

INNOVATION PROFILE



BUSINESS SNAPSHOT

OWNERS

Pat and Sue Hegarty

PROPERTY NAME

Colanya Station

PROPERTY LOCATION

140km North West of Longreach,
QLD

SIZE OF PROPERTY

13,515 hectares

BRIEF ENTERPRISE DESCRIPTION

Wool and meat sheep with agistment cattle plus a registered Merino stud.

NUMBER OF PEOPLE WORKING IN THE BUSINESS

2 full time equivalents plus casuals and contractors at various times throughout the year, including shearing and crutching.

AVERAGE ANNUAL RAINFALL

350mm

WHY THIS IS A PASTORAL ZONE INNOVATION

Poor lambing percentages are a challenge for many pastoral wool producers. Existing 'inside country' strategies can be successfully adapted in the pastoral zone, such as pregnancy scanning and supplementary feeding.



Increasing Lambing Percentages in the Pastoral Zone

Pat and Sue Hegarty run Colanya station, a sheep property in central western Queensland. Their son James also runs a crutching and pregnancy scanning business, whilst their daughter Emma is a livestock scientist, specialising in animal health and nutrition. Both James and Emma assist Pat and Sue with management decisions for the business and stock work during busy times throughout the year.

Higher input costs were affecting the viability of the family's sheep business, particularly in dry conditions. They recognised that to remain a sustainable business and increase profitability, their income had to increase.

Rather than focus on the variable climate which is beyond their control, the Hegarty's chose to focus on issues they could influence. They identified that to achieve their goal of higher income; they needed to work towards increasing lambing and weaning percentages.

Figure 1: Ewes are provided with supplementary feed during lambing via an adjustable lick feeder.



WHAT WAS THE MOTIVATION TO CHANGE?

The Hegarty's were unhappy with their lambing percentages and were not content with the district average of 50 to 60 percent. After much research they refined a ewe management system that was tailored to the pastoral conditions at Colanya. The aim of the management system was to increase their conception rates and lambing percentage.

HOW DOES THE INNOVATION WORK?

Prior to joining, maiden ewes are supplementary fed to ensure they are at least 45kg and in condition score three for maximum fertility. Ewes and rams are then joined in March, when lush native pasture is available and the ewe's ovulation cycle is peaking.

Ewes are pregnancy scanned in June and assigned to one of three mobs based on the number of foetus observed. The three mobs are multiples, singles and maiden ewes, which are all managed differently. This technique has helped the Hegarty's increase lambing percentages to 150% in their multiple baring ewe mob. Any dry ewes are culled immediately and sold on the internet auction website, AuctionPlus Pty Ltd.

Colanya is subdivided into 24 paddocks with an average size of 600-800 hectares. Of these paddocks, 10 to 12 are used as lambing paddocks. This includes seven small paddocks (50-100 ha) which are used for single sire joining for the stud. The smaller paddocks enable easier stock management and mean the ewes don't have to travel as far for water and supplementary feed during lambing. Larger paddocks have a minimum of two watering points and some have up to six.

The business starts supplementary feeding the ewes three weeks prior to the commencement of lambing. The Hegarty's prefer to use adjustable lick-feeders, instead of trail feeding grain onto the ground (figure 1). This helps to reduce mis-mothering of lambs, as the ewes are not running to feed. Grain is also available 24 hours a day, so shy and reluctant feeders have access. With the feeders being adjustable, their intake can be controlled. Refer to the business case, "Using Lick Feeders to Supplementary Feed Ewes" for more information.

Significant aerial baiting for wild dogs occurs before lambing whilst trapping occurs all year round. Ground baiting is carried out prior to and during lambing to control wild pigs and foxes. Alpacas are also used as guardian animals to protect the lambing ewes.

The supplementary feed ration has been created with the advice of a sheep nutritionist to include, corn for colostrum and milk production, a dry mineral lick, and pasture hay. The ewes are supplementary fed until weaning. This ensures the ewes remain in good condition and teaches the lambs to eat from the feeder so that they are more productive after weaning.

The Hegarty's wean lambs at four months into small paddocks to ensure the ewes have sufficient time to recover and increase their body weight before joining in March. If the season is poor the lambs are supplemented with grain and pasture hay. The lambs have already been trained by their mothers to access the supplements.

In the past 13 years the Hegarty's have changed their breeding program with the assistance of a breeding consultant. They have developed a plain bodied, highly fertile sheep that grows long, soft, deep crimping wool and does not require mulesing. Since they ceased mulesing in 2006 weaning rates have increased because of less stress and mis-mothering at lamb marking. The Hegarty's also use the Australian Sheep Breeding Values (ASBVs) to target desired genetic traits in their sheep. In order to produce sheep with better survivability in their tough conditions, the ASBV traits they target are high weaning weights, eye muscle and fat.

