

PASTURE MOVES & MANAGEMENT

Aim: To assure clean, sanitary grazing, resting and lounging conditions for our cows.

Frequency: Minimum of twice per day at every AM and PM milking shift

When: Every day during the 8 month grazing season April-Nov

This SSOP Procedure Applies To: Every time the cows are moved to new grass

Procedures:

1. Open the pasture gate in the paddock corner closest to the barn and roundup the cows to milk.
2. Be sure all of the cows have left the pasture and are on the lane walking toward the barn.
3. Advance the front line tumbler wheels and fence 50-100 ft into new grass for the entire 1000 ft of pasture width. This gives the cows the reward of fresh lush grass immediately as they return from milking.
4. Close cow exit gate.
5. Open the next entrance gate in the pasture, following the pasture rotation direction, and leave it fastened open across the lane so that cows returning from being milked have no option but to enter the fresh paddock using a different gate than where they exited before milking.
6. Follow the last cows out to pasture after milking them.
7. Close the pasture entrance gate to assure that, between milkings, the cows have access only to the fresh clean grass and not to the lane.
8. Advance the back line tumbler wheels and fence 50-100ft. This keeps the cows off grass that is already grazed to avoid over grazing and moves them away from yesterday's manure.
9. Before leaving the cows, advance the front line 50 feet to give the cows new grass again.
10. While moving the cows to new grass, assure that at all times the cows have access to at least one, preferably two, 200 gallon water tanks and that the tanks are not on mud.
11. Observe the herd between milking shifts to determine when they need more grass. Move the front line according to their demands. Grass should not be grazed shorter than 4 inches.
12. Keep cows off the pastures and feed stored grasses at their barn feeding area any time that the wetness and softness of the pastures is such that the cow traffic would destroy the pasture grasses if they were left on it.

GROOMING OF FREE ACCESS STALLS

Aim: To assure clean, dry beds for our cows on the occasion when they choose to rest in the barn.

Frequency: Twice a day

When: Before every milking shift.

This SSOP Procedure Applies To: Every free-access stall bed every single milking shift.

Procedures:

1. Retrieve the free stall cleaning shovel from its storage location.
2. Start with the furthest free stalls and work stall by stall toward the milking parlor.
3. Remove all manure, urine, leaked milk or any other damp bedding from the stall mattress area completely with the shovel.
4. Throw the wet bedding into the alleyway to be removed from the barn with the skid steer.
5. Reach up to the front of the stall with the shovel to access clean dry bedding.
6. Bring a shovel full of dry clean bedding back and carefully cover all the spots on the mattress where manure, urine, milk or other wetness has been removed.
7. Move on to the next stall and repeat step 3-6.
8. When all of the stalls are properly groomed, return the shovel to its storage location to be ready for the next shift.

BARN ALLEY-WAY CLEANING

Aim: To assure clean walkways for when the cows come in to milk each day.

Frequency: Twice a day

When: While the cows are in the holding area waiting to be milked.

This SSOP Procedure Applies To: Each of the alleyways in the milk cow barns

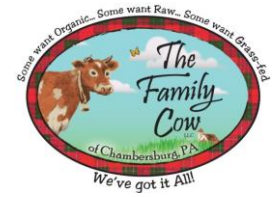
Procedures:

1. Assure that all of the cows have been brought in from the pasture.
2. Assure that the cows are in the holding area or in to be milked.
3. Assure that the free stalls have all been properly groomed.
4. Attach the rubber scraper to the front of the skid steer.
5. Carefully drive the skid steer into the barn.
6. Push the manure and soiled free stall bedding down each alley way and into the manure gutter with the skid steer.
7. When finished, disconnect the rubber scraper from the skid steer and park the scraper at the correct spot to be ready for the next shift.



SSOP

(Standard Sanitary Operating Procedure)



WATER BOWL CLEAN OUT

Aim: To assure our cows have an abundant supply of clean, fresh water.

Frequency: Weekly

This SSOP Procedure Applies To: Every stationery water trough and every movable pasture water tank.

