BC Farm Standard Sanitary Operating Procedure (SSOP)

Standard Sanitary Operating Procedure (SSOP) is the procedure I follow on my small farm in B.C. ensuring the milk and milk products I produce are (a) safe to consume and (b) of the highest quality.

**Herd Health:**

The closed herd is tested yearly for CAE and Johne’s. Blood is drawn on-site and sent to the veterinarian. No other goats are allowed onto the property. The doe is taken to the breeder for breeding. The breeder also tests for CAE and Johne’s. If one of the goats were to test positive for any of the known goat diseases, our farm would be in lock-down and appropriate measures would be taken. Refer to farm CPP (Critical Control Points) document.

Herd testing procedure:

1. Draw blood from each goat with a 21 gauge needle and 5 cc syringe.
2. Deposit into a 5 ml red-topped non-additive glass blood collection tube.
3. Label the vial with the date and goat’s name.
4. Keep the vials refrigerated until shipping. Within 24-48 hours.
5. Package vials according to Veterinary specifications.
6. Ship using Canada Post’s Priority mail service.
7. Await email results.

Herd tests include:

CAE and Johne’s. CL is checked if an abscess is suspected and a sample drawn by a vet at that time.

Herd health:

1. Trim hooves and monitor weight every six weeks.
2. Have fecal tests twice a year. More if deemed necessary. Administer appropriate treatment and dosage if required.
3. Provide all pregnant or milking does Dairy text and alfalfa pellets as well as alfalfa hay.
4. Provide all goats with alfalfa pellets and alfalfa hay.
5. Provide all goats access to indoor shelter and outdoor access.
6. Provide all goats with access to fresh alfalfa, fresh water, minerals, baking soda and salt block.
7. Provide goats access to the loafing area in winter or very wet conditions, and/or one of the two rotating paddock areas during the rest of the year.
8. With regard to water:
9. Water buckets are cleaned daily.
10. Water is changed at least twice, but usually three times a day. During the summer this is often more often. During winter, warm water is brought from the house.
11. Goats are given a yearly CDT vaccine. Kids are given two shots. One at 2 weeks of age and the second at 8 weeks of age.
12. Does are shaved during milking season. Underbelly, udder, and inner hind legs to reduce contamination.
13. Herd is tested yearly for Johne’s and CAE.

**Veterinary Services:**

There are a number of eminently capable people I can call upon in case of an emergency. I do however:

1. Speak with my vet on a regular basis and have a good working relationship with him.
2. Continue bi-annual fecal counts. Spring and Fall. To date, wormer has not been necessary as I have, in effect, a dry lot situation once the blackberry is eaten in the paddocks. The area is hot and dry during the summer months. The goats are not on pasture.
3. Contact the vet upon any illness or suspected illness.

**Mastitis Control:**

Goat’s body conditions are checked daily for any abnormalities, swelling, sores, etc. In a lactating doe:

1. Inspect udder thoroughly by sight and hand.
2. Check for the following signs/symptoms:
3. Tenderness
4. Swelling
5. Lumps
6. Spongy/hard udder
7. Heat
8. Discoloration of milk
9. If mastitis is suspected, conduct a California Mastitis test.
10. If the mastitis test is positive, immediately discard milk.
11. Begin mastitis treatment together with consultation from the vet.

**Goat kids:**

This year’s kids were kept with Iris. Their weights were monitored and once it was clear they continued to thrive, at about 8 weeks of age, they were separated into one stall at night and Iris was milked the following morning. This dam-sharing allows the kids to nurse during the day.

In future, if a single kid, it will be kept with the doe. If two or more kids are born, they will be housed separately and fed via milk-bar.

1. By separating the kids from the dam, health of them all can be checked and/or the daily routine modified and precautions taken.
2. Due to the size of the property and to ensure herd health, there will only be two mature animals on the property at a given time. Future kids will be sold.
3. Monitor dam tolerance to kids. It became clear early on that Iris is not keen to have the kids nurse. Perhaps this is a first-freshener trait – or not.
4. Monitor Iris at next kidding. Be open to separating the kid(s) and using a lamb-bar if necessary.
5. If separating future kids is necessary, make an entry/exit off the second stall into a secure outdoor area for the kids.
6. Monitor kid health and feed. Treat and adapt if and when necessary.
7. Keep barn and stalls as clean as possible so kids don’t ingest feces.

