

GRAZIER ATTITUDES TO INCREASED BEEF CATTLE PRODUCTION IN THE SOUTHERN SPEAR GRASS REGION, QUEENSLAND

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I. INTRODUCTION

Standards of living in Australia depend largely on the exportable surplus of primary produce. From this point of view the beef cattle industry is important. Not only do exports of beef and veal account for up to 10% of the primary produce, but future market prospects for beef appear to be more promising than for many other rural commodities (Anon. 1963).

The fact that markets are favourable and increases in production through use of existing technological information are feasible, does not necessarily mean output will rise. The deciding factor is the attitude of graziers to property improvement. In order to evaluate grazer attitudes, the University of Queensland carried out a survey of beef cattle properties in the southern spear grass region of Queensland. Results of the survey are presented in this paper.

II. MATERIAL AND METHODS

The survey conducted over the summer of 1963-64 covered the area described by Shaw and Bissett (1955) south of Sarina. Eighty-two properties were selected by stratified randomization based on herd size. Post-graduate students from the University acted as interviewers and recorded graziers' answers to a comprehensive questionnaire covering all aspects of the industry. Data presented in this paper are derived from these answers.

Basic physical data for the survey properties are given in Table 1. Forty % of properties carry less than 1000 cattle and only 22% have over 2000 cattle. The average number of breeding cow equivalents (B.C.E.) is 1440. The ring-barked area, which is a useful index of effective grazing, averages 58% of the total area. This figure does not differ widely for the various groups. Average carrying capacity is one B.C.E. per 16.5 acres. However, Shaw (1961) reports that carrying capacity can be trebled using Townsville lucerne (*Stylosanthes sun-daica* Taub.) in trials near Gladstone, and Fox (1960) reports increases in carrying capacity using crops and pastures in the Burnett Valley. Thus with existing technological knowledge there is considerable scope for improvement.

III. RESULTS

(a) *Attitudes to improvement*

Of the 82 graziers interviewed, 66 had definite plans for further property improvement. Sixteen graziers said they had no future plans for property improvement. Details of the improvements envisaged are given in Table 2.

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TABLE 1
Land use, stock carried and gross incomes on survey properties.

No. of Cattle	No. of Properties	Av. No. B.C.E.†	Av. No. Acres	Average Area Improved Pasture and Cultivation (acres)	Average Area Ringbarked (acres)	Carrying Capacity ac/B.C.E.†	Av. Gross Income £
Under 500	5	365	5,745	332	3,545	15.7	8,420
500-699	13	546	8,862	208	5,349	16.2	5,085
700-999	18	769	13,143	263	7,123	17.1	8,469
1000-1499	16	1028	14,190	417	6,796	13.8	12,464
1500-1999	12	1469	27,910	1063	16,001	19.0	13,458
2000-2999	8	2085	42,554	3613	29,514	20.4	25,333
3000 and above	10	4530	67,800	3536	40,800	15.0	50,100

†Breeding cow equivalents calculated by method of Sutherland (personal communication). One adult breeder equals one unit.

TABLE 2
Additional improvements envisaged by graziers.

No. of Cattle	No. of Properties	No. of Graziers Envisaging Additional:					Expected Additional Gross Income £
		Stock	Land	Timber Treatment	Water	Pasture Improvement	
Under 500	4	4 (620)	2	2	3	3 (2100)	5,600
500-699	10	7 (600)	4	5	8	7 (3100)	9,700
700-999	12	11 (770)	—	8	8	11 (2150)	8,500
1000-1499	16	13 (490)	6	8	11	16 (2300)	5,100
1500-1999	12	9 (1530)	1	9	8	10 (2850)	9,000
2000-2999	6	5 (2540)	2	4	3	5 (n.a.)†	11,500
3000 and above	6	4 (2400)	—	6	4	4 (n.a.)†	23,700

Note: Figures in brackets refer to additional numbers of stock and additional area (acres) of improved pastures envisaged.

†n.a. = not available.

Increase in the area under improved pasture is seen as the chief avenue of property improvement in spite of the relatively small areas **currently** under such pastures. A possible explanation is that pasture improvement is still in the "early adoption" stage. Associated with the introduction of improved pastures, graziers visualize the need for additional watering points and more extensive timber treatment. Most graziers do not think that lack of land is the factor limiting property improvement. Those with small properties are more anxious to increase stock numbers than those with large properties. Expected additional gross income appears to bear little relation to improvements contemplated, due probably to lack of information relating total production response to the additional improvements.

It is possible that those graziers with no plans were largely ignorant of the role that improved pasture could play. When asked of their knowledge of pasture research in the region, only one of the 16 "no-plan" graziers proved to be very well informed compared with 13 of the 66 "plan" graziers.

(b) Obstacles to improvement

The 66 graziers contemplating some improvement considered the major obstacles to be difficulty of obtaining credit, adverse seasons, doubt as to profitability of improvements, problems of regrowth control, and lack of suitable pasture species.

Other factors often regarded as important in development, namely, land

The 26 not willing to borrow believed they could pay for improvements out of current income, or thought they were too old to reap benefits from the additional improvements.

Relative to the adequacy of existing credit facilities, 66% of graziers willing to borrow considered bank lending policy equitable. On the other hand, 18% believed that security requirements of trading banks were too severe, and a further 16% stated that insufficient funds were available to meet unexpected contingencies.

IV. ACCELERATED INCREASES IN OUTPUT

If it is assumed that it is in the national interest to increase beef cattle production, the foregoing grazer attitudes raise three questions.

Firstly, are the attitudes of the 20% of graziers who said they had no plans for property improvement ever likely to alter, or be altered? The survey data indicate that this group is not "business" orientated and their aims are basically non-monetary ones, e.g. "a pleasant way of life". Only one member of the group mentioned improving his financial position as a goal compared with eight of the group who had improvement plans. The spur of higher net incomes is absent. Their introspection, and hence the difficulty of influencing their goals, is demonstrated by the fact that only 12% receive the Queensland Agricultural Journal compared with 47% of those with improvement plans. Apart from membership in the United Graziers' Association, only 25% belong to Show or Breed Societies compared with 45% of those with improvement plans. It is concluded that attempts to influence the "no-plan" group should receive low priority.

Secondly, is existing technical information and rate of adoption of new practices sufficient to meet the needs of accelerated output? Research has shown that liveweight losses in dry seasons can be minimised through use of crops and improved pastures. However, it appears that graziers are not conversant with the available information, particularly data relating to economic aspects of improvement. Parish (1954), Emery and Oeser (1958), and McCarthy and Tugby (1962), consider that the rate of adoption of new innovations by wheat growers, wool growers, and dairy farmers respectively, is related to the degree of exposure to technical information. Survey data indicates that their premise also holds for graziers in the spear grass region so that closer attention must be given to transmission of current technical information.

Thirdly, and more importantly in the short run, what steps should be taken to achieve an increased flow of credit to beef cattle properties in the southern spear grass region? The Commonwealth Development Bank was specifically instructed to take into account prospects of success when considering applications, and not to refuse funds because the security offered was inadequate by normal banking standards. It therefore appears that there may be some lack of knowledge on the part of graziers of precisely what facilities are available. The problem of inadequate lending funds is more real. Traditionally, because of risk and lack of attractiveness, rural industry only attracts a small proportion of loan funds available. Government might take further positive steps to channel additional funds into this sector, but one presumes the rate of return on investment will largely continue to govern lending in general. Under these circumstances, loan applications by graziers would fare best if they were the result of careful development planning, accompanied by supporting financial budgets.

V. REFERENCES

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