University of Wisconsin-Extension

Bloat

Dan Undersander and Dave Combs

What is bloat?

Bloat is a digestive disorder characterized by an accumulation of gas in the first two compartments of a ruminant's stomach (the rumen and reticulum). Production of gas (primarily carbon dioxide and methane) is a normal result of fermentation processes. The gas is usually discharged by belching (erutication) but, if the animal is unable to remove the excess gas, pressure builds up in the rumen-reticulum exerting pressure on the diaphragm which prevents the animal from inhaling, and bloat occurs. The most common type of bloat is frothy bloat where gas builds up in a foam or froth above the rumen contents and the normal belching is inhibited.

Observable bloat can occur after as little as 15 minutes of grazing. Often the animal bloats only mildly and stops eating. The discomfort is eventually relieved. In more severe bloat, the animal's rumen is distended by ballooning of the rumen, it urinates and defecates frequently, bellows and staggers. Death, due to restricted breathing and heart failure follows unless action is taken.

When is it likely to occur?

Bloat can occur on any forage that is low in fiber and high in protein but is most common on immature legume pastures. Bloat has been observed on alfalfa, white clover, and red clover pastures but is rare on trefoil sainfoin and vetch pastures. It usually occurs when cattle or sheep are first turned onto legume pastures. It seldom occurs on grasses, (or pastures with at least 50% grass), coarser pastures, or hay. Bloat usually follows a heavy feeding or grazing period. Animals that are hungry or greedy feeders are most susceptible. Frost, dew or rain on the field often increase the likelihood of bloat. Bloat incidence is likely to be increased during periods of rapid plant growth in the spring or following a summer rain.

Thus, most bloat occurs:

A) when cattle are first turned onto pastures in the spring,
B) when cattle are moved to new pastures if the previous pasture was grazed too short so that cattle are hungry, and,
C) in late summer, during periods of rapid plant growth after rain following a period of drought.

How do I reduce the occurrence of bloat?

- Make sure that the animal is full when first put onto pasture in the spring. This reduces the intake of the fresh pasture until the rumen has had time to adjust to the new feedstuff.
- Do not start animals grazing when the forage is wet from dew or rain.
- Start animals on legume pastures gradually. For example, leave cattle on pasture 1 hour the first day and gradually increase grazing time to 4 hours by the third day and day-long grazing by day 5.
- Be sure that fiber is maintained in the animal ration during initial grazing periods. Feed some dry hay or corn silage to grazing animals prior to turning them out to pasture. Allowing animals to graze corn stalks after grain harvest in the fall is a good practice.
- Check animals for bloat carefully every 2 hours when beginning grazing.
- When rotating cattle or sheep among pastures, be sure that animals are moved fast enough so that they are not excessively hungry when going onto fresh pastures.

- Animals with supplemental feed will be less likely to bloat. For example, a dairy cow, where 40 to 50% of the intake is pasture will be less likely to bloat than beef cattle, dairy heifers, and sheep, where pasture comprises 100% of the diet.

- Where bloat has been a problem, consider seeding using birdsfoot trefoil as the legume because it is non-bloating.

- Consider using Bloat Guard® (Poloxalene) during periods where bloat is likely. Poloxolene can be mixed with grain supplement or drinking water, drenched, or fed as a pasture block. Effectiveness of this product depends a daily intake. Thus mixing with a daily supplement is more effective than feeding in blocks on pasture.

- Some animals are chronic bloaters. If a particular animal frequently shows signs of bloat, it may be best to remove that animal from the herd.

What do I do if bloat occurs?

When bloat is observed, immediately remove all animals from pasture and offer dry hay. This will reduce the bloat problem in all animals that will eat. Causing bloated animals to walk is also helpful. Bloat can cause death in as little as 1 hour so it is important to be prepared to render emergency treatment. Materials and directions for use can be obtained from the local veterinarian.