PASTURE READY RECKONER: GROUP LEARNING FOR WOOLGROWERS THROUGH BENCHMARKING

K.P. Ransom [1] and A.G. Kent [2]

[1] Department of Natural Resources and Environment, Bendigo, 3550
[2] Farm Advance, Bendigo, 3550. Current address Australian Wheat Board, Melbourne, 3000

Abstract

The Pasture Ready Reckoner project produced a physical and financial benchmarking kit for woolgrowers. Farmers monitored and recorded their own enterprises. The kit had three modules: a paddock monitoring module that included pasture production and utilisation; a clip analysis module that included wool production, clip preparation and sale performance; and a module for stocking rate - gross margin analysis. A customised computer program generated reports with key benchmarks highlighted by graphics. Farmer numbers involved were below expectations, but the results were highly valued by participants. The evaluation indicated that participants thought they would increase their income from the sheep enterprise by 7% to 12%, (valued at $10000 to $15000) on a typical property as a result of bench marking.

Key words: Benchmark, gross margin, group, pasture, wool, sheep

Temperate zone grazing enterprise profitability is directly related to the efficient utilisation of quality pasture. The gross margin per hectare and per dry sheep equivalent (DSE) varies widely between properties. Pasture Ready Reckoner (PRR) developed a system of combining the traditional financial benchmarks with the physical benchmarks of pasture productivity and utilisation, wool production and wool sale performance and stocking rate on a monthly basis.

In some agricultural industries on-farm management monitoring packages are widely used. However, in the sheep industry, there is very limited use of these systems which both help identify changes to management practices, as well as combining a learning component. The success of these monitoring packages is due to the grower?s capacity to compare their performance with others in a similar environment and to learn from recording and analysing their own situation.

The Pasture Ready Reckoner (PRR) project had the following objectives:

1. To increase the profitability of sheep farming systems by stimulating adoption of relevant technology. Emphasis was on pasture production and utilisation, quality wool production with clip analysis, sheep management and production systems and gross margins.

2. To develop a comparative enterprise system suitable for woolgrowers in discussion groups.

3. To evaluate the project by monitoring farm management changes on participating properties.

Method

Pasture Ready Reckoner was a cooperative extension project of Farm Advance and the Victorian Department of Natural Resources and Environment (DNRE). Farm Advance was a farmer led discussion group network in north central Victoria with a membership of over 400 farmers. Group members were involved with monitoring packages in the cropping industry, but no suitable packages were available in the grazing industries. Discussions between Farm Advance and DNRE staff developed the concept of a physical and financial benchmarking kit for woolgrowers. Farmer group members were closely involved in the development of the kit to ensure it met their requirements. The project commenced in May 1993 with a pilot kit being tested by 14 farmers over the following year. Each year the kit was updated as a result of feedback from participants. The project concluded in August 1997 with 46 participating farmers. At the

conclusion of the project the kit was evaluated by the on farm management changes made or planned to be made as a result of using PRR.

Three modules formed the kit, they are:

• Paddock monitoring module including pasture production and utilisation.

• Wool production, clip preparation and sale performance.

• Stocking rate and gross margins.

Each module of the kit was ?stand alone?. It had it?s own record book that was completed by participants. Records were processed at a central office. A customised computer program in Microsoft Access generated reports. Participants could choose which modules to use each year. Farmers monitored and recorded their own enterprises. Workshops were held with farmers to help them develop the skills needed for recording. Feedback meetings were held with participants at the end of each recording year. The aim of these meetings was to explain the results to participants and to obtain their ideas on how the kit could be improved.

Results

The record books and reports were modified continuously throughout the project. A brief outline of the main features of each report follows.

Paddock monitoring module

A paddock monitoring module was developed as a means of education about grazing management and also a method to easily estimate pasture quality, productivity and utilisation. Farmers took some measurements of pasture available and composition, at other times they visually estimated pasture available and kept a grazing diary. Key benchmarks in this module include:

• Pasture utilisation (t/ha), using formulae suggested by the Standing Committee on Agriculture (5).

• Stocking rate and gross margin per hectare

• Estimates of stock performance based on feed quality (5).

• Pasture production (t/ha), estimated indirectly using quadrat cuts, estimates of pasture utilisation and visual appraisal of pastures. Pasture available was measured at drying off in late October - early November, green pasture utilised through the growing season was estimated (5) and an allowance made for pasture senescence, decay and trampling (4). These 3 factors were added to give an indirect estimate of pasture production for educational purposes.

