Extension Web Sites
Ag Decision Maker
www.extension.iastate.edu/agdm/
Beef Center
www.iowabeefcenter.org/
Manure Management
www.agronext.iastate.edu/immag/
Pork Center
www.ipic.iastate.edu/
ISU Extension Dairy Team
www.extension.iastate.edu/DairyTeam/

Pro-Ag 2013 Outlook Forums set for November 20 in Le Mars, Spencer
Melissa O’Rourke, Farm and Agribusiness Management Specialist

Agricultural lenders and suppliers, producers and policymakers grow nervous when commodity prices, input costs, farmland values and lease rates become volatile. Add in prevented and late planting last spring with drought conditions for good measure and there is plenty of excitement to manage for the 2014 farming year.

That’s why ISU Extension and Outreach recommends that producers and ag professionals attend a Pro-Ag Outlook Forum on November 20 in either Le Mars or Spencer.

Iowa State University agricultural economists have recently cautioned farmers to be prepared for a potential downturn in the values of commodities and land. Especially in light of these volatile conditions, ISU Extension offers opportunities for producers and ag business professionals to get updated information to help make decisions that need to be made during the post-harvest period.

The Le Mars forum begins at 9 a.m. on November 20. The same program is repeated at 1:15 p.m. in Spencer.

This format gives interested producers and professionals a choice of times and locations for the half-day program.

The opening speaker is Dr. Lee Schulz, ISU Livestock Marketing Analyst. Schulz will review the livestock situation, reviewing the profit potential and survival techniques in the livestock sector. Dr. Schulz will be returning from an international trade mission and will share information focusing on volatile beef and pork prices driven by demand and world economy factors, including exports, herd size and feed costs.

Dr. Schulz specializes in livestock economics, agricultural marketing and risk management and has expertise in topics including fed cattle trade, feeder cattle pricing, meat demand, and price risk management and analysis. His research on a host of livestock economic issues has resulted in multiple publications and numerous outreach contributions.

Schulz grew up on a cow-calf farm in central Wisconsin. He obtained a bachelor’s degree from the University of Wisconsin-River Falls and holds a Ph.D. in Agricultural Economics from Kansas State University as well as an M.S. degree in Agricultural Economics from Michigan State University.

Melissa O’Rourke, Farm and Agribusiness Management Specialist for ISU Extension will present a brief outlook on the trends in farmland rental rates. Calls are steady from both producers and owners with questions about fixed and flexible cash rent arrangements and related land value trends. O’Rourke will give a brief overview of the trends for 2014.

The forum features a keynote presentation by Dr. Chad Hart from the department of agricultural economics at Iowa State University. As uncertainty abounds in the crop markets with questions about crop size and global demand, Dr. Hart will discuss the cyclical nature of the markets including the factors shaping the markets and the keys to watch as farmers market their grain over the coming year.

Prior to joining the Department of Economics at Iowa State University, Chad Hart was the U.S. Policy and Insurance Analyst with the Food and Agricultural Policy Research Institute (FAPRI) and a Scientist with the Center for Agricultural and Rural Development (CARD) at Iowa State University. His projections and outlooks are sought after by agriculture professionals across Iowa and the nation.

The forums last two and a half hours and the cost to attend...
at either location is $20 per person if pre-registered. Walk-in registration is $25.

The Le Mars program will be held at the Plymouth County Extension Office (Upper Level of the Le Mars Convention Center) located at 251 12th St SE, Le Mars IA 51031.

The Spencer program will be held at the Iowa Lakes Community College—Spencer Campus at 1900 Grand Avenue (former Gateway North Mall) in Spencer.

Advance registration is recommended by calling the ISU Extension office in Plymouth County (Le Mars) at 712-546-7833; or Clay County (Spencer) at 712-262-2264.

More information and a registration form can be found at www.extension.iastate.edu/clay or any county extension website in this region.

Trees and Shrubs: Protecting them from winter perils
Margaret Murphy, Horticulture Educator

Plants should have a good supply of moisture as they head into winter. Continue to water trees and shrubs until the ground freezes. This is especially important for newly-planted trees or shrubs and for those planted in the last two to three years as they are still getting established.

To reduce the risk of root injury from repeated freezing and thawing, otherwise known as frost heave, young or newly-planted trees and shrubs should be mulched with four to six inches of wood chips, shredded leaves or straw. Add winter mulch after the ground is frozen even if snow has already fallen.

