
MANUAL MILKING – HAND MILKING

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How to imitate calf sucking?

The most pleasant and effective way of milking a cow is to imitate the natural sucking of its calf. Simplified, this means squeezing the milk channel at the base of the udder and then continue the squeeze up to the end of the teat.

Doing this by hand means you take the teat in your hand with the thumb and pointing finger pressed to the base of the udder. Then close the hand without moving it, squeezing all the fingers from top to bottom in a fluent way. So after the thumb and pointing finger are closed, you close the middle finger, then the ring finger, ending with the little finger. (see the '11 steps').

Of course you do this with both hands at the same time, working all four teats until no milk is released anymore.

Hygiene

In order to prevent any dirt in the first milk and, more importantly, to check the quality of the milk in case of mastitis, the first milk should be kept out of the collection container/bucket. You can easily check for abnormalities by spraying the first 2-3 milk jets on a smooth dark surface (i.e. a dark tile or the top of your rubber booth).

Long nails

Using the milking technique as described above, means that you finally squeeze your fingertips in the teat or you own hand palm. Since cow teats are very sensitive it is advised to keep your finger nails short cut at all time.

Stripping

In many countries with low producing livestock a manual milking technique called stripping is used. Stripping means you take the teat between thumb and pointing finger, squeeze and pull the hand down while squeezing and letting the teat slip between the thumb and finger. Stripping however, is not a natural movement.

One problem is that the cow will become more tough in milking. With maybe one or two litres per milking this doesn't seem to be a big problem. But when a cow produces five or more litres per milking it becomes a problem. Then milking is not a nice job anymore and will take increasingly more time...

Secondly pulling at the teat for a long time will damage the skin at the base of the udder and the exit hole, making it an easy access for external bacteria which lead to mastitis.

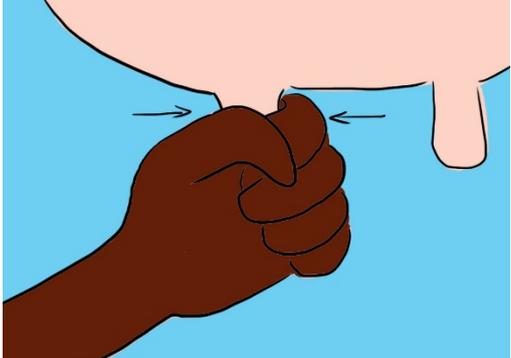
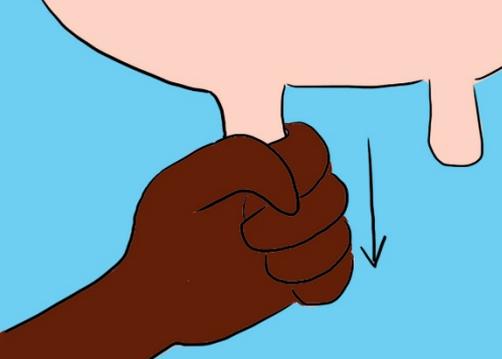
Milking without calf

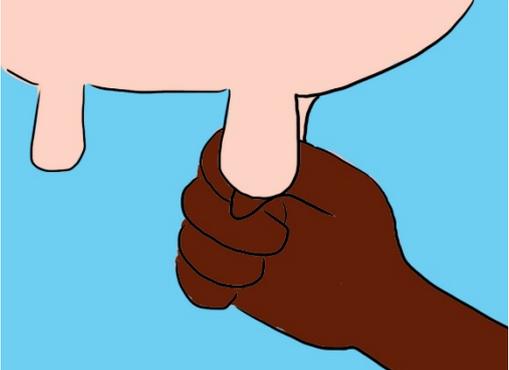
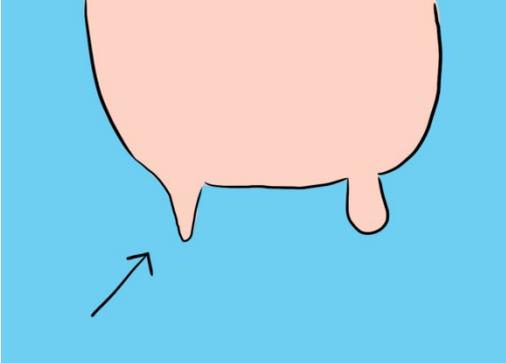
Most local dairy cows will only release the milk when the calf is present or just as been sucking a little because this triggers the milk-let down reflex. Most cross breeds don't need this natural stimulation. You can simply trigger the milk-let down and at the same time clean the udder by gently rubbing the udder with a clean cloth.

Milking by hand in 11 steps

(source: wikiHow.com plus personal additions)

1.	Make sure the cow is tied with a halter to a sturdy post or held in a stanchion.	
2.		<p>Clean the teats with soapy water or iodine. Warm, soapy water and rubbing the udder can help "bring down" the milk. Dry them, but don't rub or irritate the teats. Be sure the udder is dry to prevent skin irritations.</p> <p>Use a clean (disinfected) cloth for each cow. Only use water and soap if the udder and teats are very dirty. Else just use a moist cloth to help bring down the milk.</p>
3.	Place a bucket underneath the udder. Better yet, hold it between your legs. This takes practice, but it can be done, easily and comfortably. This position lowers the chances of the cow kicking over an almost-filled pail of milk.	
4.		<p>Sit or squat in a position that will allow you to move away quickly if the cow becomes uncooperative. Sitting cross-legged on the ground, for example, is not safe. See Warnings below.</p> <p>A common milk stool is fabricated using two 2x4's cut and nailed to form a "T" - cut to fit your behind and make sure it is low enough to afford comfortable access to the underside of the cow.</p>

5.	Apply a lubricant such as Vaseline to your hands to keep friction to a minimum.	
6.		Wrap your hands around two of the four teats. Choose diagonal teats (front left and rear right, for example). Or, try the front teats first, then the back pair.
7.	Squeeze the base of the teat, after gently clamping each teat between your extended thumb and first finger, so that the teat fills your palm as you squeeze down.	
8.		Squeeze down to push out the milk, maintaining your grip on the base of the teat so that the milk doesn't flow back up into the udder. Do not jerk or yank the teats. This motion is performed by sequentially squeezing your fingers from the middle to the pinky to force the milk out. Be gentle yet firm. <u>Check</u> the first milk <u>outside the bucket</u> for abnormalities, keep your eyes peeled for mastitis (the milk contains flakes and/or blood).

9.	<p>Repeat with your other hand. Most people prefer to alternate (right hand, left hand, right hand, etc.) the downward squeezing motions because it takes less effort doing it in alternate steps than all at the same time.</p>	 An illustration showing a close-up of a hand with dark skin milking a teat. The hand is positioned to squeeze the teat downwards. The background is a light blue color.
10.	 An illustration of a teat with a downward-pointing arrow next to it, indicating the direction of the milking motion. The background is light blue.	<p>Continue until the quarter that you're milking looks deflated. Experienced farmers can feel the udder to know exactly when all the milk has come down. Often even looking at the quarter just milked can tell you if it's been emptied enough or not.</p>
11.	<p>Move on to milk the other two teats. If you use the diagonal method, switching sides is not necessary.</p>	 An illustration showing two hands with dark skin milking two teats. A bucket is positioned below the teats to catch the milk. The background is light blue.