



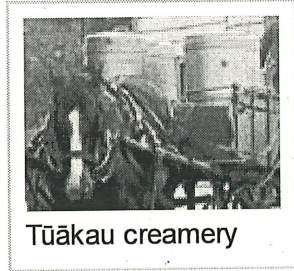
1871

Dairying and dairy products

Co-operatives and centralisation

The creamery system

In the late 19th century butter factories grew larger, but it was difficult for farmers to transport milk more than a few miles to be processed. As a solution, small skimming stations were built on the outskirts of factories' regions, where farmers could bring their cans of milk each morning. The milk was weighed and then fed into separators to extract the cream. A share of the skim milk was returned to the farmer to feed his pigs and calves. Cream from a number of farms was then transported to the central dairy factory, usually by truck but sometimes by boat. This creamery system operated, with regional variations, from about 1880 to 1920.



Tūākau creamery

Pasteurised and UHT

Pasteurised milk is heated, usually to 71.7°C, for 15 seconds to kill the bacteria that causes food-poisoning and makes the milk go off.

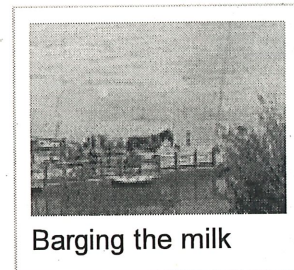
Pasteurising makes milk safer to drink and longer-lasting. UHT is ultra heat-treated milk, sometimes called long-life milk. It has been heated to at least 135°C for at least one second to destroy all bacteria.



Freighting butter to England

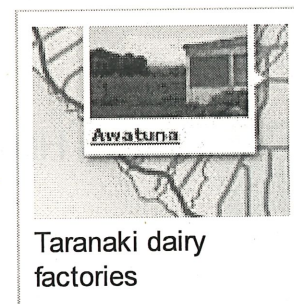
Transport

The transportation of milk to factories, and dairy products to markets, was critical to the industry's rate of expansion. In Waikato and Northland, river boats and barges carried milk and cream to factories. Coastal ships took goods to markets around the country, or to Wellington for export.



Barging the milk

Some shortcomings in transport slowed the dairy industry's growth. Delays in the spread of refrigerated equipment meant that for a long time dairy products travelled as ordinary cargo, without refrigeration. Many dairy factories were not near ports, and so the industry awaited rail links, refrigerated wagons and storage to expand. The frozen-meat industry had similar needs, which accelerated the building of rail lines and the availability of refrigerated wagons. By 1892, 113 ventilated cool trucks were available for transporting dairy produce. In Canterbury and Otago, and in many places in the North Island, factories were built along the rail network.



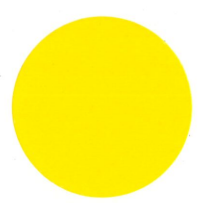
Taranaki dairy factories

Being co-operative

The idea of starting a dairy co-operative was first put forward on 22 August 1871, at Highcliff on the Otago Peninsula. John Mathieson called a meeting of eight settlers to discuss forming a co-operative company purpose of cheese making. Operations started a month later.

3rd

atives



The success of entrepreneurs encouraged the establishment of co-operatively owned factories. By 1890, of 150 factories nationwide, 40% were co-operatives – owned and directed by farmers – and by 1900 they outnumbered individually or corporately owned factories.

However, varied sources of supply meant that product quality varied enormously. In 1894 the government introduced the Dairy Industry Act, under which goods were graded for export and payment for milk was based on factory inspection.

Centralisation

The number of factories peaked at about 600 in 1920 – about 85% of which were co-operatives. From then on, more efficient transport and economies of scale in processing led to larger factories and the closure of smaller ones. Co-operatives merged until, in the late 1990s, four remained: the New Zealand Dairy Group, Kiwi Co-operative Dairies, Westland Milk Products and Tatua Co-operative Dairy Company. The Dairy Group and Kiwi Co-operative absorbed the New Zealand Dairy Board and, in 2001, became Fonterra Co-operative Group.

Biographies



Thomas Cuddie Brash, 1874–1957



Thomas Brydone, 1837–1904



William Wescombe Corpe, 1836–1923



William Goodfellow, 1880–1974



Harold Hirst Innes, 1909–1985



Newton King, 1855–1927



Markey Wallace, 1893–1984

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