Procedures:

1. Remove the plug to drain the tank of water.
2. Use a scrub brush to loosen sediment and dirt while the tank is draining.
3. Add a dash of chlorine and again scrub the sides and bottom of the tank with the brush.
4. Let the tank refill with 5-10 gallon of fresh water and flush out the remainder of dirt and chlorine.
5. Replace the plug to the tank.
6. (For pasture water tanks only): Slide the tank to a fresh grassy spot of pasture away from the drained water to avoid making mud.
7. Watch to be sure the cleaned tank is not leaking and is filling properly with fresh clean water.
8. Move on to wash the next water tank.
9. When finished with all of the water tanks on the entire dairy return the brush and other tools to proper storage locations to be ready for next week.

UDDER PREP PRIOR TO MILKING

Aim: To Prevent Bacterial Contamination of our Raw Milk During the Milking Process.

Frequency: Every single cow, twice per day

When: During every milking shift.

This SSOP Procedure Applies To: *Every Cow!... Every Milking!...Every Day!*

Procedures:

1. A fresh set of clean laundered clothes must be worn by milking crew every day.
2. A new pair of nitrile gloves must be donned before every milking shift.
3. The utility pouches worn by the milking crew must be washed and dried after every shift.
4. Brush loose dirt/sand/bedding off the teats with gloved hand.
5. Dip each teat completely with teat disinfectant. (4 cows in a row)
6. Wash the entire "Udder bottom" vigorously with the 1st disinfect cloth.
7. Strip 2-3 squirts of milk from each teat to visibly check for abnormal milk.
8. Wash "Udder bottom" again plus Teats and Teat Ends with a 2nd disinfect cloth.
9. Wash Teats and Teat Ends only with the 3rd disinfect cloth.
10. Carefully align and attach milker unit...(Take care to not touch dust, hairs or dirt.)
11. Assure that the cow has finished milking.
12. Dip each teat again completely with teat disinfectant and skin conditioner.
13. Release the cow to pasture.

EMPTY JUG STORAGE AND LABELING

Aim: To avoid bacterial contamination of our empty raw milk jugs.

Frequency: Every day.

When: Every time empty jugs are handled.

This SSOP Procedure Applies To: Everyone working with empty milk jugs every time.

Procedures:

1. Empty sleeves of jugs shall be stored in their sealed original bags in the designated sanitary jug storage area.
2. Persons labeling must ALWAYS have clean, freshly laundered clothes.
3. NEVER label jugs after:
 - Catching Chickens
 - Feeding Chickens
 - Gathering Eggs
 - Washing Eggs
 - Feeding or Working with Calves
 - Working with or Milking Cows
 - Weighing and Labeling Fresh Meat
4. If the above jobs are also your responsibilities, ALWAYS do the jug labeling FIRST!
5. Wash hands and arms from elbow down with soap and water and dry well.
6. Wash labeling table with a wash cloth and mild disinfect solution. (Orange disinfect is fine)
7. Dry the table well with paper towels.
8. Jugs that fall on the floor while labeling must be discarded. Please be very careful to not drop jugs!
9. Return labeled jugs to the original plastic bag.
10. Seal the bag with a twisty tie and store the jug bags on pallets near bottler to await filling.



SSOP

(Standard Sanitary Operating Procedure)



BOTTLING PROCEDURES- PAGE-1

Aim: To assure clean, sanitary conditions and consistent bottle filling practices to avoid possibility of contamination during bottle filling.

Frequency: Every Monday, Wednesday and Friday and other days occasionally on demand.

When: Immediately after the AM milking shift is finished.

This SSOP Procedure Applies To: Every Bottle Filling Time

Procedures:

Clean Clothes For Bottling Crew. Each of the bottling crew must:

1. Arrive at work with freshly laundered clothes.
2. Bottling must always be done first before any possible work with animals.
3. Don clean, white bottling-room-only boots.
4. Don clean white bottling-room-only coats.
5. Don a fresh pair of nitrile gloves.

