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 agribusiness 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 or call 712-662-7131. Cost is $10 per person payable at the door.

Animal Husbandry (and Welfare) Reminders

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.

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

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 stops all movement in order the 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. Trifuralin 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.
Gardening with a Community

Every year, new community gardens are created through the efforts of churches, hospitals, and countless other organizations and individuals. There are many benefits of gardening at a community site. It provides an opportunity for those who do not have the space or the desire to garden on their own. Such gardens create access allowing more people to grow their own food, which in turn, allows them to stretch their grocery dollars while enjoying fresh, healthy food at their finger tips. Plus, participating in a community garden brings the added bonus of making new friends, having others nearby for gardening support, the sharing of tips, and sometimes the sharing of produce. Community gardening is as much about community as it is about gardening.

Community gardens come in many forms. There is the collective community garden where participants plant and tend one garden and all share in the harvest. The allotment style community garden is probably more widely known. This is where the community garden is subdivided into individual plots that are independently planted and maintained. Often the plots are rented for a small fee, which is used to help pay future garden expenses. Community gardens can also be established with a particular objective in mind such as to supply produce to a food pantry, or for horticultural therapy, or for educational programs. Before starting a community garden, consider what type of garden would best suit your needs.

When planning a new community garden, to help get things organized it’s a good idea to form a team of individuals willing to serve on a leadership committee. These folks will participate in the planning of the garden. They will help identify needs, execute tasks as well as identify potential partners and supporters. It’s beneficial to have several people involved who can share the responsibilities of organizing and implementing this labor of love.

It is also important to choose a good site. Make sure it gets plenty of sun. Most vegetables need 6 or more hours of full sunlight a day. The site should be level and, ideally, have well-drained soil. It is recommended to have a soil test done to find out the fertility of the soil. Also, it is valuable to know the history of the site. What was it used for in the past? Was the site flooded or could there have been any use of the land that would have left behind toxins?

Another essential factor to keep in mind is how the site will be watered. Vegetables on average need about 1-1½ inches of water per week. Gardeners at the community garden that was started in Sheldon last summer initially had to tote water from home to water their plants. Trust me when I tell you that there was a collective sigh of relief when the garden committee was able to install a water hydrant at the site. Hauling your own water is doable but having a nearby water source just makes it easier.

Start-up costs for a new community garden can include items such as site preparation, which often involves weed removal, tilling and possibly fertilizing. Fencing is generally needed, which will give your garden a border and keep rabbits out. Plus, most gardens will have some type of signage to let passersby know that this is a community garden site. Creating water access at the garden may also require some funds. If your site is hosted by an organization such as a church or business and has an available faucet, then maybe they will be willing to donate the water or work out a water stipend. If water is not readily available, installing a new faucet may be an option but can also be expensive. Or you may consider getting a large water tank so water can be stored onsite.
Often when a group of people or an individual embarks on starting a community garden, they are pleasantly surprised at just how many folks in the community are willing to get involved. If you let people know how they can help, you may discover many donations of time, materials, or services from local businesses, individuals, organizations as well as support from the town or city. Also, don’t be shy about applying for grants as a way to raise funds to help cover your start-up costs.

You can find more information on how to start a community garden at the American Community Gardening Association website, www.communitygarden.org. Also, the city of Des Moines, Iowa put out a community garden handbook that offers a nice array of information. The handbook can be downloaded at www.dmgov.org/Departments/Parks/PDF/CommunityGardenHandbook.pdf. For any questions, please feel free to contact me at mmurphy@iastate.edu, by phone at (712) 754-3648 or through your local County Extension office.
Events at ISU Extension-Lyon County

UPCOMING PROGRAMS - Call 712-472-2576 to confirm dates and times. Thanks!

Commercial Pesticide Applicators Training - 2013
   Feb 13 - 9:00 am - Commercial Pesticide Applicator
   Feb 27 - 9:00 am - Seed Treatment
   Mar 6 - 1:30 pm - Ornamental & Turfgrass
   Mar 13 - 9:00 am - Certified Handlers
   Oct 16 - 9:00 am - Roadside, Forest & Aquatic Pest Mgmt
   Oct 24 - 9:00 am - Mosquito & Public Health Pest Mgmt
   Nov 6 - 1:30 pm - Ornamental & Turfgrass
   Nov 13 - 9:00 am - Commercial Pesticide Applicator
   Dec 4 - 9:00 am - Pest Control Operators

TBA - Aerial Applicators

Private Pesticide Applicator Training - 2012-2013
   Feb 12, 2013 - 7:00 pm - Community Center, Inwood
   Mar 7, 2013 - 1:30 pm - Community Center, Primghar
   Mar 12, 2013 - 7:00 pm - Presbyterian Church, Sibley
   Mar 21, 2013 - 1:30 pm - Community Center, George
   Mar 21, 2013 - 7:00 pm - Sioux County Extension, Orange City
   Apr 9, 2013 - 7:00 pm - Building A, NCC, Sheldon

Private Pesticide Applicator Testing - 2013
   10:00 am - 2:00 pm    Pesticide Bureau - (515) 281-8591
   http://www.iowaagriculture.gov/Pesticide/pesticidetesting.asp
   Feb 27, 2013 - Plymouth County Extension, LeMars
   Mar 12, 2013 - Public Library, Sioux Center
   Mar 13, 2013 - Forster Community Center, Rock Rapids
   Mar 26, 2013 - Dickinson County Fair Board, Spirit Lake
   Mar 27, 2013 - Community Building, Primghar

Commercial Manure Applicator Training - 2013 - RESHOW
   Feb 18 - 9:00 am - Forster Community Center (AB room), Rock Rapids
   Feb 18 - 1:00 pm - Forster Community Center (AB room), Rock Rapids
   Feb 18 - 6:00 pm - Forster Community Center (AB room), Rock Rapids

Confinement Site Manure Applicator Training - 2013
   Feb 8 - 1:30 pm - Wellness Center, Sibley

PUBLICATIONS

Cash Rental Rate Survey - 2012
   http://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-10.pdf

Custom Rate Survey - 2012
   http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

Farmer's Tax Guides - 2013

4-H Important Dates:
   May 15, 2013 - Livestock ID's Due
   June 1, 2013 - Rabbit ID's Due
   June 25, 2013 - Livestock Fair Entries Due
   July 22-25, 2013 - Lyon County Fair
   Aug 8-18, 2013 - Iowa State Fair
   Sept 7-15, 2013 - Clay County Fair
**Hotlines Available For All**

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<tr>
<th>Service</th>
<th>Phone Number</th>
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<tr>
<td>Iowa Concern</td>
<td>(800-447-1985)</td>
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<tr>
<td>Farm On</td>
<td>(877-BFC-1999)</td>
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<tr>
<td>Teen Line</td>
<td>(800-443-8336)</td>
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<tr>
<td>BETS OFF</td>
<td>(800-BETS-OFF)</td>
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<td>(800-238-7633)</td>
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**Hotlines Available to Iowa Residents Only**

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<th>Service</th>
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<tr>
<td>Families Answer Line</td>
<td>(800-262-3804)</td>
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<tr>
<td>Hortline</td>
<td>(515) 294-3108</td>
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<tr>
<td>Iowa Healthy Families</td>
<td>(800-369-2229)</td>
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<tr>
<td>PORKLine</td>
<td>(800-808-7675)</td>
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