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## Profit drivers for Queensland dairy farms 2015–16 to 2020–21

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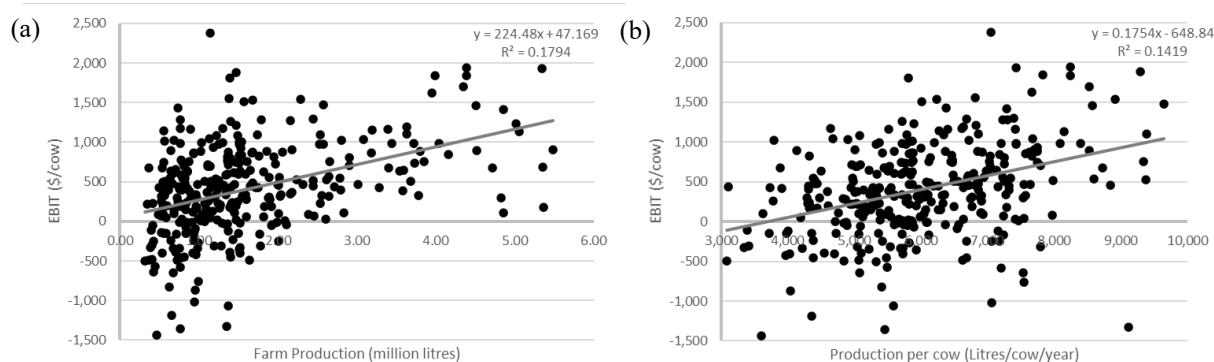
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In 2020–21 Queensland produced 309 million litres of milk which has declined from a high of 848 million litres in 1999–2000. The decline in production has been caused by an exodus of dairy farmers from the industry due to reduced profitability and increased risk.

This paper examines the profit drivers for Queensland dairy farms, using Queensland Dairy Accounting Scheme (QDAS) data. In particular, the relationship between profitability and total farm production and production per cow is examined. QDAS was established in 1976 and examines the cashflow, profitability and production efficiencies of Queensland's dairy farms. In 2020–21 data was collected from 52 farms, which represents 28% of Queensland's milk production (Murphy *et al.* 2021). The key measure of profitability in QDAS is Earnings Before Interest and Tax (EBIT).

Six years of QDAS data was examined, from 2015–16 to 2020–21. In these years the average EBIT per cow ranged from \$758 in 2016–17 to a low of \$113 in 2018–19. Fig. 1a shows the 325 data points for EBIT per cow and total farm production, with a linear relationship ( $R^2 = 0.1794$ ) between the two factors showing that as farm production increases so does EBIT per cow. Fig. 1b shows the 325 data points for EBIT per cow and production per cow, with a linear relationship ( $R^2 = 0.1419$ ) between the two factors showing that as production per cow increases so does EBIT per cow.



**Fig. 1.** The relationship between (a) EBIT (\$/cow) and farm production and (b) EBIT (\$/cow) and production per cow.

The expected explanation of the positive relationship between EBIT per cow and total production is the effect of economies of scale and the dilution of overhead costs. While this is partly true, over the past 20 years as farms have grown and the risk associated with larger operations has increased, only the better farm managers have made profits (Murphy *et al.* 2021). Those farms with poor farm management who have increased production have ceased operating. Smaller farms with poorer management can compensate by using family labour to maintain a sufficient cashflow to survive.

Farms with consistently higher than average EBIT feed a balanced diet, have a calving interval close to 12 months and rear large and healthy heifers ready to produce milk. These three characteristics all lead to high production per cow and explains the relationship between production per cow and EBIT.

Other drivers of profit include cost control, capital efficiency and labour efficiency. Cost control, especially in large farms, is achieved with forward purchasing feeds and, in some cases, informal cooperative purchasing with other farmers. Capital efficiency is achieved by having reliable equipment of the appropriate scale. Finally, labour efficiency is achieved by farms having efficient systems that allow labour to be productive which allows managers to manage the business rather than work in the business.

The most important driver of profit is the hardest to measure, management skill. The farm managers in QDAS with consistently above average EBIT have good people skills, undertake timely farm management actions, are always looking to improve their farm systems and performance and have a positive attitude.

In conclusion, the positive relationship between production per cow and EBIT per cow is due to the good managerial skills of the farm managers. The positive relationship between total production and EBIT per cow is due to those good managers who increase production by increasing cow numbers and production per cow have been resilient, while those with less skill who have increased production by only increasing cow numbers have often left the industry.

### Reference

Murphy R *et al.* (2021) Balancing dairy production and profits in Northern Australia. QDAS financial and production trends 2021. DAF, Toowoomba, Qld, Australia.