

FROTHY BLOAT IN CATTLE

Bloat, or rumen tympany, is the abnormal gas distension of the rumen and reticulum. These stomachs are located on the left hand side of the animal between the ribcage and the pelvis and distension results in an abnormal shape to the abdomen especially when viewed from behind. Gas is normally produced by fermentation of stomach contents through the action of rumenal microbes (stomach bacteria) and is eliminated by eructation (belching). This gas layer generally sits above the solid and fluid rumen contents and is belched out periodically. Problems arise when the gas layer is trapped in a stable froth or foam which prevents it from being belched out.

Frothy/pasture bloat is usually associated with feeding of lush, immature pasture such as clover, lucerne and rapidly growing legumes which are low in fibre but high in water, protein and sugars which can result in a higher rate of rumen gas production. Bloat can occur within one hour of grazing especially if cattle are hungry and gorge and can be a cause of sudden death in cattle. Such cases may be confused with *Clostridial* diseases which also cause sudden death and rapid carcass degradation. Animals that have died from bloat are usually found partly on their backs with legs distended in the air and bloody discharge from body orifices. The anterior regions of the carcass may be very congested due to huge pressure changes and the oesophagus (gullet) may have a "bloat line" (red thoracic portion and pale abdominal portion). Distension of the rumen may decline steadily after death and may not be observable after 12 hours so prompt post mortem examination is advisable.

Huge increases in intra-ruminal pressure results in blood being prevented from returning to the heart and interferes with breathing so animals asphyxiate. Other signs in addition to abdominal distension include kicking at the abdomen, bellowing, increased frequency of lying down and getting up, respiratory distress, excessive salivation, tongue protrusion and vomiting in extremely severe cases.

Treatment to relieve the gas distension via stomach tube or emergency rumentomy (incision into the rumen) may be advisable in emergency cases. Animals may also be treated with anti-foaming agents eg paraffin oil, detergents such as alcohol ethoxylate, and antibiotics and surgical repair for animals who have received rumenotomies. Rumen fermentation modifiers such as monensin in the form of anti-bloat capsules can also be used as a preventative measure if pasture conditions lend themselves to bloat. Immediate removal from the offending paddock and early treatment are highly recommended.