



SOP 6.06 – Artificial insemination of the mare

Version and Date of Issue: Ver 2, February 2024
Written by: Scott Norman and Marion Kater
Review due date: January 2027

Purpose

- (1) The objective of this Standard Operating Procedure (SOP) is to provide guidance to the Charles Sturt University Staff on:
 - a. Artificial insemination in the mare using fresh, or freshly chilled semen.

Scope

- (2) This procedure applies to any person who is involved in AEC approved projects involving artificial insemination of the mare using fresh, or freshly chilled semen.
- (3) All researchers and teaching staff using animals for scientific purposes must be competent. For definition of competency refer to Charles Sturt University's Policy on 'Animal Care Competency Training and Assessment'

Details of procedure:

- (4) Closed-in boots must be worn when carrying out this procedure. Prior to starting, the mare is restrained in a crush to reduce movement and to minimise the chance of injury to the mare or the inseminator. The mare may be sedated if required.
- (5) Wrap the mare's tail using a clean tail wrap and tie it out of the way with a quick release knot.
- (6) Clean the mares anus, perineum and surrounding areas thoroughly using the standard operating procedure for cleaning the equine perineum
- (7) Once the semen is ready (for frozen-refer to standard operating procedure - thawing frozen semen or drawn up if fresh/chilled-refer to standard operating procedure - collecting semen from the stallion), it is drawn into a non-spermicidal syringe.
- (8) The inseminator now prepares for entry into the reproductive tract of the mare. This involves placing a clean long palpation sleeve on, ensuring it touches no surfaces. A sterile surgical glove is then pulled over the top of the palpation sleeve to reduce the chance of contaminating the uterus.
- (9) Once the inseminator is gloved up, he/she will draw out the insemination pipette from its sterile package and gently cup the end which is to enter the mare in the palm of their sterile glove.
- (10) A non-spermicidal lubricant is then applied to the back of the inseminator's hand ready to enter the mare's reproductive tract.
- (11) With the non-sterile hand, the inseminator parts the vulval lips (with assistance from another person) and gently enters their hand into the vestibule rotating it slightly when entering to spread lubricant around the circumference of the vulva and the vestibule.
- (12) Once within the vagina, the inseminator advances his/her hand towards the cervix to identify the external cervical ostium.
- (13) Once identified, the inseminator's index finger is introduced through the cervix and is used as a guide to pass the tip of the insemination pipette into the uterus.
- (14) Once the tip of the pipette is within the body of the uterus, the inseminator's index finger is removed and the fingers are then used to hold the external ostium of the cervix closed, ensuring no outflow of semen from the uterus.



SOP 6.06 – Artificial insemination of the mare

- (15) A syringe containing the insemination dose is then attached to the external opening of the pipette and the semen is pushed through the pipette into the uterus. Approximately 5 mL of air is then pushed through the pipette to ensure semen is fully evacuated from the pipette into the uterus.
- (16) While still holding the external ostium of the cervix, the inseminator removes the pipette and passes it to an assistant for disposal.
- (17) The tail of the mare is immediately untied and unwrapped, and the horse handler is instructed to take the horse out of the crush as the inseminator's hand is withdrawn from the vagina.
- (18) The mare is then walked for approximately two minutes to ensure that she does not attempt to expel semen from her uterus by straining.

Drugs, chemicals, or biological agents

- (19) Semen, or milk-based extender is used for the practical training.
- (20) Sedation may be used for this procedure. This may include xylazine or acepromazine.

Impact of procedure on wellbeing of animals

- (21) This procedure causes minimal, or no impact on animal well-being.
- (22) Abattoir specimens can be used for initial training.

Animal care

- (23) Mares should be observed for signs of discomfort for up to 30 minutes after the last procedure.

Pain relief

- (24) Pain relief is not required for this procedure. Sedation may be used if the mare is restless.

Reuse and repeated use

- (25) Animals may be inseminated on up to 4 occasions at five-minute intervals.

Qualifications, experience or training necessary to perform this procedure

- (26) Demonstrator: Theriogenologist / Veterinarian having experience with these procedures. Thorough knowledge of the physiology, endocrinology and anatomy involved.
- (27) Students: Prior experience with handling horses and background knowledge of anatomy, physiology and endocrinology is desirable. Procedures should be clearly demonstrated before students attempt them and they should do so under supervision from a competent individual.
- (28) Recommended instructor to student ratio (1:<16)

Record requirements

- (29) Details of all equine use including procedures should be reported to the technical staff for documenting on Ardex software.



SOP 6.06 – Artificial insemination of the mare

Associated documentation (including pictures if available)

(30) None required.

References and relevant links

(31) None required.