



Milking machines and Cooling Tanks for small scale farming *your solution to secure quality milk!*

- Easy to install
- Operate from single/3 phase electricity
- Plug in and operate
- Affordable & suitable for herds from 1-50 cows
- Highest quality materials used
- Tanks available from 300-1800 liters, condensing units attached, automatic temperature control

**We are also suppliers of high quality,
affordable aluminum cans, 40 liter capacity!**



For any information on your milking machine or milk cooling needs, contact your nearest DeLaval dealer or Rykie Visser on +27 0826530364, or e mail rykie.visser@delaval.com

www.delaval.com



Cooled milk

ENSURES QUALITY milk

by Rykie Visser, export and district sales manager, DeLaval

Cooling is a very good method to keep milk fresh and its quality at a high level. Refrigerating milk on the farm prevents bacteria from growing. At body temperature, bacteria will grow rapidly. Even milk with a low bacterial count will go sour quickly. Clean and correct milking techniques and quickly cooling the milk to 4°C is the best way to keep the milk from spoiling.

Milk produced under clean conditions will remain good for up to 15 to 20 hours. But it is not only the storage temperature that is important. The time it takes to reach a storage temperature of 4°C is also important. Bulk milk coolers have been specially designed to quickly cool the milk to 4°C.

Temperature affects bacterial growth, reproduction and food deterioration. Bacteria will grow less in milk and milk products if the product is cooled to below 10°C. A temperature of 4°C is needed to keep almost all bacteria from growing. Top quality milk will have less than 100 000 bacteria per ml of milk.

Laws determine that milk must be pasteurised before people can drink it. Milk is pasteurised when it is heated to 72°C for 15-20 seconds. It is important to remember that you still have to work hygienically – even if you cool and pasteurise the milk. To avoid infections is the first priority. Cooling is the weapon against bacterial growth. With efficient cooling and good care, the battle against micro-organisms can be won.



Cleaning is also very important. The cleaning of a milk cooling system provides the chance to avoid infections. It is necessary to clean the milking equipment after every milk turn is complete. Use high temperatures and thoroughly disinfect the installation. Most bacteria will then be killed.

It is important to remember that the consistency and milk quality does not change when it is stored. To store milk and maintain high milk quality, proper cooling equipment is essential. Remember, you cannot add quality or change the quality of milk by cooling it.

Quality milk starts where you milk the cow and cool the milk down to 4°C as soon as possible. By doing this you will stop any further abnormal bacterial growth and ensure that a safe product is processed!

For more information on machine milking, please contact Rykie Visser at 082 863 0364, fax 012 430 2819 or e-mail rykie.visser@delaval.com DMA

