

*Empresa Brasileira de Pesquisa Agropecuária
Embrapa Gado de Leite
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Assembling the Kit Embrapa of Manual Milking ® to produce milk with quality

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Presentation

The Brazilian government, represented by the Ministry of Agriculture, Livestock and Supply (MAPA) , established legal norms and created the Brazilian Network for Quality Control of Milk Laboratories (RBQL) to monitor the quality of milk in Brazil .

The production of high quality milk demands the attention of the farmer in all stages of the process, especially during milking where hygiene should be observed

The Embrapa Kit of Manual Milking®, if properly used and adapted to the conditions of the dairy farms enables farmers to meet new quality standards. Research conducted by Embrapa showed that the use of the Kit can reduce up to 80 % bacterial contamination. This could mean more profit for the farmer in programs which pay on the basis of milk quality.

The Embrapa Kit of Milking Manual® can be assembled and adjusted by the farmer himself using simple materials found easily in local stores.



Abstract

- 7 What is the Kit for**
- 8 Advantages of using the kit**
- 10 What materials make up the Kit**
- 11 Materials to mount the bucket**
- 13 How to mount the bucket Kit**

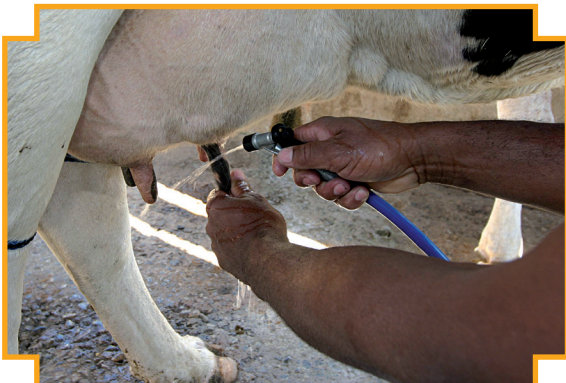
What is the Kit for

The Embrapa Kit of Manual Milking®, if used properly, helps small producers of milk to meet the new Brazilian quality standards set by the MAPA.

Taking the mug test for mastitis



Drying the teats



Washing the teats



Milking the cow



The use of the kit improves the hygiene of milking and reduces contamination of the milk.



Bacteria are smaller organisms that can't be seen with the naked eye, causing contamination of milk.

Advantages of using the kit

- Improves milking hygiene, leading to reduce the bacterial contamination of milk.
- Reduces bacterial count and decreases the acidity of milk.
- Improves the quality of milk, thus increasing the profit of the farmer who is in a program which pays on the basis of milk quality.

What materials make up the Kit

The Embrapa Kit of Milking Manual ® is composed of:



Bucket for storage of chlorinated water used for cleaning the teats of the cow



Semi-open bucket to reduce dirt during milking



Mug to detect clinical mastitis



Filter for straining milk



20 ml syringe to measure the amount of chlorine to be placed in the bucket to chlorinated water



Paper towels to dry teats

Les éléments composant le Kit



Chlorine to prepare chlorinated water



Rubber gloves for the preparation of chlorinated water for cleaning equipment for milking



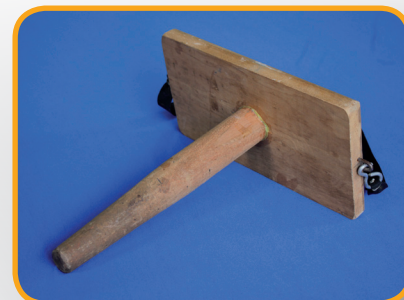
Brush for cleaning materials



Alkaline detergent powder for cleaning materials



Calibrator to measure the amount of detergent



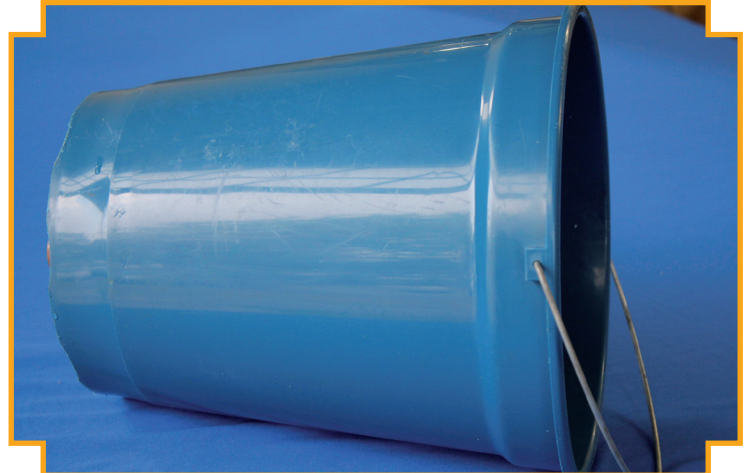
Seat for hand milking. The seat is tied at the waist for comfort when milking

Materials to mount the bucket

To assemble the bucket of chlorinated water you will need:



Iron pipe of 1-inch



8 liter plastic bucket



Water tank flange of 1/2 inch AC

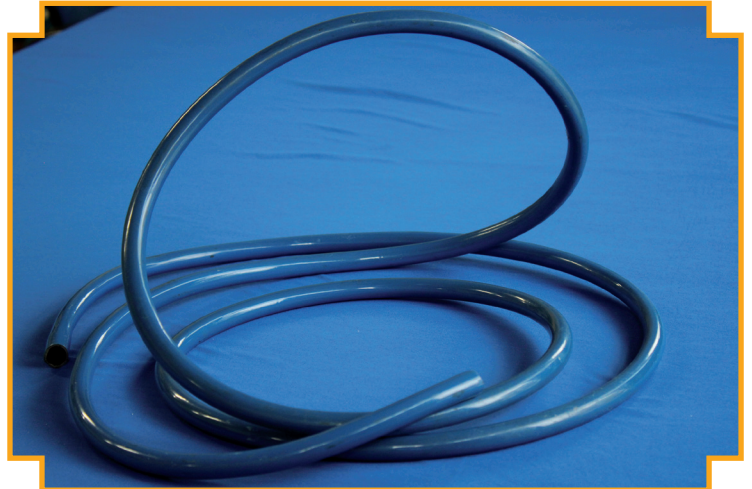


Sealing tape for water

Les éléments pour assembler le seau



1/2 inch hose adapter



4 meter rubber hose of 1/2 inch



Splash garden of 1/2 inch

How to mount the bucket Kit

To assemble the bucket follow these steps:



1 - Heat the iron pipe on fire



2 - Puncture the bucket with a hot iron pipe to make a hole on the bottom



Puncture the bucket with hot iron pipe to ensure a perfect hole. Puncture with a knife can damage the bucket .

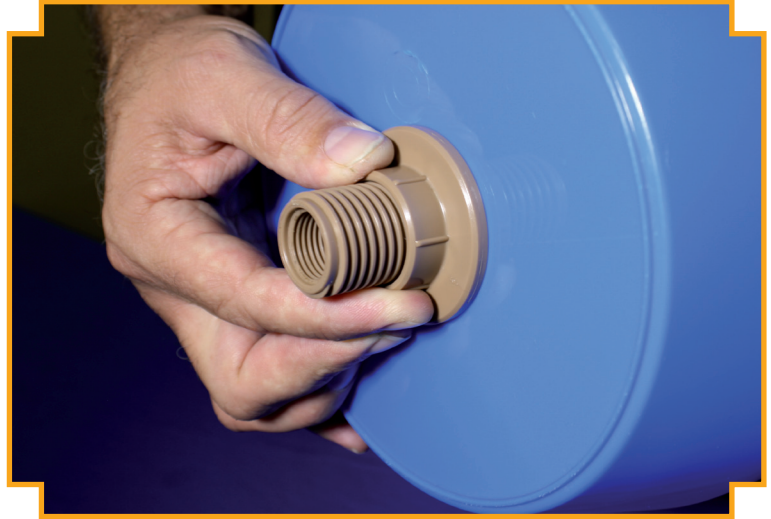


Use a thick cloth or gloves to hold the hot iron pipe to avoid burning your hands.

How to mount the bucket Kit



3 - Place the adapter of water tank in the hole of the bucket



4 - Make sure the adapter is tight to prevent leakage

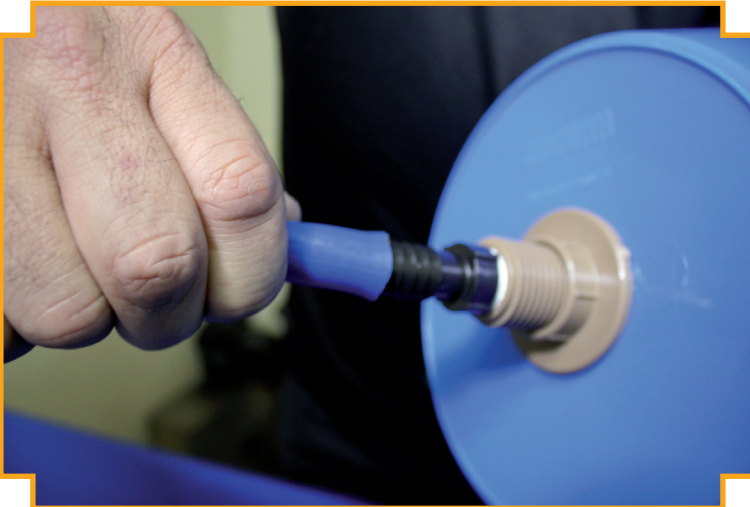


5 - Wrap the sealing tape on the hose adapter



6 - Attach the hose

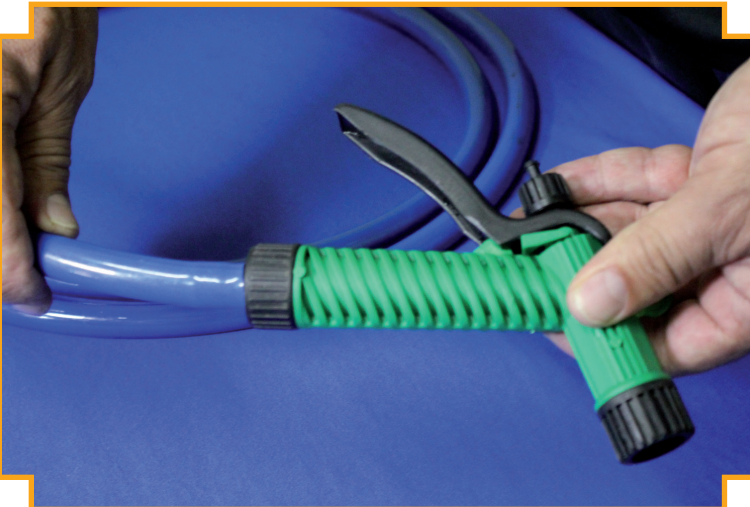
How to mount the bucket Kit



7 - Attach hose to the hose adapter



8 - Attach the nozzle to the other end of the hose



9 - Make sure the nozzle is secure



10 - The bucket of chlorinated water is ready to be used



Annotations