**Facility and Maintenance:**

This small herd of goats varying between 2-4 animals has a barn area of two stalls, a three-sided lean-to loafing area allowing outside access with protection from wind and weather, two paddocks which can be alternated, and a wider area available to them at different times of the year.

1. One stall is used as a kidding stall when necessary.
2. There is a salt block attached to the wall in the loafing area.
3. There is an on-demand mineral and baking soda feeder in the stall.
4. There is a large hay-rack in one stall and a corner hay bin in the second stall.
5. The stalls are connected with a stall door which can be either latched open or closed.
6. Feeders can be attached in each stall as needed.
7. Stall bedding is changed twice weekly.

Maintenance to stalls and building is done on an as needed basis.

**Biosecurity:**

Farm visitors who have been at other farms are asked to spray Virkon solution as outlined on the Virkon tablet label. This solution is refreshed on a regular basis.

1. Visitors are not allowed on the property without prior arrangements.
2. No-one enters the barn or poultry areas without prior permission ensuring they are wearing clean footwear and clothing.
3. No animals are allowed on the property. If new animals are brought onto the property they are quarantined for the appropriate length of time in appropriate shelter and designated area.

**Water and facilities:**

There is currently no running water to the barn. Water is brought from a nearby outside tap attached to the house. Water is provided to the house by a drilled well. It enters the house and goes through a series of filters and a UV lamp ensuring safe water quality. The filters are changed quarterly, the UV lamp yearly.

1. The barn has gutters and drainage.
2. Shavings are used as bedding in the two connected stalls. The bedding is changed twice weekly ensuring there is no buildup of urine or feces.
3. The outdoor area is cleaned at the same time ensuring no buildup of material outside the Dutch doors or lean-to area.
4. Shavings are removed to one of two manure outdoor manure bins.
5. All feed and water buckets are cleaned daily.
6. Fresh water for the goats is brought at least twice, normally three times daily from the outside tap. During the summer and hotter weather, buckets are checked more frequently. During the winter months when the conditions are such, the water buckets may be filled from the laundry room sink and is usually warm, not cold.

**Milking station cleanliness:**

The milk station is positioned between the goat stalls to the right and the chicken enclosure to the left. The chickens are housed in ½ inch hardware cloth and never enter the centre milking and feed storage area. Feed is stored in metal garbage bins and lids are sanitized before each milking session.

1. The milking area is swept twice daily after milking.
2. The entire area is deep cleaned twice weekly after the stalls have been cleaned; usually Wednesday and Sunday. This entails: sweeping the floors and wiping down the milking stand, feed bins, feed buckets, shelving and other surfaces with sanitizing solution in hot water.
3. Upper Dutch door from one stall is always open during the day. There is also a large ½ inch hardware cloth covered window in the second stall. A 3’ X 2’ opening covered with ½” hardware cloth is located above the enclosed chicken housing. This ensures adequate ventilation in the building. Dutch door is closed at night. The window can be closed in severe weather conditions as can the opening above the chickens.
4. No animals are allowed in the milking area unless it is the doe and is milking time.
5. Any urine or feces on the milk stand or area are cleaned immediately.
6. All items in this central area are to be properly maintained and placed in their spot.
7. Follow milking area protocols to maintain sanitary conditions.

**Daily Milking Routine:**

Cleaning and hand milking schedule:

Same routine applies whether milking once a day or twice a day

Ensuring all items used are clean and sanitary before use and cleaned at the end of each milking.