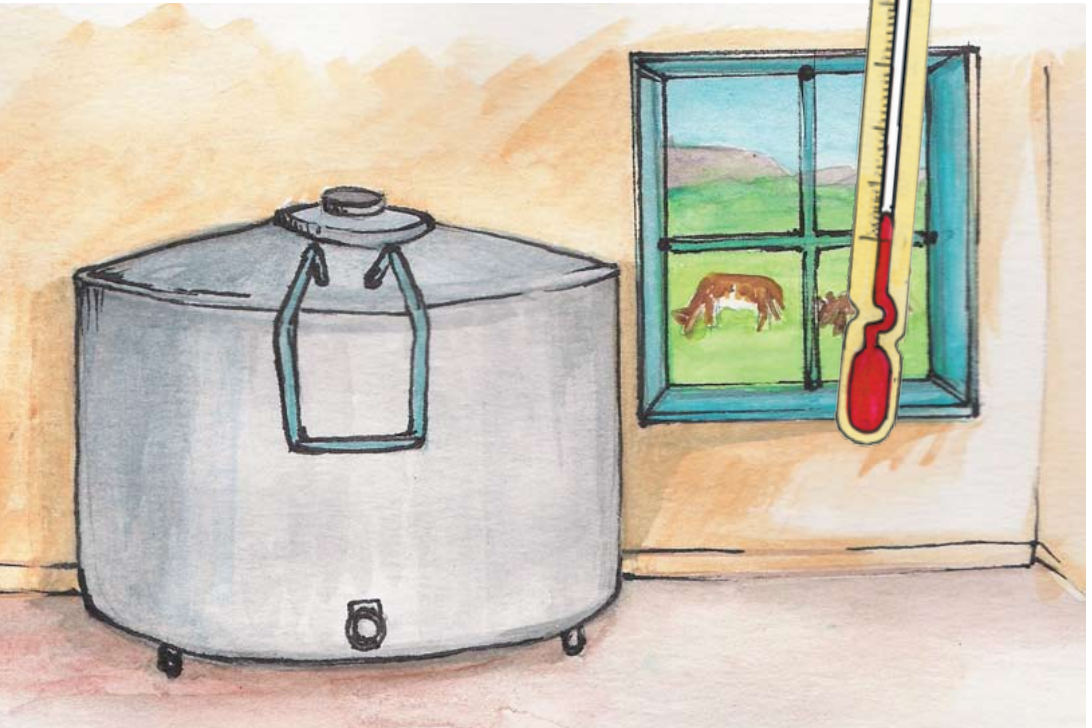
How to produce

1. Milking conditions must be hygienic.

- ▶ The milking parlour and the cows must be clean.

2. Prevent milk from getting sour by cooling it on the farm.

- ▶ Cool the milk down to 4°C as soon as possible
- ▶ Use a bulk milk cooler.



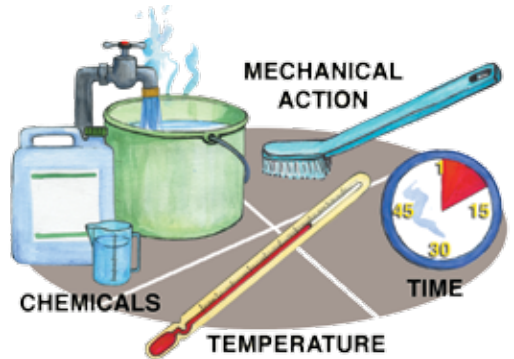
QUALITY milk

3. Extend storage time.

- ▶ Keep temperature at 3-4°C to keep bacteria from growing.

4. Clean the milking equipment after every milk turn is complete.

- ▶ Scrub with brush
- ▶ Enough time
- ▶ Right concentration of soap and disinfectant
- ▶ Right temperature. **DMA**



 **DeLaval**

How TO START A milk PROCESSING BUSINESS

Milk must be pasteurised before it is sold to consumers. This is to make sure that the milk is safe and healthy. Milk is pasteurised when it is heated to a temperature of 63°C for 30 minutes. The milk is then quickly cooled down to lower than 5°C. Pasteurised milk has more value, and can be sold to customers for more money.

Before a dairy farmer starts to sell pasteurised milk, he must make sure that nearby corner shops, spaza shops, café's, schools and clinics will buy his milk every day. He must also find what kind of packaging they want the milk in, for example in one litre or two litre plastic bottles or in bulk tanks. The price the milk is sold for must allow the shop to ask a good price for the milk. In this way, both the farmer and the shop owner will make money.

The farmer must also find out from the people living close to him if they will buy the milk from him. The farmer must find out how much the people will pay for good quality, pasteurised milk.

If the person who wants to sell the milk is not the farmer, but a processor, he must make sure that he can find enough raw milk that is of a good quality from a nearby farmer or group of farmers. The local authority must be asked about the rules that must be followed before a food processing shop can be opened.

The farmer or processor must find out what it will cost to pasteurise the milk. A place where the milk can be pasteurised must be found. It is best to pasteurise the milk close to the shop. Then it will not cost a lot of money to move the pasteurised milk to the shop.

The building must be large enough for the processing machinery. There must be enough running water, natural light and electricity. The walls and the floors must be tiled because it is easier to keep clean.

Before buying processing machinery, you must ask at least three suppliers for their prices. In this way the best price can be found. One must buy bulk chilling tanks for raw milk and walk-in cold rooms where the bottled pasteurised milk can be stored.

