

Abstract of a dissertation submitted in partial fulfilment of the requirements for the Degree of M.Appl.Sc

Dairy Runoff Management and Profitability

Case Studies in the Canterbury region of New Zealand

By Brendan Richards

This study investigated the issues pertaining to runoff ownership in Canterbury, focusing particularly on reasons for purchase, how the runoff was used, and profitability.

Six case study farmers were selected and interviewed, following identification by industry key informants. Initial selection criteria were runoff ownership, and availability of comprehensive and reliable information. Final criteria included achieving diversity of situation in respect to land type and farming system. The runoffs were evaluated according to the net benefits they contributed to the overall dairying operation.

Achieving greater business control was the major driver for runoff purchase. A secondary driver related to increased profitability opportunities, including both operating returns and capital gains. Farmers also enjoyed the diversity of operations and decision making challenges that runoff ownership provided.

All case study farmers used their runoff for wintering purposes and supplying feed to the milking platform for lactating cows. Four farmers used the runoff for rearing their heifers, with three farmers pursuing dairy beef, carrying-over empty cows, and cash cropping activities. Three farmers also sold surplus feed on the open market.

The relative amount of runoff area to milking platform area ranged from 0.4 to 0.98ha (per 1ha of milking platform). The value of runoff capital invested ranged from \$1,540 to \$8,645 per lactating cow (on peak numbers). These ratios were dependent on both the management activities undertaken on the runoff and the runoff's resources.

Annual operating returns (EBIT) ranged between 3.4% and 6.0% for the 2004/05 year. These cash rates of return are comparable to returns generated through other capital appreciating assets. Capital gains ranged from 15.5% to 23.9% compounded per annum, from the year of purchase through to 2005, net of development expenditure. Currently these operating returns are less than the interest costs incurred, assuming the current market value is totally funded with debt capital. Runoff cashflow levels were found to become self-funding after a small period of time. Due to capital gains, a 4% cash return on current market values is considerably greater when expressed across the historical purchase price (debt employed). The financial success of future runoff investments will depend strongly on market price movements for runoff-grown feed and the levels of capital gains that are achieved.

Keywords: dairy runoff, milking platform, farm management, risk management, control, profitability, operating returns, capital gains, case study, qualitative research.