

# MILKING

Sane

Safe

Sanitary

By

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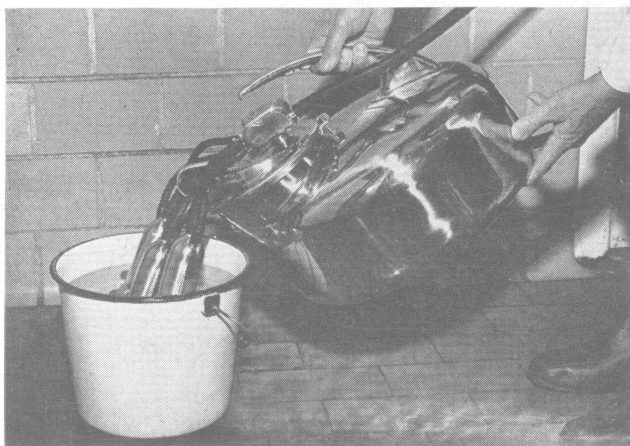
## Tips for Good Milking

1. Develop a good procedure for milking and follow the same routine at each milking. (Cows are creatures of habit.)
2. Handle cows gently and quietly. Noise and roughness retard "let down."
3. In machine milking, prepare the cow and then attach the milker about one minute after preparation is completed.
4. Strip cows by machine, if possible, by pulling down on the claw and massaging each quarter with a downward motion.
5. Remove the milker unit as soon as milk stops flowing.
6. Keep milking machines in good working condition and vacuum lines clean.
7. Follow manufacturers' recommendations concerning vacuum and pulsation rate.

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Healthy, clean cows, milked in clean barns or milking parlors, are the foundation of good milk production.



Just before milking, draw a warm (130°F.) chlorine solution (250 parts per million) or other approved sanitizing solution through the assembled milker to sanitize all surfaces with which milk comes in contact. This same solution may be used to sanitize strainers and cans and finally used for washing udders.

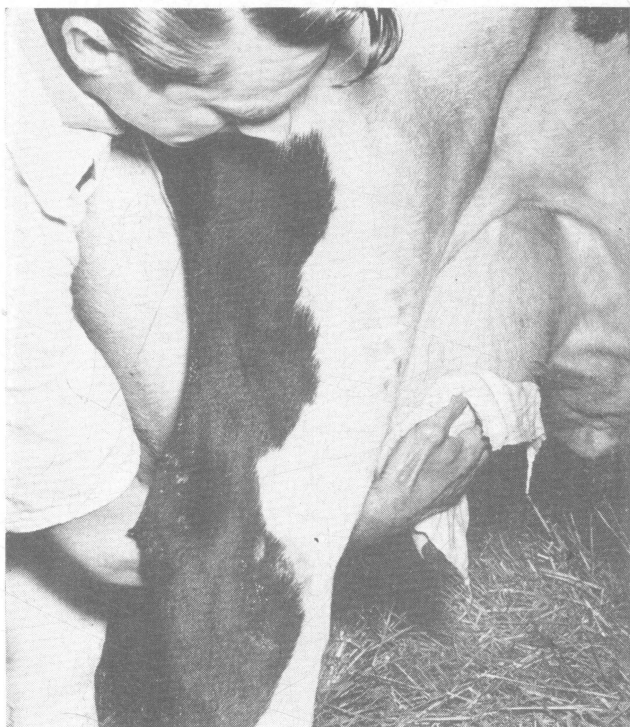


A small cart to carry equipment and utensils reduces labor and time.

This cart carries two pails of chlorine solution (250 parts per million) for washing udders, a pail of warm water for rinsing teat cups as they are removed from each cow, and a pail of hot chlorine solution (250 parts per million) for "sanitizing" teat cups before they are attached to the next cow.

Some use clear, drinkable, warm water or a mild soap solution for washing udders.

A scale hung from a bracket on the cart and a shelf for the daily milk-weight sheet makes recording of individual milk weights easy.



Wash the udder and teats with a clean cloth or towel soaked in warm water or cleaning solution. This removes dirt and dust, and also stimulates the "let down" of milk, so essential in good and clean milking.

After the udder is washed, wring out the wash cloth over the gutter.

The cloth is then ready for drying the udder.

