

Frothy Bloat in Ruminants

By: Lark L. Burnham, Ph.D. | Ruminant nutrition

It is early spring or late summer, you go out to check on your animals on pastures that came to life seemingly overnight and find one or more with foam around their mouths. Chances are, they had been grazing legume-rich (alfalfa and clover) pasture that had just received rain after a dormant period. This condition is called 'frothy bloat' or 'pasture bloat' and can kill an animal in a matter of hours if left untreated.

What is pasture bloat?

Leguminous pasture that receives significant rain after a dry spell will fairly leap out of the ground. The resulting forage is high in moisture, sugars and protein, low in fiber, and highly palatable. In short, camelid candy. It is also highly fermentable.

Gas is normally generated during fermentation, but so much is produced so quickly that it cannot escape fast enough. Stable foam develops and traps the gas in the rumen, causing great discomfort. The belly becomes distended and the foam appears on the mouth, especially if they are still ruminating or chewing their cud.

Treatment

The recommended treatments depend on the extent of the distension and discomfort. Animals in the initial stages of runaway fermentation may only require doses of vegetable or mineral oil to break the stable foam and allow the gas to escape. Oil can be applied to hay or grain for animals in the early stages that are still eating. In this case, one teaspoon of oil can be squirted in the mouth with a syringe, or dribbled on pellets or grain to encourage intake. Only a small amount of oil is required to break down the stable foam and release the gas. Relief is almost instantaneous.

More invasive procedures may be required if the animal is down and/or has stopped ruminating. A rumenotomy, or use of a trocar and cannula, to open a vent directly into the rumen should be performed by a vet. Oil can be administered directly into this hole after the foam has been reduced. Avoid the physical and emotional trauma associated with advanced bloat and rumenotomy and use oil preventively whenever pastures are in fast-growth mode.

Bloat can also occur if a grazing alpaca consumes a large quantity of grain, which is also highly fermentable. Foam may or may not appear on the mouth, and the gas may have to be relieved via the cannula as described above. Be conservative when feeding grain or pellets, and make sure they are stored in a secure place.

Prevention

A.Short-term - Be aware when sudden rain turns a dormant pasture green. Always limit grazing time during periods of fast growth, which can happen in the early spring as well as late summer. Allow grazing only after the animals have tanked up on grass hay. The hay may also be sprayed with oil during these vulnerable periods.

B.Long-term – Plan on 50% grass or higher when planting new pasture. Well-maintained grass pastures are usually best for camelids.

Awareness is the key, of the changes in weather patterns (sudden warmth after snow melt in the spring, a sudden downpour in late summer) and of animals left on such pasture. Frothy bloat can be

treated, but it may only take an hour or two on leguminous pastures to promote runaway fermentation, distension, and death. Pull the animals off pasture if you see a foamy face, check everyone for bloat, and either squirt oil down their throats or feed oil-drenched pellets or grain. Grazing is allowed, but only after such preventive measures have been taken.

“An ounce of prevention (in this case of edible oil) is better than a pound of pain.” Keep a bottle of vegetable oil near where you store grain or pellets. Train your brain to sound an alarm every time the pasture suddenly turns lush. It may look lyrical, but it can be lethal.

About the Author:

Lark Burnham received a B.S. in Animal Science (1979) from Kansas State University and an M.S. in non-ruminant nutrition (1995) from Kansas State University, Manhattan, and a Ph.D. Doctorate in ruminant nutrition (2004) from Texas Tech University, Lubbock. Her special interests are comparative nutrition, the role of the micro flora in all mammals, fiber digestion, and probiotics. Lark currently works for Natur's Way, Inc., Horton, KS which produces MSE probiotics.

Frothy bloat can be treated, but it may only take an hour or two on leguminous pastures to promote runaway fermentation, distension, and death.
