



# Bayou BEEF TIPS



## Winter Hazards for Louisiana Beef Cattle Part I. Problems

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The fall of 2005 has been challenging for Louisiana beef producers because of the difficulties posed by record-breaking hurricanes and drought conditions. Fortunately, hurricane season is now over, and most areas have had some precipitation; however, beef cattle health and production problems may continue to arise throughout the winter. Producers need to be aware of the potential problems and try to do their best to prevent them. Losses in production or death losses can have a permanent impact on the sustainability of each operation and the beef industry in Louisiana.

Louisiana producers rely heavily on winter annual pastures, such as ryegrass, for winter and spring feeding of cattle. This year, however, because of the high costs associated with planting and fertilization and the drought, many producers will not have winter annuals to graze; grazing will be delayed. This problem is compounded by a shortage of hay stores due to the drought and feeding hay to cattle affected by the hurricanes, and the low quality of available hay. Alternate sources of nutrition must be found, to avoid nutritional problems.

### PROBLEMS

#### Protein Energy Malnutrition

Protein energy malnutrition (pregnancy toxemia) occurs in cattle that are underfed protein and/or energy. This condition is exacerbated by internal parasites and cold weather, which increase nutritional

requirements. It generally occurs during late gestation in cattle in poor body condition. Heifers are particularly susceptible. Cattle are normal one day and down and unable to rise the next, especially after a cold spell. Once animals go down, treatment is usually unsuccessful. Preventing this problem with adequate nutrition is best.

#### Sudden Death Caused by Hypothermia

The heat tolerance of Zebu (Brahman) and Zebu-influenced cattle makes them ideally suited to Louisiana's hot, humid sub-tropical climate; however, the characteristics of these cattle (a short hair coat, thin skin and fat deposition patterns) make them heat tolerant but also make them more susceptible to cold stress. Sudden death caused by hypothermia can occur in Zebu-influenced cattle during cold weather, especially if rain and wind are factors. Sudden death has been reported even in Zebu cattle that are healthy and have adequate body condition. Thin body condition, parasites and other diseases increase the chances of deadly hypothermia. Although the problem is more common in Zebu-influenced cattle, all cattle are susceptible and need shelter.

#### Winter Tetany

Poor quality forages alone or in combination with grains can cause mineral imbalances and lead to winter tetany. High levels of potassium (K) and phosphorous (P) when coupled

with low levels of magnesium (Mg) and calcium (Ca) can result in a magnesium deficiency. Angus cattle are most susceptible. Brahman cattle are least susceptible. Stress, such as severe weather, hauling or handling, can induce clinical signs. Lactating cattle are more susceptible. "Winter tetany" can cause clinical signs identical to "grass tetany," which is sometimes seen in cattle grazing lush winter annual pastures, especially those that were heavily fertilized. These signs are nervousness, aggressiveness, lack of co-ordination, muscle tremors or twitching, and finally seizures and death. Winter tetany can also cause clinical signs identical to "milk fever." These are initially a stiff gait that progresses to weakness and loss of ability to rise. To determine the risk of winter tetany, a tetany ratio can be calculated using the percentage of K, Mg and Ca in the diet (tetany ratio =  $(K / Mg + Ca)$ ). If this ratio is above 2.2, winter tetany may occur.

#### Parasitism

Parasites, both external and internal, rob cattle of nutrients. Internal parasites in the gastrointestinal tract can cause loss of body condition, diarrhea, weakness and bottle jaw. Winter is also the most common time to see lice and mite infestations that cause loss of body condition and possibly anemia. Control of both internal and external parasites with dewormers and insecticides is critical. Cattle in poor body condition from lack of nutrition have poor immune



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system function, leaving them more susceptible to parasites. So, proper nutrition will help control parasites as well.

## **Grain Overload/Digestive Upsets**

The anatomy and physiology of the cow's stomach make cattle able to digest and use a wide variety of feedstuffs; however, different diets require different digestive bacteria, and these bacteria take time to change. Sudden feeding of large amounts of starch-based concentrates to cattle on forages can cause grain overload, which, if severe, can cause serious illness, founder and death. Grain overload can also permanently damage the stomach, causing poor growth and performance. If changes in types of forages or concentrate feeds are done too quickly, they can cause indigestion and cause cattle to stop eating. To prevent these problems,

make feed changes over a one- to two-week period.

## **Reproductive Failures**

Reproduction is a luxury in cattle, and can occur only once nutritional requirements for maintenance and growth are met. Cattle that are malnourished through the fall and winter and calve in poor body condition will have poor reproductive performance in the spring. Decreases in pregnancy and/or calving rates won't be noticed until palpation time or calving time in 2007. When feeding stored feedstuffs in the last trimester of gestation and early lactation, it is very difficult to put weight on cows. It is much easier and cheaper to maintain a cow's body condition. So, now is the time to make sure nutritional requirements are met so cows maintain body condition and have the

best chance of rebreeding in the spring.

## **Copper Deficiency**

Many of Louisiana's soils are copper deficient, which makes any forage raised on these soils deficient. Signs of copper deficiency can be very subtle. Loss of body condition and possibly chronic diarrhea may be the only signs noted. Hoof cracks and other hoof diseases and loss of hair pigmentation can also occur. Copper is important for proper immune function; other diseases may occur secondarily to lack of copper, especially in calves. To avoid this condition, loose trace-mineralized salt should be available free choice. Although more expensive, copper sulfate and chelated copper sources are more available to the animal and more palatable, so are preferred over copper oxide.