Back to Lamb Survival – New Information or not?

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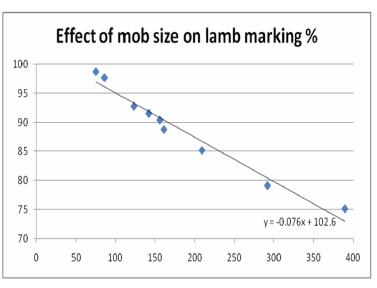
Most sheep producers will be at the point where lambing is not too far off or the rams will soon be given a rest to recuperate.

There has been plenty of information provided on the effect of ewe condition score and feeding during the last trimester to ensure good lamb birth weights and subsequently higher potential survival rates. With the increased use of pregnancy scanning to determine foetal number and allow better management of the ewe's feed requirements, potential lamb survival can also be increased.

The effect of mob size on lamb survival has also been one area that has been well documented with the push for smaller mob size to increase lamb survival. The

recommendation has been to maintain scanned single lambing mobs below 400 and multiple bearing mobs below 250 ewes. But how does this relate to stocking density and is the effect just a stocking rate effect?

Around 10-20% of ewes at the point of lambing, will show an interest in any other new born lambs often resulting in lambs being 'pilfered' and potentially mismothered and subsequently lost. This action can occur as early as several days prior to their own lamb being born. Data



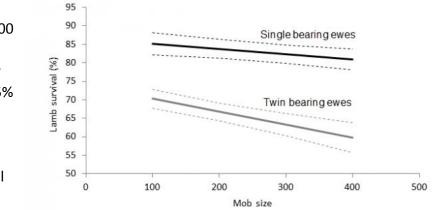
from the Sheep CRC nucleus flock using DNA parentage showed a degree of lamb swapping across both Merino and 1st Cross ewe breeds. This lamb pilfering becomes much more prevalent at higher stocking densities.

With around 30% of all lamb deaths occurring soon after birth and surveys of producers continually indicating number of lambs weaned as the number one influence on their productivity, a group of researchers surveyed 66 sheep producers across Victoria collecting data from a total of 300 individual mobs. The aim was to monitor the effect of both mob size and stocking density on lamb survival. Results indicated that by increasing the number

of ewes in lambing mobs, the risk of lamb pilfering, mismothering and lamb mortality increased. The effect of increasing the stocking density also had an effect on lamb survival and, as with mob size, was more notable in twin bearing ewes.

Summary of the results showed;

- For each additional 100 ewes per mob, lamb survival decreased by 1.4% (singles) and 3.5% (twins) at constant stocking rate
- For each additional ewe/ha, lamb survival decreased by 0.7%



The other factor associated with these findings is the number of lambing events that occur within a mob per day. It has been suggested that around 20 lambing events per day is the optimum for lamb survival after considering management constraints. Increasing the number of lambing events per day has an influence on degree of lamb pilfering and mismothering and influences the time spent at the lambing site.

Another issue that perhaps needs some consideration is the embryo losses that occur after scanning. Around 20% of lambs conceived are lost within the first cycle and as long as the rams are fit and healthy, will be picked up on the following cycle. However, at scanning (90 days after ram introduction), this conception figure is often used to calculate the lamb losses incurred from birth to weaning. The use of this figure can overstate the actual losses as typically around 15% of foetuses are lost post scanning due to a number of factors. Obviously, management and feeding will have an influence on this figure but at TAIC this year we had around 18% foetal loss on ewes that had ideal feed conditions, albeit on Lucerne which has a mixed reputation when discussing lamb conception. These ewes were scanned with around 170% lambs in utero and a high percentage of multiples. Be aware that some losses can occur between scanning and birth so the lamb mortality rates attributable to post lambing issues may not be as great as determined from the scan data.

The information from the Best Wool/Best Lamb group in Victoria does shed some new light on the suspicion that the mob size factor in relation to lamb survival may have a stocking rate issue embedded within. However it does not seem to explain the whole story so both are important. If protection from the elements is limited within the paddock, mobs tend to congregate in specific areas within the paddock and regardless of mob size and stocking density, will lead to issues of lamb mismothering. Not all ewes make the decision to separate themselves from the main mob for lambing with ewe age having a significant effect on maternal behaviour both pre and post lambing.

If all the work to ensure good lamb survival has been done leading up to the lambing event, just be aware of the effect that both mob size and stocking density can have on the ultimate success of all your good management.

Information from; "Lamb survival is Improved by Reducing Mob Size and Stocking Rate at Lambing Part 1"2016, A Lockwood, S Hancock, A Thompson, J Trompf, L Kubeil, G Kearney, Ovine observer #77