Macdonald Campus Farm Cattle Complex Standard Operating Procedure # DC-607

MILKING PROCEDURE: GENERAL

1. PURPOSE

To milk cows while ensuring consistent milking standards.

2. RESPONSIBILITY

All permanent, casual and student staff

3. MATERIALS

- 3.1 Milker action sheet
- 3.2 Treatment book
- 3.3 Observation sheet
- 3.4 Milk cart
- 3.5 Milkers
- 3.6 Milking Equipment
- 3.7 Milking pouch (teat dip bottle, striping cup, paper towels)
- 3.8 Bucket
- 3.9 Nitrile gloves
- 3.10 losan© solution
- 3.11 Udder wash solution

4. GENERAL CONSIDERATIONS

- 4.1 Cows are milked twice daily, at 5:30 am and 5:00 pm.
- 4.2 Milking must be performed with 2 people present.
- 4.3 One person is responsible for 4-5 (maximum) milkers at a time.
- 4.4 Plan for milking the last cows in advance. Ensure you have one milker for each treated cow that has not been used on a Staph + cow. Refer to SOP DC-611: Milking Staphylococcus Aureus Positive Cows.
- 4.5 Fresh, Staph, treated, cows with yellow leg bands (High SCC) MUST be milked after other cows without leg bands have been milked: Refer to SOPs:
 - DC-608: Milking Fresh Cows.
 - DC-611: Milking Staphylococcus Aureus Positive Cows.
 - DC-612: Milking Antibiotic Treated Cows.
- 4.6 Cows unable to leave the box stall must be milked in a pail in the box stall.
 - 4.6.1. Refer to corresponding SOP DC-609 Milking Pail Cows or DC-610 Milking Cows with a Box Stall Milker
 - 4.6.2. Wash and sanitize the box stall milker after use as per SOP DC-604 Box Stall Milker Sanitization.

5. PROCEDURES

- 5.1 Prior to milking:
 - 5.1.1. Refer to DC-A-4D Leg Band Colour Band Legend for the Milking sequence.

- 5.1.2. Read all instructions on the Milker Action Sheet on the milk cart
- 5.1.3. Check the Treatment Book in the dairy office for cows requiring treatment immediately after milking.
- 5.1.4. Unplug trainers.
- 5.1.5. Scrape down and put clean bedding underneath the cows.
- 5.1.6. ALWAYS scrape down cows ahead and behind you during milking
- 5.1.7. NEVER put a milker on a cow with manure or dirty bedding underneath her.
- 5.1.8. Prepare milk house as per SOP DC 601 Milk House Pre-Milking Set Up
- 5.1.9. Bring the milk cart into the barn.
- 5.1.10. Put on the milking pouch equipped with papers, teat dip bottle, and stripping cup.
- 5.1.11. Wear clean nitrile gloves.
- 5.2 Gently remove any bedding from the udder and teats using clean paper.
- 5.3 Dip the entire teat in the teat dip. The dip must stay on the teat for a minimum of 20 seconds to be effective. DO NOT dip the teats if the teats/udder is very dirty.
 - 5.3.1. If the teats are very dirty:
 - 5.3.1.1 Wet a paper towel in the bucket of teat udder wash on the milk cart and remove any manure from the teat and surrounding area of the udder where the milker could make contact.
 - 5.3.1.2 Dry the teats using a dry paper towel.
 - 5.3.1.3 Dip the teats in the teat dip, wait for 20 seconds, and proceed as normal.
- 5.4 Using a clean paper towel dry the teats, removing the dip.
- 5.5 Strip 4 good streams of milk from each quarter into the stripping cup.
- 5.6 Check the milk quality after each quarter. Any variation MUST be noted on the Observation Sheet located on the milk cart. (e.g. Clots, watery etc.). Affected quarter(s) must be identified on the Observation Sheet.
- 5.7 Approximately 60 seconds should elapse from the time the teat dip is wiped off to putting the milkers on to allow the milk to be let down.
- 5.8 Hold the milking claw cupped in your hand and attach each teat to the milker by crimping the hoses connecting the shells to the claw. This will prevent air being sucked and the valve popping up.
- 5.9 Ensure that the dangling shells do not suck up the bedding. Hold the claw by the bottom, NOT by the top loop. The milkers will retract automatically. They are not always reliable.
- 5.10 Ensure that all quarters are completely milked out.
 - 5.10.1 If there is a lot of milk in all quarters:
 - 5.10.1.1 Put the milker back on and check again after.
 - IMPORTANT: Do not put the milker back on more than twice if she is not milking out there will be a reason for it.
 - 5.10.1.2 Make a note on the Observation Sheet.
 - 5.10.2 If there is a lot of milk in one or more quarters but not all:
 - 5.10.2.1 Put the milker back on with a plug(s) in the shell(s) corresponding to the quarters that were completely milked.
- 5.11 Immediately after a milker retracts and the cow has milked out, dip the teats before she has a chance to lie down.
- 5.12 Scrape down cows ahead and behind you. Never put a milker on a cow with manure or dirty bedding underneath her.
- 5.13 If a milker falls off and hits the ground and the vacuum has shut off:
 - 5.13.1 Check the ends of the teat cups.

