



Australian Government

Department of Education, Employment and Workplace Relations

AHCLSK503A Develop and implement a breeding strategy

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the work required to: develop and implement a livestock breeding program and defines the standard required to develop a breeding objective; implement selection strategies for livestock; use industry programs to benchmark and identify sources of genetic material; monitor progress in a breeding program.
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Application of the Unit

Application of the unit	This unit applies to managers of livestock enterprises responsible for selection and breeding programs and the use of resources appropriate to meet the breeding aims of the enterprise.
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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. Assess breeding requirements	1.1. Breeding requirements are assessed and clarified according to enterprise objectives. 1.2. Resources to support breeding requirements are identified and arranged. 1.3. Breeding options are selected to optimise results and consistency according to enterprise objectives. 1.4. Economic assessments are undertaken to establish the feasibility of the breeding objectives. 1.5. Breeding program is formulated to meet enterprise objectives, and is sufficiently flexible to accommodate contingencies.
2. Select livestock for breeding	2.1. Selection criteria are determined for the visual and objective methods of selecting livestock based on heritabilities and economic returns of selection for traits. 2.2. Culling and replacement practices are established to maintain the appropriate size and ratios of livestock. 2.3. Rate of genetic gain is considered in determining herd or flock structure. 2.4. Genetic material is sourced to optimise genetic gain within the herd or flock. 2.5. Selected livestock are checked and monitored to ensure condition and welfare status meets breeding program requirements. 2.6. Tests are conducted using recognised industry methods, and evaluated within appropriate breeding program parameters.
3. Monitor breeding program	3.1. Implementation of the breeding program is monitored for efficiency and effectiveness. 3.2. Changes necessary to achieve breeding aims are prioritised and implemented according to breeding program requirements. 3.3. Allocated resources are monitored and controlled within enterprise budgetary constraints. 3.4. Safe workplace and environmentally responsible practices are maintained according to OHS and enterprise requirements. 3.5. Relevant legislative requirements associated with livestock production are observed and complied with.
4. Evaluate breeding program	4.1. Breeding program processes and outcomes are reviewed and evaluated against enterprise objectives.

ELEMENT	PERFORMANCE CRITERIA
	4.2. Performance of facilities, resources and equipment are evaluated for effectiveness and efficiency. 4.3. Effectiveness of selection criteria is evaluated for contribution to achievement of breeding aims and enterprise profitability. 4.4. Relevant information is documented for continual assessment to inform future practice.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- handle livestock safely and humanely
- supervise personnel
- plan and schedule resources
- interpret genetic reports and information
- develop selection criteria
- monitor genetic progress
- assess and review documentation and resource requirements
- maintain a safe and hazard-free workplace environment
- monitor and minimise impacts to the environment
- use literacy skills to fulfil job roles as required by the organisation. The level of skill may range from reading and understanding documentation to completion of written reports
- 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 complex workplace measures
- 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

- basic genetic theories, including knowledge of genotype and phenotype, heritability of traits, dominant and recessive genes, generation interval and genetic correlation
- use of estimated breeding values and indexes in multi trait selection

REQUIRED SKILLS AND KNOWLEDGE

- the application of basic genetic theory to the development of an enterprise's breeding strategy and its long term planning
- economic assessment of production characteristics
- testing procedures
- costs and benefits of alternative strategies.

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:

- develop a breeding objective
- implement selection strategies for livestock
- use industry programs to benchmark and identify sources of genetic material
- monitor progress in a breeding 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.

Livestock may include:

- sheep
- beef cattle
- dairy cattle
- goats
- alpacas
- pigs.

Unit Sector(s)

Unit sector	Livestock
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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