

**Modification history**

Release	Comments
Release 3	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 7.0.
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 2.0.
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0.

AHCLSK503	Develop and implement a breeding strategy
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to assess breeding requirements, select livestock for breeding, and monitor and evaluate the breeding program.</p> <p>The unit applies to individuals who apply specialist skills and knowledge to develop and implement a breeding strategy, take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information, and analyse, design and communicate solutions to sometimes complex problems.</p> <p>All work must be carried out to comply with workplace procedures, health and safety in the workplace requirements, animal welfare legislative, regulatory and codes of practice requirements, and sustainability and biosecurity practices.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Livestock (LSK)

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. Plan breeding program	1.1 Assess and clarify breeding requirements to meet workplace production goals 1.2 Identify and arrange resources to support breeding requirements 1.3 Select breeding options to optimise results and consistency 1.4 Undertake economic assessment to establish the feasibility of the breeding objectives 1.5 Formulate breeding program to meet workplace objectives, and ensure sufficient flexibility to accommodate contingencies
2. Select livestock for breeding	2.1 Determine selection criteria for the visual and objective methods of selecting livestock based on heritability and economic returns for the workplace 2.2 Establish culling and replacement practices to maintain or improve herd or flock size, animal ratios and grade of livestock 2.3 Assess genetic gain potential to determine and justify herd or flock structure 2.4 Source suitable genetic material to optimise genetic gain within the herd or flock 2.5 Check and monitor selected livestock to ensure condition and welfare status meets breeding program requirements 2.6 Carry out measurements of production and genetic characteristics, and evaluate results within appropriate breeding program requirements

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Monitor breeding program	3.1 Supervise implementation of the breeding program for efficiency and effectiveness 3.2 Prioritise and implement changes necessary to achieve breeding aims according to breeding program requirements 3.3 Examine and control allocated resources within workplace budgetary constraints 3.4 Maintain safe workplace and environmentally responsible practices according to workplace health and safety procedures and environmental and biosecurity legislation, regulations and workplace procedures 3.5 Observe and comply with animal welfare industry standards, legislation and codes of practice and procedures relevant to livestock production
4. Evaluate breeding program	4.1 Review breeding program processes and outcomes against organisation objectives 4.2 Assess performance of facilities, resources and equipment for effectiveness and efficiency 4.3 Assess effectiveness of selection criteria for contribution to achievement of breeding aims and workplace profitability 4.4 Document relevant information for continual assessment and to inform future practice

<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Critically analyse documentation from a range sources to identify specific criteria, and consolidate information to determine requirements for breeding program and livestock production</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Use clear language, accurate industry terminology and logical structure to prepare breeding strategy documentation</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Use mathematical concepts to calculate, compare and estimate numerical and financial data required for planning and forecasting livestock production and breeding activities</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
AHCLSK503 Develop and implement a breeding strategy Release 3	AHCLSK503 Develop and implement a breeding strategy Release 2	Minor changes to application minor changes to performance criteria foundation skills updated assessment requirements updated	Equivalent
AHCLSK503 Develop and implement a breeding strategy Release 2	AHCLSK503 Develop and implement a breeding strategy Release 1	Minor changes to clarify intent of element 1 Safety requirements and foundation skills descriptions added	Equivalent unit
<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72</a>		

<b>TITLE</b>	<b>Assessment requirements for AHCLSK503 Develop and implement a breeding strategy</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has developed and implemented a breeding strategy on at least one occasion and has:</p> <ul style="list-style-type: none"> <li>• identified genetic information for existing and potential livestock through breed data</li> <li>• used industry programs to benchmark and identify sources of genetic material</li> <li>• developed breeding objectives</li> <li>• implemented selection strategies for livestock</li> <li>• implemented animal welfare strategies to handle livestock safely and humanely</li> <li>• monitored progress in a breeding program and undertaken reviews</li> <li>• evaluated breeding program</li> <li>• documented and reviewed data derived from the breeding strategy</li> <li>• applied relevant workplace health and safety and environmental and biosecurity legislation regulations and workplace procedures</li> <li>• applied animal welfare industry standards, legislation and codes of practice and procedures relevant to livestock production.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• workplace requirements applicable to health and safety in the workplace for developing and implementing a breeding strategy</li> <li>• environment and biosecurity legislation and regulations and workplace practices relevant to developing and implementing a breeding strategy</li> <li>• animal welfare industry standards, legislation and codes of practice and procedures relevant to livestock production</li> <li>• principles and practices for developing and implementing a breeding strategy, including: <ul style="list-style-type: none"> <li>• difference between genotype and phenotype, the heritability of genetic traits and the basic genetic theory related to genetic correlation of traits</li> <li>• relevance of generation interval in relation to commercial improvement</li> <li>• relevance of estimated breeding values in the development of a multi-trait selection strategy</li> <li>• economic impact of production characteristics</li> <li>• features and measurement of production and genetic characteristics used in breeding programs.</li> </ul> </li> </ul>	
<b>Assessment Conditions</b>	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• a workplace setting or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• work instructions and workplace procedures applicable to developing and implementing a breeding strategy</li> </ul> </li> <li>• specifications: <ul style="list-style-type: none"> <li>• workplace documentation relating to breeding information and financial arrangements required to develop a breeding strategy</li> <li>• workplace requirements applicable to health and safety in the workplace for developing and implementing a breeding strategy</li> <li>• environment and biosecurity legislation and regulations and workplace practices applicable to developing and implementing a breeding strategy</li> <li>• industry standards, legislation and codes of practice and procedures for animal welfare applicable to livestock production.</li> </ul> </li> <li>• timeframes: <ul style="list-style-type: none"> <li>• according to job requirements.</li> </ul> </li> </ul>	

<b>Assessment Conditions</b>
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Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.
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<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72</a>
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