

<b>Title</b>	<b>Describe sheep genetics, and ram selection</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to describe: the principles of genetics as they affect sheep breeding; desirable traits for sheep breeding purposes; ram selection; and the selection of sheep for culling, and wastage, and calculate the number of replacements.
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<b>Classification</b>	Agriculture > Sheep Farming
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<b>Available grade</b>	Achieved
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### Guidance Information

#### Definitions

*Culling* refers to the removal of sheep in order to improve the performance of the herd.

*Wastage* refers to the removal of sheep due to unplanned reasons such as death.

Wastage results in a negative effect on overall breeding.

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### Outcomes and performance criteria

#### Outcome 1

Describe the principles of genetics as they affect sheep breeding.

#### Performance criteria

- 1.1 Describe genetic gain in terms of its application to sheep breeding and production improvement.
- 1.2 Describe the role of genes and chromosomes in relation to sex determination, heredity, traits and cell division.
- 1.3 Describe the difference between heredity and environment in terms of their influence on genetic improvement.
- 1.4 Describe the normal distribution curve in terms of its use in breeding programmes.

#### Outcome 2

Describe desirable traits for sheep breeding purposes.

**Performance criteria**

- 2.1 Describe desirable traits in relation to productive value, ease of management, and visual and structural characteristics.
- 2.2 Describe desirable traits in terms of measurement and recording.
- Range evidence of two traits is required.

**Outcome 3**

Describe ram selection.

**Performance criteria**

- 3.1 Describe ideal physical features of rams in accordance with on-farm breeding procedures.
- 3.2 Describe breeding values for rams in terms of the important features.
- Range breeding values include but are not limited to – growth rate, wool, weaning weights, 8 month weight.
- 3.3 Describe information for ram purchase in terms of the sources available.
- Range sources include but are not limited to – stock agent, breeders, publications.

**Outcome 4**

Describe the selection of sheep for culling, and wastage, and calculate the number of replacements.

**Performance criteria**

- 4.1 Describe selection, culling, and wastage in terms of livestock farming practice.
- 4.2 Describe the effects of culling and wastage of sheep in terms of the way they influence livestock breeding.
- 4.3 Calculate the number of replacements needed from given culling and wastage figures.

<b>Planned review date</b>	31 December 2027
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	25 June 2002	31 December 2024
Review	2	23 April 2008	31 December 2024
Review	3	29 September 2022	N/A

**Consent and Moderation Requirements (CMR) reference**

0052

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council [qualifications@mukatangata.nz](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.