

Controlling Bloat in Cattle

Bloat is a swelling of the rumen caused when gases which form in normal fermentation cannot escape. The degree of swelling does not necessarily indicate the severity of distress. Although bloat is not always fatal, many cattle die from it each year. Feedlot bloat can be a problem, but the type of bloat of greatest concern to Alabama beef producers occurs with animals grazing legume pastures.

Establishing legumes in Alabama pastures is a primary goal in long-term pasture improvement. Interest in legumes diminished when nitrogen sources were plentiful and inexpensive. Now there has been renewed interest in legumes due to increased cost of commercial nitrogen fertilizer. Although legumes increase the likelihood of bloat, this danger is outweighed by the advantages of legumes in the pasture. Don't let the bloat problem keep you from taking full advantage of the pasture improvements realized from legumes.

Factors Responsible For Bloat

Bloat is a complex problem and several factors are known to cause it. Most researchers agree that the primary cause is excessive foaming of the rumen contents. The species of plants, the differences in individual animals, and the types of microorganisms in the rumen all seem to be involved.

Plants. For many years researchers have known that legumes cause bloat more often than other plants. Death by bloat can occur with all legumes, but it sometimes occurs with other species. Proteins are the major foam-promoting compounds. The type of protein is more important than the amount. Immature grasses may provoke bloat since they usually contain large amounts of foam-promoting proteins. The incidence of bloat decreases with the increasing maturity of most bloat-provoking plants.

Animals. Certain animal factors determine whether a particular cow will bloat on any given day. There are differences in cattle that make

some more susceptible to bloat than others. Also, some animals are apparently susceptible to bloat on some days but not on others.

Microorganisms. Microorganisms in the rumen produce fermentation gases as feedstuffs are broken down. When bloat-provoking forage is consumed, the gases become trapped in a stable foam and the animal cannot belch. Production of a stable foam is due, in part, to the presence of certain types of microorganisms in the rumen.

Ways To Control Bloat

No single method of bloat prevention is adequate under all circumstances. However, management practices, as well as drugs, can help. When using any drug, follow directions on the label.

Management Practices. Use the following animal and pasture management practices to reduce the incidence of legume bloat.

1. Generally, if a pasture contains at least 50 percent grass, there will be little or no danger of bloat. If legumes predominate in a pasture, it will usually be in the year following establishment

since perennial forage grasses are often slow in becoming established. At such times, be prepared to use bloat control measures.

2. Bloat can be reduced by supplementing grass hay to cattle grazing bloat-provoking pasture. Large amounts of hay must be consumed for this to be effective. The feeding of nonlegume hay most often results in inefficient use of an available high quality feed. This increases both feed and labor costs.

3. Allow cattle to graze legume pasture continuously rather than removing them during the day or at night. Removing cattle from bloat-provoking pastures and then returning them will increase the incidence of bloat.

Feedlot bloat is not a big problem in Alabama because of the relatively small number of cattle being finished. Feedlot bloat can be reduced by: (1) cracking the grain portion of the ration more coarsely; (2) increasing the roughage level temporarily; and (3) making sure that the roughage and grain are uniformly mixed. Feedlot bloat can also be reduced by using antifoaming agents and antibiotics administered at a sufficient and constant rate.

Antibiotics. Antibiotics fed in concentrates or in commercial blocks at 75 to 100 mg per head per day have been only moderately successful in reducing bloat attacks. These materials act by altering the rumen microflora; the results are only temporary. The use of antibiotics is limited because a resistance to the drugs develops. Resistance appears to be general rather than being specific for any single antibiotic.

Maximum benefit from feeding antibiotics is realized during the first 14 days. Effective control then decreases daily to no bloat control after 21 days. Combinations of certain antibiotics have controlled bloat for longer periods of time than single antibiotics. Antibiotics currently are not a satisfactory means of control over extended periods.

Poloxalene. Since bloat is a problem caused by the development of foam in the rumen, a simple approach would be to control the production of

foam with antifoaming agents. Poloxalene is an agent that reduces surface tension and is now being used in preventing bloat. Research has shown that poloxalene premixes or poloxalene-molasses-salt blocks effectively reduce the severity and incidence of bloat. It is approved for both dairy and beef cattle. Poloxalene retains its full effectiveness throughout the entire growing season. Using poloxalene-molasses-salt blocks (containing 30 grams of poloxalene per pound of block) appears to be the most acceptable and effective method of administering this bloat preventive unless concentrates containing poloxalene are fed daily.

You must follow these management procedures to ensure daily intake of 0.5 pound of poloxalene-molasses-salt blocks.

1. Make one block available for every four to five animals. When they are about half consumed, add enough to bring the total weight of the blocks to about 30 pounds per four to five animals.

2. Place the blocks close to where cattle congregate but not necessarily near a watering trough. Studies show that block consumption declines if they are located a great distance from where cattle congregate when not grazing.

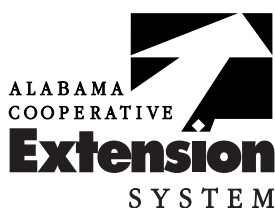
3. Do not confine the cattle overnight.

4. Remove all other sources of salt; poloxalene-molasses-salt blocks contain salt to regulate their intake.

5. Cattle should consume poloxalene for at least 3 days before being placed on bloat-provoking forages.

Ways To Treat Bloat

There are many ways to treat bloat. There are oral compounds that will break down the stable foam in the rumen. In subacute cases, you can use a rubber hose as a stomach tube to relieve the accumulation of gases. A trocar and cannula should be used as a last resort on acute cases. Contact your veterinarian as soon as possible to treat advanced bloat.



ANR-148

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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UPS, 4M05, Reprinted April 1994, ANR-148