1. **Manual gathering of items needed for either morning or evening milking**
2. Get two large cold packs from the dedicated shelf in the refrigerator freezer and place in the Igloo cooler. Get the three smaller cold packs from the dedicated shelf in the freezer and place between the two larger packs. Fill the cooler 2/3 with cold water. Close the cooler lid.
   1. The Igloo cooler is disinfected weekly. This entails spraying with sanitizing solution both inside and out paying attention to corners and lid, then drying with clean paper towels. Cooler packs are wiped down after each use and placed on the dedicated shelf in the refrigerator’s freezer compartment.
3. Spray counters, sinks, taps and surrounds with peroxide (1TBSP per 500 ml water) and wait three minutes as per sanitizing instructions before wiping down. Place two clean cloths on counter. One on top of the other.
4. During the three minutes, get the sterilized large clear tote ready. In it place:
   1. Seamless stainless steel milking pail
   2. Container of sanitizing soap solution and hot water with three clean cloths: one cloth for each teat and inside leg, one cloth for udder. Ensure lid is securely fastened.
   3. Sanitized teat dip cup
   4. Three dry cloths: one for drying each teat and inside leg, one to dry the udder.
   5. Two pieces of paper towel for excess teat dip, one sheet of two pieces paper towel to put milk bucket lid upon, one sheet of three pieces paper towel to put on milk stand in front of hind legs where the milk pail will be placed during milking.
   6. Securely snap sanitized tote lid onto tote ensuring no debris can fall into tote on the way to the milking area.
5. Place hot water, 1TBSP sanitizing solution, and two cloths into the red bucket. The first cloth is used to wipe down the bin lids and freezer prior to milking and the second cloth is used to wipe down the black rubber milk stand mats after milking. This is the only purpose for this red bucket.
6. Place the sanitized yellow bucket on top of the clear tote. All cloths used during the pre and milking period are placed in this bucket.
7. Wipe down the sprayed counters with one of the clean cloths. Deposit cloth in washing machine.
8. Fill the right-hand sink with cool water adding 1/2 TBSP Dairy Utensil Cleanser to the water.
9. Put bleach bottle beside the left-hand sink in preparation for filling with hot water upon return from milking.
10. Put 1 piece (two sheets) paper towel and 1 piece paper towel on counter. Place sterilized milk filter, sterilized glass jar and sterilized jar lid on the larger piece of paper towel placing the single piece of paper towel over the milk filter and jar lid ensuring debris cannot fall into/onto them.
11. Bring tote with milking things and red bucket to the barn.
12. **In the barn and pre-milking prep**
13. There are four silver garbage bins in the barn. Place the red bucket on the bin lid when you enter. Take one of the cloths and wipe down the other three bin lids and the top of the white freezer.
14. Place the clear plastic tote with the milking equipment on the freezer.
15. Take Iris’ feed from the first bin and put it in her feed bucket on the milk stand. Replace feed container and put lid back on bin.
16. Move clear tote to second bin.
17. Take a pair of latex gloves from the clear tote on the shelf.
18. Let Iris out of the stall. Latch her into the headstall of the milk stand.
19. Check Iris’ body condition any abnormalities, udder health: heat, swelling, tenderness, tightness, sores, lumps. If all good, proceed to milking.
20. Put on latex gloves.
21. Open the clear tote.
    1. Place lid inside facing up.
    2. Place milk pail, teat strip cup, drying cloths and paper towel onto the clean lid surface.
    3. Open the container with the hot sanitized water with three cloths inside the tote.
22. Take one cloth at a time wiping each teat and the inside of the same leg, the third cloth is for wiping between each teat and the rest of the udder.
23. Take one cloth at a time drying each teat and the inside of the same leg, take the third cloth and dry between each teat and the rest of the udder.
    1. Take teat dip from shelf and dip each teat with solution. Wait 30 seconds.
    2. Take teat strip cup and take five squirts from each teat examining milk between each ensuring there are no signs of clumping, discoloration, or indications of potential mastitis.
24. If there are signs of mastitis, take California Mastitis test kit and solution from the shelf and take samples. If positive for mastitis, follow Mastitis Control protocol.

ii) If all clear, begin hand milking.

