

Bloat

There are two types of bloat that usually affect cattle: frothy bloat, also known as primary bloat, and secondary bloat.

Primary bloat

In frothy bloat, the gases of ruminal fermentation remain dispersed throughout the ruminal contents and form a stable foam that inhibits eructation (belching of gas). Frothy bloat is seen in pasture and feedlot bloat.

Pasture bloat

Occurs when there is rapid digestion of leaf material and the release of factors that prevent the formation of free gas. It commonly occurs when cattle graze pastures dominated by lush, immature, rapidly growing temperate legumes (such as clovers and lucerne). It is also seen when cattle are grazed on other forages that have a high protein content. Bloat has rarely be reported on legumes with high tannin contents (such as tropical legumes and Lotus species).

Feedlot bloat

Cases of feedlot bloat may be frothy bloat or free gas bloat. The cause of the foam in these situations is not certain. Fine particle size of the feed may be associated with feedlot bloat.

Signs

Often cattle are found dead and may start dying within an hour of gaining access to a bloat susceptible pasture. The upper left flank becomes distended and the animal becomes uncomfortable. The cattle are seen to kick at their sides.

As the condition progresses and more gas accumulates, breathing difficulties are seen with mouth breathing, salivation and extension of the tongue. There is also an increase in the heart rate. The early stages are characterised by an increase in the rate and force of ruminal movements.

As more gas accumulates, ruminal movements are reduced and animals go down and die quickly from respiratory failure.

Sub-clinical bloat also causes considerable production loss.

Treatment

Acute frothy bloat requires an emergency rumenotomy and has a high mortality rate. Antibiotic therapy is required after an emergency rumenotomy to treat any possible peritonitis.

Cannulas are often not effective in relieving the pressure of frothy bloat due to the presence of a foam rather than free gas.

Less acute frothy bloat can be treated with surfactants.

Control

In situations of high risk, twice daily dosing of cattle with bloat oil gives best control. Pastures can be sprayed daily or twice daily with bloat oil. The amount of oil applied to the pasture is calculated from the number of cattle grazing. More oil is needed in rainy weather when the risk of bloat is higher and some oil is removed from the pasture by the rain. Strip grazing is needed to have control over intake of oil.

Slow-release anti-bloat capsules can be administered to cattle before grazing. Monensin can also be administered.

For more extensive systems, bloat blocks, licks and bloat oils in the water supply can be used. It may be necessary to avoid or limit feeding high-risk pastures. Feeding a low protein hay prior to grazing these pastures will reduce the risk.

Secondary bloat

Usually due to an accumulation of gas caused by a physical interference preventing eructation. This interference may be due to a blockage or interference with the normal function or nerve pathways. The gas in these cases is seen as a free gas cap.

Signs

Many of the signs are similar to frothy bloat with an increase in the rate and force of ruminal movements in the early stages followed by a reduction in movements. As the gas increases, there is respiratory distress and an elevation of the heart rate.

Treatment

The gas may be removed by the passing of a stomach tube. In some cases this may assist in the removal of any physical obstruction to the gas.

Post-mortem signs

Signs include:

- rapid breakdown of the body
- distended rumen
- congestion in the anterior part of the body
- congestion often absent in the posterior part of the body
- the froth rapidly disappears after death and the cause of death may be difficult to determine.

Source: Queensland Department of Agriculture, Fisheries and Forestry; 2009