

## **INCREASING COMMITMENT TO PASTURES IS THE KEY TO IMPROVING FARM PRODUCTIVITY IN THE EAST GIPPSLAND WOOL INDUSTRY**

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*Summary.* East Gippsland woolgrowers were surveyed in November 1993 to ascertain their levels of production and investment in pastures and sheep breeding. Investment in pastures was dependant on income and therefore short-term, yet seen to be a major limitation to productivity and profitability. This was supported by the most productive woolgrowers having had a higher commitment to their pastures. Conversely, sheep breeding programmes were less affected by income and not seen to be a major limitation to production or profitability. Increasing production for most woolgrowers therefore requires a longer term commitment to their pastures and hence the need to recognize and overcome restrictions to achieving this.

### **INTRODUCTION**

Between 1988 and 1994, the wool industry experienced one of the boom and bust cycles which predominate Australian agriculture. The period 1988/89 saw the peak of the wool boom which was soon followed by tumbling prices and poor returns for woolgrowers. Low prices highlighted the continuing cost:price squeeze and encouraged analysts to identify more profitable practices. Detailed analysis of costs and returns on farms in south-western Victoria (3) and southern NSW (1) showed that production per hectare was a major characteristic of the most profitable farms. Associated with this higher profitability was a greater investment in pastures and better pasture utilisation through higher stocking rates.

The major focus in the wool industry in East Gippsland over the past 20 years has been to improve wool cut per head. Production trials have helped growers to identify more productive sheep and encouraged the use of professional sheep classers to lift the genetic make up of flocks.

The Gippsland Pasture and Wool Project, initiated in 1993, aims to improve woolgrowers' profitability by focussing on pasture improvement and per hectare production. A survey of woolgrowers was conducted to determine their current commitment to pastures and sheep breeding.

### **MATERIALS AND METHODS**

Between November 1993 and January 1994, 59 woolgrowers in the main wool growing shires of East Gippsland, (Omeo, Bairnsdale, Maffra and Avon), were surveyed on their farms. They were selected randomly from a comprehensive list of growers prepared as part of the footrot control program. To ensure specialist woolgrowers were targeted, only those with at least 800 adult sheep were interviewed.

The questionnaire was structured to collect details on wool production, stocking rates, fertiliser use, pasture resowing and expenditure on sheep breeding over the years 1989 to 1993 and current views on spending priorities and limitations to production and profitability.

Farmers were asked to identify a poor and a good paddock. Soils were sampled and submitted to the State Chemistry Laboratory for standard fertility analysis.

### **RESULTS AND DISCUSSION**

The average wool production over the four years on farms surveyed was 34 kg/ha (15 - 69 kg/ha). The average stocking rate was 8.5 DSE per hectare (range 4.5 - 15.9 DSE/ha). This is the same level of production measured in a survey of the district in 1975 and well below the stocking rate of 14 DSE/ha (2), shown to be profitable and sustainable by the 13 year stocking rate trials in Bengworden in the 1960s.

This indicates that production in East Gippsland has not changed for at least 20 years and is well below its potential.

Farmers were ranked into three classes based on wool production per hectare: *Top* 25%, the *Middle* 50% and the *Bottom* 25%. Stocking rate and wool production of each group are shown in Table 1.

Table 1. Characteristics of *Top*, *Middle* and *Bottom* wool producing farms.

Characteristic	Bottom 25%	Middle 50%	Top 25%
Wool production (kg/ha)	22	33	48
Stocking rate (DSE/ha)	7.1	9.1	11.8

The *Top* farms produced double the wool per hectare of the *Bottom* producers and 45% more than the *Middle* producers. Higher levels of production were correlated to higher stocking rates and hence *Top* producers ran 30% and 66% more stock per hectare than the other two production groups respectively.

#### *Pastures*

Producers' commitment to their pastures was measured by the average rate of fertiliser used over the survey period, the soil phosphorus level (average of the two paddocks sampled), the proportion of their farm they considered grew improved pasture, and the area resown in the last five years. The results are summarised in Table 2 and Fig. 1.

Table 2. Pasture characteristics of *Top*, *Middle* and *Bottom* wool-producing farms.

