

NUTRITION OF LIVESTOCK

Brian Ashton
Rural Solutions SA, Port Lincoln

Key messages

- Grain & Graze is helping farmers increase their knowledge about nutrition of sheep.
- Don't wait for the 'magic' supplements.
- Find out what your sheep lack and supplement their feed.
- Energy is usually the most limiting nutrient.
- Protein may be limiting for young or growing stock.
- Liquid molasses (e.g. Molofos) may encourage sheep to eat dry feed.

Why do the work?

Grain & Graze groups around Eyre Peninsula identified that they wanted to know more about nutrition of stock. Presumably this is a result of the high prices now prevailing for well-finished stock.

The key question farmers ask is 'Is it economic to feed my stock and how much, of what supplement, should I feed?'

What was done?

The Grain & Graze project held three 'Lot feeding and nutrition' workshops, and has been involved in five 'Drought management' workshops. The EPARF field day had a major nutrition and pastures focus. In particular, San Jolly of Productive Nutrition Pty Ltd gave a stimulating talk.

What does this mean?

- Farmers often look for new supplements that will make their stock boom. These rarely exist. Energy is usually the most limiting nutrient. Pasture is the cheapest source of energy and cereal grain the next cheapest.

If your stock are deficient in copper or cobalt, a cheap supplement may make them boom and the results could be fantastic. You need to know the mineral status on your farm (see EPFS 2005 Summary, page 108).

- Drought feeding (in the paddock or in a containment area) is a simple practice and usually well worthwhile.
- Production feeding (fattening) can be economic. The ration needs to be balanced — in particular, protein level becomes as important as energy. Minerals and fibre are also important. Work it out carefully.

- In a feedlot or containment area you must feed some roughage. In San's words, 'If you take the roughage out, you're in trouble'.
- How to make stock do well on dry paddock feed has long been an aim of farmers. Dry feed is low in energy and low in protein. Once the best of the stubble or dry feed has been eaten, sheep cannot eat enough stubble to maintain their weight.
- Lick blocks were invented to encourage use of dry feed. They often work but, at about \$1000/t, are usually too expensive.
- Lupins, high in energy, protein and fibre, and low in starch, are the ideal supplement. Many farmers on Eyre Peninsula have had great success feeding 1–2 kg of lupins per sheep per week. However, farmers who do not grow lupins are reluctant to buy them.
- Urea in the water (or on the straw) has been tried as sheep can create protein from urea. Unfortunately, in southern Australia this rarely works as energy is limiting so the sheep cannot utilise the urea. This was confirmed by a trial at MAC in the 1980s.

Molofos 12

Molofos 12 is a commercial mixture of molasses, urea and minerals. It is an expensive source of energy (much more expensive than cereal grain) but, if there is ample quality dry feed, the use of Molofos may be economical.

A MLA-funded PIRD trial at Booleroo Centre in 2004 showed good results with Molofos. The group there compared ewes given access to ad lib Molofos for eight months to a group of ewes with no supplement at all. They repeated the trial the next year. In the first year the cost of the supplement was \$5.55 and the increase in return was \$16.45/ewe. The following year the results were reported as similar. This is a great result, but the Molofos may not have been the most cost-effective supplement (e.g. they may have had a similar result by feeding lupins — \$5.55 buys a lot of lupins).

Another trial compared sheep in a feedlot that were fed 100 g/day of Molofos, to sheep given no molofos. In this case there was no response. This confirms that Molofos may have a place where there is plenty of reasonable quality dry feed, and not so likely on rations already high in energy.

In a drought situation sheep do not usually need encouragement to eat the roughage and so, if possible, you should feed the cheapest source of energy. Sometimes feeding cereal grain has problems during introduction or grain poisoning.

One farmer at Cleve has had good results with Molofos. If you try it, record how it goes and let us know.

Acknowledgements

Grain & Graze is jointly funded by GRDC, Meat & Livestock Australia, Australian Wool Innovation, and Land & Water Australia.

Useful reference

MLA Prograzier, Summer 2006/7 page 24. 'Molasses helps with dry matter'.

For further information contact San Jolly, Productive Nutrition Pty Ltd (ph 08 8344 8816, mob 0418 446 499).

Category: Best practice
Extension

