

COW/CALF CORNER

The Newsletter

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Preg Check to Avoid Waste

Dave Sparks, DVM, Oklahoma State University Area Extension Veterinarian

Successful cattle producers have long recognized that fall is the time to pregnancy check cows before they get into the high maintenance costs of winter. It just doesn't make sense to put hundreds of dollars worth of feed, pasture, interest, health care, and labor into a cow that is not going to bring home a paycheck next year. This is even more critical this year, with short pastures, scarce and expensive hay, and high feed prices. If that cow isn't going to produce why not replace her with one that will have a calf in the spring or save her part of your winter costs? Not only is now a good time to cull open cows before you spend the winter expenses, but they are probably in the best body condition and weight they will be in until mid summer. I am a big subscriber to the theory that every cow brings in a check every year, either by selling her calf or selling herself. Far too many small to midsized cattle producers are saving pennies by not pregnancy testing while wasting dollars by not knowing which cows are open. Today, every beef producer has a choice of how to pregnancy check their cows.

The old standby for pregnancy checking is rectal palpation. In this procedure the veterinarian enters through the rectum and palpates the reproductive tract through the rectal wall. This should be done by an experienced food animal veterinarian. Although prices vary from one area to another and from one clinic to the next, it should run about \$3.50 to \$4.50 per cow, depending on how many you have done. The accuracy of the test depends on the experience of the operator. One advantage is that the diagnosis is made immediately at chute side allowing the open cows to be marked or sorted off while they are gathered. When this procedure is done by an experienced veterinarian it is fast, accurate, and reasonably inexpensive.

A newer technique is ultrasound pregnancy testing. This requires much more in equipment and training and not all food animal veterinarians employ this technique. In this technique a lenter probe with an ultrasound transducer on the end is inserted into the cow's rectum allowing the operator to "see" the reproductive tract on an ultrasound screen. Again, cost varies with area, operator, and number of cows, but typically is about \$10.00 per cow. Like rectal palpation, a chief advantage is that the diagnosis is immediate, eliminating the need to re-gather the cows to sort off the open individuals. Ultrasound will detect earlier pregnancies than most operators can detect confidently by rectal palpation and also may show pathological conditions that rectal palpation may miss.

A third option for producers is a relatively new blood test developed at the University of Idaho. This test detects in a blood sample the presence of a specific protein that is only produced by the placenta. It is very accurate and can detect pregnancy as early as 30 days post breeding. The cost of the test is \$2.50 per sample, plus the cost of the blood tubes and needles and also the cost of the postage to send it to a lab. More information, including instructions for obtaining blood samples from your animals and ordering information for blood tubes and needles, can be found at the website www.biotracking.com. With this test it is important to use a clean tube and needle for each individual to prevent cross contamination. You can collect the samples yourself or ask your veterinarian to do it for you. A disadvantage is that it will take several days to be notified of the results so you probably will need to re-gather the cows to sort off the open ones. Another disadvantage is that it only tells you if the cow is pregnant or open and gives no indication of how far along the pregnancy is. Rectal palpation and ultrasound will indicate fairly closely what stage of pregnancy the cow is in.

No matter which of these options best suits your operation, put a plug in the money drain of nonproducing cows.

What is Efficient Beef Production?

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

Efficiency is important to the profitability of an individual cattle operation and to the competitiveness of the industry as a whole. In times of changing output and input values, it is very important to keep in mind what efficiency is...and what it isn't. It is probably most common to think of efficiency in physical or technical terms, which are based on quantity of output relative to quantity of input. This includes common production values such as feed per pound of gain and pounds of calf weaned per cow. Such physical measurements often provide the rules of thumb that guide day to day decisions in an operation.

However, most producers recognize that there are limits to the extent that physical measures of efficiency are economical. What really matters is economic efficiency, which can be thought of as the value of outputs relative to the value of inputs. This results in the important distinction between maximizing production and optimizing production. This explains, for example, why we see different types of cattle in different parts of the country. In more extensive production environments, a smaller cow and thus a smaller weaning weight is more economical than the bigger cow size that works better in other regions. Technical efficiency is part of economic

efficiency but it is not the whole story. This leads to the most important point in this discussion: changing input and output values can change the economic efficiency even when the technical efficiency has not changed. And that can lead to a situation where the optimal decision changes. Relying on physical production guidelines can lead to less economical results when output and input values change.

One of the most obvious situations could be feedlot production. For many years, the relative cheapness of feed grains meant that production systems that pushed physical efficiency in terms of average daily gain and feed conversion were consistent with economic efficiency. However, when concentrate feeds are fundamentally more expensive, the most economically efficient production may be one that accepts slightly lower physical efficiency by utilizing more alternative feeds. This is not necessarily the case for any or all feedlots at the current time but the point is that the production system must be reevaluated when input costs change.

The same may be true for many decisions made by cattle producers at all levels of the industry. The most economically efficient production systems today may imply different targets for production parameters such as weaning weights, average daily gain, etc. The beef industry has a wide range of flexibility to adjust production systems using different inputs, such as relative amounts of grain versus forage. In today's changing and volatile input markets, it is critical that, as individual producers and as an industry, we examine the economic efficiency of our production systems and be prepared to modify some of the physical rules of thumb that have guided decisions in the past.

Avoid Nitrate Toxicity During First Winter Storm

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Almost as predictable as the coming of the winter season, will be the quickly spread horror story of the death of several cows from a herd that was fed "the good hay" for the first time after a snow storm. Ranchers that have purchased or harvested and stored potentially high nitrate forages such as forage sorghums, millets, sudangrass hybrids, and/or johnsongrass, need to be aware (not fearful) of the increased possibility of nitrate toxicity. This is especially dangerous if the cows are fed this hay for the first time after a strong winter storm. Cattle can adapt (to a limited amount) to nitrate intake over time. However, cattlemen often will feed the higher quality forage sorghum type hays during a stressful, cold, wet winter storm. Cows may be especially hungry, because they have not gone out in the pasture grazing during the storm. They may be stressed and slightly weakened by the cold, wet conditions. This combination of events make them even more vulnerable to nitrate toxicity.

The rancher is correct in trying to make available a higher quality forage during severe winter weather in an effort to lessen the loss of body weight and body condition due to the effect of the wind chill. But if the forage he provides to the cows is potentially toxic, his best intentions can back fire.

The best approach would be to know ahead of time the concentration of nitrate in the hay. Contact your [local County OSU Extension office](#) about [hay sampling details](#). The [OSU Soil, Water, and Forage Analytical Lab](#) can test the hay for nitrate content. If the producer is confident that the hay is very low in nitrate content then use of the hay should be safe. If the nitrate content is unknown, then precautions should be taken. Feeding small amounts of the hay along with other grass hays during the fall and early winter days can help to "adapt" the cattle to

the potential of nitrate. This is not a fool-proof concept. If the hay is quite high in nitrate, it can still be quite dangerous. Diluting the high nitrate feed with other feeds can reduce the likelihood of problems. Observing cattle repeatedly for 8 to 12 hours after first feeding of the hay would be advised. If nitrate symptoms such as labored breathing, lack of coordination, and going down are observed, remove the cattle from the hay and call your veterinarian immediately.

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