COST PRICE PRESSURES FACING AUSTRALIAN GRAZING
INDUSTRIES : IMPLICATIONS FOR RESEARCH PRIORITIES

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Australia's sheep and beef producers have on average faced increases in input prices greater than increases in the prices received for output. This problem, termed the "cost/price squeeze" or "declining terms of trade", was particularly evident in the wool industry during the 1960s and more recently in the beef industry.

Producers have attempted to maintain their income levels by increasing productivity, i.e. improving the ratio of output to inputs. Analysis covering the last 15 years suggests that during periods of falling wool prices, sheep industry productivity improved. In periods of improving wool prices, however, productivity tended to decline. Apparently a proportion of the productivity achieved during periods of economic adversity is derived from cost deferral rather than through the adoption of superior technologies. The situation in the beef industry is similar with average productivity falling steadily through the 1960s and early 1970s during a period of favourable prices. Following the downturn in cattle prices during 1974-75 beef industry productivity improved markedly.

The role of technological advances in providing persistent productivity gains is fundamental. In order to investigate which areas of advance will most assist grazing livestock producers experiments were conducted using a model developed by C.D. Easter of the B.A.E. The model consists of five regions covering the Australian sheep, beef and field crop industries, and maximises total net income given a set of technical relationships and resource constraints within a linear programming format (Easter and Kingma, 1976). Various input/output coefficients were varied to simulate hypothetical productivity changes.

Although results are as yet preliminary, the pay-off to marginal improvements in wool cut per head and pasture availability appear to be substantially greater than, for instance improvements in labour use, shearing productivity, and lambing rates (Easter, Spillman and Scougall, 1977).

Within the beef industry, improvements in the productivity of pasture production have greatest impact on farm income with improvements in feed conversion and calving rates also showing substantial benefits. Productivity ‘improvements in the areas of veterinary expenditure, labour use, superphosphate use and marketing costs showed lesser responses (White, Williams and Johnson, 1977).

EASTER, C.D. and KINGMA, O.T. (1976) Ind. E. Monograph, No. 15, BAE

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