During winter, young, newly-planted or thin-barked trees such as crab apple, honey locust, hinden and maple are susceptible to sun scald. Sun scald often cracks the bark and usually occurs on the south or southwest side of the tree. Sun scald is most likely to happen on cold, sunny days in midwinter. As the sun heats up the bark’s temperature some cells can become active. When the sun’s warmth is gone, the active tissue is damaged or killed by freezing temperatures. To prevent sun scald wrap the trunk with a commercial tree wrap, plastic tree guard or other light-colored material. The wrap will reflect the sun’s rays and keep the bark at a more constant temperature. Put the wrap on in the fall and remove it in the spring after the last frost.

According to the University of Minnesota Extension, wrap newly-planted trees for at least two winters and thin-barked species up to five winters or more.

Winter is also the time rabbits and deer turn their attention to woody stems and bark. Fencing is the most effective way to prevent damage from these foragers. Place a cylinder of hardware cloth or chicken wire around the tree trunk or create a cage around shrubs. Plan to extend the fence about two feet above the anticipated snow line while to prevent rabbit damage. To prevent damage from deer, extend the protection a few feet higher than the top of the shrub or young tree. If fencing is left on a tree trunk during the growing season, leave a space between the fence and the trunk to avoid restricting the tree’s growth. Repellants may also be effective in warding off animals intent on foraging trees and shrubs. Plants can be sprayed or painted with repellent or you can hang heavy rags dipped in concentrated repellant near the plants to be protected. Repellants need to be reapplied regularly to provide adequate protection.

Calf Management: Cultivating a Herd’s Future
Kevin Lager, Dairy Field Specialist

Heifer calves are the future of the dairy herd since they ultimately replace cows leaving the herd. It is expected that these replacements will be genetically superior and more productive than the cows leaving the herd. This emphasizes the importance of ensuring the replacement heifer calf reaches the point of becoming a contributing member of the dairy herd. Greater emphasis has been placed on management in the early life of the calf as it has been shown that management improvements in the early phases of life can have a positive impact on the lifetime productivity of the calf. While not all management programs are alike, goals for calf health and performance should be set. Standards for health and performance in large breed calves from 24 hours following birth to 60 days of age can be found in Table 1.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>24 hrs. to 60 days of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>Morbidity (respiratory)</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>Morbidity (scours)</td>
<td>&lt; 25%</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>Double birth weight</td>
</tr>
</tbody>
</table>

Environment and nutrition play key roles in the health and performance of dairy calves. Newborn calves have a thermal neutral zone (TNZ) of 50 to 79° F while calves reaching one month of age have a TNZ between 32 and 74° F. Temperatures below the lower TNZ threshold result in cold stress while temperatures above the upper TNZ threshold result in heat stress. Ensuring dry, sufficient bedding and adequate air changes are keys to calf health. Determining sufficient bedding can be done using a scoring system (Table 2), with a nesting score of 3 being ideal in cold conditions. Young calves in calf barns require up to 40 air changes per hour during hot weather and four air changes per hour in cold weather to ensure air quality and
reduce morbidity.

**Table 2. Scoring System to Determine Adequate Bedding Levels for Dairy Calves**

<table>
<thead>
<tr>
<th>Nesting Score</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Calf lies on top of bedding; legs exposed</td>
</tr>
<tr>
<td>2</td>
<td>Calf slightly nestles in bedding; partial leg exposure</td>
</tr>
<tr>
<td>3</td>
<td>Calf deeply nestles in bedding; legs not visible</td>
</tr>
</tbody>
</table>

Nutritional content of the calf’s diet should be adjusted based upon the environmental temperature. The required level of milk replacer to maintain body function at selected temperatures and calf body weight is noted in Table 3. Providing additional milk replacer beyond maintenance will be necessary to meet growth requirements during cold weather.

**Table 3. Daily Pounds of 20/20 Milk Replacer to Meet Calf Nutrient Maintenance Requirements**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>BW, lbs.</th>
<th>68</th>
<th>50</th>
<th>32</th>
<th>15</th>
<th>5</th>
<th>-5</th>
<th>-20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>0.6</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>0.8</td>
<td>0.9</td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>1.0</td>
<td>1.1</td>
<td>1.3</td>
<td>1.6</td>
<td>1.8</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>

Replacement heifers are the future of the dairy operation. Proper attention to management is necessary to ensure growth and health goals are met. Attention to detail in the early stages of life will be realized when the calf enters the milking herd.

Work with your nutritionist and veterinarian to establish health and growth goals that fit your operation.

