

More perennials

Better livestock

Healthier catchments

Case Study

farm info.

Lucerne leads to 'more legs on the ground'

Chris, Margot, James and Barb Shannon are trying to achieve what most graziers are aiming for "more legs on the ground".

When hearing about the ovulation research being undertaken at the Wagga EverGraze Proof site, Chris was interested to try to replicate the positive results from this site on his own farm under more commercial conditions.

"When an opportunity was presented by the Murrumbidgee Catchment Management Authority (CMA) to become involved with the EverGraze Supporting Site project to run a Merino ovulation demonstration, I was keen to be involved.

The majority of my property is native perennial pastures. There is only a limited area that can be sown with improved pasture species.

This includes small areas of limestonederived soils and creek flats.

It is on the limestone derived soils I have sown lucerne based pastures.

Traditionally these lucerne pastures have been used to increase lamb weight but I was keen to maximise its use and try to produce more lambs.

I have always scanned my ewes to separate singles from twins so I was happy to use this scanning to determine the potential benefits of flushing ewes with lucerne to increase ovulation rates and therefore multiple pregnancies.

On our property we run 4500 breeding ewes. 500 of these ewes are joined to terminal dorset rams and the balance to Merino rams. We also run 5500 breeding ewes on other properties that we lease.

Producer: Chris, Margot, James and Barb Shannon Location: 'Talmo', Bookham Property size: 1445 ha, plus 2 lease properties Soils: limestone, granite derived sandy loams and sodic pipe clay soils Enterprises: Merino breeding, most to Merino sires Pastures: lucerne, phalaris and cocksfoot and native perennial pasture

When we tested the flushing system, we put the ewes on to the lucerne one week before joining and removed them three weeks after joining, at a stocking rate of 10 ewes per hectare.

We ran our control group ewes on a typical pasture paddock, with no green feed in it.

Ewes were joined in March and then scanned at 90 days to determine single, multiple or non-pregnancies.

The result of this scanning is used to draft mobs that can be managed better according to the

requirements of their pregnancies.

Based on the 2009 scanning results approximately 30% more lambs, from increased twinning rates, were produced from the ewes flushed on the lucerne pasture compared to the control mob on the native pasture.

Using the \$67.00 we got last year for lambs off mothers - that is an extra \$2010.00 per 100 ewes.

These initial positive scanning results have inspired me to try flushing mobs of ewes for a week at a time during



Chris Shannon

key points

- Lucerne can increase ovulation rates
- Ewe scanning is important as an on farm tool
- More lambs from increased twinning rates can be produced from the ewes flushed on the lucerne pasture

Chris and his Merino ewes

"The results have been extraordinary. Initial positive scanning results have inspired me to try flushing mobs of ewes for a week at a time during the 2010 joining period"

the 2010 joining period on one leased property.

The results from the lease property and the second year of the trial, this year, once again showed high twinning rates of 68%, but the control group was the same due to an abundance of green feed in all paddocks from summer rain.

Looking at the results over the two years, it shows me that any green feed is enough to flush the ewes, but in

science behind the story

Increased nutrition or 'flushing' before mating is well recognised as being able to increase ovulation rates leading to more lambs on the ground.

Short-term supplementary feeding targets a critical period in the ewe breeding cycle.

The benefit of this strategy is that limited feed resources can be used more efficiently than if a longer feeding period is required.

Supplementary feeding with lupins can increase ovulation rates by up to 60 per cent and as such, lupins are the most common feed supplement used for this purpose.

But grain feeding can be expensive and not readily available in all localities and the recent trial results suggest more reliable responses can be obtained using existing pasture resources.

Our three-year EverGraze study into the effects of short-term grazing of summeractive perennial pastures (lucerne and chicory), leading up to ewe ovulation, suggests this could be a more costnormal seasons there is not a lot of green around. However, lucerne can be saved to do the job.

One of the major limitations of implementing this type of

system on "Talmo" is the lack of area that can be sown to lucerne.

However, I think this system can work well for breeding operations. The lucerne can be used for flushing ewes

effective option than lupin supplements or a long-term grazing strategy.

We have been looking at economic options to boost reproductive performance in Merino ewes. In the EverGraze trials grazing both chicory and lucerne during February increased ewe ovulation rates more reliably when compared with ewes given supplement of 500 grams per head per day of lupins

This response was closely related to the amount of green pasture available, with 90 per cent of the maximum response occurring with as little as 350 kilograms of dry matter per hectare of green feed

The results show small amounts of green feed offered to sheep before ovulation increased ovulation rate by 10% on average. The level of increase depends on the amount of green feed and the condition of the ewes (in one year the increase was 22%).

The best results in the study occurred when ewes were in condition score 3.

The results Chris obtained agree with our experimental results – in 2009 only



prior to joining to increase lambing rates and later grazed with lambs to increase growth rates. Managed right I can see this system has the potential to produce more lambs and increase profits."

ewes joined on lucerne had green feed so their scanning results were much better than ewes joined on dry feed. In 2010 even the ewes in the 'dry feed' paddock had sufficient green feed to flush them. In drier summers allocation of ewes to lucerne or other summer active perennial can be used to generate more twins than if ewes were joined on dry feed.

To maximise the effect over more ewes with limited lucerne, ewes should be placed on lucerne a week prior to joining and the first week of joining – this will ensure most of the ewes will be flushed on the first cycle, when the majority should fall pregnant anyway.

The 'EverGraze Exchange - Short-term flushing increases ovulation' and lucerne growing fact sheet is available at our website www.evergraze.com.au

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