



## Sheep CRC Practical Wisdom Notes

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| <b>Author:</b>      | Sheep CRC   |
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## The value of pregnancy scanning - should I do it?

### Key points

- The more dry ewes in the mob, the more benefit there is from scanning.
- The more twin-bearing ewes in the mob, the greater the benefit from scanning for twins and managing the twinners separately.
- The value of scanning increases with a poor season or a time of likely feed shortage over pregnancy.

### Introduction

Pregnancy scanning is a great management tool to improve profits for meat and wool enterprises, particularly those running higher stocking rates and when paddock feed is in short supply.

The decision to pregnancy scan ewes, either for wet/dry or multiples, is an important one and benefits vary with season, the reproductive rate of the flock and the management of the scanned ewes and whether their number will affect the overall flock structure.

It provides these farmers with vital information for their feed budgeting; particularly in poor years where stocking rates and feed requirements need to be accurately matched. It can be used to determine the impact of flock productivity and feed budgeting on farm profit.

Farmers in meat enterprises are reliant on achieving high reproductive rates and optimizing feeding and management to achieve good turn-off rates in the shortest time. Pregnancy scanning when combined with concise joining periods and differential management and selection practices is a key tool for any profitable enterprise.

The difference in benefits between scanning for pregnancy or scanning for multiple foetuses has long been a point of discussion. Recently the Sheep CRC in conjunction with the Lifetimewool Project analysed the economic impact of both techniques for a wool enterprise. The results of this analysis provides some important insights in what role pregnancy scanning has on whole farm profitability and how to make a judgement on whether to scan for multiples or just wet/dry status and how then to manage those ewes.



Figure 1. Pregnancy scanning equipment.

## Do I wet/dry only or scan for multiples?

Scanning ewes for pregnancy status (wet/dry) only allows:

- An increase in the reproductive rate of the breeding flock by removing dry ewes;
- A reduction in feed costs by feeding dry ewes less;
- A change in flock structure and achieving a younger flock;
- Management of the overall flock size in poor seasons.

Additionally, scanning ewes for single and twin status allows:

- A reallocation of the feed from the dry ewes to the twin-bearing ewes;
- The identification of lambs born as twins for the estimation of breeding value;
- An estimation of lamb survival.

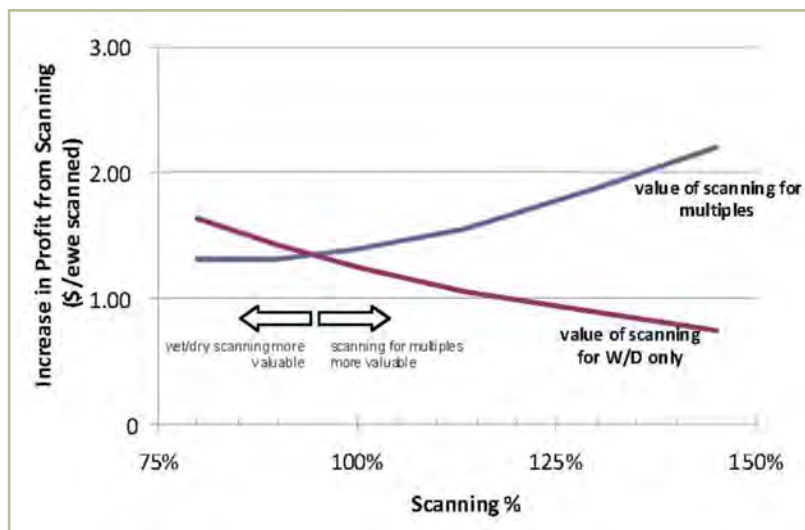


Figure 1. The impact on profit per ewe when flock structure changes are accounted for.

The benefit from determining pregnancy status relies on the proportion of dries, singles and twins in the mob.

As the scanning rate (foetuses/100 ewes) increases, the benefit of scanning for multiples increases compared to the benefit of scanning for just wet/dry. Above 90% scanning (90 foetuses/100 ewes joined) the value of scanning for multiples becomes higher than the benefit for scanning on wet/dry alone. Figure 1 shows the benefit when the impact of culling dry ewes on the overall flock structure is accounted for. The value of scanning per dry ewe is \$12 when no account is taken of changes to flock structure or the number of dries is low enough to not affect flock structure. This changes to \$5 per dry ewe if flock structure change is accounted for.

## Increase the reproductive rate of the breeding flock by removing dry ewes

The benefits of removing dry ewes from the flock are due to the fact that:

- Dry ewes are more likely to be barren again and if removed, a greater proportion of the ewe flock at the next joining is likely to have lambs;
- Ewes that lamb contribute daughters to the future flock who are more likely to have lambs (genetic component).

Decisions need to be made about whether ewes are culled on being dry in one or two consecutive years (i.e. once or twice dry).

