

VETERINARY CALL

by Bob Larson, Kansas State University

Pasture Bloat

From forage type to breed, a lot of factors affect pasture bloat in cattle.

Pasture bloat is a potentially life-threatening problem that can occur when cattle consume certain forages. The bacteria living in the rumen that act to break down forages into usable nutrients normally produce a great deal of gas in the process of digestion. Cattle get rid of gas produced in the rumen primarily by belching.

Pasture bloat, also called frothy bloat, occurs when gas produced in the rumen is trapped in a bubbly froth that cannot be easily released.

Legumes are the most common plant type to cause “pasture bloat,” but wheat pasture can also cause pasture bloat. Alfalfa, red clover and white clover are similarly dangerous for causing bloat. Other legumes, such as arrowleaf clover and bird’s-foot trefoil, are less likely to cause problems, and the least likely to cause bloat is sainfoin.

Besides plant type, maturity can also affect the risk of bloat on a particular pasture, because as a plant matures, the soluble protein level (and the risk) decreases.

The rumen sits on the left side of cattle, and when bloated, it will be very distended and tight. The rumen of a bloated animal can cause enough pressure to make breathing difficult, and if severe, can lead to death.

Individual animals differ in their susceptibility to frothy bloat. Breed

also plays a role in that, as Brahman and Brahman-cross cattle are less susceptible to bloat and Holsteins are at the highest risk. Angus appear to fall between these two extremes.

There is, however, a great deal of individual variation within-breed, possibly due to grazing behavior with cattle that selectively graze the leafy part of the plant consuming a much higher protein (and higher risk) diet on the same pasture as cattle that do not graze as selectively. Also, saliva breaks up froth in the rumen very effectively, and animals may differ in the amount of saliva they produce while grazing.

Strategies to reduce the risk of bloat while grazing legume or wheat pastures include feeding Bloat Guard® (poloxalene) starting two to five days before turning out. Feeding ionophores such as monensin and lasalocid has also been reported to reduce the risk of pasture bloat, but not as greatly as poloxalene.

Some producers use rotational or strip-grazing to force cattle to eat plant stems as well as leaves. One can also balance the performance advantage of grazing vegetative pastures with the reduced bloat risk of waiting to turn out until the pasture is more mature (33% bloom) or by planting a mixture of legumes and grasses.

Bloat can be a life-threatening problem for cattle, and a veterinarian should examine and treat bloated cattle as quickly as possible.

Treatment of pasture bloat involves removal of gas from the rumen typically by passing a stomach tube to allow drenching of the affected animal with a concentrated poloxalene product (Therabloat®) or mineral oil to suppress fermentation and to break up froth, so the gas can be released and then removed with the stomach tube or belching.

In some emergency situations, a trocar can be placed through the left side and into the rumen to release the gas pressure.

Although it is difficult to prevent all cases of bloat, the risk can be reduced by proper grazing and animal management. **AJ**

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