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HELP THOSE LAMBS TO LIVE
By C. J. SPENCER, B.Sc. (Agric.), Sheep and Wool Adviser, Katanning

In almost all breeding flocks the most serious stage of sheep loss is from birth to three days of age with the majority of these losses occurring at birth or during the first day. The number of lambs lost at this time is rarely known, but survey work shows that on most properties ten to twenty of every hundred lambs born are dead before three days of age. The economic importance of such losses cannot be emphasised too much. Money has been expended for rams as sires, while the ewes have received extra feed and have had their wool production checked by the developing lamb. It must also be remembered that lamb losses mean less surplus sheep for sale, lower culling levels and result in slower flock improvement.

Field observations and research work show the three main lamb-killers to be lack of adequate feed, exposure to either cold or heat and vermin such as foxes, dingoes and eagles.

Feed.—The importance of feeding the ewe correctly to ensure a healthy lamb and an early flow of milk has been stressed in an earlier article (ref. J. Dept. Agric. W. Aust., June, 1960), where the need for adequate good quality feed in the last third of pregnancy was stressed.

Exposure.—While exposure to either severe hot or cold conditions can kill lambs, cold windy weather is by far the more serious in the agricultural areas of Western Australia. These losses are often due partly to the effect of the cold on the lambs and partly to desertion by the ewes as they are less likely to mother their lambs when weather conditions are severe.

Vermin.—The importance of vermin varies not only from district to district but also with the strength of the ewes and lambs at lambing time. Efforts to reduce the vermin population need to be made before lambing commences. For those areas where foxes are a serious problem, the erection of a fox-proof fence should be considered as it is the surest protection for the lambs.

MAKING A FENCE FOX-PROOF
The fence described and pictured here has proved very effective on the West Narrogin property of R. Shepherd who constructed it by adding to an existing rabbit-proof fence. Comparative lambing results for one year showed that in the autumn an extra eight lambs for every hundred ewes mated were marked for ewes lambing inside the fence as against those
lambing outside. On the other hand no advantage was seen for spring lambing, indicating that either the foxes were less troublesome or that the ewes were better mothers at that time of the year.

The essential features of the fence are that it has an outward slope at the top and that both the top and bottom are netted. Cunning though he may be, the fox goes to the base of the fence before attempting to jump or climb and so is blocked by the sloped section.

**MATERIALS USED**

One extra post to every three in the original fence was used as support for the upper netting. These need not be as thick as normal fence posts and actually those that are just too thin for normal use are quite suitable. These posts were wired to the normal fence posts as shown (see illustration) and sheep netting joined to them above the original fence.

No extra plain wire was used as the two original top wires of the fence were used above and below the sheep netting. In this way the only extra materials used are about 150 small posts to the mile plus sheep netting.

The fence described has a total height of six feet with the upper part projecting out eighteen inches from the base.

**RESERVE THE PADDOCK FOR LAMBING**

A fox-proof paddock should be reserved for lambing time so that the ewes can be grouped together. This must eventually interfere with the cropping programme unless the paddock is set aside exclusively for lambing or unless a very large area, involving a number of paddocks is included inside the fox-proof fence. If this is done, part of the area can be cropped while the balance is used for lambing. Such a project will however involve a considerable outlay as the extra materials required to convert an existing netting fence into a fox-proof fence would cost about £450 to enclose an area of 600 acres.

**RESEARCH RESULTS**

In an attempt to measure more accurately what happens to the newborn lamb, research workers have compared lambs under different conditions. In one trial a flock of poorly-fed ewes was split into two groups. One group was allowed to lamb under field conditions and
here 21 lambs died before three days of age. The other group was assisted during lambing, the lambs kept in a warm shed for three days during lambing and where necessary artificially fed. Only one lamb was lost.

| Died at birth | 6 | 0 |
| Died by three days | 15 | 1 |
| Total lamb losses | 21 | 1 |

In another trial the body temperatures were measured of lambs that had not received milk and were kept in cold conditions. This was aimed at seeing just how the lambs reacted to this type of situation which often occurs in the field. If is to survive, the newborn lamb must produce enough body heat to offset the loss from evaporation while drying. It was seen in the trial that lambs born of well-fed ewes were better able to produce this extra heat than lambs born of ewes that had lost weight in late pregnancy. It was also noted that wind increased the need for extra heat production and so lowered the lambs' chance of survival.

Normally the body temperature of the lamb drops at birth and then rises again within a few hours, but some lambs are unable to produce this extra heat so that their body temperatures continue to fall and they eventually die. This initial temperature drop was more pronounced in the lighter lambs of the trial than the heavier ones so that under these conditions of insufficient milk plus cold their chance of survival was less.

**WHY DO LIGHT LAMBS DIE?**

The light lamb unfortunately is not just a small lamb as often it is just as long and as tall as the heavier ones. The difference is more in the relative amounts of each tissue, the bone developing in advance of the muscle and the fat forming even later. Also, as with older sheep, the first part...
to suffer in times of feed shortage is the fat and then the muscle, but very rarely the bone.

Because of this the light lamb is largely skin and bone and so it follows that the body reserves are low and the ability to withstand harsh conditions reduced. Field observations show that although they reach the udder, many of these lambs are too weak to suck successfully and soon die.

**POINTS FOR THE FIELD**

While it is not possible to house lambs at birth, the value can be seen of using sheltered paddocks to lessen the effects of wind, particularly when weather conditions are severe.

When choosing a time for lambing, expected weather conditions should be considered. Cold windy weather lessens the lamb's chances of survival and severe wind and rain, particularly when experienced together, increase the chance of ewes deserting their lambs.

Extremely hot conditions, though less likely to be important in the agricultural areas of Western Australia, can also cause losses through exhaustion.

The well-fed ewe in addition to bearing a strong lamb and providing an early flow of milk, will mother and protect her lamb more readily.

Where foxes are a problem the value of a fox-proof fence as a long-term investment should be balanced against the cost.

Twice daily, or even once daily, inspection of flocks during lambing to assist those ewes having difficulty in lambing will mean more lambs marked. This should be done quietly otherwise other ewes that have just lambed may desert their lambs.

The newborn lamb sucks by instinct and so clearing the udder of wool will help. When crutching the ewes prior to lambing, a blow should be taken in front of the udder to remove this wool.

If the lambs lost during the lambing period are removed and a tally kept, owners will know just how serious this problem is for their particular flocks.

Above all remember that the most crucial time in a sheep's life is the day it is born. To keep it alive then means more sheep for a negligible outlay.

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