



Australian Government

ACMATE505 Carry out advanced breeding procedures

Release: 2

ACMATE505 Carry out advanced breeding procedures

Modification History

Release	Comments
Release 2	This version released with ACM Animal Care and Management Training Package Version 3.0.
Release 1	This version released with ACM Animal Care and Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to establish breeding programs for multiple generation production lines, select and prepare animals for breeding, and implement breeding and post-mating procedures.

The unit applies to individuals who work as animal technicians in research and teaching facilities that are required to breed animals for scientific purposes. Work is performed according to the organisation's breeding program and standard operating procedures and requires a sound, effective working knowledge of genetics.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Animal Technology (ATE)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish breeding programs for production lines	1.1 Comply with organisational policies, procedures and protocols set by the Animal Ethics Committee (AEC) and relevant legislation, including health and safety, at all times

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Relate genetic principles to breeding program requirements 1.3 Design and establish breeding programs for animal production lines 1.4 Confirm design, and develop or evaluate established data collection record systems for relevant breeding program 1.5 Review and modify organisational standard operating procedures for breeding programs
2. Select animals and prepare for breeding	2.1 Identify and confirm breeding program for specific production line requirements and production schedules 2.2 Review and monitor animals for mating to determine the current stage of their reproductive cycle 2.3 Monitor females for stages of oestrus cycle and identify those that are ready for mating 2.4 Identify and allocate animals selected for mating or cohort production in an appropriate environment
3. Implement breeding procedures	3.1 Select and review appropriate mating systems and methods according to the breeding program 3.2 Monitor animals during and after the mating period to determine whether mating has been successful
4. Perform post-mating procedures	4.1 Monitor animals for signs of parturition and/or eggs for signs of hatching 4.2 Prepare a plan for fostering arrangements or caesarean re-derivations 4.3 Assess quality of offspring according to the required quality parameters of the breeding program and experimental needs 4.4 Identify, sex and wean offspring according to the breeding program 4.5 Carry out post-weaning management according to the breeding program 4.6 Maintain breeding records according to the breeding program and organisational policies and procedures 4.7 Review and suggest modifications to breeding program outcomes for future production runs
5. Name and record	5.1 Identify and record strains or breeds of animals

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
animals	5.2 Record and interpret breeding records, including details of number of litters born, stillbirths or neonatal deaths, weaning sex ratios and reasons for poor test performance

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	- Analyse documentation to review breeding program outcomes - Analyse information to assist in the identification of animals
Get the work done	- Plan and organise complex tasks, identifying possible risks and accessing assistance where required - Identify problems, apply animal breeding research problem-solving approaches, and review outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ACMATE505 Carry out advanced breeding procedures Release 2	ACMATE505 Carry out advanced breeding procedures Release 1	Minor changes to performance criteria and knowledge evidence for clarity Revised performance evidence to reduce duplication with performance criteria	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>

