Comparison of Lower Eyre Peninsula grazing systems

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Key Messages

- There is a large variation in the performance of pastures in terms of stocking rate on the Eyre Peninsula.
- Improved pasture systems are achieving livestock carrying capacity well above district practice.
- High performing pastures have a role, even in a cropping dominated system.
- Use this survey to workout how you are performing.

Why do the Survey?

A renewed interest in livestock as part of the production system has seen a much keener interest in pastures. Improved pasture and perennial pasture systems have been promoted in recent times with good experiences from the few that have tried them. In 2005 the area sown to Tetila Italian ryegrass increased significantly. A survey was conducted to capture how different pasture systems are performing.

How was it done?

The survey calculated a paddock's stocking rate based on DSE (dry sheep equivalent) for the winter grazed time only. The logic is that the real measure of a pasture is the number of stock that are carried, and so we measure this in "grazing days". We realise that pastures can be over or under-grazed and that grazing at some times is more valuable than at other times (eg. break of season vs spring time)

Farmers provided data from one or two paddocks on their properties to complete a 'Grazing Days' record. Simple records were kept: the number of stock, type of stock, date entered into paddock and date removed from paddock.

The DSE results for each pasture type were then plotted against the annual rainfall received for 2005.

To provide some sort of benchmark, we have also plotted the "Reg French Grazing Potential" to give an indication of how the pasture systems have performed.

The Reg French theory (based on stocking rate experiments) for potential stocking rate is:

For every 25 mm of annual rainfall, over 250 mm, the potential is a stocking rate of 1 DSE.

For a 400 mm rainfall district: 400 mm - 250 mm = 150 mm

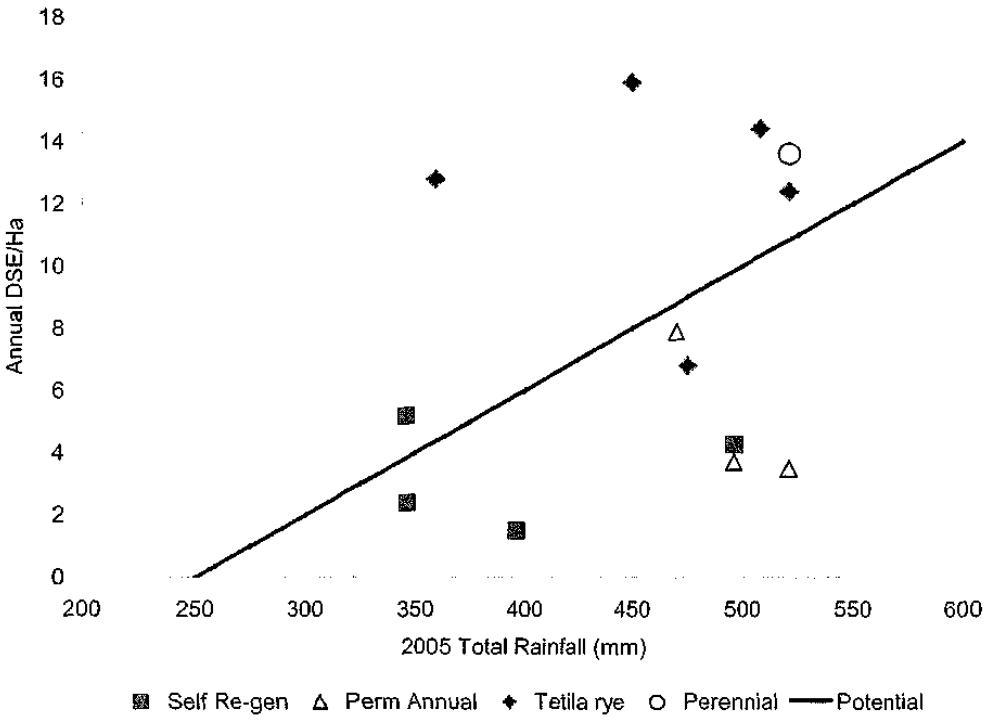
150 mm/25 mm = 6 DSE Therefore

the potential stocking rate in a *400* mm annual rainfall district is 6 DSE/ha

What happened?

The graph below (Figure 1) shows the results of surveys completed by farmers in different areas of the lower EP. Plot marker shapes indicate the type of pasture. The position on the graph is determined by the total annual rainfall received in 2005 and the annual DSE stocking rate supported on that pasture during 2005. The solid line represents the "Reg French stocking rate potential".

Figure 1: Comparison of Grazing Systems for Lower Eyre Peninsula in 2005.



Grazing System:

Self Re-gen:	A self regenerating pasture on a crop stubble from the previous year
Permanent Annual:	Paddocks that are continual pasture with annual species
Tetila Rye:	Paddocks that have been sown with Tetila Italian Ryegrass
Perennial:	Perennial grass species such as Cocksfoot, Phalaris etc
Potential:	The Reg French "theoretical" potential stocking rate

The Tetila ryegrass paddocks in this survey have shown their ability to produce vast quantities of feed.
As can be seen from the graph, they generally produce extremely well and are able to support stocking rates well above the "theoretical potential"

The other thing to note is that in the higher rainfall zones unimproved (self-regenerating and permanent annual pastures) pastures perform quite poorly compared to what they should be able to produce according to the French Grazing potential.

What does this mean?

This work is all about getting you to ask questions and to start assessing your pasture performance.
There is no doubt there is a lot of variation within the results, between rainfall, pasture type and paddock type. They all have an influence on what you can actually achieve.
What does arise from this survey is that there are people out there with very high performing pasture systems - which in turn are resulting in very profitable livestock enterprises.

This work is ongoing, and we are very keen to hear from producers, anywhere on the Eyre Peninsula, that have grazing records for the 2005 season. We want to get as many as we can to build up a clear picture of what different pasture systems are achieving.

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