate resistant waterhemp in soybean acres could be especially challenging. Highly effective broadleaf tank mix partners for glyphosate applications are limited. Products like Cobra, Flexstar, and Cadet are limited in their weed control spectrum or application timing.

Therefore, the use of soil-applied products in soybean production has been promoted. Trifluralin products (DNA family) are a good alternative for waterhemp management but require two incorporation passes. Prowl herbicide is similar chemistry and can be incorporated with one incorporation pass. There has been little reported resistance of weeds –including waterhemp – to the DNA family of products.

Other products are widely available for application after soybean planting. Products like Authority First, Enlite, Gangster, Optill, Prefix, Sonic, Valor and others are effective and reasonable in cost (~\$10.00/acre). However, the performance of these products can be reduced by the lack of rainfall after application.

Weed control has and will continue to be a challenge for corn and soybean production. It is likely that the use of glyphosate and glyphosate resistant crops in the late 1990s and early 2000s will be viewed as a time when weed control was relatively easy. This easy weed control may not be the norm as we move into the 2010s.

Various weed scientists are gathering data on the levels of herbicide resistance in farm fields. Consider completing this survey <https://www.surveymonkey.com/s/59GJBCX> if you have an interest in reporting herbicide resistant weed control issues from your farm operation.

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# IOWA STATE UNIVERSITY

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# IOWA STATE UNIVERSITY

## Extension and Outreach

FEBRUARY ISSUE 2013

### PLYMOUTH COUNTY

#### **REMAINING PRIVATE PESTICIDE TRAININGS**

February 7, 2013 - 9:30 AM, Hinton and 1:30 PM, Remsen  
March 7, 2013—7:00 PM  
Plymouth County Extension Office, Le Mars

#### **PRIVATE PESTICIDE TESTING DATE IN LE MARS**

The IDALS test is offered from 10 AM to 2:00 PM on February 27 at the Le Mars Convention Center

#### **CONFINEMENT MANURE CERTIFICATION**

February 21, 2013 - 1:30 & 7:00 PM  
Plymouth County Extension Office, Le Mars

#### **MANAGING THROUGH STRESS: A LIVESTOCK INFORMATION EVENT**

February 4, 2013 10:00 AM—3:00 PM— Meal is free on site courtesy of Iowa Farm Bureau  
Plymouth County Extension Office, Le Mars is one of 14 sites in Iowa

#### **NW IOWA RESEARCH FARM ANNUAL MEETING**

February 18, 2013 - Pizza Ranch Sheldon 10:00 am  
Flyer enclosed with meeting details \$10 per person