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Drought feeding of sheep

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WHEN this talk on drought feeding of sheep was suggested conditions were very serious over large tracts of pastoral country. Many stations had not received a worthwhile rain for over 12 months and it appeared that grazing animals would have to be fed if they were to survive. Requests have been received for advice on the cheapest way to keep sheep alive. Drought feeding in any form is a gamble. There is always the risk that the stock will eventually die despite the consumption of much costly feed. It follows that if an effort is to be made to save a selected portion of the flock, the job must be done properly if unnecessary waste is to be avoided. On many stations, fortunately, useful rains have fallen since this talk was prepared. These rains will save many thousands of sheep. Certainly, the need to commence hand feeding will in many cases be postponed, if not eliminated.

Even so, a discussion of the difficulties associated with drought feeding, along with a few suggestions, may not go amiss. If a pastoralist knows what should be purchased and the quantities which have to be fed, it will be easier to work out likely costs and then decide whether feeding is justified.

GRAIN ALONE WILL SUFFICE
Take the extreme case when all natural herbage has been eaten and lean sheep face starvation. Under such circumstances the animals require an easily-digested source of energy. Cereal grains are the best source of this energy. Roughage in the form of hay is NOT required. This fact deserves special emphasis as many stockmen still believe that sheep and cattle must have a certain proportion of coarse feed. This is not so, as was shown very clearly in a drought-feeding trial carried out in the Victorian mallee in 1943. In this trial one hundred Merino ewes were kept in a small bare paddock for eight months. The only food was wheat grain fed twice weekly at a rate equivalent to nine-tenths of a pound per head daily. After five months on this meagre ration 81 lambs were dropped of which 51 survived. In due course the ewes were shorn and averaged almost 7 lb. of wool per head. When a drought does break ewes in particular become quite valuable. For this reason alone the feeding of the wheat grain to these ewes paid handsomely. As it happened the lambs and the wool paid for the feed supplied over eight months of drought feeding. This trial supplies basic information of considerable value to the pastoralist. Thus it shows that Merino sheep can be kept alive for many months on cereal grain alone. Also that the wool and lambs grown during the feeding period can contribute quite a useful sum towards the cost.

CALCULATING COST
Let us apply these results to conditions in our own North-West. Oats are the
cheapest cereal grain available. These can be landed in store at Port Hedland for £28 per short ton. Allowing another £2 per ton for transport to the station, this would bring the cost to 3½d. per pound. Cereal grain, if fed at the rate of a pound per day, should keep a Merino sheep alive for many months even when nothing else is available. In other words, sheep could be kept in bare paddocks in the Port Hedland area for a feed cost of 9s. per month. Given such a figure the pastoralist can decide whether the expense is worthwhile. The feeding may have to continue for six months by which time the cost per sheep would amount to £2 14s. for feed alone. But even this high outlay would be justified to save a good breeding ewe which while being fed would have grown perhaps 4 lb. of wool. And judging by the Victorian results the game pastoralist could mate these ewes in anticipation of some rain next summer.

I have used oat grain in making these calculations because at the present time this is the cheapest source of energy. Wheat is not much more expensive, however, and should always be considered as an alternative. Cost is the main factor to be considered when making a decision whether to use oat, wheat or barley grain —6 lb. of wheat or barley are worth as much as 7 lb of oats.

**CALCIUM SUPPLEMENTS**

In all references to the use of cereal grain as sheep feed, attention is drawn to the need for a calcium supplement. The recommendation is made that 2 per cent. of finely ground limestone should be fed with the grain. Cereal grains contain very little lime hence the need for this addition. But here again the advice given puts a severe strain on the practical man. How does he feed 2 per cent. of ground limestone along with the grain? This involves a lot more labour and can increase costs considerably. In any case most of the limestone sifts to the bottom of the trough or is lost on the ground. Fortunately, it is unlikely that the pastoralist need worry about supplying extra lime. The additional calcium is needed by lactating ewes or growing lambs but mature sheep probably have adequate reserves to carry them through a period of drought feeding. Where a little mulga, or similar top feed, is available this will supply ample calcium to correct the deficiencies in the grain.

Where it is considered necessary to feed a lime supplement I suggest that ground rock phosphate should be used rather than ground limestone. The rock phosphate will cost very little more and will supply phosphate as well as lime. Under drought conditions stock in this State are more likely to be suffering from phosphorus deficiency than lack of calcium. Where salt is not expensive it is preferable to feed the mineral supplement as a salt lick rather than go to the bother of mixing this with the cereal grain. A complete mineral supplement could be made by adding 4 oz. of bluestone and one ounce of cobalt sulphate to each hundred pounds of a mixture of equal parts of stock salt and ground rock phosphate.

**FEEDING OUT**

To many pastoralists the chief worry is not the cost of the grain but the problems associated with feeding out any supplement to stock in pastoral areas. It is all very well for the scientist to say that sheep can be kept alive on a pound of grain daily, if this is fed out once a week in self-feeders. But self-feeders are costly and vermin could eat a large proportion of the grain. Even the initial task of training pastoral sheep to eat supplements is not an easy one. Fortunately, practical men are adept at overcoming difficulties so long as they consider the effort to be justified.

Drought feeding necessarily involves a lot of work and careful planning, but there is a wealth of evidence to show that when the job is well done it has paid. Self-feeders may be out of the question but troughs of some sort will save a lot of grain. Possibly if this is fed out at dusk, birds would not have such a good opportunity to eat the grain before the sheep. Control of kangaroos, goats and such like would be essential where sheep are receiving supplements.

**SHEEP NUTS**

Many of the difficulties associated with the feeding of cereal grain are eliminated by the feeding of commercial "nuts." These can be scattered on the ground with less waste and the cubes are too large to be eaten by small birds which eat a lot of
grain. The cubes should also contain all the minerals which are so difficult to add to a cereal ration. These maintenance cubes can be landed in north-west ports at a cost per unit of energy which compare favourably with cereal grains. Pastoralists are advised to check on the comparative costs and ease of feeding.

Where stock are being hand fed never overlook the importance of shade. The survival rate of sheep on a bare maintenance diet can be appreciably increased by the provision of ample shade and cool water. Of more importance, the feed requirements are reduced when the stock can be kept out of the hot sun.

SUMMARY

Where feed is to be purchased to keep sheep alive under drought conditions buy cereal grain or commercial maintenance nuts. Hay, particularly cereal hay, is an expensive and wasteful source of energy. Sheep can be kept for long periods on nothing else than a pound of grain per head daily. At present prices it will cost about 9s. per month to keep a sheep on grain alone in pastoral areas. Commercial cubes can be more easily fed to stock under pastoral conditions and provide a cheap and simple method of supplying essential minerals. Shade and cool water will increase survival rates under drought conditions.

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