

COW/CALF CORNER

The Newsletter

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Too many times the following statement is made when a production animal dies or aborts: "well that's just one of those things and you can't lose them if you don't have them". You can't lose them if you don't have them is a true statement, but considering abortion or death as "just one of those things" is loaded with potential economic loss. The better way is to ask the questions; 1) what happened, 2) what caused it to happen, 3) will it happen again and 4) how can it be prevented from happening again? Most often the answers to these questions are found in the aborted fetus (premature animal) and dam or the dead animal and their environment - where they live, what they eat, what they drink, to what they are exposed - toxins, infectious agents, stress, weather extremes, etc.

Many are familiar with the Crime Scene Investigation (CSI) television programs – CSI Las Vegas, CSI New York, CSI Miami and NCIS. It is very apparent in these programs that no one is to move the body or interfere with the scene until the pathologist (physician that has special training in pathology) arrives and examines the environment and performs a preliminary examination of the body. Following the on-site examination the body is moved to the morgue where a postmortem examination and necessary laboratory test are performed to arrive at the cause of death. There are at least two reasons we do not want to move the animal: 1) containment of a potential highly contagious disease such as Anthrax and 2) there is often very valuable information in the area where the animal dies. An example is lead poisoning. Lead causes brain swelling resulting in convulsions and death. Therefore, if the area around the animal appeared the animal had been convulsing, lead and other neurologic diseases would be considered as possible causes of death.

Definition: postmortem examination / autopsy / necropsy – examination of a body after death to determine the actual cause of death

Your veterinarian is also trained in pathology. It is one of their most valuable diagnostic tools. As owners or caretakers, you provide the veterinarian with an accurate history as well as any environmental factors that are not readily apparent. The sooner after death a postmortem exam is performed, especially in hot weather, better are the chances of finding the cause of death. Many times the cause of death can be diagnosed with the information provided by the owner/caretaker; environmental factors identified on-site and postmortem findings. However, there are times in which tissue, body fluids, stomach and intestine content, feed, water and suspected toxic material samples must be sent to a diagnostic laboratory for testing to gain additional information necessary for a diagnosis. Also important is that the remainder of at-risk animals in the herd or flock are inspected in the environment, pasture or pen, where they are normally kept.

Diagnosing the cause of abortions can be somewhat frustrating. However, to insure the best chance of identifying causation, the following are extremely necessary. First is the fresh fetus that is kept cool, not frozen, and presented to the veterinarian or diagnostic laboratory as soon as possible for a complete post mortem exam and sample collection for laboratory testing. Second is the placenta in total or at least some of the placental attachment locations, which also must be kept cool. Third is the first of two blood samples must be collected from the dam, the second sample should be collected two weeks after the first.

The most common argument for not establishing a diagnosis when the first animal dies or the first fetus is aborted is; why incur the cost when this may be the only one that dies or aborts? If either is the first and only death or abortion you eliminate that cost, but you may have denied yourself of information that could have proved valuable in the future. More importantly, many times the abortions and death losses don't stop at one.

The second most common argument (often first place) for not establishing a diagnosis is: "why spend all that money on a dead animal". The cost of a postmortem examination can range from \$50.00 to \$150.00 depending on animal size and complexity of the case. This does not include mileage or laboratory fees. The question, "why spend all that money on a dead animal" is a valid question if the information gained goes unused. However, if used correctly, the information on death causation is valuable information for the remaining at-risk animals in the herd or flock. The information gained should stimulate one or more of the following actions; initiate a vaccination program, initiate a treatment protocol, search out the source of and eliminate a toxin, evaluate feedstuffs and rations, add disease preventative products to water, feed or mineral, etc. Also the cost of the information gained must be parceled out or assessed to those remaining at-risk animals.

Example: Herd of 50 head

1 st dead animal	= \$1000.00 or \$20.41 / at-risk animal
Veterinary costs (post mortem + mileage)	= \$200.00 or \$4.08 / at-risk animal
Veterinary costs + 1 dead animal	= \$1200.00 or \$24.48 / at-risk animal
2 nd dead animal	= \$1000.00 or \$20.83 / at-risk animal

Total Veterinary costs	= \$400.00 or \$8.33 / at-risk animal
Total Veterinary costs + two dead animals	= \$2400.00 or \$50.00 / at-risk animal

These same calculations can be used when dealing with abortions (use \$600 as the value of a weaned calf). The at-risk group is often thought to be the fetus only. However, many times infectious agents, as well as toxins, put the dam at-risk as well as the fetus.