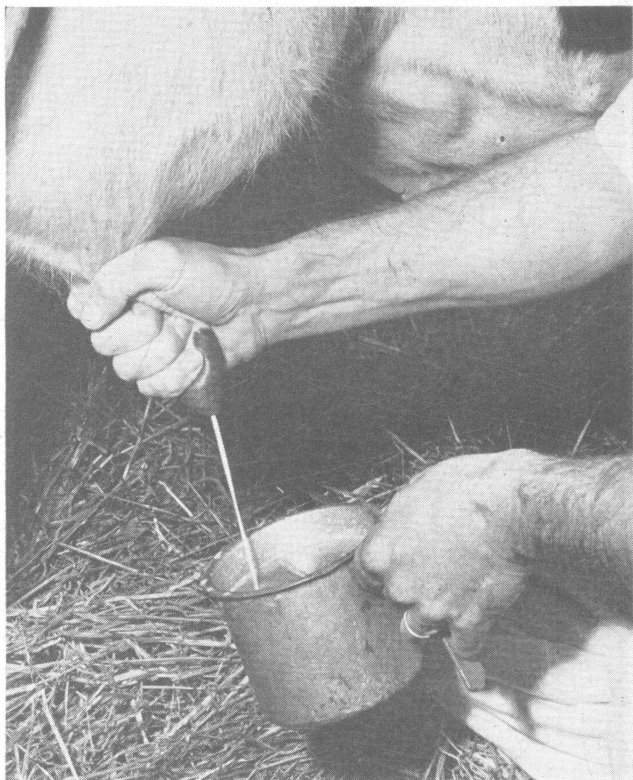
Replace wash water with clean warm water often. Have several wash cloths available to replace those becoming soiled.

Some dairymen prefer paper towels as they save labor and may be more sanitary.



Rub the udder and teats dry. This further stimulates the "let down" of milk and removes excess water, which might be drawn into the pail with the milk.

Thoroughly drying the udder cannot be over emphasized.



Draw one or two streams of milk from each quarter into a strip cup. This procedure further stimulates the "let down" of milk and removes from the teat and udder cisterns many of the bacteria that develop between milkings.

The use of the strip cup helps to determine the condition of the udder. If flecks or clots appear on the screen of the strip cup, mastitis should be suspected; the cow should be milked last and the milk discarded.



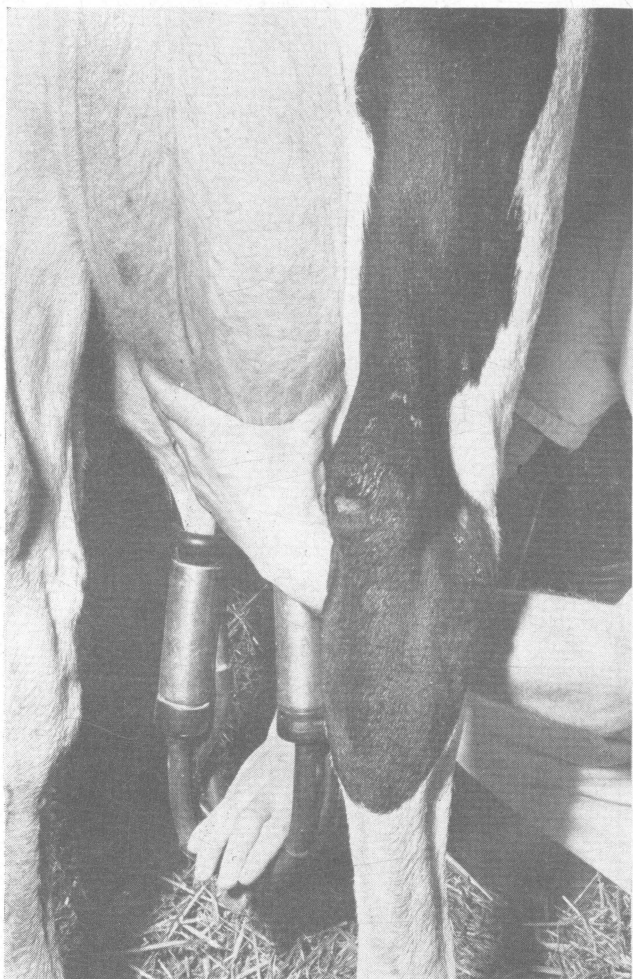
Put teat cups in place within 1 minute after preparing the cow.

If using two units, prepare both the first and second cow before attaching the milker to the first. This allows time for "let down" to take effect.

From then on, prepare each cow about a minute before attaching the milker.

It is better to use one milker properly than to use two units and leave the milkers on the cows too long. Each cow needs her own milking time, but 3 minutes is usually enough.





Strip each cow by machine, if possible. This is done by pulling down on the "claw" and massaging each quarter with a downward motion. Experienced operators soon learn to tell when the milking is completed.

If the milker unit is left on the teats after the milk has stopped flowing, it will damage the inside of the teats and lower udder and open the way for serious infection.

To remove the milker unit without unnecessary strain on the udder, cut off the vacuum and press the thumb between one of the teats and teat cup to release the remaining vacuum.