	Bottom 25%	Middle 50%	Top 25%
Average Fertiliser use (kg/ha/yr)	28	32	59
Soil phosphorus (Olsen P)	7	10	11
% Improved pasture	56	49	72
% Farm resown in last 5 years	6	5	9

Table 2 shows that compared to the *Middle* wool producers, the *Top* 25% used nearly double the fertiliser, estimated they had 47% more improved pasture, had resown 44% more of their farm in the last five years, and had a higher Olsen P. Figure 1 illustrates the reduction in fertiliser use of all groups from 1989 to 1993.

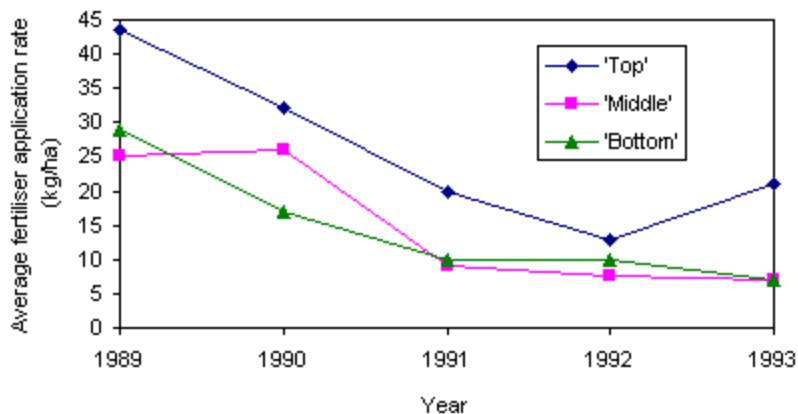


Figure 1. Average annual fertiliser use of *Bottom*, *Middle* and *Top* wool producers from 1989 to 1993.

Reduction in fertiliser use by all groups over the surveyed period reflects wool prices, which fell from their peak in 1988 to a low in 1993. This is backed up by farmers' qualitative statements as they were asked to list items on which they had reduced spending during low wool prices. Fertiliser, followed by pasture expenditure, received the highest number of responses (38 and 20 respectively, out of a possible 59). However, the *Top* producers retained a far higher level of fertiliser use over this period and started to increase inputs in 1992, before wool prices lifted. The higher soil phosphate levels in the *Top* group indicates that they have maintained a higher use for a longer period.

Farmers were asked to rank a list of problems, from 1 to 10 (1 being the biggest problem to 10 being not a problem), as to which were the most production limiting. Pasture issues such as weeds, fertility and clover content were ranked high (<5) as problems which limited production and were superseded only by season and animal health. A similar response was given regarding limitations to profitability.

Woolgrowers therefore recognized the key characteristics of productivity exhibited by the most productive farms.

#### *Sheep breeding*

Genetic improvement was ranked low (>5) on the list of problems affecting productivity, although only three farmers claimed to having reduced spending on sheep breeding while wool prices were low. Actual average expenditure on rams and the percentage who employed a sheep classer is given for the three production groups in Table 3 as an indication of their commitment to their sheep breeding programs. In contrast to fertiliser use, the *Middle* producers had similar sheep breeding inputs to the *Top* producers with similar ram expenditure per DSE. A higher proportion of the *Top* group had used a sheep classer at some stage than in the other two groups. The proportion who used a sheep classer in at least 3 of the 4 years of the study was similar to the proportion who had used a classer at some time. This reflects a strong commitment to continuing the breeding program in spite of the drop in returns.

Table 3. Sheep breeding inputs of the *Top*, *Middle* and *Bottom* wool-producing farms.

	Bottom 25%	Middle 50%	Top 25%
Av. Annual ram costs (c/DSE)	40	56	58

% Ever used a sheep classer	47	50	60
% Using sheep classers for last 3 years or more	47	46	60

## CONCLUSIONS

Generally wool producers had a long-term commitment to their sheep breeding programmes, whereas investment in pastures was short-term and cost driven. The static production in the area over the last twenty years indicates that the present cyclical investment in pasture improvement by the majority of producers has no long-term effect. However, the *Top* producers not only had a strong commitment to sheep breeding but also to their pastures, illustrated by higher soil fertility and higher fertiliser inputs over time. This characteristic of high production is supported by other financial surveys and indicates that these producers are also more profitable.

Woolgrowers generally recognized the limitations to productivity as their pastures but are unlikely to achieve potential levels unless commitment to pastures becomes more long term. This assumes that production is a main objective for the majority of woolgrowers, and the results of this survey do not support this.

## ACKNOWLEDGMENTS

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