### Reducing feed costs by feeding dries less

Identifying the dry ewes can add value to the ewe flock through managing them differently, i.e. selling them or giving them less feed and running them as a wool producing flock only.

Dry ewes cost less to run as they can be run as a wether flock, producing a good fleece on 7 MJ energy/day. They can then be sold off shears before summer.

Leaving the non-pregnant ewes in the lambing flock costs money as they will eat as much as pregnant ewes for little additional benefit and they will compete with pregnant ewes when feed is limiting.

### Reallocation of feed to twin-bearing ewes

Twin-bearing ewes need to be 0.3 of a Condition Score (CS) better than single-bearing ewes at lambing to ensure good birth weights and survival and optimise the lifetime production of their lambs. In average seasons, it is most profitable to reduce feed for the dry ewes and give more to the twin-bearing ewes. In poor seasons it is more profitable to reduce feed for the dry and single-bearing ewes and give more to the twin-bearing ewes.

### Changing the flock structure and achieving a younger flock

Selling the dry ewes allows a greater proportion of younger ewes to enter the flock, or older ewes to be retained for longer, to maintain flock size. Where low numbers of dry ewes are culled there will be little impact on flock structure. But for flocks with higher proportions of dry ewes, there are two options:

- Cull dry ewes and replace with young ewes: these ewes are unproven but can be important if increasing genetic gain is a target;
- Cull dry ewes and retain older ewes for longer: older proven performers can contribute to the overall reproduction rate of the flock but genetic gain is slower.

If the proportion of dry ewes is more than 15 percent then it is more profitable to retain the dry ewes on the farm in order to maintain flock size.

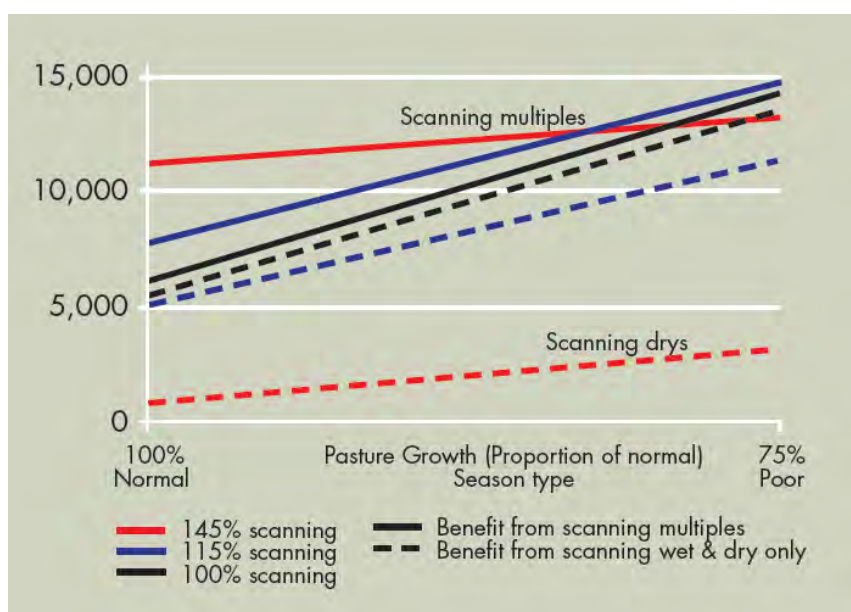


Figure 2. The relative value of scanning wet/dry or multiples in a normal season compared to a poor season.

At 100% scanning rate  
 At 145% scanning rate

### Managing the flock in poor seasons

The value of scanning is altered by the season or by feed shortages. As shown in figure 2, in a poor season when more supplementation is required, the value of scanning increases. Most of the increase is due to being able to adjust the management of the dry ewes (either by selling the ewes or reallocating feed), rather than that of the twin-bearing ewes. In a good season, or if understocked, the value of scanning decreases as there is likely to be a surplus of feed allowing all ewes to have adequate feed.

### To sell off shears or after scanning?

This depends on the proportion of dries in the flock and the time between scanning and shearing and whether that time is during a period of plentiful or scarce feed. Scanning at the beginning of the green season allows dry ewes to be retained and run as wethers until shearing without impacting on the amount of feed available for the pregnant ewes. For example, scanning in June with four months wool requires a 200 percent premium on the price of culls sold at scanning to offset the value of retaining them until next shearing.

### Cost of scanning

The cost of scanning has little impact on the profitability of scanning. Deciding whether to scan has much more to do with the proportion of dries and twinners in the flock and how they are managed. Decisions should be made on the quality of the service provided and the likely benefit from scanning overall.

### Take home messages

- Consider not scanning for wet/dry if there are less than 5 percent dry ewes;
- Consider not scanning for twins if the twinning rate is less than 15 percent;
- Before selling dry ewes at scanning consider the impact on flock structure and timing of shearing on lost wool revenue.