

OFF THE HOOF

Kentucky Beef Newsletter – August 2013

Published Monthly by Dr. Les Anderson, Beef Extension Specialist, Department of Animal & Food Science, University of Kentucky

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Timely Tips

Dr. Roy Burris, University of Kentucky Beef Specialist

Spring-Calving Cow Herd

- Bulls should have been removed from the cow herd by now! They should be pastured away from the cow herd with a good fence and allowed to regain lost weight and condition. It is a good time to evaluate physical condition, especially feet and legs. Bulls can be given medical attention and still have plenty of time to recover, e.g., corns, abscesses, split hooves, etc. Don't keep trying to get open spring cows bred – move them to fall calving.
- Fescue pastures are not likely to produce much this month. Provide emergency feed such as a neighbor's idle pasture, summer annuals or hay. Keep rotating pastures to permit calves to continue gaining weight. Keep minerals available at all times.
- Repair and improve corrals for fall working and weaning. Consider having an area to wean calves and retain ownership for postweaning feeding rather than selling "green", lightweight calves. Plan to participate in CPH-45 feeder calf sales in your area.

Fall-Calving Cow Herd

- Dry cows should be moved to better pastures as calving time approaches. Cows should start calving next month. Yearling heifers may begin "headstart" calving later this month. Plan to move cows to stockpiled fescue for the breeding season, so it will soon be time to apply nitrogen fertilizer.
- Prepare for the fall-calving season (usually September). Get ready, be sure you have the following:
 - record book
 - eartags for identification
 - iodine solution for newborn calf's navel
 - calf puller
 - castration equipment

General

- Provide shade and water! Cattle will need shade during the hot part of the day. Check water supply frequently – as much as 20 gallons may be required by high producing cows in very hot weather.
- Avoid working cattle when temperatures are extremely high – especially those grazing high-endophyte fescue. If cattle must be handled, do so in the early morning.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Do not give up on fly control in late summer, especially if fly numbers are greater than about 50 flies per animal. You can use a different “type” of spray or pour-on to kill any resistant flies at the end of fly season.
- Cattle may also be more prone to eat poisonous plants during periods of extreme temperature stress. They will stay in “wooded” areas and browse on plants that they would not normally consume. Consider putting a roll of hay in these areas and/or spraying plants like purple (perilla) mint which can be toxic.
- Take soil samples to determine pasture fertility needs. Fertilize as needed, this fall.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions are favorable. Stockpiled fescues can be especially beneficial for fall-calving cows after calving.

A Spirit of Cooperation Personified

Dr. Roy Burris, Beef Extension Specialist, University of Kentucky

The Cooperative Extension Service “extends” the efforts of the land grant college systems to our clientele – frequently across state lines. This spirit of cooperative, coupled with a “can do” attitude has been exemplified to me for the past several years by the Extension Agent in Montgomery County, Tennessee – Mr. John Bartee. Since John’s untimely passing yesterday (as I write this), I can’t help but reflect on the man and several joint beef projects in which Kentucky and Tennessee cooperated successfully.

The Pennyrile Area Certified Preconditioned for Health (CPH) feeder calf sale was being held at the Kentucky-Tennessee Livestock Market in Guthrie, Kentucky (just outside of Clarksville, TN) and provided an excellent opportunity for cooperation across the state line. Several agents and specialists of both universities met to explore the possibility of expanding the sale to attract more farmers and buyers and expand our efforts. The key, no doubt, to the success of this effort was John Bartee, because of his “stature” in the area. John was a man of conviction, ability and few words. After some discussion, he said simply “Let’s do it” ... and we did.

That effort was expanded to include certified heifer replacement sales to benefit cattlemen in both states, too. John (from UT) and Kevin Laurent (UK) worked tirelessly to make the program a success for both states ... and it is.

Dr. Lehmkuhler, Dr. Johns, Blair Knight and I worked closely with John for several years on the Mid-South Stocker Conference – which is the result of a lot of collaboration between agents, specialists and industry representatives from both states. This has been a very successful educational program for Mid-South stocker producers due in large-part to John Bartee’s efforts and attitude. There were several times when we, as a group, were stuck on how to get something done and, after some discussion, John would say simply “I’ll take care of it” ... and he did.

Dr. Warren Gill of UT (now Middle Tennessee State University) worked on an IFAFS grant with me, and several others, to survey the sulfur levels in fescue and copper levels in beef cattle. Sulfur was found to be at antagonistic levels (greater than 0.35%) in much of the fescue pastures while deficiencies in copper were apparent in cattle in Tennessee and Kentucky. John personally saw to it that his area of the state was represented in the study and then worked tirelessly to get farmers to use better mineral supplements for their cow herds ... and they did.