Wool clip analysis

The wool clip analysis module was developed to assist farmers monitor wool production, clip preparation and sale performance. Farmer inputs included data from their woolbroker (weights, fibre diameter, yield, length, strength) for each line of wool together with farm area and rainfall data. Key benchmarks are:

• Greasy wool production per hectare.

• Greasy wool production compared to potential wool production suggested by French (2).

• Average fibre diameter, yield and tensile strength.

• Clip performance indicator as described by Court (1). This is the net clean wool price received as a percentage of the scaled micron (eg 22.3 um) combing indicator for each day of sale, weighted for each sale line on each sale day for clip total mass of wool.

• Gross margin adjusted for wool sale date to enable more meaningful comparisons between farms.

• Percentage fleece wool and skirting ratios.

Stocking rate and gross margins

The report on stocking rate and gross margins calculates:

• DSE per hectare, on an annual basis and also late autumn - winter (April to August).

• Gross margin per DSE, DSE on an annual basis and also DSE from April to August.

Reports to participants

Customised computer software analysed data and produced reports. Graphics were used extensively to highlight key benchmarks. Individual reports were produced within 2 weeks of data receival and group reports were produced after all data was received. The individual and group reports contained 19 graphs. Four example graphs are shown in Fig. 1 to 4.

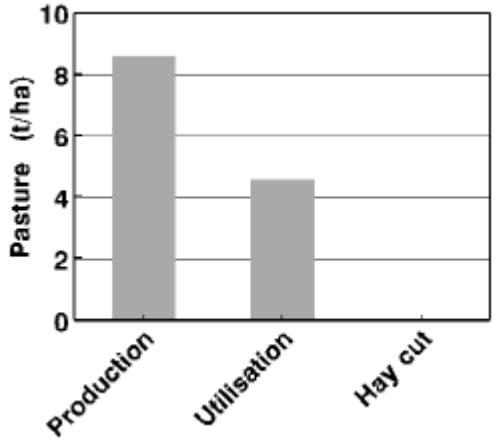

Figure 1. The estimated pasture production, utilisation (pasture eaten by stock) and hay cut on a monitored paddock.

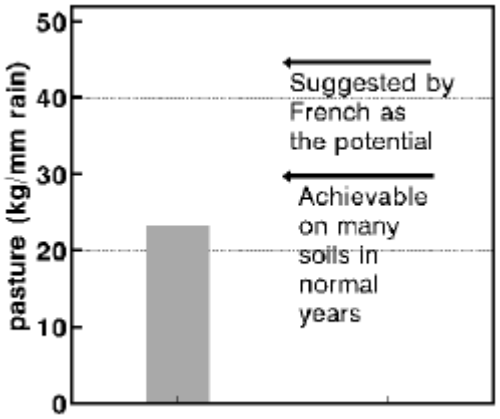

Figure 2. The water use efficiency of pasture production calculated using the formula suggested by French (3); kilograms of pasture per hectare per millimetre of rainfall between April and Oct, after allowing 70 mm for evaporation.

Farmer participation and evaluation of kit

Farmer participation and use of the three modules is shown in table 1. A variety of means were used to inform Farm Advance members of the project and invite them to participate. Letters to members inviting them to meetings and invitations to farmers undertaking Prograze courses both gave disappointing results. Only 16% of respondents had calculated a gross margin prior to their involvement with PRR. The number of people participating was below expectations, for example in 1996, 87 farmers were involved in Prograze courses in the Bendigo area and the average attendance was 80%, but only 17 undertook an option of benchmarking at least one part of their grazing enterprise.

Table 1. The total number of participants and number using each module of the kit.

Year	Number of	Number of participants using each module of the kit		
?	participants	Pasture	Wool clip analysis?	Gross margin
1993-94	14	8	7	12
1994-95	18	16	10	16
1995-96	35	25	19	21
1996-97	46	26	22	24

The farmers participating in PRR valued the results. At the final evaluation in August 1997 replies were obtained from 32 of the 46 participants. On a scale of ?very useful? - useful - of some use - of no use? 53% found the results ?very useful?, 42% found them ?useful? and 5% described the results as ?of some use?, while no one indicated ?of no use?.

