

## Beef CHAMPS

Beef Cattle Health and Management Production Strategies

February 2014

United States Department of Agriculture, University of Arkansas, and County Governments Cooperating

# Assessing Body Condition Scores

JEREMY POWELL

Jeremy Powell, DVM  
Professor - Veterinarian

Spring calving season is upon us, and assessing body condition scores is essential in maximizing cow herd efficiency. Stress at calving, ample lactation and reproductive performance are key factors that can affect cow herd efficiency and ultimately affect profitable production. Body condition scoring at calving to ensure that breeding condition is favorable is an evaluation tool that can be utilized by farmers and ranchers to assess the level of fat reserves of cows.

The processes of fetal development, delivering a calf, milk production and repair of the reproductive tract are all stresses that require large quantities of energy to enable cows to be rebred within 60 to 85 days. Additionally, the environmental stresses on spring-calving

cows may require even more energy intake. Factoring in the heat endured through the summer while calves are nursing reemphasizes the need for energy from excess fat reserves in the cow before calving.

It is much easier to increase condition in cows before rather than after they calve. If possible, separate cows that need additional supplementation. The benefit of ample body condition far outweighs the cost of added nutrition or the opportunity cost in lost productive days in the long run. High nutrition after calving is directed first toward milk production. Cows need to be at a condition where extra energy reserves can be used to help overcome the stress at calving and aid in

*(Continued, page 2)*

# River Valley Beef Conference Set for February 11

JEREMY POWELL

The 2014 River Valley Beef Cattle Conference is scheduled for February 11. The meeting will be held at the Conway County Fairgrounds in Morrilton, Arkansas. Registration for the event will begin at 8:30 a.m. at the door.

Sponsored by the University of Arkansas Division of Agriculture and Farm Credit Services of Western Arkansas, the conference will cover topics important for profitability in your beef cattle herd. Topics for the program include:

- Sire Selection – Bryan Kutz

- How to Rebuild the Cow Herd – Nathan Kemper
- Calf Health and Preconditioning – Dr. Jeremy Powell
- Pasture Weed Control – Dr. John Boyd

Registration for the program is \$20 at the door. Lunch will be provided at noon, and the program will conclude around 1 p.m.. For more information about cattle production, visit [www.uaex.edu](http://www.uaex.edu) or [www.arkansas-livestock.com](http://www.arkansas-livestock.com) or contact your county extension office.

*Arkansas Is  
Our Campus*

Visit our web site at:  
<http://www.uaex.edu>

## Assessing Body Condition Scores *(Continued)*

reproductive tract repair. Feeding cows to gain condition after calving leads to improved milk production and has little effect on increasing body condition.

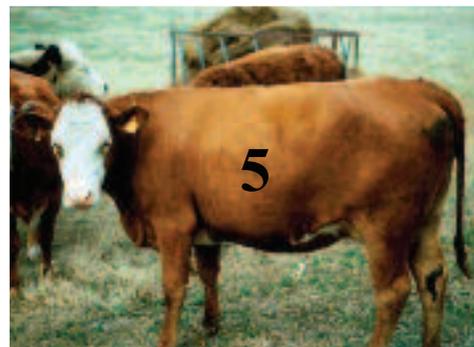
Studies have shown that cows that are in good to moderate (5 to 7 BCS) condition will tend to have a calving-to-first-estrus interval that could be up to 30 days shorter than those that are in thin condition (1 to 4) at calving. Animals with a low BCS will tend to become far too thin. This results in a low conception rate and an uneconomically long calving-to-breeding interval. At the same time, cows that become excessively fat also have production problems. These cows will likely have more

incidences of dystocia and milk production issues because of the additional fat deposits.

The idea of body condition scoring (BCS) is to obtain a simple and reliable measure of the level of fat reserves that will be helpful as the cow progresses through gestation, parturition and rebreeding. When used correctly, this information can help producers make management decisions such as culling or decisions about different feed regimens and how to utilize available forage resources. These decisions all play a big role in making the cow herd efficient and profitable.

### Description of Body Condition Scores

Condition	BCS	Description
Thin	1	Severely emaciated. All ribs and bone structure easily visible and physically weak.
	2	Emaciated, similar to 1 above but not weakened. Little visible muscle tissue.
	3	Very thin, no fat on ribs or brisket, and some muscle still visible. Backbone easily visible.
Borderline	4	Thin, with ribs easily visible but shoulders and hindquarters still showing fair muscling. Backbone visible.
Optimum	5	Moderate to thin. Last two or three ribs can be seen. Little evidence of fat in brisket, over ribs or around tailhead.
	6	Good smooth appearance throughout. Some fat deposition in brisket and over tailhead. Ribs covered and back appears rounded.
	7	Very good flesh, brisket full, tailhead shows pockets of fat, and back appears square due to fat. Ribs very smooth.
Fat	8	Obese, back very square, brisket distended, heavy fat pockets around tailhead, and cow has square appearance due to excessive fat. Neck thick and short.
	9	Rarely seen. Very obese. Description of 8 taken to greater extremes. Heavy deposition of udder fat.



# Calving Season Starts Soon

JEREMY POWELL

Spring calving season is just around the corner for many Arkansas cow-calf producers. A calf lost during or shortly after calving reduces the pounds of calf available to sell at weaning. Keep in mind a few simple management techniques that will help ensure success in your operation.

