
Technical Note.5

Rumenworks Green Feed Lick - Bloat Management

Rumenworks Green Feed Lick + Rumensin is a useful aid in the control of Bloat.

The physical structure of the ruminant (sheep and cattle) digestive system places their main site of digestion right at the upper most section of the gastrointestinal tract. This initial compartment is the large muscular bag known as the rumen. The rumen's role is to provide a habitat for microbial populations to ferment the feed eaten by the animal. In turn the by-products of fermentation become an energy and protein resource for the animal, potentially constituting over 75% of all animals protein and energy requirements. This fermentation process relies upon a series of variables to be constant to get maximum efficiency and benefit from the process.

Dramatic changes to diet or certain feedstuffs can have a detrimental effect on this fermentation process that can cause death from excessive gas build up known as bloat. If fermentation becomes 'excited' by high quality feed that contains levels of fermentable materials that spike the fermentation process, excessive gas may be produced. Normally the animal relies upon a process of burping to expel these gasses, and this process is driven by strong, controlled muscle contractions.

But the characteristics of the feeds that excite the fermentation process tend to have chemical compositions that inhibit the correct muscle control required for the expulsion of these gases. One of these major inhibitors is - **Potassium** (see Tech Note- Grass Tetany). While other feed stuffs (legumes practically) produce a style of fermentation that produces a foamy mass. This foam has the gas trapped and it becomes harder to expel the excessive gas.

Management of bloat can be difficult as it can happen very suddenly, but there are several things that can be done to proactively reduce the risks.

1. Supply hay

- the process of chewing helps maintain a stable fermentation vat. Chewing produces saliva and saliva helps maintain the pH of the rumen. Hay also substitutes the amount of challenging feed being consumed.

2. Supply Supplements

- as the feedstuffs that cause bloat also generally reduce muscle control supplementation is essential. The rate and strength of rumen contractions that help blow off the excessive gas and break up the build up of foam is compromised due to this nutrient profile. Supplementing magnesium and fermentable starches that help stabilise the muscle control, strength and style of fermentation reduces the risk.

The inclusion of other additives such as **Rumensin** can significantly decrease the risk of bloat, studies have shown a decrease in gas formation of 73% by supplying **Rumensin** (Katz MPet.al)

The Rumenworks Green Feed lick range has these aspects covered.

3. Clostridial Vaccine

- enterotoxaemia (pulpy kidney) go hand in hand with high-risk bloat situations. Up to date vaccination programs are essential.

J Anim Sci.
1986 Oct;63(4):1246-57. Ruminal changes in monensin- and lasalocid-fed cattle grazing bloat-provocative alfalfa pasture. Katz MP, Nagaraja TG, Fina LR