



## **Animal Health & Nutrition Specialists!**

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### **Production Feeding on Pasture**

Often there is a need to feed pasture fed cattle to increase performance. This can be done to finish stock earlier and so save grass for an approaching dry season, to meet market specifications, to get heifers up to breeding weights or simply to turn over stock faster and so carry larger numbers.

Grain has been traditionally used as a production supplement on pasture but it does have a few drawbacks. When grain is fermented in the rumen lactic acid is produced which makes the rumen acidic. The best pH for forage digestion is however neutral to slightly alkaline. To get the best results from grain feeding on pasture steps to moderate or prevent this acidic rumen environment should be taken. Cattle experiencing acidosis will respond by limiting or stopping their grain intake and so lower productivity.

Grain that has been heat treated to gelatinise the starch is ideal for pasture. Gelatinised starch is digested slowly and so does not cause the large drop in pH of unprocessed grain. Buffers that prevent the drop in pH such as sodium bicarbonate and bentonite also help. Soda treated grain will also work well in this situation. Ideally stock should have continuous access to feed to encourage a number of smaller meals rather than one big feed and subsequent large drop in pH. Therefore feeding unrestricted grain every second or third day is not a good option. This method can however be used when feeding protein meals.

A ration for production feeding on pasture will not be balanced exactly the same as a full feedlot ration. On dry pasture a higher protein content is required to increase the protein content of the full diet. The exact protein concentration to use will vary with class of stock and pasture condition.

Protein meals are an ideal production feed on dry pastures as they provide both energy and protein. These feeds need to supply enough rumen degradable protein for optimum rumen function or if not urea needs to be added to the diet either in the feed or as a separate supplement.

Feeding on pasture will often have the effect of lowering total grass intake as the feed is substituted for pasture. There is also an opposite affect if rumen function is improved which can increase pasture consumption. Usually the net affect is pasture consumption is lowered or remains the same while the total intake of feed and pasture of the beast increases.

The conversion ratio of extra feed fed to extra gain achieved is often the key determinant of the profitability of production feeding. Limit fed protein meals on dry pasture tend to convert at about 3:1 while a well managed limited grain feeding system can convert at about 6:1. Limiting intake will improve the feed conversion but will result in lower overall performance. Maximum response to protein meal occurs at about 1% of bodyweight while limiting intake below this will improve the conversion ratio.

**Production feeding can be a profitable option in the right situation. Rations should be balanced to compliment the pasture rather than as for full grain feeding. Control of acidosis is vital when getting the beast to digest grain and grass together**