To minimize problems with calving difficulty (dystocia), observe cattle frequently and have calf pulling equipment and disinfectant supplies readily available. Since they are the most likely members of the breeding herd to experience calving difficulty, it is a good idea to pay special attention to first-calf heifers. Consider placing heifers in the pasture closest to the house or where most easily viewed.

Be able to recognize the signs that calving is near. Udder filling, springing (relaxation of the vulva) and loss of the mucus plug can happen at varying times prior to calving but indicate that calving season is around the corner. Relaxation of the pelvic ligaments and strutting of the teats usually occur within 24 hours of calving. Cows and heifers will become uneasy and seek a quiet place as calving approaches. Complete dilation of the cervix, serious straining and calf delivery normally take 60 to 90 minutes for heifers and 30 to 60 minutes for cows. Assistance may be needed if reasonable progress stops after the feet or water bag appear. Therefore, when you are observing a cow in labor, keep in mind that if **no progress** has been made after 30 to 60 minutes, then assistance should be heavily considered. After calving, monitor cows and heifers for retained placentas.

Research has shown that evening cattle feeding will result in more calves being born during daylight hours. Therefore, adjusting the time of day you feed pregnant cows can have an effect on the time of day they give birth. Feeding after 5 p.m.

results in an approximately 80 percent chance of cows calving during daylight hours while feeding during morning hours results in a 50 percent chance of cows calving during daylight hours. The benefits of calving during the day include making it easier for you to check the pregnant animals, increasing the likelihood of identifying cows with calving difficulty, and a decreased potential for calf death loss from hypothermia due to calves being born at night when temperatures are generally colder.

Calf losses associated with calving difficulty (dystocia) can be a train wreck for a herd of any size. In addition to calf losses, weak calves, longer postpartum intervals (return to cycling) and decreased pregnancy rates during rebreeding can result from dystocia. It is important to note

*To minimize problems with calving difficulty (dystocia), observe cattle frequently and have calf pulling equipment and disinfectant supplies readily available.*

that underfeeding cows and heifers prior to calving will not decrease calving difficulty but can reduce calf vigor. Thin cattle may have difficulty calving if they are lacking in muscle and stamina to expel the calf.

One opportunity to avoid issues with calving difficulty starts long before calving season with proper bull selection. A calving ease bull should be utilized to minimize a significant problem. If calving difficulty has been an issue in the past, then it is time to reevaluate the herd sires being used. A 60-pound live calf is better than a 100-pound dead calf.

Colostrum plays a vital role in the newborn's immune status during the



first few months of its life. In order to ensure that the cow will give good quality colostrum, the cow gets adequate nutrition during her pregnancy. The most important nutrient for the production of good quality colostrum is protein. Colostrum contains a very large amount of antibodies from the cow's immune system. Antibodies are made of protein. In order for the cow to produce good quality colostrum, protein is essential in the cow's diet. Depending on breed, a cow in late gestation should receive 1½ to 2 pounds of protein per head per day to meet requirements. A good vaccination program is also vitally important in order for a cow to develop antibodies to supply in her colostrum.

After birth, make sure that the calf nurses properly. Signs that a calf has nursed include wet or curled hair around teats and a shiny appearance to teats. Calves need to receive colostrum from the dam as soon as possible (preferably within the first 30 minutes) after birth. It is preferable if a calf receives colostrum by nursing its dam; however, a calf that has had a difficult birth or has not had an opportunity to nurse within 1 to 2 hours after birth should be fed colostrum. A good rule of thumb for

adequate amount of colostrum is to feed 5 percent of the calf's body weight (about 2 quarts for an 80-pound calf). Then, feed the same amount again approximately 6 hours later. This may be done using a stomach tube if the calf is too weak to nurse. With each passing hour, the calf's ability to absorb colostrum declines along with the amount of colostrum in the dam's milk.

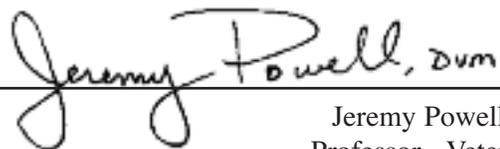
Colostrum is important for building calf immunity and resistance to diseases such as scours and pneumonia. Know the signs of a sick calf: rapid breathing, lowered head and ears, dry muzzle, inside of

mouth is cold to the touch, scouring, fever and abnormal posture, to name a few. Early treatment of a sick calf is best. Dehydration and secondary disease can be calf killers, so have a fluid therapy program prepared for scouring calves. In the event of severe weather, be prepared to protect young calves with shelter.

To complement good record keeping, calves should be ear tagged and/or tattooed at birth with a unique identification number so they can be matched to their dams and properly identified for herd records. Calf birth date, gender and birth weight should be recorded at

calving for future use in herd improvement efforts. Castration, dehorning and implanting can also easily be performed at this time.

Utilizing a controlled breeding and calving season improves management opportunity for the herd and will prevent having to constantly observe the herd for calving throughout the year. Good management of the cow herd during the calving season will pay off when it comes time to sell weaned calves. For more information on calving management or related topics, contact your local county Extension office.



---

Jeremy Powell, DVM  
Professor - Veterinarian

The information given herein is for educational purposes only. A reference to a commercial product or trade name is made with the understanding that no discrimination is intended and no endorsement by the University of Arkansas Cooperative Extension Service is implied. List of products may not be all-inclusive.