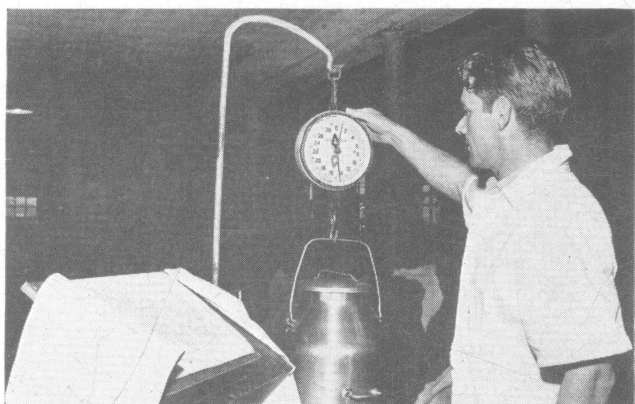
An extra pail helps to save time. By transferring the milker head to the empty pail, it is possible to put the milker on the next cow with a minimum of delay, thus saving time. This also reduces possible exposure of the milk to dust.



Rinse the teat cups in clean warm water; then dip them in hot chlorine solution before attaching to the next cow. This may help prevent the spread of infection from one cow to another.

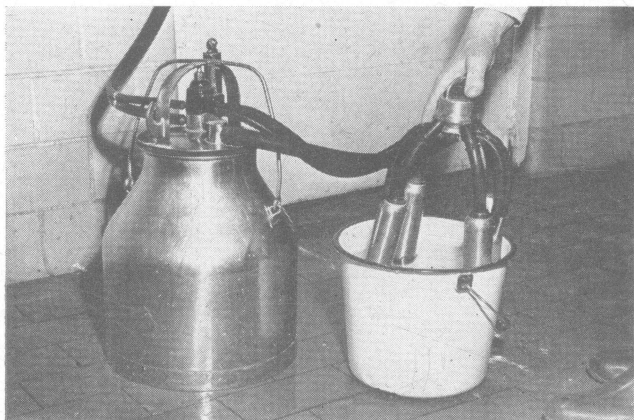


Strain or transfer the milk into cans in the milk house. Milk ordinances prohibit the straining or transferring of milk in the stable. Single-service strainers are designed to use sterile cotton pads which are discarded after one use.



Weigh each milking. Daily records of production are good guides to feeding and indicate the general condition of the cow. They furnish an intelligent basis for culling and the selection of breeding stock.





Immediately after milking, rinse milker unit by drawing clean cold or lukewarm water through the teat cups. Raise and lower cups in and out of the water to produce "air brush" effect. Short tube milkers are best rinsed by disassembling and placing in a tub or pail of clean, cold or lukewarm water.

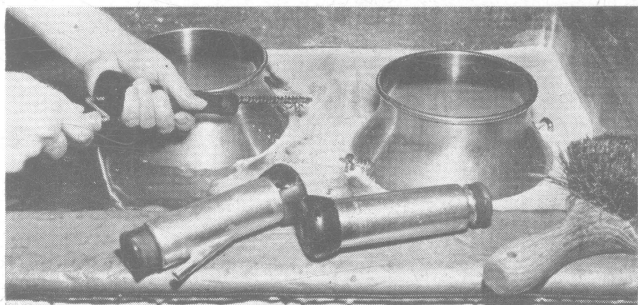


After rinsing the milker unit, wash each piece in hot water containing a soapless wetting agent cleaner.

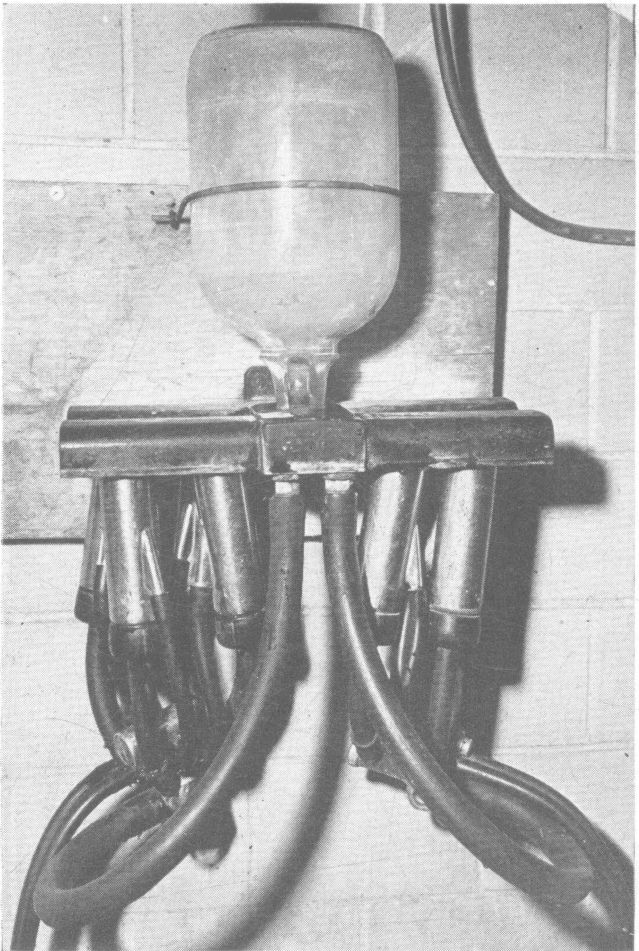
Use a brush to clean all surfaces. Never use a wash cloth. A cloth is hard to clean and cannot be kept sanitary.



