

## Addressing Low Productivity of Grazing Farms

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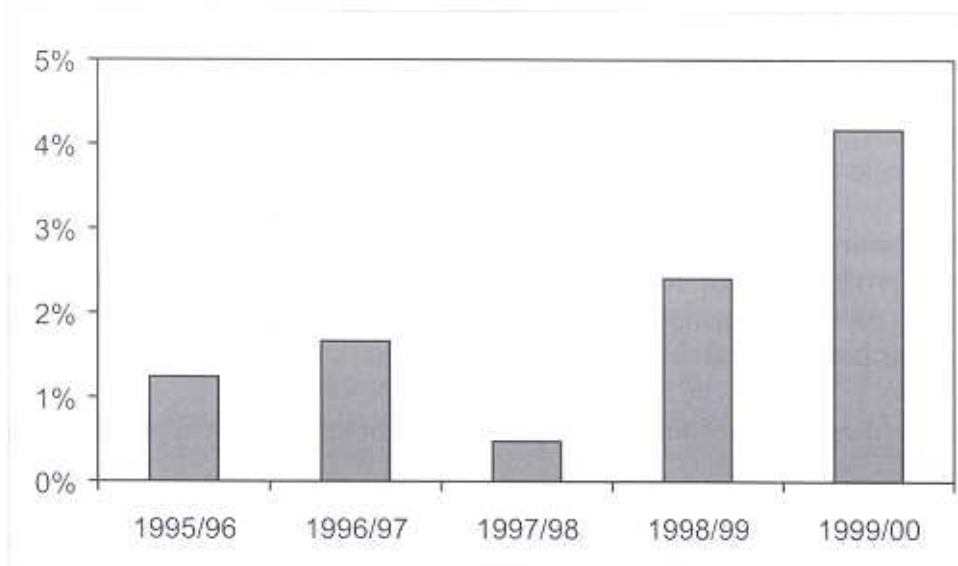
The two biggest issues confronting the majority of broadacre livestock producers are poor profitability and lack of scale in the business (Figure 1 and Table 1).

These may be closely related in some cases, but not necessarily so, and overcoming them requires a rational approach to improve profitability. In such situations cashflow is usually very limited and expenditure on items such as purchasing additional land or a large scale pasture improvement may cause a short to medium term deterioration in the financial position of the business, rather than the intended improvement.

Therefore, the issues of poor profitability and/or lack of scale must be addressed in a logical order. The order commences with those issues that will provide the greatest benefit for the least cost, then through to those of the highest cost with lower, although still acceptable, returns.

This process requires a clear understanding of the relative cost-benefit of the range of management options that can be used to improve profitability.

**Figure 1. Return on Assets – Grazing Farms 1996 to 2000\*.**



*\*These figures are not a random sample and are biased to above average producers.*

**Table 1. Profile of Average Specialist Sheep and Beef producers in NSW**

	Sheep Flocks	Beef Herds
<b>Average No. Stock</b>	3,367	359
<b>Production</b>	15,359 kg wool	160 head
<b>Labour Used (weeks)</b>	83	72

Source: Australian Farm Surveys Report 2001, ABARE

The priorities for most farms are as follows:

1. Utilise existing pasture as efficiently as possible.

2. Increase production from the same pasture.
3. Produce more dry matter at lower cost.
4. More expensive options to grow additional pasture.

Each of these are discussed in more detail below.

### **Utilise Existing Pastures**

Increasing the utilisation of existing pasture is the cheapest way to improve productivity.

Most pastures on grazing farms are under-utilised with utilisation rates of 30-40% being common. This compares to a target utilisation rate of around 60%. Signs of under-utilised pastures include:

- Dry feed carried over from the previous spring still present in late autumn/early winter. Paddocks should have less than one tonne of dry matter at the time of the average autumn break. Too many paddocks have 2-3 tonne, sometimes more.
- Fat stock in late autumn/early winter. If stock are greater than condition score 2.5-3.0, depending on when they lamb/calve, it is a sign of inefficient pasture utilisation.

This is usually achieved by increasing stocking rates, which should be done gradually rather than in one large step, to allow management to adjust. Increases over several years through retention of extra stock are more manageable for the cashflow.

