

Reduce embryonic losses to maximise lambing potential

By Neil Laing, Clyde XLVets Vet Group

By the time a ewe is scanned it is too late to do anything about increasing the number of lambs inside her, so knowing the factors that can influence this number is important now, as the majority of commercial flocks gear up for tupping.

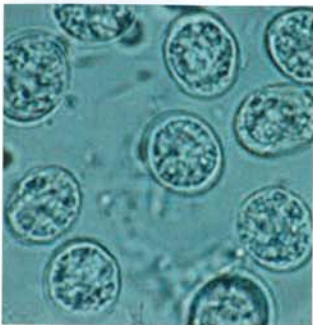
Ask yourself what is your scanning percentage normally? Has it changed in the last year or two? If it has, do you know why? Has your barren rate increased?

One cause of fewer lambs is early embryonic death, which can go unnoticed until scanning time, where there will be an increase in the barren rate and a reduction in the number of scanned lambs. Many ewes will apparently hold to the tup, but because of infection will resorb the lambs and scan barren.

A common cause of abortion – toxoplasmosis – can also cause early embryonic death. The causative organism, *Toxoplasma gondii*, has the domestic cat as its host and is spread in cat faeces. All other mammals, including humans, can become infected with the organism. They will show no signs but carry the infection in their tissues.

If sheep are infected in early pregnancy the embryos are killed and ewes may take the ram again, or often present as barren at scanning time. This is particularly annoying, as these ewes will not have any lambs next year and are a big economic loss for the farm.

There is a very effective vaccine against toxoplasmosis and if used at least four weeks prior to mating is highly effective in controlling the infection. Only one



Toxoplasma oocysts from cat faeces.

vaccination is needed as this provides lifelong immunity against the organism.

Other causes of early embryonic death are less dramatic, but are important for the profitability of any sheep enterprise. On the opposite hand to losing lambs is gaining extras. We all know ewes need to be 'flushed' prior to mating, but do we understand why?

Flushing puts the ewes on a rising plane of nutrition, which helps with increasing the ovulation rate. Also it helps more fertilised eggs implant in the ewe. Ensuring that ewes are kept on bare pasture for two to three weeks prior to moving onto good pasture effectively flushes ewes.

Body conditioning ewes six weeks pre-tupping is also important for flushing. Over-fat ewes have hormones in their blood that depress their appetite. The problem here is that putting these ewes onto good pasture will not increase their energy intake and they will not get the benefit of flushing.

Over-fat ewes

Many of these ewes are over-fat at this time of year because they reared a single that was finished early and these ewes were not put on poorer pastures then. The consequence is that many of these will only have a single the following year too, which is not ideal for the profitability of a commercial flock. Ideal condition scoring for ewes at tupping should be 3-3.5 for lowland flocks and 2.5-3 for hill flocks – see table 1 and footnote.

Equally important is not disturbing the ewes for the first 40-ish days of pregnancy, as any increase in stress can cause the ewes to resorb the lambs. Checking ewes without a dog and moving them sympathetically if needed will help reduce the possibility of this occurring.

Another way to help maximise the lamb crop, especially if using artificial breeding techniques or synchronising ewes using hormones, is to use teaser rams.

These rams are sterile and have been vasectomised but still have the hormones that give them the desire to mate, and the

Table 1: Target body condition scores throughout the year

	Hill ewes	Upland ewes	Lowland ewes
At weaning	2	2	2.5
At tupping	2.5	3	3.5
At scanning	2	2.5	3
At lambing	2	2.5	3



Neil Laing.

recognised smells of breeding rams. They get ewes cycling before the usual mating season and can be used to tighten up the lambing period. They are very useful when sponging ewes as they can enhance the effect of the hormones used to ensure good scanning results, where historic poor results with sponging have occurred.

Poor results with sponges occur because the ewes are not cycling before the sponges are put in. This means that they may cycle once, get mated and seem to settle, but go silent again and then scan empty or break between cycles later in the season. Using a teaser for two weeks before the sponges are inserted will reduce the chances of this happening. They can be used for the first cycle after sponge removal as well.

The final piece of the jigsaw when considering maximising the lamb crop potential is the ram stud.

We often overlook the rams until just before we remember we need to put them out, by which time it is too late to deal with any issues.

An MOT should be performed on all rams at least six weeks before using to sort out any physical issues like footrot. Checking the mobility of the rams to ensure they will be able to get about and work is important too.

A basic examination of the testicles and penis for obvious lumps and bumps or sores is important, as is the presence of the recognised strong smell and good purple colouration of the skin inside the back legs. Scrotal circumference is a good guide to the fertility of rams. For lambs it should be at least 30cm and for adults at



Simple examination and measuring of ram testicles is a useful guide, but consider coupling it with a semen test too.

least 34cm, but ideally 40cm. It is easy to measure on farm and any problem sheep should be shown to your vet.

It may be desirable to get all your stock rams semen tested prior to use. All of the above can be used as a guide, but in combination with a semen evaluation give a good measure of the likelihood of maximising the fertility of the flock.

We are increasingly testing more

ram studs on farm and find a surprising number of older rams that are sub-fertile. Many people test their newly purchased rams but forget about the older ones. Mating ratio is an important factor too, and is age dependent – see table 2.

Many adult rams are expected to mate up to 100 ewes in a year, and seem to manage fine, but this may lead to less lambs as a result. You can never have too

Table 2: Recommended ram ratios

Ram Type	Ram: Ewes
Mature ram	1:35 to 1:50
Ram lamb	1:15 to 1:30
Synchronised matings	1:5 to 1:10

many rams, as some may need changing over because of illness during the mating season.

In summary, minimising early lamb losses is a multifactorial task that is as much about planned early management as it is about thinking about controlling infectious disease.

More lambs

All of the industry bodies in the UK show figures with wildly varying lambing percentages between farms with similar geography. This is the single factor that flockmasters can put effort into to maximise the lamb crop – the more lambs that are conceived, and subsequently born and reared, means that the income to that enterprise is as good as it can be, whatever the fat lamb price.

For more information on flushing see the XLVets article in the August/September edition of Sheep Farmer and see Eblex's Sheep Better Returns Programme manual 12, which also provides good information on trace elements.



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