



Animal Health & Nutrition Specialists!

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Feeding Grain

A large proportion of Australia's beef production is now finished with the help of a high energy ration usually based on grain. This allows the continual supply of a consistent quality product that the market is demanding. The margins in grain feeding are usually very tight and so attention to detail and getting everything right is necessary to profitably feed grain. In this newsletter I will briefly touch on a number of factors to consider in any grain feeding program.

The ration being fed needs to fit the class of stock and the situation they are being fed in. Smaller cattle need a higher percentage protein in their ration. When feeding grain in the paddock the protein concentration should be increased if the paddock feed is low in protein to try and balance the whole diet. This will vary with the amount of grain the stock are being fed and whether the main feed source is the grain or the pasture.

Preventing acidosis, when feeding grain, is vital to top performance. Cattle need to be started slowly on a ration or have a higher fibre ration fed as a starter. This allows the rumen time to adapt to the high grain diet. Roughage increases the secretion of saliva which helps buffer the rumen and so aids in the prevention of acidosis. When feeding roughage separately either as hay or paddock feed watch for stock that are not eating any roughage. A buffer such as sodium bicarbonate or bentonite should be included in rations to aid in the prevention of acidosis. Some longer fibre is required in the diet to supply "scratch" factor. A rumen that does not receive stimulation from being scratched by long fibre will slow down or stop moving which is necessary to stir and digest the rumen contents. Having a consistent ration available to the stock at all times will lower the incidence of acidosis.

Rumen modifiers can aid in the prevention of acidosis by reducing the population of lactic acid producing bacteria. The key role of rumen modifiers is however to either increase the rate of gain and/or to improve the feed conversion efficiency.

Feed conversion efficiency is the ratio of feed eaten to kilograms gained and is a key indicator of profitability in feedlots. To maximise feed conversion efficiency it is necessary to maximise the beast's intake of feed. As a set amount of feed is required for maintenance any extra over this will go to gain. By maximising feed intake the maintenance feed is spread over more weight gain and so efficiency is increased. Rations must therefore be acceptable and palatable to cattle and free of dust and mould.

Feed rations need to be balance not only in the amount of energy and protein but must also supply all of the minerals, vitamins and trace elements that the stock require. A balanced feedlot additive such as Vitalot will usually achieve this when added as directed. Short cuts in this additive use can severely lower the potential gain from grain feeding.

The key factors a feedlot ration needs is to be nutritionally balanced, have enough fibre and scratch factor and be palatable and free of undesirable tastes and odours. It should include ingredients to prevent acidosis and ideally include a rumen modifier to improve feed conversion.