



Australian Government

Department of Education, Employment and Workplace Relations

AHCAIS401A Supervise artificial breeding and/or embryo transfer programs

Release: 1

AHCAIS401A Supervise artificial breeding and/or embryo transfer programs

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers supervising artificial breeding and/or embryo transfer programs and defines the standard required to: identify appropriate artificial breeding options; schedule and resource insemination and implantation strategies; match oestrus cycles, resource availability and timing of operations; manage the genetic material; transfer, identify and implement re-insemination and implantation; maximise conception rates; record all details of the program.
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Application of the Unit

Application of the unit	This unit applies to artificial breeding technicians.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Determine breeding method	1.1. Options for artificial breeding are reviewed to determine most suitable and affordable method according to breeding objectives. 1.2. Artificial breeding option is selected and matched to resources and breeding objectives so as to meet the enterprise's livestock management program. 1.3. Resource implications of breeding programs are identified, sourced and arranged. 1.4. Program schedules are prepared according to available resources. 1.5. Suitable Personal Protective Equipment (PPE) and clothing for breeding support staff and self according to Occupational Health and Safety (OHS) and enterprise requirements is made readily available.
2. Implement breeding method	2.1. Genetic material is obtained from reliable and legitimate sources. 2.2. Genetic material is received, checked and stored according to industry codes of practice, and to ensure maximum viability and program outcomes. 2.3. Where Artificial Insemination (AI) is the selected option, females are inseminated at the optimal stage of the oestrus cycle. 2.4. Where Embryo Transfer (ET) is the selected option for artificial breeding, checks are carried out to ensure intended recipients are prepared and correctly scheduled for ET according to confirmed pregnancy status, oestrus cycle, animal health and program schedule. 2.5. Where ET is the selected option for artificial breeding, hormone injections are provided to intended recipients at appropriate stages of transfer programs to maximise fertilisation and conception. 2.6. Where ET is the selected option for artificial breeding, transfers are conducted according to accepted industry practice.
3. Monitor and maintain program	3.1. Need for return to service of intended recipient is monitored through selected methods. 3.2. Appropriate arrangements are made for the care of sick and injured animals. 3.3. Adjustments in genetic material transfer practices are reviewed to enhance success of future programs. 3.4. Data on genetic material transfer programs is documented and maintained according to enterprise requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- administer AI
- arrange for implantation of embryos by a veterinarian
- prepare stock for AI and embryo implantation
- determine AI and embryo implantation timing for livestock
- identify hazards and implement safe work practices
- use literacy skills to read, interpret and follow organisational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record routine and more complex workplace measures and data
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- artificial breeding methods and benefits, and limitations of each method
- anatomy and physiology of the reproductive organs and reproductive process in livestock
- fertilisation and implantation methods
- physical resource requirements and how to safely handle and transport them
- ovulation stimulation and synchronisation
- semen collection and dilution processes
- semen thawing techniques
- knowledge of enterprise's breeding programs
- breeding principles
- pregnancy testing
- animal health and abnormalities
- preparation requirements for AI
- enterprise and industry identification system for livestock
- relevant State/Territory legislation, regulations and codes of practice with regard to workplace OHS and animal welfare
- legislative and regulatory controls with regard to AI and embryo implants

REQUIRED SKILLS AND KNOWLEDGE

- enterprise and industry policies with regard to AI, and recording and reporting requirements
- identification of veterinary and non-veterinary procedures.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- identify appropriate artificial breeding options
- schedule and resource insemination and implantation strategies
- match oestrus cycles, resource availability and timing of operations
- manage the genetic material
- transfer, identify and implement re-insemination and implantation
- record and maximise conception rates
- record all details of the program.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole.

Artificial breeding programs may include:

- the supervision of both AI and ET programs covering:
 - mares
 - cows
 - ewes
 - sows
 - does.

Unit Sector(s)

Unit sector	Artificial insemination
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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