



DairyUP

Unlocking potential

Project summary

P3 Intensification of dairy systems | August 2023



Transitioning towards intensification

Internal and external triggers are leading some NSW dairy farmers to consider transitioning their businesses to more intensive farm feeding systems such as total mixed rations (TMRs), and housed facilities. Farmer surveys indicate that intensification in NSW is an adaptation strategy in response to climate variability and extreme weather events.

Motivations

Some of the reasons NSW dairy farmers consider intensification include:

- As a way to adapt their farming system to better handle climate variability and extreme heat or wet conditions.
- In response to changes in water policy, milk pricing and financial pressures.
- To help achieve goals for improving animal welfare, increasing milk and feed productivity, environmental sustainability, worker-friendly environments, and land access.
- To help achieve aspirations of control and consistency.



P3 Intensification of dairy systems

This project aimed to provide information to help farmers to decide if transitioning to an intensive production/feeding system is a suitable investment for their circumstances.

This work was complemented by a similar project undertaken in northern Victoria, led by Agriculture Victoria and Dairy Australia.

The findings from both the Victorian and NSW DairyUP project underpin the Farm System Evaluator, a tool that helps assess a dairy farm's readiness to change to a new farming system involving feeding and housing infrastructure.

Dairy UP's P3 project involved two areas of work:

- P3a: Economics of intensification (7 NSW case study farms)
- P3b: Social research to explore the drivers of change (including NSW case study farms).

This document provides a summary of findings from both areas of work which were completed by June 2023.

The intensification journey

A dairy farmer's journey towards intensification is context specific. Different farms have different starting points e.g., greenfield sites or incremental transitions.

The transition involves many incremental decisions such as purchasing more land, growing of crops and/or purchase of machinery.

Intensification brings new complexities in terms of deciding to invest, build and operate a contained housing system. These decisions require individual context with the support of regionally-specific information and advice, which can be challenging to find.

Pause points occur along the way such as:

- Planning - with councils for permits, selection of housing and effluent system, environmental plans
- Securing the capital for investments
- Liaising with council
- Construction of the housed system.

Management skills set

An intensive dairy system requires different management skills to pasture-based systems and has unique operational challenges. The following diagram identifies the key management skills challenges for farmers operating housed facilities, as identified by service providers.





Economic performance of NSW intensive systems

Intensive farm systems can be as profitable as pasture-based systems in NSW. Significant capital investment is required to develop intensive farm systems with housing and effluent management and the associated equipment needed to support the intensive system.

Intensive farms that were consistently profitable:

- Were well-established businesses feeding a TMR and/ or managing the transition phase very well.
- Have strategic income diversification – gross farm income had a strong livestock trading component and/or feed sales.
- Tended to have very productive and efficient cows (kg MS/kg liveweight is > 100%).
- Managed feed sources very well – largely self-sufficient with fodder or a reliable external source such as unique by-products, regular feed testing and budgeting.
- Tended to have very good overhead cost control.
- Constantly looked to identify aspects of the business they could improve.



Collaborators



Read more

- [Dairy feedpads and contained housing: national guidelines](#)
- [Adapting Dairy Farm Systems | Dairy Australia](#)
- including access to the 'Farm System Evaluator' decision support tool.
- [Economics of Total Mixed Ration Systems in Australia, Proceedings of the Australasian Dairy Science Symposium 2022, p67-70](#)
- **Reichelt, N., Nettle, R., & Veskokouk, S. (2023).**
Understanding the drivers of dairy feeding system intensification in NSW, including housed systems. Research report prepared for NSW DPI Dairy team, Rural Innovation Research Group, University of Melbourne.

For further information

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Dairy UP (www.dairyup.com.au) is an industry driven R, D & E program led by the University of Sydney's Dairy Research Foundation (DRF) and co-delivered together with Dairy Australia, New South Wales Department of Primary Industry (both Agriculture; and Biosecurity Food and Safety; EMAI), and Scibus. The program is funded through a grant by the NSW Government (SDG scheme) with co-contributions from Australian Fresh Milk Holding Ltd., Dairy Australia, (formerly) Dairy Connect, Dairy NSW, DRF, Local Land Services (Hunter), Leppington Pastoral Co, Norco Dairy Co-Op, NSW Farmers, Scibus, and South- East Local Land Services.

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