

# final report

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## Improving Lamb Survival

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## **Project Objective**

The project aim as defined in the initial Project was:

*To improve lambing percentages through improved nutrition of the breeding ewe.*

In doing this the project set the following objectives:

- To increase lambing percentages by 20% from 55% to 75%.
- To increase gross margin/ewe by \$10.
- To lift and then maintain ewes at a target Condition Score of 3 during pregnancy.
- To improve members' live animal assessment skills

## **Methodology**

Individual producers ran two paddock comparisons, involving similar age ewes, paddock type, stocking rate, waters and predator control. One 'control' mob was run under normal management conditions while a second treatment mob was managed with aim of offering a higher plain of nutrition to boost conception rates, body condition and lamb survival.

### **Method**

- Ewes were joined as normal for a six week joining. Most producers who undertook trials spike fed ewes and introduced teasers 14 days prior to joining.
- BW & CS were taken at joining, preg scanning and again prior to lambing.
- Supplement feed as necessary with aim of improving the body condition of the treatment ewes.
- Ewes pregnancy scanned at 40-50 days after rams were removed (optional).
- Lamb mark and compare lambing percentages. Observations on condition of lambs and ewes compared to control mob and rest of property.
- Weaning %.
- Wool cuts of ewes and progeny (Optional)

## **Analysis of the Data and Results**

### **Pregnancy Rates**

Two of the four properties recorded a lift in pregnancy rates as a result of lifting supplement levels prior to joining. Boree Downs recorded a lift in overall pregnancy rates of 9% from 84% to 93.2% (note ewes were not twinned). Beaconsfield noted an overall pregnancy rate lift of 4% however the number of ewes carrying twin lifted from 15% to 23% resulting in an increase in the potential lambing percentage of 12% (116% vs 104%).

Lyndon and Kenya did not record any major lift in pregnancy rates. Kenya noted that a part of the control paddock did receive a shower of rain in the weeks leading up to joining which put a small green shoot in the buffel grass. This may have had an equalising effect with the supplement that was being fed to the treatment mob. The Kenya pregnancy scanning did result in a high level of twinning (compared to spring joining district averages) in both mobs of around 25-28% possibly due to the spike in supplement and green grass.

### **Teaser use**

All properties used teasers as part of their joining management. The general observation was that lambs were born much earlier in the lambing period in the mobs that were teased. This is consistent with the theory behind the use of the ram-effect. The observation from Beaconsfield was that approximately 60% of lambs appeared to have been born with 10 days from the commencement of lambing.

The earlier lambing in the teased mobs is thought to have contributed to the heavier weaning weights in the treatment lambs on Beaconsfield and Boree. This was particularly helpful in the instance of Boree Downs as the lambs were sold as feeder lambs at weaning with the heavier lambs resulting in an increased return of \$5/lamb.

### **Ewe Body Condition**

All properties were able to increase the body weight of ewes through the use of supplements, however no properties were able to achieve the targeted average condition score of 3. While some achieved a live weight difference of up to 5kg between the mobs, this difference was slowly lost following the break in the season (possibly due to some compensatory weight gain in control ewes).

Drought conditions over the life of the project provided it difficult to significantly lift body condition in the ewes. The supplement would however have prevented further weight loss in the treatment ewes.

### **Lambing rates**

Only one of the four properties that undertook trials achieved a significant improvement in lambing percentages. On that property (Boree Downs) the result netted a lambing percentage (to ewes joined) of 99% in the treatment mob versus 78% in the control mob. Lambs were also heavier at weaning (Approx 3kg LW) as discussed above.

Beaconsfield did record an increased number of lambs born per ewes joined of 7% however this difference is mainly due to the increased pregnancy rate rather than survival rates.

### **Wool results**

No significant wool cut improvements were recorded in the trial. This is most likely due to the fact that no significant weight difference were achieved between treatment and control mobs for a length of time that would have resulted in a noticeable wool cut increase. The wool from the Beaconsfield treatment ewes however was recorded at a higher tensile strength than the control mob (i.e. 40Nkt vs 31Nkt).

## **Discussion**

**Did the Group achieve the results planned at the beginning? Check the numbers in your Objectives and report specifically on them.**

As a whole the project did not produce the result anticipated at the beginning.

