

Godspeed Hollow Milking procedures:

Preparing the milking equipment and creamery for milk processing

- 1) Ready the ice bath for the bottled milk by putting the stopper in the stainless sink. Take the black five-gallon bucket on top of the ice machine and nearly fill it with ice from the ice machine and pour it into the sink. Turn on the cold water and fill the sink approximately $\frac{1}{4}$ of the way full.
- 2) While the sink is filling, place the milking pail into the large black bin located on the milking cart. Place the lid to the milking pail on the bucket and clamp into place with the bucket handle. Place the claw on the milking pail using the hook on the pail and the loop on the claw. DO NOT allow the claw to touch the ground during this process.
- 3) Attach the hose running from the pump to the pump inlet on the milk pail.
- 4) Once again fill the 5-gallon ice bucket and pour the ice around the milking pail so that ice surrounds it to chill the milk as it is pumped into the pail.
- 5) Make sure the cart has a roll of paper towel, the CMT paddle and all cords and hoses are safely contained on the cart.
- 6) In the small white bucket put a small amount (approximately 1 tbsp) of dish soap and fill about $\frac{1}{4}$ full of hot water.
- 7) Take a clean white towel from the box located on the shelf of the stainless table and place it in the white bucket with hot water. (One towel per cow)
- 8) Take the milking cart and the bucket of hot water down to the milking area in the storage barn. BE CAREFUL with the cart as it is heavy and could tip if turned to sharply out of the shop door.
- 9) When you arrive at the barn with the cart, place it with the handle of the cart facing the shelving, with enough space between the tie ring for the cow and the cart for her to comfortably stand.
- 10) Ready your extension cords for the milking machine and power at the barn next to the milking stool which can be placed next to the cart so you are within easy reach of your materials. The soap bucket should be close by as well.

Getting cows from the field/stall:

- 1) When you arrive to the paddock, turn off the switch on the fence before unclipping the line. Lead line is next to the solar charger. (not necessary if stalled)
- 2) Clip on a lead and they should easily lead for you. Cows can be stubborn, so don't be afraid to keep a firm hold on the lead line.
- 3) When you arrive at the milking parlor, tie her up using the ring tie; a simple quick release knot is sufficient.

Preparing the udder:

- 1) First, get the cow in a comfortably close position to the milking cart and your milking stool. To move the cow press on her rear to move her closer to or away from you.
- 2) Sit down on the milking stool within comfortable arms distance of the udder and bring the soap bucket next to you.
- 3) Take a rag and wring it out so there is not excess water dripping. Using a single quadrant of the towel per teat, clean each teat thoroughly. Do NOT clean the udder, just the teat, removing dirt, hair and any debris particularly around the opening. The goal is to do this as efficiently as

possible as the cow will begin to let down her milk when you start touching her udder. Do not place the soiled rags back into the soap bucket- place them on the cart.

- 4) After each teat has been cleaned, strip out by hand one or two squirts per teat on the floor to observe any lumps or stringiness to the milk. If necessary, perform a CMT test. (separate instructions available).
- 5) After stripping, dip each teat in the iodine teat dip solution. To put more iodine in the dip cup, hold the bottle upright and squeeze gently until the cup has a sufficient amount to dip each teat fully.
- 6) Using a paper towel, take one quadrant, and wipe off each teat using the following method: take the towel in your hand, grasp at the top of the teat and pull firmly but gently downward to wipe off the iodine dip in one pass. Repeat this for each teat.

Milking:

- 1) Now that the udder is prepared, plug in the milking machine to turn it on. You should immediately hear it start sucking air through the claw. If it stops or isn't drawing air check the rubber valve on the pump to make sure it didn't fall off (happens in transport sometimes). Turn the small black valve on the top of the claw so that it can freely move up and down (the pulsate).
- 2) To apply the claw, turn it upside down and place the center piece in your right hand and keep your finger pressing the pulsate button down so that the claw continues to draw air. Place it under the udder, not allowing any parts to touch the ground. Use your left hand to place each teat into one of the suction. Once all the teats are in (be sure the suction is all the way up the teat) remove your finger from the pulsator and it will begin pulsing and drawing milk.
- 3) It should take about 15 minutes to milk each cow. To help milk more evenly, massage the udder but not excessively.
- 4) Once milk flow has stopped, depress the pulsator (center of the claw now facing the ground) to stop the suction and remove the claw, holding it up to get the milk in the cap to flow into the pail.
- 5) Turn the machine off.
- 6) Apply teat dip to each teat, do not wipe it off, it should be left to dry.
- 7) Untie the cow and walk her back to her pasture/stall.

Processing milk:

- 1) After taking the milking cart back to the shop (watch your entry of the cart into the shop so it doesn't tip!) and wash your hands and prepare to jar the milk.
- 2) Place several jars either on the stainless table and unlid the jars, taking care not to touch the inside of the jars or lids.
- 3) Place a filter into the stainless funnel, using the o-ring to secure and place the filter into the first jar, ready to pour.
- 4) To do so, unhook the "pump" hose. Then remove the claw and the lid and place everything in the first cleaning bucket- bucket is labeled CIP.
- 5) Pour enough milk into each jar to reach the base of its neck. The funnel holds more than a jar so pour a little at a time to fill the jar to the neck, move the funnel to the next jar.

- 6) Place the lid on each jar as it is filled and place it in the ice bath in the sink you prepared before milking.
- 7) Take the black tub that held the milking pail and pour its ice into the ice bath. Run enough cold water to bring the water/ice mixture to the height of the neck of the jars.
- 8) The milk should sit in this ice bath for 60 minutes before being labeled on the cap with the date using a dry erase marker located on the fridge. Transfer milk to the refrigerator place on the right side of the fridge.

Cleaning:

- 1) Move the milking cart, pail and the extension cord to the roll up door of the shop.
- 2) In the white buckets, place 6 pumps of solution into each bucket and fill with about 3 gallons of HOT water is labeled as:
 - a. CIP – the clear solution is 1st.
 - b. ACID – the red solution is 2nd.
 - c. Bleach – about 3 capfuls is 3rd.
- 3) Take the milking pail, put a small amount of water from the tap into the pail and do a quick rinse to get the milk out.
- 4) Apply the pail lid, leaving the claw in the solution, and turn the pulsator so that its hooked in the down position and will continuously draw water.
- 5) Plug in the pump, allowing it to draw all of the solution in the bucket, taking the claw out one or two times to draw air and then placing it back in the solution. Once all of the solution has been drawn from the bucket, turn off the pump.
- 6) Place the claw into the next bucket, empty the pail and draw the second solution. **EMPTY THE PAIL BETWEEN SOLUTIONS.**
- 7) Repeat until the bleach rinse has been done.
- 8) Remove the pail lid, hold the claw upside down to empty the water in the claw allowing it to flow out of the pail lid. Then place the claw and lid into the empty bleach bucket and place on the stainless counter with the two solution buckets next to it in order.
- 9) Empty the milk pail and hanging it on its hook over the sink to dry.
- 10) Using the spray bottle of bleach solution and a paper towel, clean the outside of the milk pail, and the stainless counters.
- 11) Put the cart on the wall opposite of the stainless table.
- 12) Empty the little white bucket of soap, placing the rags into the washing machine and hang the pail upside down too dry on on the edge of the open washing machine.

DON'T FORGET TO PUT THE MILK IN THE FRIDGE!