There are a number of possible reasons for the lower than expected participation rates. They include:

• The PRR marketing methods need to be improved.

• Many farmers are satisfied with their farm performance and do not see the relevance of measuring it.

• Many sheep farmers are reluctant to share confidential information, even though group reports are anonymous.

• Many sheep farmers are too busy doing the essential physical farm jobs, which they enjoy, rather than paperwork, which they do not enjoy.

• Many sheep farmers are in farming firstly as a way of life and secondarily as a business. Business analyses are thus a secondary consideration.

• Many sheep farmers know their farm situation has low productivity, they do not want this confirmed by a further objective analysis.

• Many sheep farmers feel the economic situation of many sheep farms is low and further investment to increase productivity is not economically warranted in their situation.

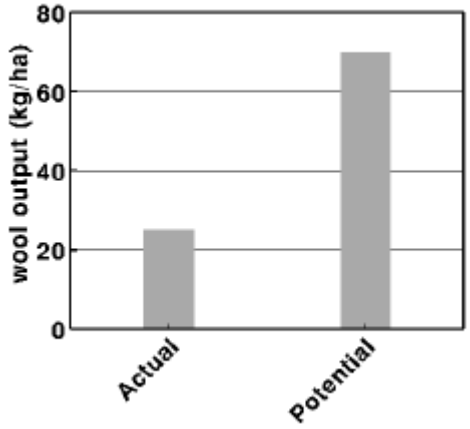

Figure 3. Actual farm wool production and potential calculated from the formula suggested by French (2). His formula suggests the potential is 0.28 kg/ha /mm of average rain above 250 mm.

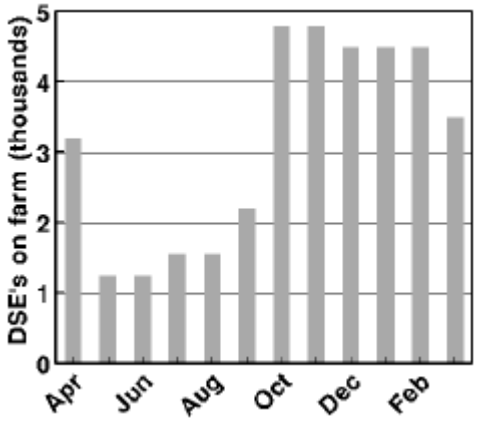

Figure 4. The stocking pressure on the farm on a monthly basis. The months of peak demand for feed are highlighted. This graph is for a spring lambing prime lamb flock, all lambs sold by April.

All (100%) of respondents indicated that the PRR results would help them make management changes. All indicated that all modules they undertook would increase their income. A typical farm participating in the program would estimate an increase in net income from their sheep enterprise of 7% as a result of wool clip analysis, 10% as a result of a stocking rate and gross margins analysis and 12% as a result of a monitor paddock analysis. The respondents had an average clip size in 1996-97 of 114 bales. This indicates that the average income from the sheep enterprise may increase by 7% to 12% or possibly $10000 to $15000 on a typical property participating in PRR as a result of benchmarking.

Conclusions

Industry based extension programmes need to be aware of the small but apparent success which PRR has had in fostering monitoring and benchmarking ethics. The target of being used by 60% of growers in discussion groups was not achieved. In the grazing industry, courses such as Prograze have been very well accepted and are effective in education about grazing management. Benchmarking kits such as PRR could have a valuable role in helping woolgrowers make management changes.

Acknowledgments

This project was conducted in conjunction with Farm Advance, a farmer led discussion group network in north central Victoria. It was funded by the International Wool Secretariat and DNRE. A detailed report on the project and software is available from the authors.

References

1. Court J. and Lawless J. 1994. *Improved Wool Returns from Clip Marketing Analysis*. Agriculture Victoria, 15-20.

2. French R.J. 1988. *Proc. 4th Aust, Agron. Conf,* Melbourne 140-49

3. French R.J. 1991. In: *Dryland Farming. A Systems Approach*. (Eds Squires V and Tow PG) 222-38.

4. McLeod C. and Bowman P. 1992. *Sheepo, Users' Guide.* NSW Agriculture. Section 5-2 to 5-5.

5. Standing Committee on Agriculture. 1990. *Ruminants, Feeding standards for Australian livestock.* CSIRO. 209-25