- Increase in overall lambing percentage ranged from 0 up to 9% against a targeted 20%. However producer did meet and in instances exceed the aim of reaching 75%, with a high of 99% recorded. It should be noted that this result is far in excess of the general lambing performance level in Western Queensland and is a testimony to the animal husbandry practices adopted by that individual producer.
- As a result of the above there was not an increase in gross margin recorded. Boree Downs did however receive a net return of \$9/ewe above the treatment mob due higher sale price (i.e. heavier lambs) and higher lambing percentage.
- None of the properties were able to lift treatment ewes and maintain a difference of 1 condition score over the project. While some properties did get close to this (i.e. 5kg LW difference), general rain and a break in the season resulted in mob weights converging to a difference of less than 1kg).
- All groups participating in trials gained practice at sheep assessment. While there was no opportunity to receive feedback (i.e. slaughter kill sheets) it was a

worthwhile exercise in having to weigh and condition score. Most producers regularly sell livestock through the Auctionsplus marketing system which provides the opportunity to practice livestock assessment and compare with practiced assessors.

### **Impact of the Project**

General comments as follows:

- The ram-effect (done properly) seems to be an effect, cost effective way of tightening up the lambing period for spring-summer joined flocks. It could allow for efficiencies to be gained in a supplementing program (either at joining or lambing), in controlling predators at lambing time or assist in marketing even lines of store lambs.
- A controlled spike feed (in conjunction with teasers) may be an effect of way of improving ewe pregnancy rates of spring-summer joined ewes in the absence of sufficient green pasture.
- Producers will continue with the use of pregnancy scanning as a management tool.
- Two properties received significant rainfall 175-200 mm over the period of 8 days, at around mid-pregnancy. This meant that ewes were not able to be supplemented for a period of two weeks and by the time that supplement could be delivered to them there was a green pick and ewes had gone off the supplement. As a result ewes visually lost a lot of condition over a 2-3 week period at a time in the pregnancy where it was important to be maintaining condition. Losses due to small birth weight were evident on both these places which could have been attributed to this period of wet weather during pregnancy. In an extensive sheep operation events such as this prove difficult to overcome.
- One property observed a significant number of low birth weight losses in their maiden ewes in the year they conducted the trial. They are looking some improved nutrition/management practices to overcome this.

### **Trial measurements**

The trial did show that in instances there are opportunities to improve the bottom line. Perhaps more so in improving pregnancy rates. Selling ewes scanned in lamb is a marketing strategy that WQ producers do undertake at times. Spike feeding to increase pregnancy rates may offer an opportunity to improve ewe prices in this instance.

Increased supplementation to improve ewe weights during pregnancy did not show to have an economic benefit in this trial.

### **Open days and field days**

No open days were attended. One radio interview was conducted and one member appeared in a rural press feature on their sheep breeding/prime lamb operation.

### **Was the Group satisfied with the results of the project?**

All in all the answer is yes. All members picked up things that they add to their operations. Some will continue to trial supplementing/husbandry alternatives with the opportunity arises.

### **How could you have done the project better?**

The impact of 5 years of drought meant that a number of producers that had originally intended to undertake trials were not in a position to do so (i.e. sheep had

to be sold or sent of agistment, lack of suitable trial paddocks, no stock water). While this was out of the control of project, it did mean that less data could be collected as a group.

**Is the group interested in doing another project?**

Changes in circumstance means that it is unlikely that this group would undertake another project (i.e. original members have moved or sold). However some group members are involved in other groups (i.e. Bestprac, AWI Leading Sheep Project) that may see them take on projects further down the track.

**Would you recommend other Groups run their own trials?**

Yes. The aim of this trial was to run it in a manner that reflected commercial reality (i.e. mobs of 500 sheep in paddocks of 1500-2000 acres in size). However other groups may consider conducting trials on a smaller scale in order to have greater controls over some of the variables that are harder to control on an extensive scale (i.e. focussed predator control, ability to feed ewes during wet or boggy conditions).

**How would the Members sum up their experiences in doing the MLA PIRD project?**

A beneficial learning experience, as it gave members the opportunity to trial methods that could improve their production system and bottom line.

**Comment on the organisation and management of PIRDs**

No comment. It appears to be a well run program.

Very good effort by these pastoralists in a tough period.