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SORGHUM GRAIN FOR LOT FEEDING OF SHEEP

Sorghum has not traditionally been used as a grain for lot feeding of sheep despite often being cheaper and more readily available in Queensland and northern New South Wales than other cereal grains.

Recent work by the Australian Sheep Industry Cooperative Research Centre has highlighted the value of sorghum for sheep.

Sorghum can provide a basis for finishing lambs and CFA sheep for existing markets.

Feedlotting low body weight lambs or CFA sheep to achieve critical carcase weight targets can be profitable.

Introduction

In northern New South Wales and Queensland, sorghum grain can be used in sheep feedlots to profitably add value to low bodyweight lambs and cast-for-age (CFA) Merino sheep. In these areas, sorghum grain can be cheaper and often more readily available than winter cereals. Including non-protein nitrogen significantly improves the performance of sheep on sorghum diets.

What is the opportunity?

Low bodyweight sheep, for example Merino and crossbred lambs or CFA Merino sheep, can have limited market value. If their weight can be increased profitably to achieve critical target carcase weights then both producers and processors will benefit. In northern New South Wales and Queensland sorghum grain is often readily available and it can be cheaper than other cereal grains. However, it has not been traditionally used for sheep.

Recent work by the Department of Primary Industries and Fisheries, Queensland and the University of New England for the Australian Sheep Industry Cooperative Research Centre has highlighted the value of sorghum as a feedlot ration for sheep.

What can make feeding sorghum more profitable?

The economics of feedlot finishing, including realistic starting and finishing market value, needs careful consideration to ensure there is sufficient profit margin above feed and other costs; this is particularly the case for CFA Merino sheep. However, when feed and sheep prices are opportune, the use of sorghum as the basis of a feedlot ration for sheep can be profitable.

An induction or adaptation period is essential for grain feeding. Induction should commence with good quality hay for the first two weeks, whilst gradually increasing the grain intake. If lower quality hay is to be used in the final diet, you should gradually convert to this during the latter part of the induction period. For sheep, feeding the sorghum grain whole is preferable. Steam flaking, expanding or cracking of sorghum is high cost and provides little extra benefit.

Feeding hay and grain separately resulted in lamb performance comparable to that of a pelleted diet or a total mixed ration without the cost of either pelleting or mixing. However, it is necessary to add appropriate amounts of protein and minerals to balance the ration. This finding opens the way for temporary low-cost feedlots to take advantage of market opportunities, because expensive pelleting or mixing equipment is not required.

Including non-protein nitrogen (urea and ammonium sulphate) or true protein sources (cottonseed meal or whole cottonseed) significantly improves performance on sorghum diets. However, no benefit was seen from substituting true protein for the cheaper non-protein nitrogen.

What are the take home messages?

- If producers are contemplating feeding lambs and/or older sheep and sorghum is readily available at a cost-effective price then it should be considered.
- Steam flaking, expanding or cracking of sorghum grain is high cost and provides little extra benefit.
- Sorghum grain and hay can be fed separately without the expense of mixing or pelleting.
- Including non-protein nitrogen (urea and ammonium sulphate) or true protein sources (cottonseed meal or whole cottonseed) significantly improves sheep performance on sorghum diets.
- There is no further benefit from substituting sources of true protein for the cheaper non-protein nitrogen.

Where do I go for further information?

Fully discussing the economics of lot feeding sheep is not within the scope of this Practical Wisdom note. The Sheep CRC Feedlot Calculator will allow you to examine all the variables associated with feeding programs and to come up with the best answers in your situation. The Feedlot Calculator is available from the Australian Sheep Industry Cooperative Research Centre web site at www.sheepcrc.org.au/feedlotcalc

Your consultant or state department of primary industries staff will be able to help you work through the process for your property to identify the costs and profits that are available.

This Practical Wisdom note was prepared from four reports on research conducted by the Australian Sheep Industry Cooperative Research Centre. They are available from Ian McConnel, Department of Primary Industries and Fisheries, Queensland on (07) 4658 4425 or ian.mcconnel@dpi.qld.gov.au

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