If existing pastures are not fully utilised, there is no point spending on additional and possibly existing fertiliser, or undertaking a pasture replacement program.

Pasture utilisation should not reach levels that result in soil or pasture degradation, reached when groundcover drops below 70% and/or bare areas begin to coalesce.

### **More Production from the Same Pasture**

The next issue to address is the productivity of the management system, given the existing pasture productivity. There are large differences between the common management systems in terms of their production from a given amount of pasture. Methods of achieving this include:

- Aligning feed demand with the feed supply, predominantly by avoiding autumn/early winter calvings and lambings.
- Finishing stock when feed is in surplus and ensuring all stock only require maintenance at feed limiting times of the year, ie: autumn and winter.
- Avoiding winter shearing.

All the above options have the added advantage of minimising supplementary feeding costs. Genetic merit of the livestock will also have a large effect on production from a given amount of available pasture. For example, fleece values for common Merino bloodlines range from \$21 to \$35 per head, based on five years average wool prices. Large differences occur between bloodlines and breeds of ewes used for prime lamb production, but differences between cattle bloodlines and breeds are probably less important.

Running productive livestock is essential for maximising the dollar return from your pasture base, regardless of how productive the pastures are.

Grazing management as a tool to improve pasture utilisation will provide at best marginal returns and benefits are only likely once all other issues of pasture productivity have been addressed and the farm is at or near optimum stocking rates. Until that stage is reached grazing management is largely a distraction except on pastures such as lucerne for which it is essential for persistence.

Once productive livestock are being run in an efficient system that matches pasture demand with supply, the next step is to increase the total amount of pasture produced.

#### Producing more Dry Matter at Low Cost

There are numerous methods available to produce additional pasture. They range from phosphorus application to sowing completely new pasture which often involves lime application. It is important that the priorities are addressed rationally to provide the best return on funds invested.

The cheapest methods of improving pasture production are:

- Applying phosphorus and/or sulphur on deficient soils.
- Manipulating pasture composition, eg: removal of broadleaf weeds or vulpia.

#### Producing more Dry Matter at High Cost

By comparison to the option above, applying lime or establishing new pastures are much higher cost per additional DSE of carrying capacity. On most grazing farms, lifting the soil phosphorus levels over the whole farm will provide much greater increase in pasture productivity, stocking rate and profitability than sowing one paddock of impressive looking and often highly productive pasture. Particularly, as is often the case, no expense is spared establishing the pasture but it then receives inadequate fertiliser in the following years which leads to decreasing productivity and poor persistence. Once soil phosphorus levels have been lifted over the whole farm the next best return will come from sowing new pastures which may require lime application. Table 2 provides a guide to the relative cost of a range of methods available to each individual farm.

**Table 2. Cost comparison for methods of increasing pasture production.**

Method	Cost / hectare	Additional Productivity DSE / hectare	Cost / additional DSE	Time to achieve Return
Moderate Fertiliser 12kgs P/ha/yr	\$29*	4-6	\$5-7	0-2 years
High Fertiliser 18kgs P/ha/yr	\$44*	6-9	\$5-7	0-2 years
Sow New Pasture	\$300	5-10	\$30-60	2-3 years
Lime Application	\$150 - \$300	2-4	\$37 - \$150	3-10 years
Buy Additional Land	-	-	\$100 - \$200	0-10 years

\* Based on single superphosphate @ \$220/tonne, spread.

#### Summary

The issues of poor profitability and inadequate scale can be addressed on most farms by improved productivity rather than expansion of the business outside the farm gate. This requires a disciplined approach

to address the potential areas for improved productivity in a logical order rather than, for example, plunging into a large-scale pasture improvement program. A suggested program is shown in Figure 2.

**Figure 2. Suggested program for improved productivity**

<b>Priority</b>	<b>Cost</b>	<b>Example</b>
<b>1. Aligning feed supply and demand</b>	Very low	Late winter/spring lambing and calving Avoid winter shearing Turn off times
<b>2. Maximising the utilisation of existing pasture</b>	low	Optimum stocking rates Quality genetics
<b>3. Increase the productivity of existing pastures</b>	moderate	Increase fertiliser application
<b>4. Further improve pasture productivity</b>	high	Sow new pastures Introduce new species into existing pasture Lime spreading