For additional information on calf management, visit the Iowa State University Extension and Outreach Dairy Team webpage [www.extension.iastate.edu/dairyteam/](http://www.extension.iastate.edu/dairyteam/)

**ISU Updates Soil Fertility Recommendations**

*Joel De Jong, Crops Field Specialist*

ISU Soil Fertility specialists Antonio Mallarino and John Sawyer just released an updated version of the sixteen-page ISU publication entitled “A General Guide for Crop Nutrient and Limestone Recommendations in Iowa.” A copy can be downloaded at [https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=5232](https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=5232) and a printed version will be available later this fall.

**Why an update on the recommendations?** Field research is conducted continuously to assure that nutrient management suggestions are current. Recent research indicates that some of the recommendations should not change, but others do need to be changed to improve the profitability and sustainability of crop production.

**What has not changed?** One item is the general concept for long-term profitability and reduced risk of yield loss by emphasizing response-based applications for very low and low soil test categories, and the concept for optimum soil test levels of removal-based maintenance - replacing what has been removed with crop harvest. Also staying the same are several phosphorus interpretation categories, the soil pH considered sufficient for crops, the micronutrient recommendations (with on-going research looking at this issue), and the amounts of P and K recommended for the very low and low soil test categories.

**What has changed?** Here are some of the most significant items. There are some new soil tests being run where samples are not dried in the lab. Rather, these samples are analyzed as a moist or slurry sample. The results are now calibrated to determine when yield responses are likely to occur, as has been done with the other soil testing methods. Recent research has also indicated that an adjustment was needed for K (potassium) tests where samples are dried in the lab. Additionally, adjustments have been made to both crop nutrient concentrations and default crop yields needed to estimate nutrient removal for maintaining soil-test levels in the optimum category.

The nutrient concentration of the crop removed has changed because it is quite clear that lower grain nutrient concentrations are present in samples from research studies analyzed in Iowa and other states, plus we also now have better information of nutrient concentrations for many other crops and harvested plant parts. Here are examples changes in these nutrient concentrations. The “old” publication indicated that a bushel of corn removed .375 pounds of phosphorus, and .3 pounds of potash. The new table in this publication lists a bushel of corn removing .32 and .22 pounds respectively. These numbers are set at the level where 75% of the samples analyzed would fall below this level, not an average of all samples. Likewise, soybeans are now at .72 and 1.2 pounds of phosphorus and potash removed per bushel, where previously they were estimated at .8 and 1.5 pounds removed per bushel. Forage nutrient removal amounts in the new report are based on typical harvest moisture levels, not on a dry matter basis like previously reported. For each ton of corn stover removed at 15% moisture, the new report has a removal rate of 4.8 pounds of phosphorus and 18 pounds of potash under the new standards, down from the older 5.9 and 25 pounds, respectively.

This publication is a great soil fertility reference. I encourage everyone who grows crops to carefully read the entire publication and get familiar with the nutrient needs of your crops.
CLIPPINGS - Best Practices for Helping You Communicate Your Agriculture Story with Adult Consumers

By: Kaye Strohbehn, Agriculture Producer and Consumer Education Specialist

Northwest Iowa - The United States Department of Agriculture Census of 2007 shows the number and size of farms in Iowa has continued to decrease, while the average age of farmers continues to increase. Additionally, the Food and Agriculture Organization of the United Nations indicates the world population will reach a record breaking nine billion people by the year 2050 - an increase of close to two billion people worldwide.

With our world population set to reach this record-breaking number, it brings to light the need for our agriculture community to have more individuals engaged in telling the story of agriculture in Iowa. Who better to tell the story of Iowa agriculture than the many agriculturalists who work to provide a safe, wholesome, economical and desirable food product?

To help you prepare your agriculture story and message, I recommend trying the following research-based best practices:

Identify your audience. Ask yourself the following question: Who am I trying to reach with my message? By defining as much as you can about your target audience, you will be better equipped to tailor your message to the needs of your audience.

Determine your purpose and goals. Ask yourself: What impact do I want to make on my targeted audience? For example, is your intent for the audience to increase their awareness and knowledge about your product?

Describe specifically what you want the audience to know about the agriculture industry or the product you represent.

Tailor your message to the audience. Stick to the facts! Use trusted and unbiased research-based information from universities, commodity organizations or governmental agencies. Incorporate consumer preferred language as much as possible into your message. For example, instead of using the word “producer” to describe those that raise our food use the word “farmer” instead.

Listen and learn from consumers and neighbors. By listening to consumers and neighbors in earnest, your message will be received showing the value you bring not only to the agriculture community, but to the product you represent.

