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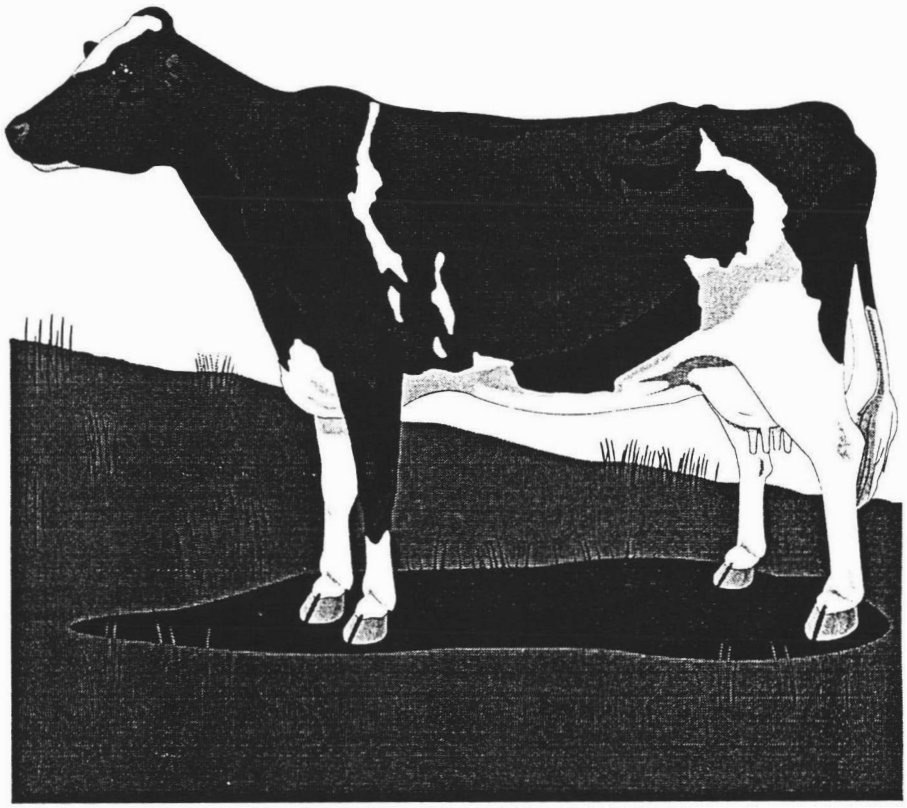
HOW SEASONAL DAIRY FARMERS IN THE LOWER NORTH ISLAND OF NEW ZEALAND ACHIEVE:

High Per Cow Production

- a participatory case-study



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A thesis presented in partial fulfilment of the requirements of the degree of Master of Agricultural Science in Farm Management, at Massey University, Palmerston North, New Zealand

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Abstract

How Seasonal Dairy Farmers in the Lower North Island of New Zealand Achieve High Per Cow Production: a participatory case-study.

New Zealand's 14,000 seasonal dairy farmers supply 16 co-operative companies that operate 40 milk processing factories. While the industry produces only 1.5% of the world's milk, it supplies 25% of the world trade in dairy products, which was worth $5 billion to the New Zealand economy in 1994/95. In order to remain internationally competitive, dairy production research in New Zealand has focused on achieving 'low cost' milk production from pasture. Recent high prices for dairy land and the need to reduce the seasonality of milk supply have promoted greater interest in increasing per cow production. Greater milk yields per cow would allow greater utilisation of the genetic potential of the New Zealand dairy cow for milk production and reduce per cow costs for non-feed items.

At present only 1% of seasonal supply dairy farmers consistently achieve in excess of 350 kg milksolids (MS) per cow per year. These farmers achieve this level of production with resources that appear to be similar to those of other dairy farmers, but little is known about how these resources are managed to consistently achieve high per cow production. The objective of this research was to describe the management processes used by farmers who achieve high per cow production.

Milk supply records from Tui Milk Products Limited were used to identify seasonal dairy farmers who had averaged 350 kg MS/cow/year for at least three seasons (n=31). All of these farmers were surveyed by telephone to obtain information about themselves and their farms. A sub-sample of ten farmers was then chosen from this group for in-depth study and of these 8 farmers agreed to participate. Through three semi-structured interviews, each farmer was asked to describe their management processes. The interviews were recorded, transcribed verbatim and analysed using the NUD.IST computer program to identify concepts associated with high per cow production. A 'model' of a high per cow production system was developed from these concepts and this was compared with the recommendations in the literature.

The results suggest that while the resources available to the farmers influenced per cow production, they did not constrain the achievement of high per cow production. Farmers strategically managed the resources available to enable them to achieve high production levels and used tactical adjustments to account for seasonal variation in pasture production and feed demand. All of the case-farmers reared their herd replacements 'well', concentrated on fully feeding the herd throughout lactation, and had superior pasture management systems in place. In addition, these farmers were genuinely interested in the state of their farms, particularly their livestock, and closely observed livestock behaviour as part of their management system.

Keywords: Per cow production, pastoral dairying, farm management, strategy, tactics, case-study

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