

Agriculture

CENTRAL KANSAS EXTENSION DISTRICT NEWS

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January 2021

Upcoming Events

January

- 9-11 Women Managing the Farm
- 11 KSU Soil Fertility Management Mtg., Salina
- 12,19,26 Risk Management Skills for Kansas Women in Ag
- 14 Kansas Corn School, Salina
- 24 "Winning the Game" Soybean Marketing Workshop

Body Condition Scoring: Vital tool that doesn't cost a dime

By Justine Henderson, Central Kansas District Livestock Agent

I don't have to be the one to tell you that raising cattle can be expensive. So any chance you get to improve your operation, free of cost, is a chance you will most likely want to take. Producers and cattle specialist are using Body Condition Scoring as an easy, free, useful tool to help assess their cattle during all production stages and make vital management decisions to improve their operation, cow management, and calf production.



What is BCS?

Body Condition Scoring (BCS) is a system used by beef producers and veterinarians to determine an array of things about their cattle. In simple terms, it's used to determine the relative body reserves, or fatness, of a cow and can help ranchers evaluate if the amount of feed provided is matching up to her current nutritional requirements. A score is given to each individual cow and is based on a scale of 1 to 9, with 1 being severely thin and 9 being severely obese. This number is determined by assessing the fat thickness at certain areas of the cow (spine, ribs, hooks and pins, tailhead, brisket), as well as palpation techniques. Though while evaluating these indicators, producers should take into consideration the current state of the cow (pregnancy, rumen fill, age, hair coat, etc.). These things can often make a cow appear to have more fat thickness and it is important to distinguish between them.

You've got them scored, now what?

If you ask me, body condition scoring is one of the most undervalued management practices out there. If you can learn the method and score your cattle yourself, it doesn't cost a dime and can be done anywhere or anytime. The next step is using that score to make nutritional and reproduction decision within your operation. Based on BSC of your cattle, you can sort and separate cattle according to their dietary need and feeding requirements. Cows that score a 3-4 may not be receiving the feed and nutrition that those that

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score a 5-7, and if feasible, can be separated to make sure proper nutrition and feed is received by the cows that need it. In addition, it is a good idea to evaluate BCS about 60-90 days before calving, at calving, and at weaning. This way you can be sure that the nutrition you are providing to your cattle is keeping up with their changing requirements throughout the production stages.

Body condition scoring has been proven to have an impact on reproduction performance and can be used as a tool to improve and increase calf performance. It has been shown that certain BCS at calving are related to days until cows return to estrus and proportion of cows cycling. Ultimately, in the long run this means that cows in proper condition or at the desired score return to normal estrous cycles sooner, meaning shorter calving intervals. In addition, cows with more desirable scores at calving tend to deliver calves that have greater ADG. Correlations between BCS and pregnancy rate have also been found. To throw some numbers your way, it is suggested that no matter the calving season, cows should be at least a BCS 5-5.5 or higher at calving time. This will help increase pregnancy rate, decrease calving interval, and improve calf performance (Table 1).

Table 1. Relationship Between BCS and Cow and Calf Performance			
BCS	Pregnancy Rate (%)	Calving Interval (d)	Calf WW (lb.)
3	43	414	374
4	61	381	450
5	86	364	514
6	93	364	514
* table adapted from Kunkle et al., 1994			

Body condition scoring is more than just deciding whether your cows are in good condition or not. Achieving the correct score for the production stage your cows are in can be incredibly beneficial for your cow herd and the performance of your calf crop.

For more information on BCS methods, how to score, and the effects it has on cow and calf performance, feel free to call or email Justine Henderson at jwho4@ksu.edu or 785-392-2147.

Management Tips to Reduce the Impact of Calf Scours - Part 1 - Causes, Signs, and Treatments

by A.J. Tarpoff, DVM, MS, Beef Extension Veterinarian

Neonatal calf scours (diarrhea) is a multifactorial issue. The risk and occurrence can change year to year based on many different factors. Typically, early spring calving due to the cold, wet and windy weather, creates some unique challenges in combating calf scours for cattle producers.

Causes

Scours can be initiated by infectious agents such as viruses, bacteria, and even protozoan parasites. It is important to note that most of the pathogens of concern are shed at low levels through the feces by healthy members of the resident cowherd. Most of the disease and death loss related to scours occurs within the first month of age. The bacteria, *E. coli*, is a common culprit within the first 5 days of life. Rota virus, Corona virus, and cryptosporidium (protozoa) are commonly identified in cases between 1 week and 3 weeks of age. Mixed infectious with more than 1 pathogen commonly occurs as well. Salmonella and Clostridial infections can also occur with minimal clinical signs before acute death.

