

Title	Demonstrate knowledge of how cows produce milk		
Level	2	Credits	2

Purpose	<p>This unit standard is for people working, or intending to work, in the agricultural industry, and secondary school and gateway students.</p> <p>People credited with this unit standard are able to: identify and describe the components of the cow's udder; and describe the milk let down response in dairy cows; and the composition of cow's milk.</p>
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Classification	Agriculture > Dairy Farming
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Identify and describe the components of the cow's udder.

Range components – alveoli, milk ducts, myoepithelial tissue, gland cistern, suspensory ligaments, teat cistern, teat canal, sphincter muscle.

Performance criteria

- 1.1 Identify components of the udder and describe their functions.
- 1.2 Describe components of the udder in terms of their interrelationships.

Outcome 2

Describe the milk let down response in dairy cows.

Performance criteria

- 2.1 Describe milk let down in terms of the functions of the relevant anatomical components of the udder.

- 2.2 Describe milk let down in terms of the stimuli which affect oxytocin production.
Range sight, sound, taste, smell, feel.
- 2.3 Describe milk let down in terms of the effect of oxytocin on the mammary gland.
- 2.4 Describe milk let down in terms of the factors which block the effect of oxytocin.
- 2.5 Describe oxytocin in terms of its use to minimise udder discomfort, swelling, and damage.

Outcome 3

Describe the composition of cow's milk.

Performance criteria

- 3.1 Describe cow's milk in terms of its components and their proportions.
Range fat, protein, lactose, water, minerals.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 April 2001	31 December 2020
Review	2	25 June 2002	31 December 2020
Review	3	20 May 2008	31 December 2020
Review	4	28 February 2019	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 the Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.