

How to Properly Hand Milk Cows

Proper Milking Procedures

The key to producing quality milk is a sanitary environment, properly cleaned and maintained milking supplies/equipment, following the proper milking procedures, and milking cows with healthy udders!

Milking Environment

Housing conditions should be one of the first concerns in creating a clean environment for harvesting milk. When dairy cows lie down, their udders are in direct contact with the floor/bedding. The risk of udder infections (mastitis) increases greatly in dirty environments. Adequate bedding such as straw, sawdust, or sand bedding should always be clean, dry, and comfortable and supplemented as needed. Resting areas should be situated in areas not prone to flooding or accumulating wetness. A clean, safe and stress-free environment is very important for efficient milking!

Cow Handling

When a dairy animal is properly stimulated, the hormone oxytocin is released and causes the milk letdown. Fear or stress just prior to milking can interfere with oxytocin release and consequently, disrupt milk letdown. For this reason, the milking area, should be a calm and quiet place. Good milkers are patient with animals and pay attention to details. Aggressive handling, long waiting periods to get milked or any changes in the milking routine can interfere with milk letdown. Cooling systems that include soakers and fans should be used during extreme summer conditions. Keeping the animals comfortable will increase the overall milk yield and quality.

Milking Supplies

- Strip Cup
- Stainless Steel Bucket
- Cloth/Paper Towels
- Pre/Post-Dipping Solution
- Disposable Filters and Strainer
- Glass Jars for Milk Storage



Proper Milking Procedures

STEP 1.

Move the cow into the milking area and tie her by using a halter or a neck collar. Have some grain or hay available for her to eat while she is getting milked. The milking area should be a clean and a stress-free environment for the cow.

STEP 2.

The cow udders should be clipped regularly to help keep them clean. If udders are dirty, use a dry paper towel to clean them before milking. If possible, do not use water, because any residual water may drain down and potentially contaminate the teat opening.



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STEP 3.

The milker should always wear gloves and wash/change them between each cow.

STEP 6.

After the initial stimulus for milk let down, it takes a period of about 20-60 seconds for the response of oxytocin. To maximize milk letdown, milking should start 60 to 90 seconds after pre-dip removal from teat.

Begin milking by squeezing with the thumb and first finger as high up as possible on the udder. Trap the milk with those fingers and then squeeze the remaining fingers while continuing to trap the milk. This will force the milk out of the teat.

*Be careful not to continue to milk the cow when the udder "feels empty" and milk stops coming out of the teats.

STEP 4.

Pre-Dipping

Dip all 4 teats entirely with a pre-dipping solution (0.5% iodine). The dip solution should cover the whole teat.

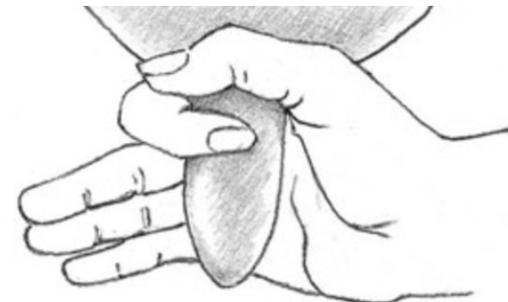
*Allow at least 30 seconds of contact time.

STEP 5.

Forestripping + Drying

Strip each teat 2 to 3 times. Check for abnormal milk such as flakes, clots or watery appearance. Use a single towel to wipe each teat using a downward twisting motion to dry and remove dirt and pre-dip solution.

* If the milk shows any abnormality, remove the cow from the herd and treat her accordingly.





STEP 7.
Post-Dipping

Entirely dip each teat with post-dipping solution immediately after finishing milking. The post dipping solution helps reduce the risk of bacteria entering the teat opening until the teat sphincter closes.

STEP 8.

After finish milking, collect the milk through a filtered strainer into a clean glass jar.

STEP 9.

Clean and disinfect milking equipment, buckets, towels and teat dip cups immediately after every milking.

STEP 10.

Chill the milk to 38° F within an hour. When kept refrigerated at a temperature between 36-38°F (2.2 -3.3°C), raw milk will stay fresh for 7-10 days.

* Generally, it takes 8-10 minutes to milk a cow by hand, however, variations in time may occur depending on the cow temperament, proper stimulation, milker and on the stage of lactation.

* Production will vary according to the breed, health, age, nutritional management and stage of lactation. On average, a dairy cow produces 6-7 gallons of milk per day.

* Most cows are milked twice a day at a 12- hour interval. Some people may choose to milk once a day and let the calf nurse the rest of the day. This management practice requires separation of the calf during the night.