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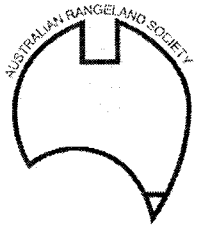

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SURVEY OF THE GRAZING PRODUCTION SYSTEM OF SOFT RED COUNTRY IN NORTH WEST NSW

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INTRODUCTION

The soft red country of north west NSW has a developing woody weed problem. NSW Agriculture & Fisheries is assisting graziers to find ways of preventing or controlling encroachment.

AIM

A survey sought to gauge the impact of woody weeds and gain a better understanding of production levels, strategies and shortcomings of grazing production systems of the soft red country.

DESIGN

Of the 226 properties in the study area, 65 were chosen at random. Face-to-face interviews were undertaken on 55 properties whose owners agreed to participate.

Producers were asked about:

* flock structure and dynamics in an average year
  - numbers of sheep in particular classes
  - sales and purchases by class of sheep

Lambing averages were also used to generate the flock structure, and to check estimates of sheep numbers in the various classes.

Estimates of deaths from various classes were possible, as stock brought into the flock must either be sold or transferred, or die on the property. To illustrate, in a flock where some 4,000 lambs were marked on average, the only purchases were 30 rams, and 2,500 sheep were sold each year, it can be estimated that about 1,500 sheep died on the property each year.

* Sheep shorn and wool produced in 1988/89
* Lamb marking
* Paddocking and waters
* Woody weed cover
* When major operations were undertaken
* Sheep and cattle numbers
* Average rainfall
* Broad soil and vegetation types

Measures of production were prepared for each property:

* Wool cuts
* Lambs marked
* Paddocks and waters
* Sales
* Deaths
* Stock numbers

The above measures were expressed as indices per units of land or units of stock.

These were compared with major influences on the production system:

* average rainfall
* % dense woody weed cover
* stocking
* type of country

OBSERVATIONS

* Relationships between productivity and woody weed cover are complex, varying between areas. For example, while productivity declines in some areas as woody weed cover increases, in other areas productivity appears to be independent of woody weed cover.

* Relationships between productivity and other factors such as stocking and rainfall are complex. Stocking does not necessarily decline with lower average rainfall as might be expected.

* Dense woody weed encroachment in the soft red country is more extensive in the higher rainfall areas in this survey.

* Some people appear to be able to maintain productivity in the face of woody weed encroachment, while others do not. Strategies for dealing with the environment vary considerably.

* Reduced stocking is not always associated with improved productivity on a per head basis.

* Properties with dense woody weed cover have a higher turnover of owners.

* Lamb marking percentage plays a major role in flock structure and average flock death rates. Properties with poor lamb markings often sell few sheep, have more wethers and older sheep, and allow sheep to die on the property, creating high mortality rates.

* Calculated death rates in flocks are often high

* Answers in the survey were often highly subjective. Production records are often lacking in detail, or not available in a meaningful and readily retrievable form. Understanding of flock structure, dynamics and productivity appears to vary greatly between producers. Inter-relationships between components of the production system could be better understood.

* Productivity could be improved by increasing lamb marking percentage, wool cuts or sales, by reducing death rates, by changing flock structure or the timing of operations.

* Graziers appeared to have no definite knowledge of what sheep were eating. They appeared to equate the pasture that could be seen with the likely diet of their sheep.

* There is a need for a simple objective system to allow producers to readily monitor and direct the entire production system. Lamb marking percentage, stocking rate and wool cuts alone are inadequate measures of a property's functioning.