

## Achievement Standard

**Subject Reference** Agricultural and Horticultural Science 1.4

**Title** Demonstrate understanding of environmental sustainability in primary production management practices

**Level** 1      **Credits** 4      **Assessment** External

**Subfield** Science

**Domain** Agricultural and Horticultural Science

**Status** Approved      **Status date** December 2023

**Planned review date** December 2028      **Date version published** December 2023

### Purpose Statement

Students are able to demonstrate understanding of environmental sustainability in primary production management practices.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Demonstrate understanding of environmental sustainability in primary production management practices</li> </ul>	<ul style="list-style-type: none"> <li>Explain environmental sustainability in primary production management practices</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate environmental sustainability in primary production management practices</li> </ul>

### Explanatory Notes

- 1 *Demonstrate understanding of environmental sustainability in primary production management practices* involves:
- describing the implications of environmental sustainability for primary production management practices
  - supporting the description with examples from the primary production management practices.

*Explain environmental sustainability in primary production management practices* involves:

- explaining how the implications of environmental sustainability affect decisions on the use of the primary production management practices.

*Evaluate environmental sustainability in primary production management practices* involves:

- evaluating how the implications of environmental sustainability influence the choice of primary production management practices.

- 2 As part of the evidence provided, students must show understanding of a Māori concept in the context of environmental sustainability management practices in primary production.

Examples of a Māori concept include:

- tūhononga
- manaakitanga
- tiakitanga.

- 3 *Environmental sustainability* is the ability to maintain an ecological balance in the environment and conserve natural resources to support the wellbeing of current and future generations.

- 4 For the purpose of this achievement standard, the *implications of environmental sustainability* are positive and/or negative impacts on the environment as a result of primary production management practices.

Examples of the implications of environmental sustainability include:

- quality of waterways
- soil quality
- climate change
- change to biodiversity of organisms.

- 5 *Primary production management practices* are actions that are part of the primary production of an animal or plant product.

Examples of primary production management practices include:

- irrigation
- fertiliser application
- pest control
- riparian planting.

- 6 Refer to the NCEA [glossary](#) for Māori, Pacific, and further subject-specific terms and concepts.

- 7 This achievement standard is derived from the Science Learning Area at Level 6 of *The New Zealand Curriculum*: Learning Media, Ministry of Education, 2007.

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## Replacement Information

This achievement standard and AS91928-AS91930 replaced AS90155, AS90157, AS90160, and AS90918-AS90924.

**Quality Assurance**

- 1 Schools and institutions must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Schools and institutions with consent to assess must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference 0233

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