Sanitize Equipment and Bottling Room

1. Move dial on CIP control panel to 'Sanitize.'
2. Place filter in line.
3. Fill sanitizer bucket with warm water and sanitizer solution.
4. Use brush and the warm water to sanitize complete bottling system.
5. Use brush and the warm water to sanitize tables.
6. Use the sanitize water to sanitize entire floor of bottling room.

Assemble Filler Nipples

1. Collect all filler nipple hardware from the CIP wash vat.
2. Insert the SS filler stems into the filler tank and turn ¼ turn to lock.
3. Put locks on, flat side down.
4. Turn on filler to rotate the filler tank to assist in installing all parts.
5. Assemble drip ring with rubber washer big side up.
6. Assemble big rubber parts and slide them on the SS filler stems.
7. Place SS caps on the SS filler stems... TURN SLOT TO CENTER.
8. Snap "O" rings on bottom of SS filler stems.

BOTTLING PROCEDURES- PAGE-2

Prepare the Filler Tank

1. Put the freshly sanitized SS lid on the filler tank.
2. Install the short SS fill pipe for the tank.
3. Install the backflow preventer valve in the correct position.
4. Connect the milk pipeline to the filler tank and tighten clamps.

Connect the Filler to the Bulk Milk Tank

1. Detach wash line pipe from pump and attach milk line to the milk pump.
2. Open bulk milk tank valve and assure strong milk flow to pump.
3. Flip control switch from *WASH* to *FILL*.
4. Assemble star wheel system with size ID up.
5. Use cranks to adjust filler, cap stomper, and cap chute for the jug size being filled.
6. Adjust guide rails for the jug size.
7. Assure that the capper switch is turned to ON.
8. Position empty labeled and dated jugs on the conveyor.
9. Start the jug conveyor.
10. Start the filler and monitor and manage constantly for proper operations.

Food Safety During Bottling.

1. All milk crate handling is **ONLY** by the person working with filled and capped jugs.
2. Crates with filled jugs must be moved immediately to the walk-in cooler.
3. If the bottling crew needs to touch anything during bottling other than the sanitized bottling equipment, (like tools, cell phones, Leathermans etc.) they shall re-sanitize their gloves before resuming bottling.
4. If any jugs are not capped properly by the auto capper, hand cap them and set those jugs aside in the cooler in orange crates segregated for Shank family use.

Switching Jug Sizes from Small to Large: ALWAYS!

1. Raise the cap stomper **FIRST**.
2. Raise the cap chute **SECOND**.
3. Install the new size star wheel assembly.
4. Re-sanitize gloves before starting back up with the new size.



SSOP

(Standard Sanitary Operating Procedure)



BOTTLING PROCEDURES- PAGE-3

To Shut the Filler Down

1. Hold back the last 20 empty gallon jugs,
2. Fill the allotment of gallons except the 20 saved back.
3. Pause the filler to allow the filler milk vat to fill completely
4. Shut the valve on bulk tank.
5. Restart the filler to fill the last 20 gallons.
6. When the filler pump begins to run constantly, open the milk line at the bulk tank just enough to release the line vacuum.
7. Place any partially filled jugs in orange crates segregated for Shank family use.

Filler Disassembly and Clean-Up

1. Disassemble the equipment following the assembly steps in reverse order.
2. Place all the rubber and SS parts in the CIP wash vat.
3. Reconnect all the milk lines back into CIP wash position.
4. **Assure that the pump switch is NOT on SP1!**
5. Move the CIP wash dial to the START position.
6. While the CIP system is washing, use the wash solutions to hand wash all parts on the bottler that are not included in the CIP system.
7. While hand washing the non CIP parts, be constantly vigilant to observe and document that every cycle of the CIP system functions properly.
8. Use the CIP wash waters to fully wash down and re-sanitize the bottling room floor.
9. Change out of white bottling coat and boots. Put coat in the dirty laundry storage area.

Be Clean!... Be Responsible!... Be Safe!.... The Family Cow families trust us!

Edwin Shank-----

Recommended Filler Speeds

Gallons - Filler Speed: 18 & Pump Speed: 41
Half Gallons - Filler Speed: 32 & Pump Speed: 39
Pints - Filler Speed: 55 & Pump Speed: 20