“If the person who wants to sell the milk is not the farmer, but a processor, he must make sure that he can find enough raw milk that is of a good quality”

When you borrow money to buy the machinery and build the shop, you must be able to repay all the money within two years.

You must prepare the building before the machinery is installed. Make sure all the electrical, water and drainage points are in the right place. Only then you can buy the machinery.

Ask the suppliers of the machinery to install the equipment and train the people working for you how to use the machinery.

You must design packaging that has your own logo on it. It must also have all the nutritional and contact information that are required by your country's regulations.

For enquiries on machinery requirements for milk processing, contact Milk-Pro International at 011 463 7497 or 082 600 5569 or e-mail ghd@worldonline.co.za DMA

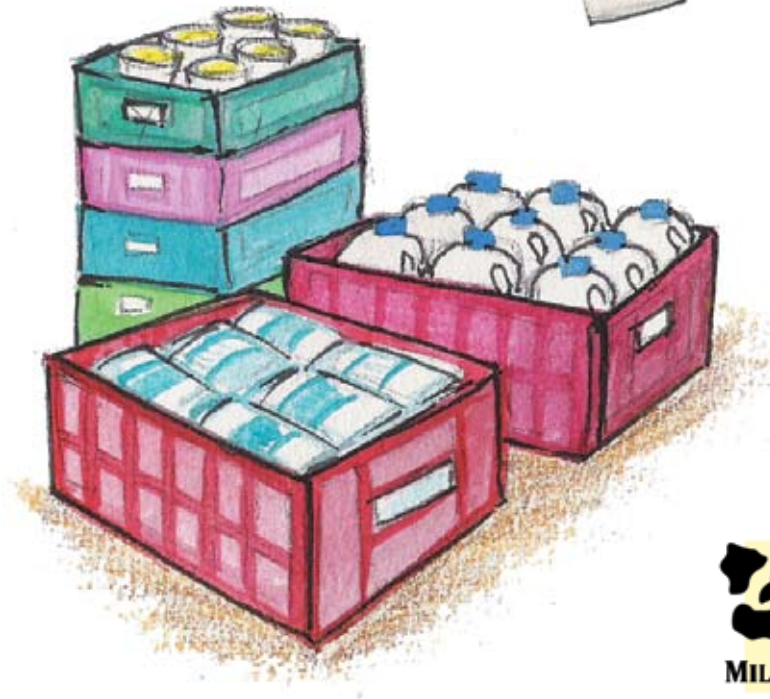
START YOUR OWN MILK PROCESSING BUSINESS

1. Do market research.

- ▶ Who will buy my milk every day?
- ▶ What price are they prepared to pay?
- ▶ What kind of products and packaging do they prefer?

2. Gather information.

- ▶ Milk production
- ▶ Equipment
- ▶ Pasteurisation costs
- ▶ Contracts with shops and processors
- ▶ Funding.



**In-container
pasteurising solution
for the small-scale dairy
farmer**



- Produce up to 1000 litres per day?
- Need to add value to your product?
- Want to make LOTS more profit?

**THEN USE THE
MILK-PRO SYSTEM**



**Dairy farmers in
44 countries
worldwide
already are!**

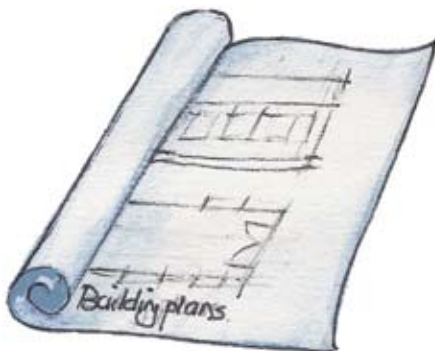
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3. Draw up a business plan.

- ▶ When you borrow money to start, you must repay all the money within two years.

4. Produce good quality milk and sell at a profit.

- ▶ If you ask a good price for milk, the farmer and the shop owner will make money.

5. Ask customers for feed-back on your products.

- ▶ If you can supply what your customer want, you will sell more products. **DMA**