John Bartee exemplified the best of the Cooperative Extension Service and the spirit of cooperation amongst states. He will be missed by a lot of people – not only in Tennessee, but in Kentucky, too. We have a lot of men and women in agriculture in Kentucky and Tennessee who dedicate their lives to the agricultural community. I salute all of you. I am just sad now that there is one less.

Advanced Master Cattlemen Enrollment Open

Mr. Land Dale, Extension Program Assistant, University of Kentucky

The University of Kentucky's Applied Master Cattleman Program is currently open for fall enrollment. Session topics for the Applied Master Cattleman Program include: Genetics, Forages, Economics, Nutrition and End Product. This program is designed for producers who want a level of education above the Master Cattleman curriculum. Applied sessions are more in depth and hands-on. The topics covered will be driven by local county needs.

If you are interested in participating in the Applied Master Cattleman Program, contact your local county extension agent to see if this program is offered in your area. Participants must be graduates of UK's Master Cattleman Program.

For any additional information regarding this program, or other beef cattle programs, go to www.uky.edu/Projects/BeefIRM/ or contact Land Dale at (859) 278-0899 land.dale@uky.edu

Acute or Atypical Interstitial Pneumonia in Grazing Cattle

Dr. Michelle Arnold, Large Ruminant Extension Veterinarian, University of Kentucky

Acute or atypical interstitial pneumonia (AIP) is a descriptive term used by veterinary pathologists when they see a certain characteristic pattern of damage to the lungs of cattle. The characteristic findings of AIP are lungs that do not collapse when the chest cavity is opened and that are heavy and have a firm, rubbery texture. These findings are confirmed at the cellular level with very distinct damage noted to the lung cells when viewed through a microscope. A variety of agents will directly or indirectly damage the walls of the air sacs in the lungs and cause AIP. Affected animals will show “acute respiratory distress syndrome” which is a sudden and dramatic onset of severe breathing difficulty. One cause of AIP in grazing cattle is acute bovine pulmonary edema and emphysema (ABPEE) or “fog fever”, a condition first reported in Europe over 200 years ago. The disease is associated with the grazing of “fog lands” which are pastures that have lush new growth after being cut for haylage or silage. In the Southeastern US, acute interstitial pneumonia has been produced by ingestion of the leaves and seeds of perilla mint (*Perilla frutescens*).

In the United States, ABPEE is usually seen in beef cows over 2 years of age when they are moved in the early fall from dry, dormant summer pastures to lush fields. In the western US, the change is from dry summer mountainous pasture to a lush, irrigated lowland pasture. This lush pasture contains the amino acid tryptophan which can be metabolized by the organisms in the rumen to 3-methyl indole (3-MI). The

3-MI is absorbed into the blood stream, transported to the lungs and metabolized to a new compound 3-methyleneindolenine (3MEIN) that actually causes the widespread cellular injury. Recent studies have found that tryptophan levels in pastures associated with fog fever are not higher than unaffected pastures. Instead, it is the abrupt change from the low plane of nutrition associated with grazing the poor quality dry forage to lush pasture that changes the normal rumen microflora and makes it very efficient at converting tryptophan to 3-MI. Clinical signs usually develop within several days and up to 2 weeks after the pasture change. Nursing calves are not at risk and yearlings are less susceptible than adults. *Brassicas* including kale, rape, and green turnip tops are rich sources of tryptophan that can be converted in the rumen to 3-MI and cause AIP.

The clinical signs of a cow with AIP are often grouped together and described as an “acute respiratory distress syndrome”. This syndrome includes a sudden onset of open-mouth breathing with the head and neck extended, nostrils dilated, a sway-back appearance, foam coming from the mouth, an open shouldered stance, and sometimes aggression. Breathing is shallow and rapid (35-75 breaths per minute) and may have a loud expiratory grunt. Temperature is typically normal but may be mildly elevated due to the severity of the condition. In extreme cases, air under the skin (subcutaneous crepitation) may be felt over the upper portions of the neck, shoulders and back. Mild exercise may cause the animal to collapse and die. Generally there is an absence of coughing and no signs of infection such as fever or depression. Severely affected animals usually die within 2-3 days after initial onset of clinical signs. Mortality (death) occurs in approximately 30% of cases; less severely affected animals may improve without further consequences. The stress of handling cattle can cause further death loss so care must be taken when removing cattle from the offending pasture. Those that survive show dramatic improvement after 3 days with recovery spanning approximately 10 days. Severely affected animals that survive may develop chronic lung problems. Treatment is usually ineffective after development of clinical signs. Treatments by a veterinarian may include diuretics, nonsteroidal anti-inflammatory medications and corticosteroids used in an extra-label manner.