Nutritional causes of neonatal diarrhea can also occur. "Milk Scours", as it is often referred to, is a non-infectious cause of white loose manure. This tends to occur after a cow/calf separation event. The hungry calves tend to over eat leading to undigested milk passing through the digestive tract. The intestinal disruption is often

self-limiting and clears up within a day or two without treatment.

Clinical Signs

The most common clinical signs of calf scours are watery stool, lethargy, and dehydration.

- **Diarrhea:** The color of the stool can be brown, green, yellow, or grey in color. Tail and the rear legs may be covered in wet manure. Bloody stools can also be seen with *Salmonella*, *Clostridial*, or coccidiosis.
- **Lethargy:** noted by decreased desire to nurse, depressed attitude, and reluctance to stand. Staggered walk may also occur.
- **Dehydration:** identified by having sunken eyes. Another effective means to measure dehydration is by tenting the skin of the calf. A well hydrated calf's skin will snap back flat after pinching it. If it takes 1-3 seconds, the calf would be ~6-8% dehydrated. If the skin tent takes up to 5 seconds, the calf would be ~8-10% dehydrated. The severe loss of fluids also interrupts the calf's acid/base and electrolyte balances.

Treatment

The most important thing to do when deciding how to treat calf scours is to work with a local veterinarian. They have the expertise to help guide producers through the process on how to intervene to give the best chance for calf survival. Treatment of calf scours is directed toward correcting the main issues: Dehydration, Acid/Base imbalance, and Electrolyte imbalance. Fluid therapy is typically the first step in scour treatment. This is usually carried out through oral electrolytes and fluids to correct the dehydration and continued loss. There are many electrolyte formulations available on the market. Not all formulations are the same. They are formulated for many different purposes depending on electrolyte, energy, and pH buffering needs. Selection decisions of these

products should be made with the input of a veterinarian. Always follow label directions when mixing and administering electrolyte solutions. However, if the calf is severely dehydrated IV fluids administered by a veterinarian offers the best chance to recovery. Many times the calves lose their ability to maintain proper body temperature. Supportive care through thermal support during the course of disease may help increase calf vigor, desire to suckle, and mentation. Veterinarians may also include oral or systemic antibiotics in certain cases when it has been determined to be bacterial cause, or septicemia is a concern.

Possible treatment procedures should be discussed with a veterinarian before the calving season begins. Having a basic inventory of supplies and products as well as a protocol in place will ensure proper early treatment in the course of the disease. If treatment response is poor, or if there is abnormally high incidence of disease, further diagnostics from a necropsy and results from a Veterinary Diagnostic Lab will help with proper treatment regimens.

Management Tips to Reduce the Impact of Calf Scours - Part 2 - Prevention

by A.J. Tarpoff, DVM, MS, Beef Extension Veterinarian

Neonatal calf scours (diarrhea) is a multifactorial issue. Regardless of the pathogen(s) involved, there are some basic management strategies to reduce the risk of developing an outbreak. Four key areas to concentrate on are biosecurity, supporting proper immune function, environmental management, and hygiene.

Biosecurity

It is imperative to not inadvertently introduce disease into an operation. But it is something

that is often overlooked. If a new calf or cow from outside the herd is introduced during or around calving season (30 days before/30 days after), ensure that those individuals are quarantined and separated from the rest of the herd. This often happens when we graft a sale barn calf onto a cow that lost its calf, or purchase a milk cow to nurse an orphan. Any animals from outside your herd can introduce this devastating disease to your operation. Sick animals (especially scouring calves) can shed enormous amounts of pathogens into the environment. Isolating these animals and eliminating any mingling of infirmed animals and new-borns will greatly reduce the exposure risk to new born calves.

Immune Function

Calf hood immune protection all starts with the first critical meal known as colostrum. Ensuring adequate intake and suckling behavior of the freshly born calf is important. Intake within the first few hours of life will increase the efficiency of colostrum antibody transfer into the calf. But colostrum quality all stems back to care of the cow. Previous research has shown proper nutritional supplementation to maintain Body Condition Score (BCS) will help increase both colostrum quality and quantity in the dam. Vaccination status of the dam can also play a critical role in calf health. Boosting immune function will transfer a higher level of antibody to those pathogens into the colostrum.

