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# IMPACT ASSESSMENT OF THE 1990 EAST COAST TECHNOLOGY TRANSFER PROGRAMME

A thesis submitted in fulfilment of the requirements for the degree Master of Agricultural Science in Farm Management.

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#### Abstract

The East Coast of the North Island experienced serious drought conditions during the summer of 1988/89, which severely depressed farm production and profitability. To assist farmers recover from the drought the Government provided \$30 million in the form of a special "Drought Recovery Assistance Programme". Part of the budget was assigned to a Technology Transfer Programme (incorporating an Alternative Pasture Demonstration Programme). This programme aimed to mitigate future drought risk, promote dryland farming sustainability and reduce the need for future Government intervention by encouraging farmers to adopt a range of short- and long-term practices in their overall farming system. A farm 'systems' approach to technology transfer differentiated this programme from previous adverse event assistance. The Government, farmers and the agencies responsible for the East Coast Technology Transfer Programme were interested in whether this new approach to technology transfer had been successful.

The objectives of this research were to assess the programme's success relative to its objectives and in terms of its on-farm impact. Telephone, mail and interview surveys of farmers located in the East Coast region were conducted. Data about processes used for the dissemination of information, the type and amount of technology adopted, and the attitude of farmers to future droughts and Government intervention were collected.

Most of the farmers (91%) contacted in the telephone survey (n=200 farmers) had changed some aspect of their farming system in order to decrease its susceptibility to drought, and 81% now consider themselves to be better equipped to successfully manage drought conditions. Written material prepared for the programme was most often cited by farmers as an information source. The most common changes made by farmers were the incorporation of new pasture (52%), more timely decision making (48%), increased proportions of readily disposable livestock and greater use of feed supplements to counteract the effects of a drought. Half (50%) of the farmers surveyed believed that no Government assistance should be provided if a drought was to occur again.

The mail survey to evaluate farmers (n=69) involved in the Alternative Pasture Species Demonstration Programme indicated that the area sown in alternative pasture species had increased from an average of 16 hectares in 1991/92 to 37 hectares in June 1994. Most farmers believed that the alternative pasture species were superior to their existing traditional ryegrass/white clover pastures. However, out of a list of six drought management options encouraged through the Technology Transfer Programme, farmers rated alternative pasture species as second to least important in reducing the effect of a drought on their farm, although they still considered this option as either "important" (49%) or "very important" (44%). Most farmers (74%) said that "early decisions on livestock numbers for summer" was "very important". Adoption of alternative pasture species by farmers who had made direct contact with alternative pasture demonstration farmers was low.

Personal interviews with farmers (n=10) neighbouring Focus Farms (n=2) and a mail survey of the consultants (n=14) responsible for their selection and field day programme indicated that Focus Farms did not attract large numbers of farmers, although those that attended were generally positive about the information provided through this medium. Some of the recommended technologies and management practices were not appropriate for some farmers. Technologies that were encouraged through the field days, and which have been adopted, were a greater proportion of trading stock, the use of alternative pasture species, reduction of overall stocking rate, incorporation of summer-moist run-offs, and more reserved supplementary feed.

Most farmers had made at least one 'drought proofing' change to their farming system since 1989 and now felt more confident to cope with drought conditions. However it was not possible to determine how much change occurred due to the influence of the Technology Transfer Programme relative to the farmer's own drought experience, the wider base of agricultural knowledge available to farmers, the influence of other farming and non-farming objectives and improved financial returns for farm products since 1990. The present Government policy of non-intervention is now accepted by the majority of farmers. Future adverse event relief programmes are therefore not expected by farmers, although some would like flexibility with items such as taxation when farm profit is radically altered because of drought management.

# Acknowledgements

First, I wish to thank Professor Warren Parker in supervising the development, organisation and presentation of this thesis.

Acknowledgement must go to MAFPolicy for funding this research, and a special thanks to Don Bagnall and John King for their direction and organisational input.

Thanks are also extended to Lester Wright, Janet Reid, Evelyn Hurley, Tony Rhodes, Gavin Milne, Danny Smith and the participating farmers for their advice, information and assistance with this research.

Encouragement and support given by family and friends, especially Vikki and Nigel, in pursuing this study is greatly appreciated.

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