

Title	Describe American foulbrood, varroa mite, and other bee pests and diseases found in New Zealand		
Level	3	Credits	10

Purpose	People credited with this unit standard are able to: describe American foulbrood (AFB) and varroa mite; and demonstrate knowledge of other bee pests and diseases found in New Zealand.
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Classification	Agriculture > Apiculture
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Available grade	Achieved
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Guidance Information

- 1 Legislation and standards relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015;
 - Agricultural Compounds and Veterinary Medicines Act 1997;
 - Animal Products Act 1999;
 - Biosecurity Act 1993;
 - Biosecurity (National American Foulbrood Pest Management Plan) Order 1998;
 - Food Act 2014;
 - Food Standards Code and Food Standard: Tutin in Honey 2016; and any subsequent amendments.

- 2 Definitions

American foulbrood (AFB) is a bacterial disease of honey bees.

Varroa mite is a tiny parasitic mite which enters the beehive on adult bees, and then crawls into and takes up residence in the beewax cells containing young bee larvae (brood cell) before they are sealed.

Disease Elimination Conformity Agreement (DECA) is a contract made between a beekeeper and the AFB pest management agency for the control of AFB in the beekeeper's hives.

- 3 For the purposes of assessment:
 - evidence must be presented in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Describe American foulbrood (AFB).

Performance criteria

- 1.1 Describe the signs of AFB and the mode of spread.
- 1.2 Describe how to recognise AFB and differentiate it from other diseases.
- 1.3 Describe the AFB inspection process when checking a beehive and taking samples.
- 1.4 Describe the reporting and notifications process and the follow up action required in the case of an outbreak of AFB.
- 1.5 Describe the DECA and its purpose for beekeepers in relation to AFB.

Outcome 2

Describe varroa mite.

Performance criteria

- 2.1 Describe the varroa mite and how to identify its presence.
Range physical description, size, reproduction, life cycle.
- 2.2 Describe the population development of the varroa mite and impact on a beehive.
- 2.3 Describe the sampling options for detection of varroa mite.
- 2.4 Describe the chemical and biocontrol options for controlling varroa mite.

Outcome 3

Demonstrate knowledge of other bee pests and diseases found in New Zealand.

Performance criteria

- 3.1 Identify signs of pests and diseases in bees found in New Zealand.
Range at least three of – halfmoon syndrome, parasitic mite syndrome (PMS), sacbrood, chalkbrood, nosema.
- 3.2 Describe methods to control diseases in bees found in New Zealand.
- 3.3 Describe procedures to monitor for and control wasp and mice infestations.

Replacement information	This unit standard replaced unit standard 20257 and unit standard 20258.
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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.