- 5.13.2 Sanitize in the bucket of losan© solution from the cart.
- 5.13.3 Dip the milker with the claw in the same position as you would put it on the cow.
- 5.13.4 Fold the shells down into the solution and completely submerge the claw.
- 5.13.5 Allow to drain. Do not turn the claw over, as the milk will drain out into the bucket and contaminate the solution. Should this happen, the solution must be discarded and a new bucket mixed.
- 5.14 If a milker falls off and hits the ground but the vacuum does not shut off. (I.e. the milker continues to suck air while on the stall floor):
 - 5.14.1 Take the whole unit into the milk house for a thorough inspection and cleaning.
 - 5.14.2 If there is bedding in the milk claw bowl:
 - 5.14.2.1 Flush with water first.
 - 5.14.2.2 If bedding is still present, disassemble and clean the milker.
 - 5.14.2.3 Use another milker to finish milking the cow, if needed.
 - 5.14.2.4 Hang the milker up. DO NOT CONTINUE TO USE.
 - 5.14.2.5 Inform the Lead Technician IMMEDIATELY.
 - 5.14.2.6 Record the problem and milker number on the Observation Sheet.
 - 5.14.3 If there is no bedding in the milk claw bowl.;
 - 5.14.3.1 Remove the blue milk hose from the bottom of the milker unit and flush it out with water. NEVER disassemble the milk claw bowl in the barn.
 - 5.14.3.2 Check the suction on the milker:
 - 5.14.3.2.1 Press your open hand on the end of the inflation. If the suction is weak, do not use the milker and notify the Lead Technician.
 - 5.14.3.2.2 Listen to the pulsation of the milker. If it is slow compared to other milkers, discontinue use and notify the technician in charge.
- 5.15 If at any time, the bucket with the losan® solution becomes contaminated with milk or bedding it must be replaced.
- 5.16 Regularly go back and scrape down milked cows removing all manure and any wet or milk-sodden bedding.
 - patnogens

IMPORTANT: Ensure there is a layer of dry bedding under the cows as this is a barrier to help prevent pathogens from making contact with the teats causing mastitis.

5.17 At the end of milking

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- 5.17.1 Update the Milker Action Sheet
- 5.17.2 Update the Observation Sheet
- 5.17.3 Inform the Lead Technician of new information on the Observation Sheet or any heats observed.
- 5.17.4 Wash the equipment and Milk House as per SOP DC-602 Milk House Post Milking Wash
- 5.18 Oxytocin administration for milk letdown:
 - 5.18.1 Must be approved by a technician or veterinarian.
 - 5.18.2 Oxytocin administered to a cow during milking MUST be entered in the Treatment Book in the Dairy Office

Document Status and Revision History

DATE	STATUS
7-Nov-2017	Version 02: MAC FACC approved
13-Sept-2020	Version 03: Deleted 4.10 Leg Band Color Legend 4.3.: Added Refer to DC-A-4D Leg Band Color Band Legend for Milking sequence.
2-Jun-2023	Version 04: MAC FACC approved