

## RUM\_032 Collection of vaginal or preputial samples using Tricamper sampling tool

### I. OBJECTIVE

To describe the safe and effective collection of vaginal mucus from adult heifers and cows, or preputial smegma from bulls using a tricamper sampling tool. Samples are most commonly used for culture to assess for the presence of *Campylobacter fetus subsp. venerealis* and *Tritrichomonas foetus* in bulls and *C. fetus subsp. venerealis* in heifers and cows.

### II. DEFINITIONS

**Competent** - “the consistent application of knowledge and skill to the standard of performance required regarding the care and use of animals. It embodies the ability to transfer and apply knowledge and skill to new situations and environments.” (as per, Australian code for the care and use of animals for scientific purposes, 2013)

### III. COMMENTS / RECOMMENDATIONS

- Cattle must be restrained using appropriate methods, taking into account the animal’s temperament and the procedure being performed. A rear end kick gate should be used for cows and heifers, while a split side panel should be used for bulls.
- As per routine the conditions (see document footer) this procedure must be performed by, or under the direct supervision of, personnel who are competent to perform the procedure.
- The Tricamper™ sampling tool is a 60 cm long polyethylene tube with a hollow lumen and corrugated sample tip/head (pictured below). When agitated across mucosal membranes sample material is collected within the corrugations and within the lumen at the distal end of the tool. After a sample has been collected, the lumen of the tool must be blocked with a finger (at the handle end), and the tool handled in a steady/controlled manner, as the sample can otherwise be lost before it is placed into the sample media (e.g. dribbled out of the lumen, or flicked off the end of the tool).

### IV. EQUIPMENT

- Tricamper™ sampling tool (pictured below)



- Saline diluent
- Gloves
- Side-cutters

*Sample kits are available which contain a sampling tool and saline or Trichomonas medium*

### V. PROCEDURE (cows and heifers)

1. Hold the vulva open with one hand

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2. Insert the tip of the Tricamper sampling tool into the vagina. The tool should be inserted on a slight angle (dorsocranial) so that the tip of the tool is proximate to the dorsal surface of the vagina, avoiding the urethra (located ventrally within the vagina).
3. Advance the sampling tip past the point of the urethral and then correct the angle of the tool (to be horizontal) so that the tip can continue to be advanced in a cranial direction towards the cervix.
4. Once at the sampling tip reaches the cervix (identified by resistance) gently move the Tricamper tool back and forth within the vagina.
5. Block the end of the tool with your finger and withdraw the tool from the vagina.
6. Insert the sample tip into the saline diluent (or sample media), with the Tricamper's handle elevated in the air. Remove your finger from the handle-end of the tool and let the sample run out into the saline diluent. Use side-cutters to cut the black head off the Tricamper tool, letting the sample tip drop into the saline diluent.
7. Seal the sample tube containing the saline diluent and sample tip of the Tricamper tool.

## VI. PROCEDURE (bulls)

1. Prepare the prepuce for sampling - clip hair and other material from around the preputial orifice. Do not clean with disinfectants as this may reduce diagnostic sensitivity.
2. Hold the distal aspect of the preputial sheath with one hand, and using the other hand insert the Tricamper tool into the prepuce.
3. Advanced the sample tip within the prepuce to the point that it is adjacent to the penis, and then gently move the Tricamper tool back and forth, so that it scrapes across the preputial mucosa and surface of the penis.
4. Block the end of the tool with your finger and withdraw the tool from the prepuce.
5. Insert the sample tip into the saline diluent (or sample media), with the Tricamper's handle elevated in the air. Remove your finger from the handle-end of the tool and let the sample run out into the saline diluent. Use side-cutters to cut the black head off the Tricamper tool, letting the sample tip drop into the saline diluent.
6. Seal the sample tube containing the saline diluent and sample tip of the Tricamper tool.

## VII. REFERENCE MATERIAL

NSW DPI, 2021. Sample Collection Guide: Collection of samples from bulls and cows for culture of *Campylobacter fetus* and *Tritrichomonas foetus*. Available via:

[https://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0007/800692/SCG-003-Camp-and-Tritrich-cult-2021.pdf](https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0007/800692/SCG-003-Camp-and-Tritrich-cult-2021.pdf)

QLD GOV. DAF, 2018. Biosecurity Sciences Laboratory Form BSL Gen-002: Bovine Infertility – Sample Collection – Culture / PCR [*Campylobacter fetus* subsp *venerealis* and *Tritrichomonas foetus*] Available via:

[https://www.daf.qld.gov.au/\\_data/assets/pdf\\_file/0004/277753/Tricamper-sampling-handout.pdf](https://www.daf.qld.gov.au/_data/assets/pdf_file/0004/277753/Tricamper-sampling-handout.pdf)

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1	PCA	16/03/2022	16/03/2022

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