

Marketing Milk

From the cow to the retail
outlet

Marketing milk: from the cow to the retail outlet

This material addresses aspects of the following syllabus outcome:

H3.2 critically assesses the marketing of a plant OR animal product

Syllabus content areas addressed in this material include:

- the quality criteria for the product
- the processes involved in turning the raw agricultural commodity into various forms to satisfy consumer demand
- determine the marketing chain for a particular product.

Source: NSW Board of Studies, Agriculture Syllabus

A variety of inputs into the milk production system result in the output of fresh milk. After passing through the marketing chain, fresh milk along with a variety of value-added products are made available to consumers.



Dairy cattle are brought in twice a day and milked.



The cattle on this farm are fitted with microchip collars that register each individual cow as she enters the milking shed.

This microchip identification allows the production figures to be collected and collated by computer for each cow.

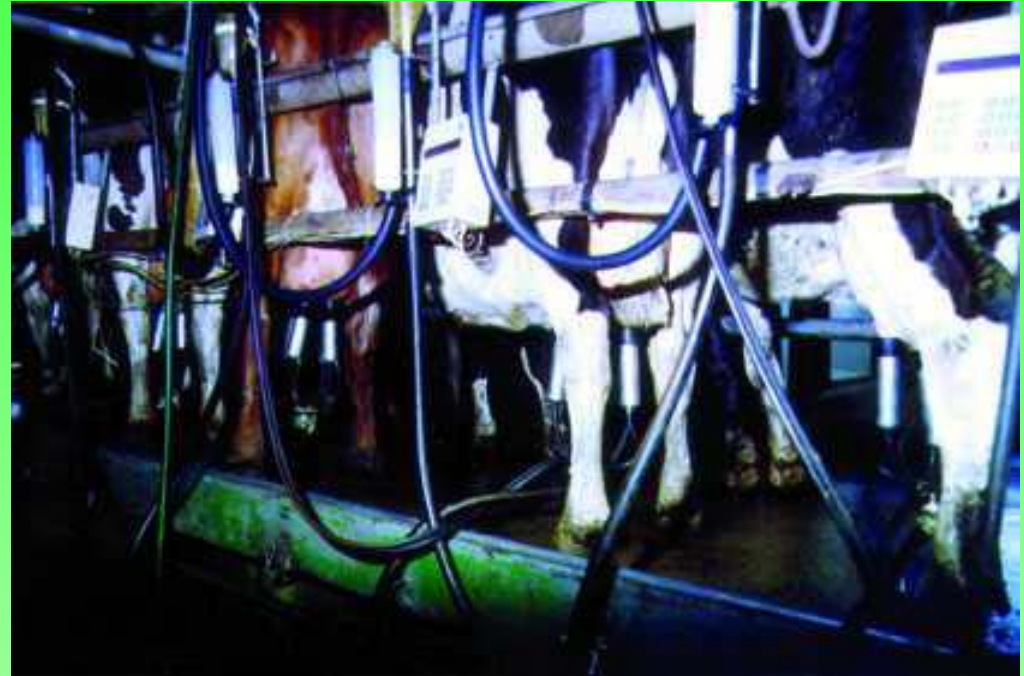
Each cow has her complete production figures kept for each lactation.





Before the milking cups are fitted, each cow has their udder washed. This reduces the chance of contaminants such as mud, hair, manure, insects, teat scabs and vegetable matter, along with bacteria entering the milk lines.

Poor milking practices can result in damage to the cow's udder which can lead to poor results in the somatic cell count. A somatic cell count measures the white cells in milk. White cells increase in number when a cow's udder becomes infected.



The milk cups are removed as soon as possible after the udder is emptied. This reduces the chance of damage to the teats. The teats are then dipped in iodine. The iodine kills any bacteria that are on the teats. For a short time after milking, the teat canal remains open and bacteria can easily gain entry. Bacteria have the potential to cause infections within the udder.



