Update from the Feedyard

By: Chip Kemp

January has been a challenging weather month. Multiple weeks of unusually cold weather have challenged beef families all over the country.

Your calves faced those same extremes. Over half of the days in January have brought temperatures below 15 degrees to Columbia, MO, any of those dates in negative numbers.

Yet, the health of your calves has stayed strong. As I am writing, not a single calf has been pulled for illness in January.

Kenneth Ladyman states that intakes are still strong. However, he cautions that due to the cold, more calories were likely used for body maintenance and we may experience slightly lower gains. We will know soon when we see this month’s GrowSafe data. The next SPC webinar will dig into some gain issues and how gain interacts with illness.

Also, many of the ASA team members were in Denver for meetings and the National Western Stock Show in early January. The SPC came up many times.

Your participation in this novel program is getting recognition. Many also expressed their excitement for your ability to participate in the 2018 National Classic based on your involvement with this program. You all are paving the way!
Feeding Behavior as a Predictor of BRD in Feedlots

**Editor’s Note:** This article was originally written by Britt Hicks, Ph.D., for the Oklahoma Panhandle Research & Extension Center.

Bovine respiratory disease (BRD) is the most important health concern in the feedlot industry.

Diagnosis of BRD in feedlots typically relies on visual appraisal.

Canadian researchers evaluated the associations between timing of visual detection of BRD and daily feeding behavior.

In this study, 213 auction-derived, spring-born, mixed-breed beef steers initially weighing 648 lbs were placed on feed in early November at a southern Alberta commercial feedlot equipped with an automated feed bunk monitoring system.

Detailed health and feeding data were collected on the steers for 35 days after arrival.

An electronic monitoring system recorded presence of the steers at the feed bunk by scanning a radio frequency ear-tag at 1 second intervals, enabling measurement of individual bunk attendance frequency, feeding time (seconds), and intake during each feed bunk visit.

Meals were defined as feeding events that were interrupted by less than five minutes.

The cattle were visually monitored every morning and noon for the following visual signs of BRD: reluctance to move, crusted nose, nasal or ocular discharge, drooped ears or head, and gaunt appearance.

Pulled steers were run through a chute for physical examination, measuring and recording rectal temperature, and treatment.

Steers were treated with Baytril® (Bayer Animal Health) if their rectal temperature was ≥104°F or if temperature was <104°F but severe signs of sickness (i.e., labored breathing, severe depression) were present.

If clinical signs reappeared (or were still apparent) after 4 days, the cattle were treated with Nuflor® (Merck Animal Health).

Steers were returned to their home pen without treatment if temperature was less than 104°F and no severe sickness was noticed in the treatment chute.

It was reported that within 35 days after arrival, 76% of the steers had one or more clinical signs of BRD.

Data proved cattle which consumed more feed at each meal, visited the bunk more frequently, and had more times between meals were less likely to develop BRD 7 days before visual identification of BRD symptoms (P < 0.001).

The risk of BRD decreased by at least 22%, with a 0.22 lb increase of intake per meal throughout the week before pulling.

In addition, steers that spent more time feeding per meal were less likely to exhibit BRD visual symptoms during the following week.

These authors reported that steers which were healthy over the entire 35-day period ate an average of 9.7 minutes per meal with a frequency of approximately 12 meals per day and an average meal size of 2.2 lb.

Whereas, BRD steers ate an average between 7.6 and 8.9 minutes per meal with a frequency of 9.7 to 12.5 meals per day, and an average meal size of 0.88 to 1.10 lb during the 7 day before pulling.

These researchers concluded that “mean intake per meal as well as mean meal time and frequency of meals had merit to predict the hazard of BRD in feedlot cattle 7 days before visual detection and could be used to develop predictive algorithms for commercial application in feedlot settings.”

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**SPC Field Day**

Please join us on Saturday, April 14, 2018, for the Steer Profitably Competition Field Day held at the feedyard in Colombia, MO.

The SPC Field Day will be an opportunity to not only see your steers, but meet with ASA and University of Missouri staff who are heavily involved with the SPC.

Participants will be given the opportunity to learn from a number of hands-on stations geared towards DNA, feeding and feed intake data, and carcass ultrasound and records.

Please RSVP by March 15, 2018, to help with meal counts and planning.

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**Division of Animal Sciences**

**College of Agriculture, Food and Natural Resources**
Sponsorship Highlight

Located in Columbia, Missouri, the University of Missouri (MU) is the Land-Grant institution for the state. It carries out the three-pronged mission of the Land Grant System which includes teaching, research and extension. In this vein, the Division of Animal Science housed within the College of Agriculture, Food and Natural Resources is home to world-class research and teaching programs with approximately 450 undergraduate students.

Given Missouri’s strong presence as a cow-calf production state, the division is also very “beef centric”. The University of Missouri South Farm maintains over 1,450 acres located five miles south of the main campus, which includes the MU Beef Research and Teaching Farm (BRTF) and University Feed Mill.

The BRTF is home to 300 cow-calf pairs representing Simmental, Angus, Hereford and Saler breeds of cattle. Additionally the BRTF is one of a very few public research entities that utilize the GrowSafe® feeding system and in-pen weighing systems for growing-finishing cattle.

The GrowSafe® Feed Intake System bunks offer a one-time feeding capacity of 550 to 600 animals, including small covered pens and large open dirt lots. The GrowSafe® technology allows for real-time measurement of individual animal feed intake, as well as analysis of feeding times and frequencies.

SPC Speaker Spotlight

Dr. Rachel Endecott

Dr. Rachel Endecott is the Director of Youth Development and Special Projects at the American Simmental Association.

She grew up on a red baldy cow-calf operation near Ennis, MT, and remains an integral part of the operation today. She received her B.S. in Animal Science at Montana State University and her M.S. and Ph.D. in Ruminant Nutrition at New Mexico State University.

Endecott served as the Montana State University Extension Beef Cattle Specialist located off campus in Miles City for five and a half years, and in the same position on campus in Bozeman for an additional five and a half years. Endecott’s extension program focused on adult and youth education in beef cattle nutrition, genetics, reproduction, and management.

She also administered the statewide 4-H/FFA Steer of Merit contest and facilitated county agent trainings in carcass grading as well as other beef cattle professional development opportunities.

In addition to her Extension work, Endecott taught beef cattle management and livestock feeding classes during her time on campus. She was also involved with student extracurricular activities where she advised both the Collegiate Stockgrowers at MSU and the Academic Quadrathlon (AQ) team.

Endecott officially joined the American Simmental Association in January and is looking forward to working with youth and adult members of ASA alike.

“The American Simmental Association is well known for their practical focus on science-based information and educational outreach. I’m excited for the opportunity to work with such a progressive group to develop young leaders for the agricultural industries. ASA’s investment in youth development is admirable and I look forward to building on that success in the future.”

A working facility and sorting pens are located near all feedlot pen configurations. These research capabilities and the centralized location of the Columbia, Missouri resulted in a logical partnership for the University and the American Simmental Association’s Steer Profitability Competition.

This inaugural year for the partnership has experienced a high quality set of cattle that are performing at an impressive clip. Data capture from this program should provide AJSA participating members accurate feedback for decision making in their home herds of cattle.

The University looks forward to continuing this valuable program into the future.