

Title	Demonstrate knowledge of sheep milk production		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to: describe the structure and function of the mammary gland of a sheep; describe the composition of sheep's milk and factors which influence sheep's milk composition; describe the features and operation of the main types of farm dairy and milking plant; describe the hazards of milking a dairy flock; and perform calculations appropriate to a milking dairy flock situation.
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Classification	Agriculture > Sheep Farming
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Describe the structure and function of the mammary gland of a sheep.

Performance criteria

- 1.1 Describe mammary gland structure and name each component in terms of mammary gland anatomy.
- 1.2 Describe mammary gland functions in terms of components and their function.

Outcome 2

Describe the composition of sheep's milk and factors which influence sheep's milk composition.

Performance criteria

- 2.1 Describe composition of milk in terms of its components and their proportions.

Range	components include but are not limited to – fat, protein, lactose, water, minerals.
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- 2.2 Describe the composition of sheep milk compared with cow and goat milk in terms of components and their proportions.
- 2.3 Describe the importance of milk composition in terms of how it influences the sheep's milk and sheep's breeding markets.
- 2.4 Describe the influence of factors which affect milk composition and yield.
- Range factors include but are not limited to – breed, age of sheep, time of lactation, season of lambing, feeding, weather, health, sheep condition.

Outcome 3

Describe the features and operation of the main types of farm dairy and milking plant.

Range evidence of a herringbone or rotary is required.

Performance criteria

- 3.1 Describe the farm dairy structures in terms of the arrangement of plant, animals, yards and animal movements.
- 3.2 Describe a farm dairy in terms of advantages and disadvantages.
- Range evidence of five advantages and disadvantages is required.
- 3.3 Describe the features of a milking plant in terms of its components and their functions.
- 3.4 Describe milking plant features in terms of its operation.
- Range features include but are not limited to – setting up, operating adjustments and controls, maintenance (including systems), water quality/quantity, hygiene, plant contaminants, detergents for cleaning.

Outcome 4

Describe the hazards of milking a dairy flock.

Performance criteria

- 4.1 Describe milking a dairy flock in terms of potential hazards.
- Range hazards include but are not limited to – zoonosis, scalding, manual handling injuries, injuries from animals, excrement, machinery, acid and alkali eye and skin contact, animal handling.
- 4.2 Describe precautions which can be taken to manage hazards in terms of elimination, minimise and/or protection.

Outcome 5

Perform calculations appropriate to a milking dairy flock situation.

Range calculations may include but are not limited to – disinfectant dilution, foot bath dilution, acid dilution wash, alkali dilution wash, detergent dilution wash, withholding period; evidence of two calculations is required.

Performance criteria

- 5.1 Identify the problem in terms of a milking dairy flock situation.
- 5.2 Identify the relevant information or quantities involved in terms of the context or situation.
- 5.3 Identify formula or methods of calculation and justify in terms of the solution required.
- 5.4 Carry out calculation in accordance with accepted mathematical principles.
- 5.5 Check result in terms of the identified desired outcome.

Planned review date	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	27 November 1998	31 December 2024
Revision	2	14 August 2002	31 December 2024
Rollover	3	23 April 2008	31 December 2024
Review	4	29 September 2022	N/A

Consent and Moderation Requirements (CMR) reference	0052
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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 if you wish to suggest changes to the content of this unit standard.