Abstract. There have been a number of analyses of the economics of pastoral dairy farm systems in New Zealand using real farm data, as well as a number of relevant international studies. However, these analyses often use a dataset with a limited number of years that do not reflect long term exposure to volatility, or do not allow for regional differences. We re-examine the relevance of their conclusions for New Zealand dairy systems against 12 years of DairyBase data, focusing on two major regions, deriving key insights on relevant strategic choices at a farm and, by extension, industry level. Within years and regions, the top quartile of observations was identified, based on ranking by operating return on assets, and compared to the remaining observations. Within geographical region, the greater profitability of the top quartile was associated with greater pasture and crop eaten, greater stocking rate and production per-cow, and lesser operating expenses per hectare and per kg milksolids, but was not associated with greater use of imported feed. Linear regression was used to determine that increases in total operating expenses were associated with increases in the costs of imported feed (including winter grazing and silage made on farm). On average, for every $1 spent on imported feed, total costs increased by $1.66 and $1.52 for the Waikato and Canterbury/Marlborough regions respectively. This is consistent with the international literature for temperate grazing systems, and is likely why profitability was not greater even if above average responses to supplement were achieved on farm. Indeed, greater use of imported feed was positively associated with operating expenses per kg of milksolids, implying the marginal cost of additional milksolids was greater than the cost of the base milk, and often higher than the value of the milk produced. If gross farm revenue per kg milksolids (which is largely made up of the milk price with a lesser contribution from livestock sales) was greater than
$7.50 (which it was only 3 years in the last 12), farms could generate higher profit from more imported feed use; however, the reverse was true at lower milk prices. When milk prices are low, (i.e. gross farm revenue less than ~$6.50/kg MS, which occurred in half of the last 12 years), farmers are often under cashflow pressure. Therefore, farm systems that are less reliant on imported feed provide a better chance for farmers to meet financial commitments, although they fail to maximise profitability when the milk price is high (e.g. > $7.50/kg MS). In conclusion, maximising pasture harvested, and minimising reliance on supplementary feed, and effective cost control (minimising expenditure) are the key factors that lead to profitable businesses which are also resilient to the low milk prices that occur in a volatile market.