

# Agricultural Benefits Case Study



## CSIRO Inland Rail supply chain mapping puts new market opportunities on the table for Australian farmers

Inland Rail is the fast, reliable, low-cost freight railway connecting Melbourne and Brisbane in under 24 hours. A new pilot study undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) has extended the evidence base for Inland Rail. The CSIRO study forecasts significant average transport cost savings of \$76 per tonne for horticulture and post-processed food commodities using Inland Rail.

Together with lower transport costs for horticulture and post-processed food, the CSIRO study also demonstrated that Inland Rail has the potential to increase market access for regional producers.

**The following case study explores the market opportunities made possible through the construction and use of Inland Rail.**



### Dubbo Dairy

Dubbo Dairy is a hypothetical large food processor situated in Dubbo's industrial area near the centre of town and adjacent to the rail network. High quality milk is the company's primary product and they also process some yoghurts. They produce about 40,000 kilolitres (41,000 tonnes) of milk per year, which is supplied to markets in Sydney (70%), Newcastle (25%) and locally (5%).

The company has grown steadily, has an established marketing profile and is considering new strategies for growth – including the possibility of entering the Brisbane market.

### The challenge

Existing supply chains for post-processed foods, such as milk, cheese, rice and boxed meat on Australia's eastern seaboard traditionally travel eastwards, from farms to coastal markets. To date, the cost of transporting processed dairy products to distant markets like Brisbane or Melbourne has prevented Dubbo Dairy from attempting to establish a sustainable presence in these markets.

The road distance between Dubbo and Brisbane is 850km, more than twice that of the existing road distance to Sydney or Newcastle, at 352km and 377km respectively. Applying the road freight costs as modelled by the CSIRO TraNSIT tool, road freight to Brisbane is \$95.04 per tonne, almost double the existing costs to access Sydney and Newcastle by road. This near doubling of freight costs is a barrier to entry for Dubbo Dairy.



## Market opportunity with Inland Rail

The 1,700km Inland Rail completes the essential spine of Australia's freight rail network. Once operational in the mid-2020s, Inland Rail will connect Melbourne and Brisbane in under 24 hours, providing a low-cost, fast and reliable freight option for Australia's agricultural industries.

Inland Rail passes through Narromine, which is 45km west of Dubbo, and travels 867km North to Acacia Ridge in under 12 hours. A 12km road trip from Acacia Ridge to the distribution centre in Heathwood puts Dubbo Dairy products in range of Brisbane consumers.



**Note:** Full details of this case study are found in the CSIRO Inland Rail Supply Chain Mapping Pilot Study available at [www.inlandrail.gov.au](http://www.inlandrail.gov.au). The potential transport cost savings modelled using TransIT generally only relate to the freight movement. The multitude of logistical, relational and behavioural decisions throughout the supply chain will determine whether Inland Rail is used, and how and whether potential benefits are captured.

## Viable markets – Dubbo Dairy

The introduction of Inland Rail means that Dubbo Dairy's costs to supply the Brisbane market are comparable to those of existing road transport to Newcastle and Sydney. The total trip duration to Brisbane is longer via Inland Rail, at 12.5 hours, but Dubbo Dairy's processed dairy products will be transported in the customary 40 foot refrigerated containers, each carrying 22 pallets at a net payload of 22 tonnes. CSIRO's modelling shows that Inland Rail opens up a potential new market to Dubbo Dairy at a negligible additional cost, potentially adding new commercial prospects for this regional producer.

## Cost comparison

Trip	Travel road (km)	Travel rail (km)	Cost per payload tonne
Dubbo to Sydney	352		\$50.24
Dubbo to Newcastle	377		\$42.67
Dubbo to Brisbane (road)	850		\$95.04
Dubbo to Brisbane (Inland Rail)	57	867	\$51.92



**Brisbane**

Cost per tonne: **\$51.92**

Kilometres: **867 (plus 57 by road)**

Duration: **12.5 hours**



**Sydney**

Cost per tonne: **\$50.24**

Kilometres: **352**

Duration: **4.2 hours**



**Newcastle**

Cost per tonne: **\$42.67**

Kilometres: **377**

Duration: **4.4 hours**

**More Information**



[inlandrail.gov.au](http://inlandrail.gov.au)



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