1. **Begin with hand milking**
2. Lay paper towel (with three sheets) on the milk stand in front of hind legs.
3. Lay paper towel (with two sheets) on upturned tote lid.
4. Place milk bucket lid on this paper towel.
5. Place milk bucket in front of hind legs taking care not to rub her legs or body with the bucket.
6. Hand milk directing milk stream into centre of the bucket.
7. Any contaminants in the milk guarantee the milk is discarded and the bucket immediately sanitized.
8. Once completed, immediately put lid on the milk bucket and place on top of sanitized freezer.
9. Dip each teat with teat dip. Do not touch teat. Allow to air dry.
10. Return Iris to stall.
11. Place strip cup in clear tote. Place lid on tote.
12. Collect paper towels and gloves. Put in dirty cloth bucket. Place on top of clear tote.
13. **Inside prep**
14. Gather clear plastic tote and milk bucket, take inside.
15. Place milk bucket on paper towel near kitchen sink.
16. Place yellow cloth bucket on washing machine.
17. Place clear tote on counter near laundry room sink.
18. Soiled paper towel and gloves go in the garbage.
19. Soiled cloths in the washing machine.
20. Take teat dip container with cloths. Place cloths in washing machine, container in the sink.
21. Wash hands.
22. **Washing and bottling**
23. Start filling left side of sink with hot water and 1 TBSP bleach per gallon of water.
24. Place teat strip cup in dairy cleanser solution.
25. Remove milk bucket lid. Place in washing solution.
26. Remove cling film from sanitized milk bottle.
27. Remove paper towel covering sanitized milk filter.
28. Place sanitized filter on bottle. Slowly pour milk from bucket into milk filter.
29. Immediately upon filtering, place sanitized plastic lid on jar and place in the Igloo cooler. Jar remains in cooler for 90 minutes. Then, label and store according to age in the dedicated dairy refrigerator (small black one).
30. Fridge temperature held between 38-40\*F. Never over 40\*F.
31. Oldest milk stored on left-hand side.
32. Once per month fridge is cleaned and sanitized from top to bottom, inside and out.
33. Wash teat strip cup, milk filter, filter ring, milk bucket lid and bucket.
34. Rinse in hot bleach water. Place on rack to air dry.
35. Empty sinks. Spray counters, sinks, taps with peroxide. Wait three minutes then rinse.
36. Go to laundry room sink. Fill with hot soap/bleach water and wash teat wash container, place aside to dry.
37. Wash clear tote lid front and back and clear tote. Set upright on clean cloth to air dry.
38. Wash yellow cloth bucket. Set upside down to dry on clean cloth.
39. Daily wash all cloths in the washing machine with bleach and hot water setting.
40. Wash hands.

The intention is to purchase a portable dishwasher with a sanitizing feature.

1. **Return to barn for final wipe-down**
2. Brush any debris off milk stand and step-stool.
3. Sweep barn.
4. Take second cloth from the red bucket holding sanitizing solution and wipe down rubber mats on step-stool and milk stand.
5. Take bucket and empty water. Place cloth in washing machine.
6. **General health of myself or others on the property**
7. No-one enters the property if they are ill. The continued good health of my animals and my livelihood depends on my remaining healthy.
8. Anyone entering the property who has farm animals is required to guarantee they have clean clothing, ie not their farm clothing, and either dip or spray the soles of their shoes with the Virkon solution ensuring there is no transfer of disease from their farm to mine.

**Milk Testing Procedure:**

The procedure I follow to take the sample is according to BC Fresh Milk Research Project recommendations:

**Before sampling:**

1. Use the sterile plastic bottles.
2. Do NOT wash out the powder in the bottle.

**Filling the sample bottle:**

1. Jar and chill your milk as usual.
2. Once the ilk is at the temperature and the time after milking at which the herdshare members would normally pick it up from the farm (“The end product”), take a jar and fill the sample bottle with milk to the 200 ml. fill-line. You can use a clean Pyrex measuring cup. PERSONAL NOTE: I do not have herdshare. Milk is for soap-making and personal use only.
3. Close the cap tightly.
4. Apply a bottle label which has your farm number.

**Packing the sample for shipping:**

1. Freeze half-filled pop bottle with water to create an ice-pack. Squeeze some air out so it doesn’t bulge when it freezes. OR, freeze an ice pack.
2. Line a cardboard box with newspaper.
3. Insert sample bottle with the ice-pack around it. Pack in more newspaper.
4. Take the Chain of Custody form and fill it in, recording the date and time of the milking.
5. Pack all together in the box.
6. Close box and tape shut.

Report milk test results to the Raw Milk Institute.