

Case Study

Tagasaste adds flexibility

Integrating tagasaste into the overall rotation system is helping Wes Brown, manager of 'Grenabri' in NSW and Chair of the central NSW EverGraze Regional Group, to fill the feed gap in dry seasons and provide valuable shelter for livestock.

Wes explained to Luke Beange the shelter and fodder benefits and the establishment challenges he experienced with tagasaste.

"We were originally 100% Merinos. Then about 12 years ago we moved to 50:50 Merinos and beef cattle breeding. Now we are 50% prime lamb and 50% trading cattle. I recognised that wool was going to crash, and it did 18 months after I made the move away from Merinos and bought cattle.

Markets change – we can't do anything about that. Seasons change – we can't do anything about that. Therefore keeping an open and flexible system is vital to our enterprise.


The problem for us came through these changes in enterprise, which required a more reliable and flexible feed supply.

All of the property has had sub and super for at least 25 years. On better soils there is a mixture of introduced grasses (phalaris, cocksfoot, sub clover, annual ryegrass) plus a large amount of *Microlaena* and *Danthonia*. The poorer soils are largely driven by *Microlaena*, and *Danthonia* to a lesser extent.

We have done pasture improvement, new pasture varieties, soil testing and trials with liming and fertiliser rates.

We have found these didn't have as significant an impact on productivity as we would have liked. This motivated us to find alternatives to provide the protein and energy that our livestock required.

farm info.



Producer: Wes Brown
Location: 'Grenabri', Cargo, NSW
Property size: 883 ha
Soils: ranges from poor light soils to good deep red basalt soils
Enterprises: prime lambs & trading cattle
Pastures: phalaris, cocksfoot, sub clover, ryegrass and native grasses.

At the same time I also need to provide more shelter for the stock. At 800 metres here our winters are cold and the stock suffer without shelter.

I noticed that tagasaste grew like a weed along our local Cargo road without any help from anyone, so was obviously suited to our environment. I also noticed that my stock ate it where it hung over the fences. So with that started many years of learning about the plant and conducting many trials.

In 1995 we started planting trees, 1000 to start with. Since then we have been experimenting with grazing direct from the trees or cutting and feeding.

We have a feed deficit from June to September here, and again in February/March. Lactating animals need the green feed, hence the tagasaste.

During the last really dry period around 2002, I fattened about 600 lactating Merino ewes. We managed to take them up from a 2½ fat score to a 3. They were in a sacrifice



Wes Brown

key points

- Shrubs have the ability to provide valuable fodder and shelter for stock.
- Fodder shrubs can be integrated into a rotational grazing system.
- Tagastate can be a valuable supplement in dry seasons.

“The challenge for us is to integrate tagasaste hedges into our rotational grazing system. That is what our EverGraze trial is about.”



Tagasaste plantation at Grenabri

paddock. I cut down 15 ten foot high tagasaste trees every second day to feed to them.

The challenge for us now is to integrate tagasaste hedges into our rotational grazing system. We currently use an intensive rotational grazing system where animals spend only 4-7 days in one paddock.

In November we sold all our breeding cows and moved into trading cattle because breeding is not flexible enough to match our carrying capacity to our stocking rate in highly variable seasons. Normally we carry 4500 DSE but now we are at 1200 DSE due to the dry.

Our cost of production per kg of beef or lamb produced has gone down. Because of the current dry seasons

there has been no significant increase in production.

The benefits of tagasaste are that it acts like a green haystack, is a legume, has a larger root system than a pasture to draw down moisture and it is a good windbreak.

The shelter from the tagasaste is a significant benefit which should not be underestimated.

A disadvantage of tagasaste is the difficulty in establishment. I have had establishment failures due to dry conditions, rabbits, and cutworms. They all love it, especially in these dry seasons. A big disadvantage is that it grows as a tree, therefore growing above the ideal browsing height.

So it has to be managed to keep it at browsing height or harvesting technology needs to improve. A chainsaw is too labour intensive.

Our EverGraze trial is assessing both profitability and natural resource management outcomes and whether tagasaste has a place within our production system.

At the current time I think we are on the right track.”

science behind the story

Strategic utilisation of shrubs will provide natural resource management benefits through the interception of runoff, potential carbon sequestration and reduced erosion and recharge potential. Shrubs also help to improve production through shelter and have the potential to improve lamb survival in winter lambing systems.

In Wes's case, he is using the tagasaste as a windbreak and a drought reserve. Strategic grazing is important. The tagasaste requires careful management to ensure that it is not grazed or cut just prior to when it is required as a shelter break.

Research at Wagga has shown Acacia (wattles) shrubs have not adversely

affected adjacent pasture production. When considering your shrub selection it is important to consider persistence and potential weed risk.

It is also important to consider site selection. Shrubs may reduce the potential of dam fill if placed above slope of water storages.

However, they also have the benefit of intercepting runoff if planted across slope as a biological contour where erosion is a risk.

Finally when considering species, consider the other possible values of the shrubs; for example will they have a value in future ecosystem services?

Research at Wagga Wagga has also demonstrated the benefits of shelter in

lamb survival. Shrubs result in a similar level of survival in twins to that of singles without shelter.

In Wagga, twin mortality can exceed 50% without shelter. This has been reduced to 20% with shrubs as shelter. In more extreme environments it is possible to lose 70% of twin lambs without shelter.

Fact sheets on hedges and lamb survival are available at our website www.evergraze.com.au

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EverGraze is a Future Farm Industries CRC, MLA and AWI research and delivery partnership