Remember to keep your message clear, concise and purposeful. Convey to your audience first the value they gain from your message or from consuming your product. For more information on programs, resources or guidance on educating and communicating your agriculture story to consumers and neighbors, contact me at 712-737-4230 or kestroh@iastate.edu.

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Contact:
Kaye Strohbehn, Agriculture and Consumer Education Specialist
400 Central Ave. NW, Suite 700; Orange City, IA 51360
Email: kestroh@iastate.edu Office: 712-737-4230

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Events at ISU Extension-Lyon County

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

Commercial Pesticide Applicators Training - 2013
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 - 2013-2014
Dec 12 - 9:30 am - Legion Hall, Paullina
Dec 16 - 9:30 am - Sioux County Extension, Orange City
Dec 17 - 9:30 am - Forster Community Center, Rock Rapids
Dec 17 - 1:30 pm - Presbyterian Church, Sibley
Jan 16 - 7:00 pm - Sioux County Extension, Orange City
Feb 7 - 1:30 pm - Sioux County Extension, Orange City
Feb 13 - 7:00 pm - Community Center, Inwood
Mar 4 - 1:30 pm - Community Center, Primghar
Mar 20 - 1:30 pm - Community Center, George
Mar 20 - 7:00 pm - Presbyterian Church, Sibley
Last Chance: Apr 8 - 7:00 pm - Building A; NCC, Sheldon

Pesticide Applicator Testing - 2013
10:00 am - 2:00 pm Pesticide Bureau - (515) 281-8591
http://www.iowaagriculture.gov/Pesticide/pesticidetesting.asp
Nov 12 - Woodbury County Extension, Sioux City - 712-276-2157
Dec 2 - O’Brien County Extension, Primghar - 712-957-5045
Dec 9 - Woodbury County Extension, Sioux City - 712-276-2157

Commercial Manure Applicator Training - 2013 - RESHOW
Nov 14 - 9:00 am - Extension Office, Rock Rapids
Dec 12 - 9:00 am - Extension Office, Rock Rapids

Commercial Manure Applicator Training - 2014
Jan 7 - 9:00 am - Extension Office, Rock Rapids
Jan 7 - 1:00 pm - Extension Office, Rock Rapids

Confinement Site Manure Applicator Training - 2013 RESHOW
Nov 14 - 1:30 pm - Extension Office, Rock Rapids
Dec 12 - 1:30 pm - Extension Office, Rock Rapids

Confinement Site Manure Applicator Training - 2013 RESHOW
Feb 3 - 1:30 pm - Forster Community Center, Rock Rapids

Manure Applicator Testing
DNR Field Office #3, Spencer - (712) 262-4711
http://www.iowadnr.gov/

Nature Explore Program
Apr 10, 2014 - 6:30 pm - AB Room: Forster Community Center, Rock Rapids

PUBLICATIONS

Cash Rental Rate Survey - 2013
http://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-10.pdf

Custom Rate Survey - 2013
http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

Farmer’s Tax Guides - 2012
## LYON COUNTY

<table>
<thead>
<tr>
<th>Hotlines Available For All</th>
<th>Hotlines Available to Iowa Residents Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa Concern (800-447-1985)</td>
<td>Families Answer Line (800-262-3804)</td>
</tr>
<tr>
<td>Farm On (877-BFC-1999)</td>
<td>Hortline (515) 294-3108</td>
</tr>
<tr>
<td>Teen Line (800-443-8336)</td>
<td>Iowa Healthy Families (800-369-2229)</td>
</tr>
<tr>
<td>BETS OFF (800-BETS-OFF) (800-238-7633)</td>
<td>PORKLine (800-808-7675)</td>
</tr>
</tbody>
</table>

The Iowa Cattlemen’s Association (ICA) invites all cattle producers to attend the Iowa Cattle Industry Convention on Dec. 9-11, 2013 at the Prairie Meadows Events Center in Altoona. The theme of the convention is “Grab Reality by the Horns,” a nod to the challenging weather and pricing issues for all cattle producers this past year. The convention will encourage producers to grab those issues and “wrestle” them under control. **Early registration ($75), including all events and meals, ends Dec. 2.** Full registration after Dec. 2 is $125. Participants may attend at a lower cost ($25), but reduced registration includes only educational events, and no meals are included. **Prairie Meadows Hotel has special pricing ($89/night) if reservations are made by Dec. 2.** For more information, contact the ICA office at 515-296-2266.