In summary, **never waste a dead animal**. They have the potential of being a source of very valuable information. It could be argued that this is not a valid statement if the dead animal was the only one in the herd/flock. However, if the cause of death was not determined, the next cow purchased may be at risk. Especially if she finds the same broken car battery and eats the remaining lead containing plates that caused death by lead intoxication in the first cow.

Feeder Cattle Marketing is Really Forage Marketing

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

Whether it's a cow-calf producer selling weaned calves or retaining calves through a stocker or backgrounding program; or a stocker producer adding weight to lightweight calves, the market value of feeder cattle at various weights reflects the value of forage used in the production of feeder cattle. These economic signals are contained in the level of feeder cattle prices and the price relationships between different weights of feeder cattle. Feeder cattle producers are really in the forage business more than in the cattle business.

In most markets, relative prices provide incentives to increase or decrease production. Cattle production has the additional complexity of considerable flexibility in production systems. Cattle can be produced using relatively more or less forage. Thus, cattle markets also must provide incentives for the cattle industry to utilize the best production systems for different market situations. Sometimes the market emphasizes weaned calf production and at other times the market emphasizes heavy feeder cattle production on forage.

Lessons from history can be instructive. 2006 was a good example of a market emphasizing calf production. The major market conditions at that time were cyclically low cattle numbers and cheap corn. The result was high calf prices, similar to current levels, but a sharp decline in prices for heavy feeder cattle. The price of a heavy feeder was less than 80 percent of the price of a calf. Thus, the value of forage marketed through weaned calves was high but the value of stocker or backgrounding gain was relatively low. With cheap corn and low cattle numbers, the market was encouraging cattle to move into feedlots quicker and lighter and the potential for stocker based gains was limited.

The year 1996 was a good example of the other extreme. Cyclically large cattle numbers and drought-induced, high corn prices resulted in low feeder cattle price levels, thus discouraging calf production, but relatively high value of stocker gain that encouraged more forage based feeder production to stretch limited corn supplies. The price of a heavy feeder was approaching 90 percent of the price of the calf price. In this situation, the returns to cow-calf production were

low but the returns to stocker or backgrounding gains were relatively high. The value of forage was higher when marketed through fewer, but heavier, feeder cattle.

The current market environment can be characterized by low cattle numbers and high corn prices. Such a combination of factors is unprecedented in the history of the modern cattle industry. On the one hand, low cattle numbers implies market incentives to increase cow-calf production...thus high calf prices. On the other hand, high corn prices implies incentives to produce more heavy feeders and reduce corn usage in the feedlot...thus heavy feeder prices that are high relative to calf prices. In Oklahoma last week, the price of a 477 pound, Medium/Large, number 1 steer was \$146.06/cwt. and the price of a 769 pound steer was \$142.26/cwt. (KO_LS794, USDA-AMS). The result is increased value of forage for all types of cow-calf and stocker production. **Cow-calf and stocker producers have more flexibility in production and marketing than at any time in many years.** The value of weaned calves is high so a cow-calf focus on maximum cow numbers is consistent with market signals. However, the value of stocker gain is also high so a cow-calf producer interested in retaining ownership of calves through a backgrounding program has considerable potential as well. Stocker producers have considerable flexibility to utilize a wide range of beginning weights, and to hold cattle to heavy weights.

The current situation is unique. Feeder cattle producers don't have to spend a lot of effort to figure out what the market wants you to do. The market wants more of anything using forage. So how do producers decide what to do? Profitability will be determined by cost relative to price for all sizes of feeder cattle. The most profitable choice for each producer will depend on quantity and quality of available resources, management and labor limitations, purchased input needs, and other cost considerations. The main job of producers is to decide how to allocate the resources you control among production alternatives and the biggest resource for most feeder cattle producers is forage. Ask yourself which feasible (for you) production system helps you market your forage to the highest value. It's a good time to be in the forage business.

Water Requirements for Beef Cattle on Pasture

Glenn Selk, Oklahoma State University, Emeritus Extension Animal Scientist

Daily water requirements for the non-lactating beef animal will run from 0.75 to 1.5 gallons per 100 pounds body weight or 6 to 12 % of their body weight. Lactating cows nursing calves may consume 18% of their body weight. Therefore a typical 1200 pound spring calving cow will require about 216 pounds of water each hot summer day. Since a gallon of water weighs approximately 8 pounds, this equates to 27 gallons of water per cow per day (not counting the calf). Water consumption is dependent on climatic conditions, feed types, production level and salt intake. Water is an important nutrient! Decreased intake can adversely affect health, production and growth.

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