

## Achievement Standard

**Subject Reference** Agricultural and Horticultural Science 1.1

**Title** Carry out a practical agricultural or horticultural investigation

**Level** 1      **Credits** 4      **Assessment** Internal

**Subfield** Science

**Domain** Agricultural and Horticultural Science

**Status** Registered      **Status date** 17 December 2010

**Planned review date** 31 December 2014      **Date version published** 17 December 2010

This achievement standard involves carrying out a practical agricultural or horticultural investigation by planning the investigation, collecting and processing the data, and interpreting and reporting the findings.

### Achievement Criteria

| Achievement  | Achievement with Merit   | Achievement with Excellence  |
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| <ul style="list-style-type: none"> <li>Carry out a practical agricultural or horticultural investigation.</li> </ul> | <ul style="list-style-type: none"> <li>Carry out an in depth practical agricultural or horticultural investigation.</li> </ul> | <ul style="list-style-type: none"> <li>Carry out a comprehensive practical agricultural or horticultural investigation.</li> </ul> |

### Explanatory Notes

- This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and based on the outcomes in the *Teaching and Learning Guide for Agricultural and Horticultural Science*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz/>.
- An *investigation* is an activity covering a complete process: planning; collecting, recording, and processing data; interpreting; and reporting on an investigation. It will involve the student in the collection of primary data.
- A *practical agricultural or horticultural investigation* involves:
  - a statement of the purpose – this may be an aim, testable question, prediction, or hypothesis based on a scientific idea
  - identification of a range for the independent variable or sample
  - measurement of the dependent variable
  - collecting, recording and processing data relevant to the purpose
  - a conclusion based on interpretation of the processed data.

*An in-depth practical agricultural or horticultural investigation involves:*

- a method that describes a valid range for the independent variable or sample; a description of, and/or control of, other variables; the collection of sufficient data
- collecting, recording and processing of data to enable a trend or pattern (or absence) to be determined
- a valid conclusion based on interpretation of the processed data that links to the purpose of the investigation.

*A comprehensive practical agricultural or horticultural investigation involves:*

- a method that describes a valid range for the independent variable or sample; a description of, and control of, other variables; the collection of sufficient data with consideration of factors such as sampling, bias, and sources of error
- an evaluation that explains how the method used produced valid and reliable data to support a valid conclusion.

- 4 Conditions of Assessment related to this achievement standard can be found at [www.tki.org.nz/e/community/ncea/conditions-assessment.php](http://www.tki.org.nz/e/community/ncea/conditions-assessment.php).
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### Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0233