Environment

The solution to pollution is dilution! Reducing the environmental contamination of pathogens that new born calves are exposed to is a great way to reduce the risk of scours. These pathogens build up in the environment where cattle are housed for extended periods of time. An excellent program to reduce the contamination and risk of the disease is the Sandhills Calving

System. The principles behind this system are 2-fold. First, calves born earlier in the calving season are exposed to smaller amounts of pathogens. Because of this, they typically do not break with disease. However, they do act as disease amplifiers. They will shed pathogens at a much higher rate. Separating calves by age group decreases the risk of exposure due to environmental contamination. Second, is limiting accumulation of pathogens on the calving ground, by calving in a “clean” area. These principles are put into practice by calving in 1 pasture or paddock for about 2 weeks. Then moving still pregnant cows to a new calving area to calve for another 2 weeks, leaving the cow/calf pairs in the first pasture. Continue until the youngest calf is a month of age, then the animals can be managed as one group again. The theory is sound, and in practice can work quite well. Unfortunately, many operations do not have the cross fencing, water access or space availability to manage this. But, any movement to break the disease cycle can make a major impact on the course of the disease. By understanding these principles of separation and minimizing contamination, several steps can be taken to mitigate the risk. Utilizing pregnancy check data, operations can split herds into calving groups to be managed in different pastures. This will decrease overall contamination in the pasture settings. Rotating feeding and resting areas throughout the pasture can also dilute the amount of contamination that newborn calves are exposed to. This may include utilizing portable windbreaks or shelters, rolling hay in different locations or moving hay feeders as the season progresses.

If a single calving area is utilized on the operation, strict management may be necessary to mitigate risk. Cows and newborn calves should be turned out into a “clean” pasture as soon as possible after birth. Ideally the pasture of choice should be filled with cows with calves of

roughly the same age. Barns and chute areas used to intervene during hard calving situations should also be kept clean. These areas also become contaminated through the season. Removing and replacing soiled bedding can reduce the pathogen load. After assisting births, cleaning teat ends of the cow will reduce the exposure of environmental pathogens during the calf's first suckling opportunity.

Hygiene

Many scour pathogens can cause illness in people, this is known as Zoonosis. Personal hygiene is critical to ensure ranchers don't succumb to the same diarrhea causing bugs as their calves. Washing hands, wearing gloves, and disinfecting equipment can all reduce the chance of sickness.

Hygiene is also critically important to avoid accidental infection of newborn calves through handling and management procedures. Esophageal tube feeders, nursing bottles, gloves, boots, and coveralls can all carry dangerous pathogens from a sick calf to a newborn calf. Use separate tube feeders and equipment for sick calves, and be sure to wash them thoroughly between animals. Work flow is another important concept to consider. Handle sick or infirmed calves after any healthy calves or newborns. This will ensure there it not cross contamination from clothing.

KSU Swine Profitability Conference Set for February 8



'Staying Competitive in the Swine Industry' is the theme for the K-State conference.

MANHATTAN, Kan. – Kansas State University's 2022 Swine Profitability Conference is planned for Tuesday, Feb. 8. This

year's event will be hosted at the Stanley Stout Center in Manhattan. Each year the Swine Profitability Conference focuses on the business side of pork production. "Important swine business topics such as the global pork outlook, positioning your system for the future and employee sourcing will be discussed this year, along with highlighting two growing swine businesses in our state," says Mike Tokach, K-State Department of Animal Sciences & Industry distinguished professor and swine extension specialist. "This conference is designed for producers to increase their competitiveness in today's swine industry."

Featured speakers:

- Joe Kerns, CEO/Founder of Partners for Production Agriculture at New Horizon Farms, will address the U.S. Global Meat and Pork Outlook.
- Tim Schwartz and Dr. Annie Lerner, Schwartz Farms Inc., will discuss entering the pork industry and their family's business.
- Dr. Daryl Olsen, Audubon-Manning Veterinary Clinic, will talk about growth and success within the swine industry.
- Dr. Cassie Jones and Dr. Jason Woodworth, Kansas State University, will discuss student success in swine industry careers.
- The Leon and Janice Dunn Family, Dunn Swine LLC., will share their story and how they are continuing their family's legacy.

The conference will take place at the Stanley Stout Center, 2200 Denison Avenue. The day begins with coffee and donuts at 9:15 a.m. and the program starting at 9:30 a.m. Lunch is included in the conference, which will end at 3 p.m. Pre-registration is \$25 per participant and due by Jan. 24. Attendees can register at the door for \$50 per participant. More information, including online registration, is available at KSUSwine.org or contact Lois Schreiner at 785-532-1267 or lschrein@ksu.edu.

Kansas Junior Producer Day



BEEF



March 5

2022

Join us March 5, 2022, for the Kansas Junior Beef Producer Day in Weber Arena on the Kansas State University campus. This family event will be a fun-filled, educational day of activities in which youth, parents, beef project leaders, and extension agents can expand their knowledge of youth beef projects. Presentations and demonstrations by K-State faculty, staff, K-State livestock judging team members, and guest speakers will cover topics such as selection, nutrition, meat science, reproduction, health, grooming, and showmanship. An optional YQCA certification session will be offered at the end of the day. A complimentary lunch and t-shirt (early registrations) will be provided. K-State COVID-19 policies in effect at the time of the event will be followed.