In good seasons the Hegarty's also mow tracks through the long grass to avoid lambs being mis-mothered when travelling to and from watering points.

Figure 2: Lambs at Colanya Station.





Figure 3: Sheep at Colanya Station.

KEY FEATURES

The features of the Hegarty's ewe management system are:

- Preparing maiden ewes for joining by supplementary feeding.
- Lining up joining time with the natural peak in the ewes ovulation cycle.
- Supplementary feeding ewes prior and post lambing to improve weaning percentages.
- More targeted feeding of supplements and paddock management by spitting the ewes scanned in-lamb into three different mobs.

WHAT ARE THE KEY BENEFITS?

The Hegarty's have observed the following benefits to their sheep enterprise:

- Increased conception rates by joining in March to utilise the ewes' natural peak in ovulation cycle.
- Increased lambing percentages by supplementary feeding the ewes lambing.
- Improvements in lamb productivity by improving the ewe's milk and colostrum production.
- Better lamb growth rates after weaning as they are taught to feed on grain with the ewes.

KEY MATERIAL REQUIRED FOR THE INNOVATION

The key materials and resources required for this innovation include:

- Pregnancy scanning equipment or contractors. The Hegarty's son James runs his own pregnancy scanning business and does all the scanning at Colanya.
- Time to supplementary feed, pregnancy scan and manage separate mobs of ewes.
- Various feed rations to supplement ewes carrying multiples and singles, and maiden ewes.
- Smaller paddocks for lambing and good access to water.

The Hegarty's have attended many workshops over the last 12 to 14 years. Many of these were focused on nutrition, breeding and predator control. In recent years they have participated in several Leading Sheep and AWI funded workshops and webinars including RamSelect, Bred Well Fed Well and Making More from Sheep events.

"These workshops and webinars have been a big help in assisting us to improve our lambing and weaning rates" said Pat and Sue Hegarty.

POTENTIAL CAUTION AND RISK

The Hegarty's have spent a lot of time researching and refining their ewe management practices. They suggest the following words of caution before implementing this innovation.

- Getting the feed ration wrong can reduce the productivity of the ewes and potentially be fatal. The Hegarty's recommend consulting a livestock nutritionist.
- Ewes should be selected for their fertility and mothering ability to ensure that productivity gains are maximised and costs are leveraged.
- Storing grain in silos rather than bunkers will reduce insect infestations and rocks accumulating in the feeders.
- The increased income from more lambs needs to outweigh the increased costs in supplementary feeding and pregnancy scanning ewes.

WHAT COULD BE DONE DIFFERENTLY NEXT TIME?

The Hegarty's would change the following to their ewe management system:

- Better utilisation of excess pasture in good years by increasing hay production and storage.
- Utilisation of other grains such as Faba Beans to increase the growth weights of weaners.

LOOKING FORWARD

Once the drought at Colanya eases, the Hegarty's plan to buy more ewes and increase ram sales from their merino stud. They would also like to build more hay sheds so they can store more hay for supplementary feed.

COST BENEFIT ANALYSIS

The increased costs the Hegarty's have incurred to improve their lambing percentage are:

- Grain and hay for supplementary feeding.
- Labour for supplementary feeding, pregnancy scanning and managing split mobs of ewes scanned in-lamb (the Hegarty's have decreased labour for feeding requirements since introducing lick feeders, as less time is spent each day delivering feed to the stock).
- Pregnancy scanning equipment or contractors.
- Consultancy fees for engaging a livestock nutritionist and breeding consultant.
- Purchase of lick-feeders, silos and augers for the supplementary feeding program.

By managing their ewes better, the Hegarty's have lifted their lambing percentage to 106% and 109% in 2011 and 2012; with a 10 year average of 85%.

FURTHER RESOURCES

More information on managing ewe nutrition and increasing lambing percentage can be found at the following sources:

- Making More from Sheep
www.makingmorefromsheep.com.au
- RamSelect
www.sheepcrc.org.au
- Lifetime Ewe Management course
www.rist.com.au/lifetime-ewe-management.php
- Leading Sheep Queensland
www.leadingsheep.com.au
- Business Case "Using Lick Feeders to Supplementary Feed Ewes" www.bestprac.info

THE FINAL WORD

"One of the best things we have ever done, and had to do to be sustainable" said James.

Bestprac acknowledges the contribution of the Hegarty family in the development of this innovation profile.

To view more innovation profiles, business cases and videos of innovations in the pastoral zone, visit the Bestprac website www.bestprac.info



Figure 3: Lambing time at Colanya Station.