

## Issues affecting extension in the dairy industry

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*Summary.* Farmers in the five major regions of NSW were interviewed using the Group Depth Interviewing technique to identify the issues primarily affecting their farm businesses. The qualitative data were synthesised into themes which reflected farmer opinion. Farmers' major concerns were with socio-economic and dairy industry issues which are external to the farm and over which they have little control. This creates a climate of uncertainty which can hinder the adoption of new technology on farm. Individual goals and circumstances affect the relevance of any technology. Extension strategies which incorporate a more active role for farmers are suggested.

### Introduction

Recent trends in the dairy industry in NSW show a decline in the number of producers but a steady increase in productivity (e.g. 3% per annum increase in production/cow over the 1980-1990 decade) (3). Nevertheless concerns have been expressed that improvements in productivity and farm viability have been restricted by a slow rate of adoption of new technology (4). In a previous conference of this society, Clark (1) discussed technology transfer based on the diffusion of innovations theory. However the continued use of this theory as the focus for extension services has been questioned by many authors world wide (e.g. 7, 8). Alternative approaches have been proposed which focus on the empowerment of farmers as learners, and the emphasis in extension on the development of systems based on Lewin's (5) concept of action research. Our study aimed to develop a comprehensive understanding of the attitudes and perceptions of dairy farmers (about their industry). The information gained would be used as a guide to the synthesis of extension methods which are empathetic to these (farmer) views.

### Methods

The research was conducted during 1989-91 in the following regions of NSW: Far North Coast, Mid North Coast, Hunter Valley, South Coast and Riverina. A total of 21 centres (three to six per region) were chosen as sites for interviews. Farmers were chosen at random from registered producer lists. Initial contact was made by telephone and arrangements were confirmed by mail for those agreeing to participate. Group sizes of each meeting ranged from six to fourteen.

Information from farmers was collected using the Group Depth Interview technique (2) which promotes active and relatively equal participation by all members. The research team comprised a recorder and a moderator to facilitate active engagement by all participants. Topics were introduced by the moderator to gently guide the discussion in the desired direction while still allowing the farmers to raise and debate issues as they saw fit.

Focal topics in the study were:

- farmer perceptions of the current status and future outlook for firstly their enterprise, and secondly the dairy industry;
- identification and importance of issues (personal, financial, technical and socioeconomic) impacting on them as farmers;
- identification and ranking of information sources on which they relied to address these issues.

Proceedings from each meeting were summarised by the moderator and recorder and all data sets were pooled and synthesised by the whole research team into themes which reflected farmer opinion.

Generalisations drawn from these themes formed the basis for conceptual models for improvement in extension. The data we obtained are qualitative and hence unsuitable for

statistical analysis. Qualitative data however has the advantage that it can outline not only what clients believe, but why they hold those opinions and assuming the clients (in this case farmers) are sensitive to their own needs, this type of inquiry can be a valuable tool to generate new ideas for extension strategies (2).

## Results

### Overview

The scope of the issues or topics raised by the farmers is summarised in Figure 1. In broad terms, these issues could be classified into three levels or themes. These themes were not mutually exclusive, several issues overlap theme boundaries.

