

# TIA Dairy Research Facility

## Elliott, Tasmania

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### Farm overview

**Name:** TIA Dairy Research Facility

**Location:** 124 Nunns Road, Elliott, Tasmania (41°08'S, 145°77'E)

**Climate:** Cool temperate, winter-dominant rainfall

**Annual rainfall:** 1,180 mm

**Total area:** 220 ha

**Milking platform:** 112 ha

**Herd size:** approx. 380 cows (pasture-based system)

**Soil type:** Red mesotrophic haplic ferrosol (deep clay loam)

### Background

The TIA Dairy Research Facility (TDRF) is a nation-leading research and demonstration site supporting the productivity, profitability and sustainability of the dairy industry.

Located in north-west Tasmania, the facility enables TIA researchers to work alongside industry to test, demonstrate and evaluate practical solutions to on-farm challenges under commercial farming conditions.

The facility underwent a major redevelopment in 2021-22 through a \$7.8 million investment by the Tasmanian Government and the University of Tasmania in TIA's research farm network. The upgraded infrastructure has strengthened TIA's capacity to deliver industry-focused research, innovation and demonstration activities to support the future of Tasmania's dairy sector.

### Agroecological context

Situated in a cool temperate maritime climate zone, the site experiences mild summers, cool winters, and strong winter-dominant rainfall patterns.

These conditions support highly productive perennial pasture systems but require careful nutrient and water management to maintain year-round feed supply.

Soils are deep clay loam Ferrosols with strong structural stability, good drainage, and high responsiveness to fertiliser inputs.

The soils are well suited to irrigated perennial ryegrass-clover dairy systems but require management to reduce nutrient leaching risk.

### KEY POINTS

- TDRF is operated by the Tasmanian Institute of Agriculture.
- The facility is run as a commercial dairy farm that enables applied, systems-level research to support a profitable and sustainable dairy industry.
- Research is focussed on productivity, environmental performance, and resilience under pasture-based systems.
- Unique farmlet (mini farm) design supports four concurrent systems-level comparisons under controlled grazing conditions.



**Image caption:** TDRF operates with a 50-bail DeLaval rotary dairy.



## Farm structure

The total farm area is 220 ha, comprising a 112 ha milking platform, 72 ha support land, and infrastructure including laneways, bush, dams, and buildings. The milking platform is grazed under rotational grazing management.

A dedicated farmlet (mini farm) research area includes 32 paddocks (0.92 ha each), enabling up to four concurrent systems-level comparisons under controlled grazing conditions.

## Irrigation and feedbase stability

Approximately 40% of the milking platform is irrigated using a centre pivot, fixed sprinkler systems, and travelling irrigators. Irrigation supports stable pasture growth, reduces seasonal feed gaps, and enables consistent experimental conditions.



*Image caption: Map of the TDRF farmlet paddocks.*

## Core research areas

**Feed production system:** pasture growth, grazing management, forage crops, water and nutrient efficiency.

**Milk production efficiency:** feed conversion, supplementation strategies, lactation performance.

**Advanced systems and technology:** greenhouse gas mitigation, precision livestock systems, irrigation technology, modelling.

**Environmental management:** fertiliser timing, nutrient budgeting, soil-plant-climate interactions.

**Animal behaviour and welfare:** grazing behaviour, welfare-productivity relationships, social dynamics.

## Infrastructure and precision dairy systems

### Milking and herd systems:

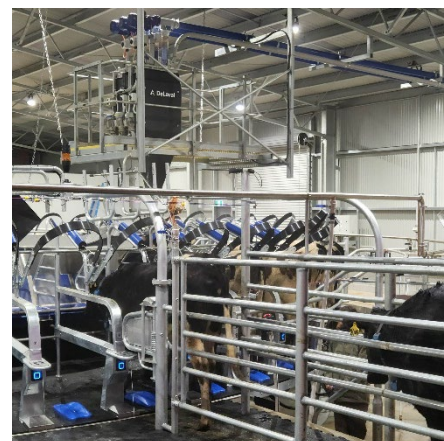
- 50-bail DeLaval rotary dairy
- Walk-over weighing system
- Body condition scoring camera
- Auto-drafting capability

### Data and monitoring:

- DeLaval DelPro integrated herd management system
- Individual cow milk yield, feed intake, and ID tracking
- Individual cow behaviour monitoring using on-cow sensors

### Feeding system:

- 4 feed heads, 5 silos, research feed hopper
- Disk mill for ration processing



*Image caption: (top) The upgraded TIA Research Dairy was opened in 2022. (bottom) The supplementary feed facility was opened in 2026.*

For more information, please contact Dr James Hills, Centre Leader for Livestock Production at TIA: [James.Hills@utas.edu.au](mailto:James.Hills@utas.edu.au) +61 3 6430 493 or TDRF Farm Manager Andrew Marshall: [aa.marshall@utas.edu.au](mailto:aa.marshall@utas.edu.au) +61 3 6226 0080

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