

Collecting milk samples for culture

Sterile collection is the most important step for successful culturing of milk samples. Poor technique will give misleading results and resampling will be required. A good technique involves planning ahead and some patience.

EQUIPMENT REQUIRED

- Sterile sample bottles. You can obtain these from your ProDairy vet. Sterile collection requires using only sterile bottles
- A marker to label the bottle
- Disposable gloves
- Paper towels
- Cotton balls / gauze swabs soaked in 70% alcohol, or pre-prepared teat wipes
- A cooled esky

THE PROCESS

1. LABEL THE BOTTLE

- Unlabelled samples are useless, so make sure you identify the sample before collection
- Clearly label details of the sample:
 - > The date, your name, the cow's ID, the quarter samples, and why the sample was collected: eg. clinical mastitis or positive rapid mastitis test

2. RESTRAIN THE COW

- Sometimes this is difficult in the dairy
- Another person providing a 'tail jack' can be helpful

3. WASHING AND DRYING OF TEATS

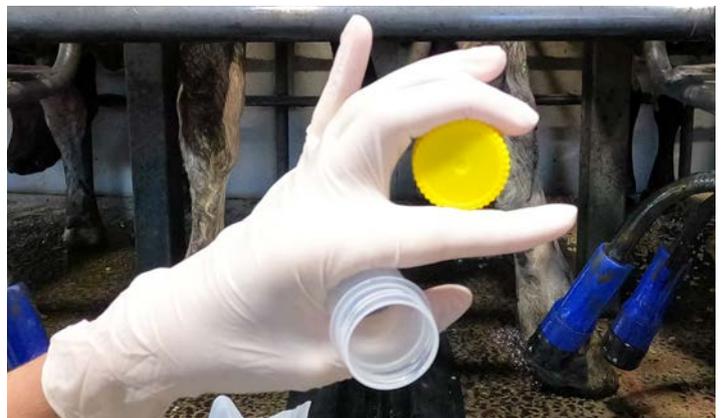
- Put on disposable gloves
- It is only necessary to wash excessively dirty teats with clean running water
- Avoid wetting the udder too much as it is difficult to dry
- Always dry the teats thoroughly with clean paper towel

4. COMPLETELY DISINFECT THE END OF THE TEAT TO BE SAMPLED

- **This step is critical.** If you are sampling more than one teat, disinfect the ones furthest away first. This reduces the risk of unintentionally contaminating an already disinfected teat
- Disinfect by vigorously wiping the teat opening with a cotton ball/ gauze swab soaked in alcohol or pre-prepared teat wipes for a minimum of 10 seconds
- If there is any dirty colour, repeat the scrub using a clean cotton ball, swab or wipe until there is no more dirt seen

5. GET THE STERILE BOTTLE READY

- Remove the cap and place with the inner surface downwards between your index and middle finger (see photo)
- Do not touch the inside surface of the cap or bottle
- Establish the direction of flow from the teat
- Squeeze the first couple of squirts of milk onto the ground to help remove any contaminants that might be just inside the opening of the teat



6. COLLECT THE SAMPLE IN THE BOTTLE

- Hold the bottle at an angle (to avoid anything falling into it) at least 3–4 cm from the end of the teat
- Squirt 2–4 mL of milk into the bottle. Only a small amount of milk is required for culture – trying to get a large sample increases the chance of contamination
- If you are collecting a combined sample from all quarters, move the bottle away from the first teat and repeat the initial squirts of the next teat before moving the bottle back. Take the first samples from the teats closest to you. Try to get the same amount from each teat. (Note: a combined sample from all quarters may be less likely to grow bacteria because milk from one infected quarter is diluted by milk from potentially uninfected quarters)
- Replace the cap tightly and place the sample upright in the cooled esky
- Wash your hands after each cow and dry on paper towel

7. DELIVER TO THE VET CLINIC THAT DAY OR FREEZE UNTIL DELIVERY IS ARRANGED

- Samples for mastitis culture can be frozen and stored before being sent to the laboratory
- Frozen storage of more than four weeks reduces the chance of obtaining a positive culture result

Source: Countdown Farm Guidelines for Mastitis Control 2018