Cost: \$15/person by February 11 or \$20/person after February 11

*Registrations received after Feb. 11 will not receive a t-shirt.



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Tentative Topics & Schedule

8:30am	Registration
9:30am	Welcome/Opening Remarks
9:45am	Beef Project Selection & Management
10:30am	Morning Breakout Sessions Nutrition, Meat Science, Heifers, Fitting & Grooming
12:00pm	Lunch
1:00pm	Beef Across the World and at Home
2:00pm	Afternoon Breakout Sessions Health, Repro, Meat Science, Showmanship
3:30pm	Final Questions, Wrap-up, & Evaluation
4:00pm	Instructor-led YQCA Certification (optional) State Livestock Nominations (optional)

Kansas Junior Beef Producer Day: March 5, 2022 ~ Register by February 11, 2022

Name: _____ Email: _____

Address: _____ City: _____ Zip: _____ State: _____

Adult Shirt Size: _____ or Youth Shirt Size: _____

Age Division: 11 & Under _____ 12-14 _____ 15-18 _____ Adult _____

Fee Enclosed: _____ County: _____ Phone: _____

Attending YQCA Session? Yes No If yes, is child active on 4HOnline? Yes No

Special Dietary or Participation Needs: _____

One form per participant, everyone attending must register (adults and youth).

Make checks payable to: KSU Department of Animal Sciences & Industry

Mail payment & registration to: Lexie Hayes, 214 Weber Hall, 1424 Claflin Rd., Manhattan, KS 66506

To Register Online: <http://bit.ly/ksuasiregister>

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Kansas Junior Sheep Producer Day

March 19, 2022

Join us for Kansas Junior Sheep Producer Day on Saturday, March 19, 2022, in Weber Hall on the Kansas State University campus. Presentations and demonstrations will be provided by featured guests, as well as K-State faculty, staff, and students. This event will be a fun-filled, educational day of activities in which youth, parents, extension agents, and sheep project leaders can increase their knowledge of youth sheep project selection and management. Topics include project selection, nutrition and feeding, facilities, health, reproduction, meat science, wool, clipping and grooming, showmanship, and youth livestock quality assurance training. This event is designed for all ages and skill levels. A complimentary lunch will be served and all participants who register by the deadline will receive a t-shirt. K-State COVID-19 policies in place at the time of the event will be followed.

Cost: \$15/person by February 25 or \$20/person after February 25

*Registrations received after February 25 will not receive a t-shirt.



Tentative Topics & Schedule:



8:30am Registration
 9:30am Welcome & Opening Remarks
 9:45am Project Selection
 10:30am Morning Breakout Sessions
 Nutrition, Facilities & Daily Care, Repro
 12:00pm Lunch
 12:45pm Sheep Health
 1:30 pm Afternoon Breakout Sessions
 Wool, Showmanship, Clipping, Meat Science
 3:45pm Final Questions, Wrap-up, & Evaluation
 4:00pm Instructor-led YQCA Training (optional)
 State Livestock Nominations (optional)

K-State Research and Extension, the Kansas State University Department of Animal Sciences and Industry, or their assignees, reserve the right to photograph, record the image and/or voice of participants for current or future research, educational, and/or promotional purposes. By attending, you provide consent to the above items and waive all rights to claims for payment or royalties in connection with any use of said images or recordings.

Kansas Jr. Sheep Producer Day: March 19, 2022



Register by February 25, 2022

Name: _____ Email: _____

Address: _____ City: _____ State: _____ Zip: _____

Adult Shirt Size: _____ or Youth Shirt Size: _____

Age Division: 11 & Under _____ 12-14 _____ 15-18 _____ Adult _____

Fee Enclosed: _____ County: _____ Phone: _____

Attending YQCA Session? Yes No If yes, is child active on 4HOnline? Yes No

Special Dietary or Participation Needs: _____

One form per participant, anyone attending must register (both youth and adults).

Make checks payable to: KSU Department of Animal Sciences & Industry

Mail payment & registration to: Lexie Hayes, 214 Weber Hall, 1424 Claflin Rd., Manhattan, KS 66506

To Register Online: <http://bit.ly/ksuasiregister>

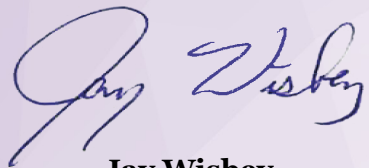
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Address Service Requested

The enclosed material is for your information. If we can be of further assistance, feel free to call or drop by the Extension Office.

Sincerely,



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