

# Procedure for the Collection of Mastitis Samples



## Collection Procedure

### 1. Label Vials

Label vials prior to sampling (date collected, farm name, cow ID, quarter) with a waterproof marker.

### 2. Clean Teats

Using a hand or dry paper towel, brush loose dirt, bedding, and hair from the gland and teats. Grossly dirty teats and udders should be washed and dried thoroughly before proceeding with sample collection. Udders should be washed as a last resort.

### 3. Forestrip

Discard a few streams of milk from the teat (strict foremilk) and observe milk and gland for signs of clinical mastitis. Record all observations of clinical signs.

### 4. Predip

Predip all quarters in an effective predip product and allow 30 seconds contact time.

### 5. Dry Teats

Dry teats thoroughly with a clean, dry paper towel.

### 6. Alcohol Scrub

Beginning with teats on the far side of the udder, scrub teat ends vigorously (10–15 seconds) with cotton balls moistened (not dripping wet) with 70% alcohol. When cotton balls are saturated with alcohol, simply squeeze out excess alcohol prior to use. Use as many cotton

balls as necessary to clean the teat ends.

Teat ends should be scrubbed until no more dirt appears on the swab or is visible on the teat end. A single cotton ball should not be used on more than one teat. Care should also be taken to avoid clean teats coming in contact with dirty tail switches, feet, and legs. When cows are not cooperative, begin by scrubbing the nearest teat until clean, obtain the sample, and move to the next teat.

### 7. Sample

To collect individual quarter milk samples, begin sample collection from the nearest teat and move to teats on the far side of the udder — the reverse order from cleaning. To collect the sample, remove the cap from the tube or vial but do not set the cap down or touch the inner surface of the cap. Always keep the open end of the cap facing downward. Maintain the tube or vial at approximately a 45° angle while taking the sample. Do not allow the lip of the sample tube to touch the teat end. Collect one to three streams of milk and immediately replace and tightly secure the cap. Make sure milk entering the tube does not touch fingers or hands. Two to three ml of milk is generally a sufficient sample size, and there is seldom a need to collect more than 5 mL. Sample vials should never be filled more than 3/4 full. Large volume samples are not required and increase the risk of contamination.

To collect a composite sample (milk from all four quarters in the same tube), begin sample collection with the nearest teats and progress to the teats on the far side of the udder. A representative sample (1 to 2 mL) should be collected from each quarter of the udder. There is greater risk of contamination of composite samples because tubes are open for a longer period of time.

## 8. Teat Dip

When samples are taken at the end of milking or between milkings, teats should be dipped in an effective germicidal teat dip following sample collection.

## 9. Storing Samples

Milk is an excellent growth medium for bacteria, please do not place milk samples for culture on a warm surface for any significant period of time. Immediately cool and store samples on ice or refrigerate them for transportation to the laboratory. Samples which cannot be processed within 24 hours of collection should immediately be frozen in a frost-free freezer.

**Please note, the sensitivity of the laboratory tests (the ability to recover bacteria) may be impacted by prolonged freezing of samples.**

If three or more different bacteria are isolated from a sample, it will be reported as contaminated as per the National Mastitis Council Guidelines.

A re-sample would be recommended.

Sterile sample vials are available free of charge from the lab. Please call to arrange for shipping or pick-up.

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