

Title	Demonstrate knowledge of bees, the bee life cycle and adult bee behaviour patterns		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to: describe the caste system of bees and the physical features of bees; demonstrate knowledge of the life cycle of bees in a beehive; and describe adult bees in terms of their behaviour patterns.
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Classification	Agriculture > Apiculture
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Available grade	Achieved
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Guidance Information

References

Matheson, A. and Reid, M. (2018). *Practical Beekeeping in New Zealand*. (5th Edition: The Definitive Guide). Dunedin: Exisle Publishing Ltd. ISBN 978-1-77559-362-1.

Woodward, David R. (2007). *Queen bee: biology, rearing and breeding*. (Balclutha, New Zealand: Telford Rural Polytechnic).

Outcomes and performance criteria

Outcome 1

Describe the caste system of bees.

Performance criteria

1.1 Describe bee castes in terms of physical and behavioural similarities and differences.

Range queen, drone, worker.

1.2 Describe caste determination in terms of the queen fertilising the egg and the nutrition received at the larval stage.

Outcome 2

Describe the physical features of bees.

Performance criteria

2.1 Describe bee anatomy in relation to insect classification.

2.2 Describe anatomical features of bees in terms of their functions.

Range bees – queen, drone, worker;
evidence of features for six functions is required.

Outcome 3

Demonstrate knowledge of the life cycle of bees in a beehive.

Performance criteria

3.1 Identify the four stages of the bee life cycle.

Range queen, drone, worker.

3.2 Describe the development timeframes of each life cycle stage for each caste of bee.

Outcome 4

Describe adult bees in terms of their behaviour patterns.

Performance criteria

4.1 Describe the division of labour between castes and within the worker caste.

Range must include – queen, drone, worker.

4.2 Describe importance of the bee dance on bee behaviour.

4.3 Describe the impact of pheromones on bee behaviour.

Range defence, queen rearing impulses, scenting food, sensory organs.

4.4 Describe how bees navigate.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	14 December 2017	31 December 2022
Review	2	24 September 2020	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.