After milking, the milk is cooled and stored in refrigerated vats at four degrees Celsius until collected by the milk tanker. Milk is collected once a day. The tanker driver carries out preliminary tests to the milk, checking its smell, taste and that it has been refrigerated to four degrees Celsius. The failure to store at less than four degrees Celsius can result in the milk being bought at a reduced price or not at all. It is extremely important that milk remains refrigerated at all times to maintain product freshness. Because milk is a nutritious food, any bacteria that are present in milk will grow and multiply rapidly, particularly if the milk is not refrigerated.





At the milk factory the milk is pumped into holding tanks where it is held until the results of tests that are routinely carried out are known. These tests include: somatic cell counts, total plate count, butterfat percentage and protein percentage. The results of these tests help determine the price paid by the milk factory to the farmer.



It is important that just as the milk was refrigerated at the farm and during transport, the milk must be kept refrigerated at the milk factory.



Once the results of the tests are known and the quality of the milk is assured (somatic cell counts and total plate count within the set limits) the milk can be processed.

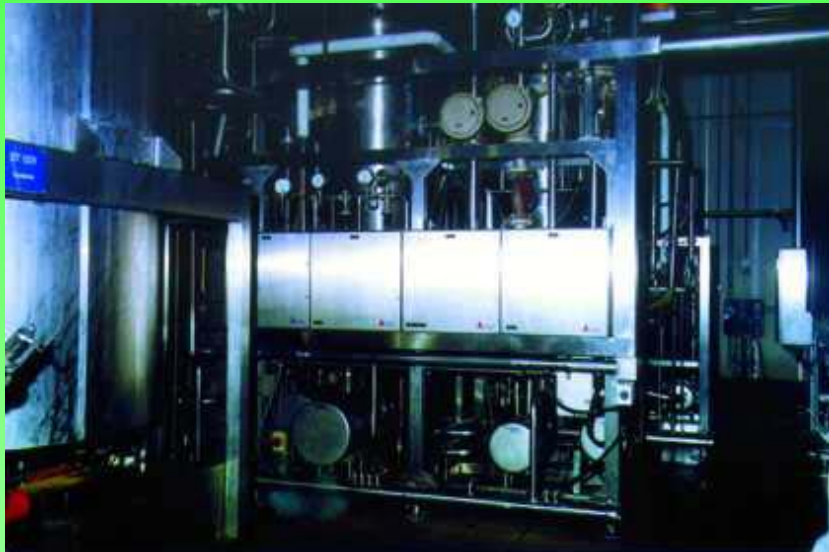
The type of processing depends on the end-product that is desired. End-products include fresh milk, flavoured milk, cream, butter, skim milk, yoghurt, cheese, milk powder, evaporated milk, condensed milk and UHT milk.



Milk destined for the fresh milk market is first homogenised. This disperses the fat globules throughout the milk and stops the cream rising to the top of the milk.

The homogenised milk then goes to the pasteuriser to be heated to a minimum of 72 degrees Celsius for 15 seconds and then cooling it back down to two degrees Celsius. This kills harmful bacteria and most of the bacteria that cause milk to spoil.

The milk destined for cream and skim milk is sent to the separator before pasteurisation.



Pasteurised and homogenised milk is packaged in a variety of sized containers, 300 ml, 600 ml, 2 litre and 3 litre.



A variety of processes are carried out in the milk factory in order to transform milk into the range of end-products. The products are packaged in various ways.



The milk produced by dairy farmers above their quota is called manufacturing milk. Manufacturing milk is bought by the milk factory at a lower price than that paid for the quota milk (also known as fresh milk). It is the manufacturing milk that is used to make cream, butter, cheese, ice-cream, yoghurt, powdered milk and other dairy based-products.



These end-products are kept in large refrigerated storerooms ready for delivery to supermarkets, milk bars, homes and a variety of outlets. Some products such as cheese, powdered milk, butter and UHT milk can be exported.

There are a variety of niche markets. The King Island Dairy range is an excellent example of a products designed for a niche market that has an increasing share of the overall market.



Milk and all the other end-products made from milk can then be transported to supermarkets, milk vendors and other retail outlets.

