

Managing scanned ewes – the basics

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Introduction

The development/use of ultrasound for scanning ewes occurred in the early 1980s. National uptake had been slow until the millennium drought with many producers:

- seeing it as an additional, unnecessary 'cost'
- unable to separate ewes into multiple management mobs due to limited paddock number and/or ewe age group structures
- having difficulties in terms of stock movements, labor and/or incorporating scanning in with the timing of other farm management practices

Scanning benefits

Scanning, when used in conjunction with strategic nutritional and lambing flock management, can improve overall flock production and on-farm efficiencies. For an overview of the benefits scanning offers please refer to Land Fact LF-AP-10 (Pregnancy testing ewes – the benefits).

Scanning options

Scanning costs will range depending on the commercial operator used, that operator's flag fall/travel charge requirements, the number and/or scale of your operation and the scan type required.

Scanning options and price ranges are generally:

- Pregnant/Not Pregnant ^(a) (40-60c/ewe)
- Litter Size (70-90c/ewe)
- Foetal aging ^(b) (80c+/ewe)

^(a) Known also as 'Wet and Drying' ewes. 'Wet/Dry' also refers to the practice of checking udders at marking time to determine if the ewe is still rearing ('Wet') or has failed to rear her lamb/lambs ('Dry').

^(b) Skilled operators can identify ewes according to early, mid or late lambing date. Knowing an expected date of lambing can help to further fine-tune ewe nutritional management prior to lambing.

There are principally two (2) commercial scanning systems in place nationally. The 'walk through' system requires minimal set up and consists of an operator's crate or crush which ewes enter/exit as they are scanned. Most ewes nationally are scanned through these systems. Some operators also offer a 'VE' or conveyor belt style system where ewes are scanned in a lying position.

Scanning accuracies

Scanning operator accuracies depend on their ability to predict, within reason, a ewe's pregnancy status and/or foetal number and age.

If conditions are right in terms of ewes falling within the best possible 'time frame' for accurately predicting pregnancy, accuracies within Single and Multiple (twin/triplet) scanned mobs should be 95% and 85% or higher, respectively.

To optimise scanning operator accuracy, producers should:

- Not have extended joinings. A 5-6 week joining period is adequate under most conditions. If 'teasers' are used, an even shorter joining period is possible
- Contact the scanning operator prior to, or on the day joining begins
- Scan ~6 weeks after rams are removed (the oldest foetus will be ~84 days and the average foetal age will be ~70 day's) ^(*)
- Check with your scanner regarding necessary time off feed/supplements/water prior to scanning

^(*) Note that some scanning operators may prefer an older average foetal age.

Throughput speed can also be a factor influencing scanning accuracy. Ensure ewes are available when needed, moved quietly and efficiently through the yards and on return to their paddocks. This may require additional labor on the day of scanning.

Minimising any hold ups that may impact on ewe 'flow' can maximise the scanning operator's time per ewe and optimise accuracy.

Accurately identify all ewes scanned. Most operators will do so using a variety of spray mark colours and positions of these colours on the ewe. Alternatively use EIDs. Most operators can enter scan results directly into a database for future reference.

Ensure adequate predator control and sound nutritional management of ewes prior to and during lambing. Scanning operator accuracy can be 'skewed' by foetal and lamb losses due to these factors.

Managing ewe groups

Depending on the scan outcome, seasonal conditions and pasture/paddock availability, ewes can be managed based on their pregnancy status/foetal number immediately after scanning.

Following are many of the options and management recommendations available to producers.

Non-pregnant ('Dry') ewes

Options:

- Remove from the lambing ewe mobs
 - This will reduce flighty behavior within the lambing mob, potentially reducing mis-mothering and
 - Will save pasture and supplement feed costs. 'Dry' ewes graze more actively and compete more efficiently for available feed than pregnant ewes.
- Sell and/or Rejoin
- Run as wethers (if a wool-based enterprise)

Many producers will give maiden ewes two chances to join. If however these ewes are well grown, in reasonable body condition and there are no other known extenuating factors (such as a ram fertility issue) consideration should be given to removing these ewes from the flock.

