



**Australian Government**

# **AHCAIS303 Artificially inseminate livestock**

**Release: 1**

# AHCAIS303 Artificially inseminate livestock

## Modification History

| Release | TP Version | Comment         |
|---------|------------|-----------------|
| 1       | AHCv1.0    | Initial release |

## Application

This unit of competency describes the skills and knowledge required to artificially inseminate livestock.

All work must be carried out to comply with workplace procedures, work health and safety, animal welfare and biosecurity legislation and codes of practice and sustainability practices.

This unit applies to individuals who work under broad direction and take responsibility for their own work. They complete routine activities and work in a range of known contexts.

In some jurisdictions technicians performing commercial artificial insemination may require accreditation. Specific determination should be sought through the relevant State or Territory.

## Pre-requisite Unit

Nil.

## Unit Sector

Artificial Insemination (AIS)

## Elements and Performance Criteria

| Element                                   | Performance criteria                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.                                                                                                                                                                                                                                                                           |
| 1. Prepare for insemination of animals    | 1.1 Organise resources and personnel to ensure optimal timing of the insemination process<br>1.2 Follow appropriate hygiene procedures<br>1.3 Access semen supplies from appropriate and reliable sources, and store appropriately<br>1.4 Prepare animals to maximise success of insemination program<br>1.5 Follow enterprise work health and safety, animal welfare and |

| Element                               | Performance criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | biosecurity policies<br>1.6 Select, use and maintain suitable personal protective equipment and clothing                                                                                                                                                                                                                                                                                                                                                                 |
| 2. Inseminate animals                 | 2.1 Select, prepare and thaw semen in compliance with relevant codes of practice and industry standards<br>2.2 Ensure insemination equipment is sterile, clean and used appropriately<br>2.3 Identify and observe intended recipient and check for signs of ovulation<br>2.4 Restrain and prepare intended recipient humanely and appropriately for insemination<br>2.5 Carry out insemination under appropriate hygiene conditions                                      |
| 3. Complete documentation and records | 3.1 Document and record data on insemination process accurately and promptly<br>3.2 Review historical data to measure performance of herd in insemination program<br>3.3 Calculate and use conception rates to determine success of AI program<br>3.4 Supply information to relevant authorities to promote research and improvements in industry practice<br>3.5 Identify and record necessary modifications to herd program to assist continuous improvement processes |
| 4. Clean work area and equipment      | 4.1 Dispose of waste appropriately in line with enterprise environmental policies<br>4.2 Clean and maintain work area and equipment appropriately<br>4.3 Return animals to designated areas                                                                                                                                                                                                                                                                              |

## Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

## Unit Mapping Information

This unit is equivalent to AHCAIS303A Artificially inseminate livestock.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

# Assessment Requirements for AHCAIS303 Artificially inseminate livestock

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## Performance Evidence

The candidate must be observed artificially inseminating livestock.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare for insemination
- observe animals on heat to detect correct insemination timing
- prepare equipment and work sites
- correctly select and thaw semen for insemination
- restrain and inseminate animals using recognised methods that reduce stress
- complete documentation and records
- clean work area and equipment
- follow enterprise work health and safety, biosecurity and animal welfare policies.

## Knowledge Evidence

The candidate must demonstrate knowledge of:

- working knowledge of enterprises herd improvement or animal production plan
- basic breeding principles, including the oestrus cycle and its significance
- pregnancy testing
- animal health and abnormalities
- preparation techniques such as puberty stimulation
- semen thawing and storage techniques
- preparation requirements for artificial insemination of animals
- animal movement and behavioural characteristics
- harness and restraint equipment, components and functions
- handling techniques, restraint methods and when to use them
- enterprise and industry identification system for animals

- personal protective equipment and when and how it should be used
- relevant State/Territory legislation, regulations and codes of practice with regard to workplace OHS and animal welfare
- legislative and regulatory controls with regard to artificial insemination
- enterprise and industry policies with regard to artificial insemination and recording and reporting routines.

## Assessment Conditions

The candidate must demonstrate knowledge of:

- resource and manpower requirements, biosecurity requirements, industry standards, codes of practice and procedures for artificial insemination of the livestock species
- hygiene procedures for artificial insemination
- requirements, methods and procedures for sourcing, acquiring, transporting and storing semen
- requirements and procedures for preparation of artificial insemination
- types, uses and maintenance of personal protective equipment
- requirements and procedures for selection, preparation and thawing of semen
- methods and procedures for cleaning and sterilisation of equipment used for artificial insemination
- procedures for handling, measurement and usage of cleaning chemicals, disinfectants and sanitisers
- relevant anatomy and physiology of female livestock
- reproductive physiology and behaviour of female livestock
- techniques and methods for humane handling and restraint of the livestock species
- relevant animal welfare practices for the conduct of artificial insemination in the livestock species
- relevant documentation and records that are required
- relationship, cause and effect between herd performance and artificial insemination programs
- criteria and methods for determining conception rates
- requirements, methods and procedures for improving the success of artificial insemination and its impacts on herd performance
- relevant environmental and sustainability requirements, and procedures for disposal and management of wastes and debris
- requirements and procedures for cleaning and maintaining work areas and equipment
- enterprise work health and safety policies

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