Prevention is based on management strategies that prevent or lessen the exposure of susceptible cattle to very lush pasture and incorporation of ionophores in the diet. Recommendations include:

1. Place the cattle in a drylot and feed palatable hay for several days and then begin turning them on lush pasture for a few hours per day. Gradually decrease the hay fed and increase grazing time over a 10-12 day period.
2. Do not use lush pastures until after a frost.
3. Use the pasture for young stock or other livestock such as sheep and allow them to thoroughly graze it before turning adult cattle in.
4. Use continuous strip grazing to limit the amount of lush pasture consumed.
5. Administration of monensin or lasalocid has been shown to reduce the conversion of tryptophan to 3-MI in the rumen by as much as 90%. For monensin to be effective, it must be present in the rumen at the time of exposure. Little effect remains in the rumen 48 hours after removal from the diet so prevention involves continuous feeding of monensin for at least 10 days after turn-out.



Picture accessed from:
<http://cal.vet.upenn.edu/projects/poison/plants/ppperil.htm>
Perilla Mint

In the Southeastern US, acute interstitial pneumonia has been produced by ingestion of the leaves and seeds of perilla mint (*Perilla frutescens*). This common weed is also known as purple mint, wild coleus, and beefsteak plant. *P. frutescens* thrives in late summer, when pastures are frequently dry and dormant. Cattle normally avoid it but may be forced to eat it when pasture is unavailable. Perilla ketone is the toxin absorbed from the rumen into the bloodstream and carried to the lungs where it damages the lung tissue. The pre-seed stage is of relatively low toxicity; the green seed stage plant is most toxic, especially the seeds. Dried hay is less toxic than green plants but can be lethal while frosted plants have relatively low toxicity.

Ingestion of perilla mint causes acute respiratory distress syndrome as described with fog fever. Animals are frequently found dead. Mature cattle are most often affected but it can occur in yearlings and calves. Treatment is of limited value and severe cases seldom survive. Cattle should be offered sufficient forage so they are not forced to graze weeds such as perilla mint.

Kentucky Beef Cattle Market Update

Kenny Burdine, Livestock Marketing Specialist, University of Kentucky

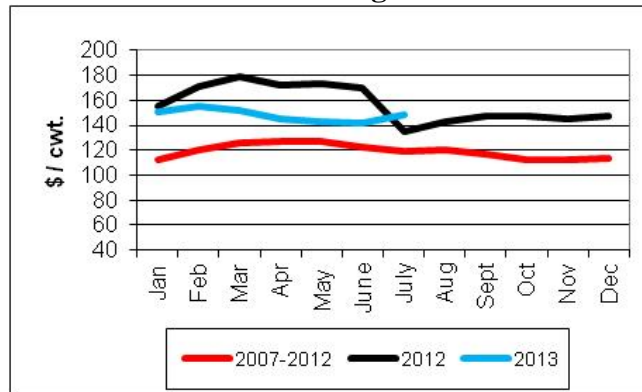
The footing that the feeder cattle market found in late June carried into July. Continual positive reports on the size of the 2013 corn crop have worked to fuel feeder cattle prices as we move closer to harvest. The August CME© futures contract had moved into the mid-\$150's at the time of this writing and local markets also appeared to show some strengthening. At the same time, the CME© Feeder Cattle Index was trading just under \$150.

Despite the significant increase in August CME© futures over the past six weeks, there is still some carry in the market as we look towards fall. On August 8th, September was trading more than \$3 higher than August and October was trading more than \$2 higher than September. In my opinion this is largely a grain market effect as we get closer to the expected cheaper corn at harvest. From October 2013 to May 2014, the market is largely flat. It is very likely that our market for heavy feeder cattle will peak a bit later this year; I would suspect October or November. I would also expect calf markets to hold much better this fall than usual.

I usually discuss USDA's mid-year cattle inventory report in August, but one was not available this year. However, the Livestock Marketing Information Center did make some estimates on what is happening mid-year. They estimate that beef cow numbers are likely down around 2% from January 2013 and that replacement heifer numbers are steady. While my impressions are largely antidotal from talking to producers and agents across the state, this would be consistent with what I would have expected.

So ultimately, we are right where we have been the last several years. We have likely not seen the bottom yet in terms of cattle numbers and there is still no sign of expansion on the horizon. Supplies are likely to get tighter in the short term, and once expansion does begin, it will take some time for those heifers to be bred and wean their first calves. So, it's likely a safe bet that we would not see any increase feeder cattle supplies for 2-3 years.

Kentucky Auction Prices
500 to 600 lb Medium /Large Frame #1-2 Steers



Kentucky Auction Prices
700 to 800 lb Medium / Large Frame #1-2 Steers

