



MANAGING ACIDOSIS IN DAIRY HERDS



Consistent and high energy intakes are needed for high levels of production of milk solids by dairy herds. When ruminants are fed a diet high in readily fermentable carbohydrates from grain, byproducts and highly digestible pasture, a condition known as rumen acidosis can occur. Most commonly, acidosis is present as a sub clinical condition causing lost productivity and unhealthy cattle. However, acute or clinical acidosis can occur with the consumption of large amounts of cereal grain-based concentrates. Rumen pH drops to 5.2 or less allowing certain types of bacteria, such as *Streptococcus bovis*, to produce large quantities of lactic acid. The form of the acid that is produced is only absorbed slowly from the rumen so that pH stays excessively low for longer than usual following grain consumption. This condition can cause bloat, lameness and liver abscesses.

The risk of development of acidosis is greatest when:

- Feed intakes are high
- Grazing and eating patterns change from day to day
- Diets are high in non fibre nutrients (sugars and starch)
- Diets are low in effective fibre (from pasture, silage and hay)
- The rumen is not adapted to the feeds and feeding conditions

Other factors which contribute to acidosis include inexperience with the feed or feeding conditions, sudden changes to feeding patterns, behavioral factors such as bullying of immature by mature animals and environmental factors such as extremes of heat or sudden onset of cold wet weather. For example, transition cows can be more prone to developing subclinical acidosis and practices such as irregular feeding and keeping stock off pastures due to wet weather can cause acidosis without careful management.

Effective nutritional management to avoid acidosis aims to maintain a healthy functional rumen. When a high starch diet is to be fed it is important to introduce grain gradually and maintain intakes of effective fibre. The use of buffers such as bentonite, sodium bicarbonate or a product such as Acidbuff™ can be effective in reducing the incidence of subclinical acidosis at lower levels of feeding



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of cereal grain-based concentrates. Use of rumen modifiers such as Rumensin and Tylan are effective at higher levels of feeding of cereal grain-based concentrates. Importantly, feeding additional amounts of physically effective fibre from silage or hay may be useful during times of increased animal stress.



Irwin Stockfeeds Nutrition Representatives can provide nutritional advice tailored to the management of your dairy herd. Contact Irwin Stockfeeds for all your information on in feed additives used to combat feed problems and increase your production and feed efficiency.

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