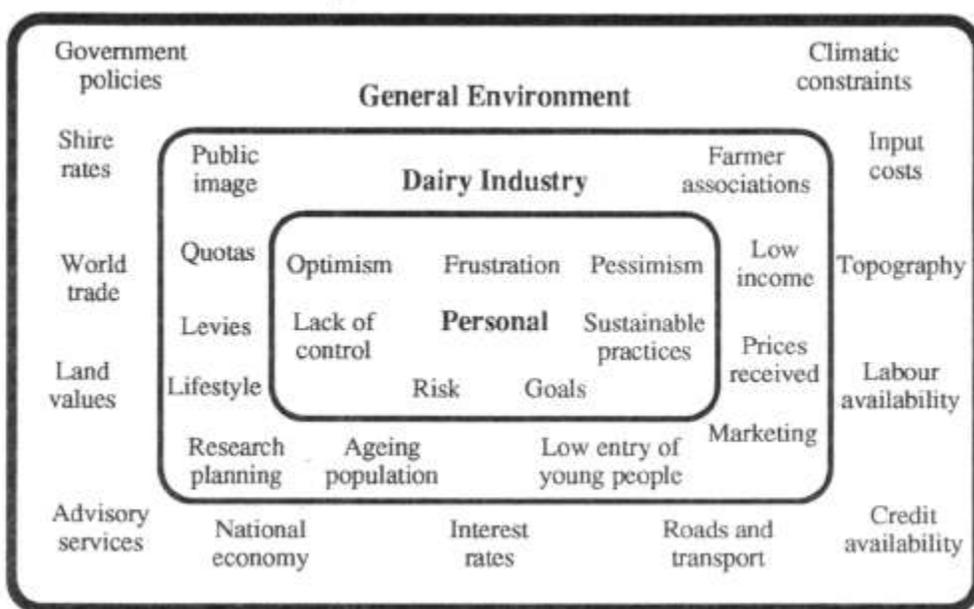


Figure 1. General overview of producer issues.

### Themes

General environment factors. These are defined as external factors beyond the control of the farmer, which influence agricultural enterprises generally (i.e. not exclusive to dairying). They included policies at all levels of government, and land values. Environmental considerations included frustration with unfavourable seasonal conditions which, to be effectively addressed, required substantial investment in technology (e.g. irrigation) to stabilise production systems. Such investment was frequently regarded as affordable under conditions of high interest rates and an uncertain industry future.

Industry factors. These are issues engendered by the nature of the dairy industry itself and its inherent regulatory or marketing characteristics. Concerns were strongly expressed in all centres about the continuing exodus of farmers from the industry. This exodus was variously attributed to its ageing population, and because young people were unattracted to dairying (excessive hours or inadequate income) or were unable to purchase farms (incomes, interest rates and inflated land prices). The export levy was widely criticised (Finley and Deniliquin being the only exceptions) as were aspects of the regulation of liquid milk quotas (e.g. the percentage of quota actually accepted).

Personal factors. These related to personal feelings and in particular, frustration about their inability to influence vital factors associated with the first two themes. Farmers were acutely aware of the risks

(financial and environmental) associated with increasingly intensive landuse practices - many were sceptical about campaigns for increased productivity and would reject

technology which might threaten (in their eyes) the sustainability of their enterprise. Farmers did however gain a sense of achievement through increased productivity, and acknowledged the need to approach farming as a business.

Information sources. Opinions about the reliability of information sources varied widely sometimes even within a meeting. However consistently, neighbours and 'relevant' field days or farmer discussion groups were seen as valued sources of information.

## **Discussion**

Moran *et al.* (6) emphasised the difference between dairying regions in Eastern Australia especially in terms of their physical resources and production systems. Our studies have shown that while individual farmers within a region will differ about the relevance of a particular technology, there was widespread agreement across the state about many issues. The cost-price squeeze (product prices *versus* input costs) was raised at every centre, as were concerns about land values and the unattractiveness of the industry to young people.

The overriding impression to emerge is that farmers are operating in a climate of complexity and uncertainty and that this climate is hindering their willingness to adopt new technology. Personal differences and individual goals also mean that a new technology may be seen as 'not relevant' by some farmers. Extension services therefore need a diversity of approaches, and to be effective, must account for the complex external factors which influence the farmers' decisions.

This study provides further evidence that extension services should undergo a fundamental shift from the diffusion model (1) to a more interactive model which could be based on the concept of action research. This implies a shift in emphasis from productivity and transmission of knowledge, to the development of a collaborative system in which farmer groups and extension officers work together with the ultimate aim of satisfying farmers' individual needs. The current situation of rapidly declining resources for extension services would seem to support the need for new models not only for delivery of services but also for assessment of their effectiveness.

## **Acknowledgments**

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