By removing ewes who fail to conceive and/or rear lamb(s) flock fertility can be improved. Research findings have shown that maidens that fail to conceive in their first year will rear 10-15% less lambs/year than those that rear lambs during their first lactation.

Single Bearing Ewes

Single bearing ewes are generally the larger by number in Merino flocks. Due to selection and hybrid vigor (*) Crossbred and Composite ewe flocks tend to have increased percentages of ewes carrying multiple foetuses, including triplets and quads

(*) an increase in production (e.g. size, growth rate, fertility and yield) of crossbred offspring over those of its parents.

Around 70% of foetal growth occurs during the last three (3) weeks of pregnancy. The feed requirement of a single bearing ewe increases during this period to approximately double that of a 'dry' ewe of the same body weight and condition as the ewe partitions an increasing amount of energy to the growing foetus.

To meet the increasing energy requirements, ewes must consume enough from pasture/supplements and/or rely on body reserves.

Single bearing ewes in reasonable body condition at scanning can be managed as 'dry' ewes until the latter part of pregnancy under most conditions. They may not require significant grain or other supplements if they have obtained a body condition score of 2.7 or higher prior to lambing.

Single bearing ewes receiving feed in excess of their maintenance and growing foetus requirements may partition excessive energy to the growing foetus. This may lead to excessive foetal growth and birthing difficulties ('dystocia').

Dystocia is a major cause of lamb (and ewe) losses due to:

- heavy lambs/difficult births (particularly late born singles in good feed years)
- prolonged births
- cranial/spinal cord damage
- desertion

By identifying single bearing ewes at scanning producers can monitor body condition score, pasture and supplement quantity/quality to reduce the risk of dystocia.

Ewes which have undergone a prolonged, painful birth are frequently exhausted, hungry and likely to spend less time on the birth site.

Lambs that survive a difficult birth are often sluggish, slow to rise and have a reduced suckling drive.

These effects on both the ewe and lamb significantly impact on maternal behavior and lamb deaths due to mismothering and/or starvation of the lamb within the first few days of life.

Multiple bearing ewes

The majority of ewes scanned as 'multiple bearing' will carry twin foetuses. Higher order (triplets, quads etc) multiple foetus incidence occurs more within Crossbred and Composite flocks than Merino lines.

The feed requirement of multiple bearing ewes increases rapidly during the last few weeks of pregnancy. Depending on foetal number, their energy needs may increase between 150 to 200% of that of 'dry' ewes of the same body weight and condition.

Non-supplemented, multiple bearing ewes will lose body condition as lambing approaches, even if grazing high quality, legume-based pastures. Unlike single bearing ewe counterparts, multiple bearing ewes are physically unable to consume enough feed to meet their growing energy needs. A reduced rumen capacity due to pressure applied from the expanding uterus is a major reason behind this reduction in rumen capacity.

Ewe and lamb(s) survival is heavily dependent on a multiple bearing ewe's total energy reserves and ability to mobilise these prior to lambing. Once identified at scanning, multiple bearing ewes should be managed to ensure they reach a minimum body condition score of 3.0 at least four (4) weeks out from lambing.

Ewes fed energy and protein rich supplements should:

- have greater energy reserves (body condition)
- improved wool cut and tensile strength
- improved placental development improving
 - her lamb's lifetime wool cut (~ 300g cfw per year) and quality (~0.3 micron finer),
 - her lamb's muscle development, growth rates, feed efficiency and survival) and
- improved udder development/colostrum consistency and let down and overall milk production
- greater time spent on the birth site and
- improved maternal behaviour

All of these factors lead to improvements in both ewe and lamb survival and production.

For additional information on feeding and management of scanned ewes, please refer to Land Facts:

- Managing Scanned Ewes – Feeding
- Managing Scanned Ewes – Pre-Lambing
- Managing Scanned Ewes – Lambing

For a complete list of Northern Tablelands Local Land Services Land Facts, please visit our website at www.lls.nsw.gov.au/regions/northern-tablelands

More information

For advice and information about improving your sheep enterprise, contact Brent McLeod, Northern Tablelands Senior Land Services Officer – Livestock (Sheep), on 02 6730 1931, 0413 884 710 or brent.mcleod@lls.nsw.gov.au

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