



SUSTAINABILITY AND THE PASTORAL INDUSTRY

A survey of producers, advisers, scientists, environmentalists and others has revealed big differences in perceptions of land degradation and the prospects for achieving sustainable grazing

The farming of livestock is associated with much of the land degradation in Australia. Sheep and cattle graze nine-tenths of the land used for agriculture — much of it environmentally degraded or at risk of being degraded.

Although pastoralism might not have been the most damaging agricultural practice, it is the most extensive one. Environmental damage can also result from the growing of animal feed, waste from intensive livestock industries and animal processing (see 'Compost from abattoir waste', *Ecos* 73) and the spread of weeds and pests on pastoral land.

Solving Australia's land degradation problems through the introduction of sustainable agriculture has become a catchcry of conservationists, farming groups and government agencies — including CSIRO, which in 1991 formally committed itself to the principles of ecologically sustainable development (ESD) at all levels of research and management in animal production and processing. That commitment marks a new direction in thinking about animal science in this country, and it raises new problems.

Sustainability or ESD is a vague concept open to wide interpretation; it postulates an ideal, but does not offer the means to achieve it. Nor can sustainability be imposed on agriculture from above by bureaucrats, politicians, scientists and environmentalists —

farmers are the only people who can put sustainable farming into practice.

Currently, farmers are showing a high level of interest in sustainable agriculture, but the message of reform is being obscured by differing perceptions of land degradation, and how best to deal with it. The national facilitator of the Landcare programs Mr Andrew Campbell, a farmer himself, says farmers face a complex challenge in assessing new information from agricultural experts and sorting out and applying what is useful.

In his book *Planning for Sustainable Farming*, Mr Campbell argues that agricultural research and extension in Australia has become highly specialised and specific in its application. Most Departments of Agriculture employ officers with responsibility for either crops or livestock but not both, as well as pasture specialists and agricultural economists dealing with separate aspects of the farm system. Australian farmers, however, are 'supreme generalists', in contrast to their advisers (and farmers in other countries).

'A farmer might be a mechanic in the morning, a veterinarian after lunch, a pasture manager in the afternoon and an accountant at night', Mr Campbell said. In that context, it is understandable why many find it easier to carry on 'business as usual'.

The CSIRO Division of Tropical Crops and Pastures recently began a new research program, in collaboration

with the Queensland Department of Primary Industries, on the management of black speargrass grazing in Queensland. In the early stages of the project last year, the scientists found — in discussion with other researchers, extension officers and farmers — that the concept of sustainability meant different things to different people. Disconcertingly, too, these people appeared to share little common ground when it came to deciding how progress towards sustainability might be assessed.

Out of this experience, three researchers — the Division's Mr Neil MacLeod and Dr John Taylor, and Mr Peter Van Beek at the Queensland Department of Primary Industries (QDPI) — developed the view that the successful transfer of the results of grazing research to users depended significantly on understanding the varying perceptions of the interested parties. They resolved to find out more about those perceptions.

First they sent a questionnaire to about 1200 individuals representative of a wide range of groups with an interest in the beef industry in Queensland. The respondents included: cattle-producers selected from the district and regional office-bearers of farm organisations and Landcare groups; scientists at CSIRO, the University of Queensland and QDPI; agricultural extension officers at QDPI; bank managers; stock and station agents; agricultural consultants; and environmentalists.

At this stage the study is still continuing, but its preliminary results are intriguing. These show a divergence of views on what land degradation is, its causes, whether it can be solved and who is best qualified to give advice on sustainable practices.

One question asked whether respondents thought the beef-grazing systems currently in use were sustainable or not. Environmentalists, scientists, extension officers and agricultural consultants gave a resounding 'No' (in 98%, 90%, 70% and 73% of cases, respectively). Bank managers held mixed views (37% were undecided). Among beef-producers, one-quarter remained undecided, but those who did not belong to a Landcare group were twice as likely to answer 'Yes' as those who did. A majority of Landcare producers (54%) agreed that beef grazing was not sustainable in its present form.

Recognising that a successful farmer has to balance a range of goals, the researchers asked the respondents to nominate what they saw as the highest priorities of beef-producers. Not surprisingly, maximising production or profits was the most common response by both beef-producers and the other groups. More significantly, one-fifth of Landcare producers listed the maintenance of land in good condition as a primary goal. However, virtually none of the rest thought producers rated the maintenance of land resources a high priority.

On the question of the major cause of land degradation, excessive stocking rates were blamed most often by the extension officers (56%), Landcare producers (39%), scientists (39%) and stock and station agents (37%). However, other producers (those not in Landcare) were more divided, nominating the impact of variable climate ahead of all other causes. The environmentalists and bank managers blamed

excessive tree-clearing most often (33% and 23%, respectively). Respondents rarely mentioned the smallness of land-holdings or a lack of 'land care ethics' among land managers — two factors commonly blamed for contributing to degradation.

The questions then moved to the areas of technical know-how and the feasibility of implementing sustainable agriculture. Extension officers were the most pessimistic. Only 44% thought it was technically and economically feasible to rectify land degradation problems, while 52% thought it technically feasible but uneconomic — perhaps an indication of a greater awareness of the potential problems new technology will encounter in the field. By comparison, 66% of the scientists felt that technological solutions were feasible and economic.

Those who felt land degradation was technically soluble were further asked whether they thought the necessary technology was presently available. Most felt it was, with the non-Landcare producers and agricultural consultants the least optimistic (17% and 14% said 'No', respectively).

Given the relatively high level of optimism about the feasibility of achieving sustainable farming, the respondents gave interesting answers when asked to identify which groups held or could generate the knowledge needed to solve land degradation or design a sustainable grazing system.

Beef-producers most commonly listed other 'experienced' producers

and scientists as the key sources of the required technical knowledge. Despite their close working relationship with extension officers, they did not rate the officers particularly highly as a source of such knowledge. Very few mentioned the other groups (including agricultural consultants) at all.

One-quarter of the extension officers rated scientists highly, but the recognition was not returned; scientists and agricultural consultants put more importance on the technical know-how of 'experienced' farmers. Landcare groups received most recognition from stock and station agents (29%) and bank managers (27%) but little from scientists (4%) and extension officers (3%). The environmentalists were poorly rated by all except other environmentalists. The agricultural consultants rated themselves higher than the scientists.

The general picture that emerges from the survey is that there is no general picture. According to the survey team, the 'large degree of divergence' in perceptions is likely to affect the relevance of research and development to those considering sustainable grazing practices and have an impact on the development of effective strategies for the transfer of technology to these people.

One important finding is that the ESD debate separates farmers into at least two broad types, Landcare members and non-members, each with a different emphasis on management goals and a different attitude to land degradation. Research and development agencies and funding bodies will need to be aware of the demarcation in canvassing 'producer' opinions, the researchers claim.

The research team believes the findings support the view that the message of sustainability will have to be 'packaged' in various ways for different groups.

Brett Wright



More about the topic

Group perceptions of sustainable grazing practices in Queensland. N.D. MacLeod, J.A. Taylor and P.G.H. Van Beek. *Proceedings of Australian Farm Management Society Workshop, University of Adelaide, Roseworthy Campus, 11 February 1992*, 1-1-1-11.

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