Animal Well-Being Symposium
Set for August 9

An exciting agenda has been set for the 2nd Annual Symposium for Advances and Issues in Food Animal Well-Being. The meeting will take place at the University of Arkansas Fayetteville campus on August 9. Registration is free and can be completed online at http://www.arkansasalumni.org/CFAWSymposium2012.

This year’s conference, which is sponsored by the University of Arkansas Division of Agriculture, will cover many interesting topics that are important for improving animal well-being, animal health, safe animal handling and food safety. Speakers for the program include:

• Dr. Gail Golab, Director, American Veterinary Medical Association, Animal Welfare Division
• Dr. Alice Johnson, Vice President of Food Safety, Corporate Quality, Animal Welfare and Government and Public Affairs with Butterball, LLC
• Dr. Karen Christensen, Technical Director, O.K. Foods
• Dr. Candace Croney, Associate Professor of Animal Science at Purdue University
• Amanda Radke, Rancher, Author, Motivational Speaker
• Elizabeth Rumley, Staff Attorney at the National Agricultural Law Center
• Dr. Chris D. Ashworth, Senior Dairy Specialist, Elanco Animal Health
• Michael Formicella, President and Co-owner, Chella Foods
• Charlie Arnot, CEO, Center for Food Integrity

This daylong event will begin with registration at 7:30 a.m. A continental breakfast will be served. Lunch will be provided at noon, and the program will conclude around 5 p.m. For more information, contact your county Extension office.

Watch for Toxic Plant Problems
During Drought

With dry, hot weather, late summer pasture can become thin and short. Occasionally, this may entice cattle to browse on weeds that they wouldn’t typically eat with adequate forage available. Some weeds can be very toxic to cattle and other livestock. It never hurts to assess your pasture for toxic plants and realize they can have a detrimental effect on your livestock.

Perilla mint weed (aka Purple mint) is very common in our part of the country and is found in semi-shady areas of the pasture. Cattle don’t typically prefer to eat perilla mint weed,
but when very little valuable forage is left in a pasture due to drought, cattle may be tempted to munch on this toxic plant. Mint weed contains a ketone toxin that leads to severe respiratory problems in cattle. This toxin causes the affected animal’s lungs to fill with fluid, leaving them unable to breathe. Affected cattle show signs of respiratory distress such as breathing with their mouth open and neck extended, frothy salivation, grunting when breathing and generalized weakness. Death often occurs within one to two days after onset of illness. Treatment for the perilla mint toxin is very limited. Often, the stress of handling the affected animal for treatment is enough to exhaust their already weakened state. The best medicine is to prevent the consumption of the plant.

Considered good forage by some producers and a weed by others, johnsongrass can also lead to toxicity problems in cattle. Johnsongrass, sudangrass and other sorghum-sudan hybrids can accumulate nitrates and be a source of nitrate poisoning for grazing livestock. Signs of nitrate toxicity include heavy breathing, staggering, weakness, abortions and death. Johnsongrass can also contain prussic acid (cyanide) in its leaves and stems. Young plants that have been stressed by drought, frost or recent application of herbicide contain dangerous levels of free cyanide in their leaves. It is especially common in johnsongrass that is less than 18 inches tall and has started to re-grow after a shower following a long dry spell. Cyanide prevents the body’s ability to normally utilize oxygen. Therefore, affected cattle may show respiratory signs, but sudden death is a very common occurrence. Prussic acid will dissipate when johnsongrass is cut and cured for hay. Johnsongrass is very common throughout our state.

Dry summer pastures can turn deadly when cattle graze on forages that are poisonous. Usually, the best method of controlling plant toxicity is to limit exposure to the poisonous plant initially. For more information about toxic plants or other tools for managing your farm, contact your county Extension office.

**Poor Temperament Can Equal Poor Performance**

**DR. JEREMY POWELL**

Temperamental cattle can be a hazard to themselves and to the people handling them as well as to other cattle. Compared to calm cattle, cattle exhibiting a heightened temperament are noted to spend more time inspecting their surroundings or responding to environmental “fears” instead of consuming forage or supplements. As cattle temperament worsens, their response to human contact or any other stimuli can directly affect their performance. To better understand the implications of temperament on beef cattle production, recent studies at Oregon State University evaluated the impacts of temperament on gain performance, reproduction and health parameters.

Among other measures, researchers assessed the temperament of cattle using a 1 to 5 scale (Figure 2) developed for scoring cattle while in the chute. In regard to reproduction, beef cows with greater average temperament scores (aggressive) had reduced pregnancy rates compared to cows that exhibited lower (calmer) scores. Furthermore, cows with greater average temperament scores had decreased weaning rates and reduced pounds of calf weaned/cow exposed compared to cows with lower average scores.

<table>
<thead>
<tr>
<th>Five-point temperament scoring system</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = calm with no movement</td>
</tr>
<tr>
<td>2 = restless movements</td>
</tr>
<tr>
<td>3 = frequent movement with vocalization</td>
</tr>
<tr>
<td>4 = constant movement, vocalization, shaking of the chute</td>
</tr>
<tr>
<td>5 = violent and continuous struggling</td>
</tr>
</tbody>
</table>

Ref.: Cooke et al., 2009

Cows with greater average temperament scores had decreased weaning rates and reduced pounds of calf weaned/cow exposed compared to cows with lower average scores.
The group also investigated temperament of feeder calves and its effects on growth performance. Calves exhibiting calmer temperaments had increased weaning weights and increased weaning calf values as well as increased carcass weights and marbling scores at harvest. An association was also noted between temperament and blood cortisol, a hormone in the blood associated with stress response. Cattle with excitable temperament have increased blood cortisol concentrations which could lead to further changes in body physiology, immune response and overall health.

Temperament is a heritable trait in cattle. Producers can assess temperament in replacement heifers when handled during vaccination or weaning to determine if they should be culled. Furthermore, many breed association have now developed EPDs that can be utilized by producers to select cattle with a more favorable temperament.

Research conducted on cattle behavior has concluded that a poor temperament can equate to poor performance. Therefore, it is important to remember that poor temperament can lead to detrimental effects on growth, reproduction and overall performance in cattle, and strategies to improve temperament can be utilized to optimize production efficiency of beef operations. For more information about cattle management practices, contact your county Extension office.

---

**Drought Meetings Set for Arkansas**

**DR. JEREMY POWELL**

Three meetings sponsored by the University of Arkansas Division of Agriculture and Farm Credit Services of Western Arkansas have been scheduled to help cattle producers deal with issues related to the recent drought. Each meeting will offer the same speakers who will cover topics to give producers tools to cope with drought-stricken pastures and forage shortages.

Speakers and topics for the program include:

- Dr. Paul Beck, who will discuss *How to Stretch Your Hay Using Crop Residues and Byproduct Feeds*
- Dr. Tom Troxel, who will focus on *Cattle Management During a Drought Period*
- Dr. John Jennings, who will cover *Forage Management – From Damage to Recovery*
- Dr. Shane Gadberry, who will discuss *Body Condition Scores-Based Feeding*

There is no cost to attend and no pre-meeting registration. Each meeting will take place at 6:30 p.m. at the following locations and dates:

- Aug. 1 – DeQueen, Cossatot Community College Agriculture Building
- Aug. 8 – Magnolia, Bancorp South Building
- Aug. 15 – Hot Springs, Garland County Fairgrounds.