Pay particular attention to rubber parts. The milk hose, as well as the air hose, must be cleaned at each washing. Use the special rod or brush designed for the purpose.

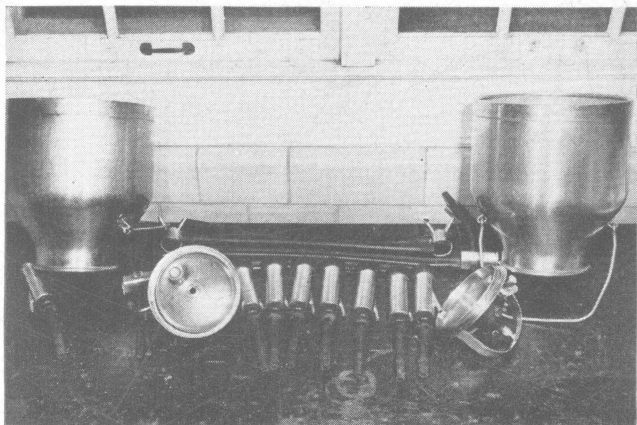


Clean all inflations with a good brush. Failure to do so may result in contamination of milk, short life and poor functioning of the inflations.



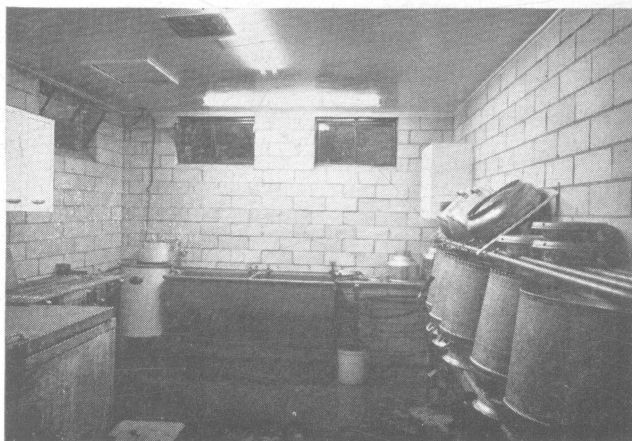
Some fill the teat cups and milk tubes with lye solution after washing. This helps to preserve the rubber and removes any butterfat that remains on the rubber. (Never store rubber parts in chlorine solution.) (The lye solution is made by dissolving a 13-ounce can of lye in 1 gallon of water and then adding  $\frac{3}{4}$  cup of this stock solution to 1 gallon of water.)

Boil inflations and milk hose once a week in a 2 percent lye solution (1 part stock solution to 5 parts water). This restores elasticity to the rubber and is an effective means of eliminating a source of bacterial contamination.



Neat, orderly, clean, and ready for use. A solution rack or dry storage may be used for teat cups, depending on the manufacturer's advice and the recommendation of the milk inspector.

Use two sets of inflations on alternate weeks to prolong their life and efficiency. Store unused inflations in lye solution.



Clean, light, roomy and airy—a conveniently arranged and well equipped milk house makes clean milk production a pleasure.

## Facts Behind Good Milking

Milk is actually secreted in alveoli, or small cell systems, which constitute the bulk of the secreting tissue of the udder. These grape-like clusters of cells exist at the outer end of a vast system of microscopic ducts which carry the milk to larger ducts and eventually to the udder cistern and teat in each quarter. The so-called "let down" of milk is caused by the contraction of the muscles surrounding each alveolus.

"Let down," therefore, is a positive act, though involuntary as far as the cow is concerned. The contraction of these muscles is induced by a hormone (or activator) secreted into the blood stream by a small gland located at the base of the brain, called the pituitary. The nervous impulse for the secretion of this hormone is brought about when acts concerning milking are seen or felt by the cow.

Some cows which are ready milkers let down their milk when they see pails or hear the rattle of equipment. Washing the teats and udder and the actual initiation of milking produce the strongest nervous impulses, bringing the pituitary into action. About a minute elapses between the time the cow is stimulated and the act of "let down" begins. This explains why the milking procedure recommended should be followed.