

2025 NCEA Assessment Report

Subject:	Agricultural and Horticultural Science
Level:	1
Achievement standard(s):	91930, 91931

General commentary

Both assessments allowed candidates to show their understanding of management practices within a primary production system of their choice. Candidates who achieved success were able to clearly link a specific management practice to a named production system. They explained why the practice is used and outlined its strengths and weaknesses.

Candidates who attained higher grades also answered most questions in each paper and communicated their ideas clearly and concisely, avoiding unnecessary repetition within or across questions.

Report on individual achievement standard(s)

Achievement standard 91930: Demonstrate understanding of how soil properties are managed in a primary production system.

Assessment

This assessment consisted of three questions, each question with multiple parts. For each question, candidates were expected to name a primary production system to base their response around. Candidates were asked to use a different soil management practice for each of the three questions and describe how the management practice changed properties of soil and improved plant growth. Candidates were also asked to include a concept of relevant Māori concept or value, related to soil management in their responses.

Commentary

Candidates who did well in this assessment understood this link between soil management practices and soil properties. They gave answers they were clear and concise and showed their level of understanding. Candidates who gave longer answers, repeating the same idea multiples times without explaining how management practices influence soil properties, did not attain high grades. Candidates who did well included the scientific links between management practice and soil properties and could clearly articulate their justifications.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- showed a basic understanding of a soil management practice
- described what the practice involved
- described a soil property that was affected.

Candidates who were awarded **Achievement with Merit** commonly:

- provided a scientific reason why the management practice improved plant production, e.g. improved aeration allowing better respiration
- discussed more than one soil property and showed clearer relationships between properties and plant processes.

Candidates who were awarded **Achievement with Excellence** commonly:

- considered the context of the question when writing their answers
- gave a balanced discussion of the impact of management practice by discussing both positive and negative impacts
- communicated ideas concisely that avoided repetition
- linked their responses to a specific production system and showed clear connections between soil management, plant growth, and overall productivity.

Candidates who were awarded **Not Achieved** commonly:

- were unable to describe a soil property, instead focussing on how the management practice is carried out and not describing its impact on the soil properties.
- gave incomplete responses that were not linked to soil properties.
- did not demonstrate an understanding of a Māori concept relevant to soil management.

Achievement standard 91931: Demonstrate understanding of environmental sustainability in primary production management.

Assessment

The assessment comprised of three questions, each question with multiple sub parts to be answered. Candidates were required to answer the questions using a primary production system of their choice to demonstrate understanding of how a management practice helps in improving biodiversity and maintaining environmental sustainability. Candidates were expected to choose and apply knowledge of an appropriate Māori value relevant to environmental sustainability in their response. The format of this assessment did not require references from external resources.

Commentary

Candidates who did well in this assessment understood this link between management practices and environmental impacts. They gave answers that were clear and concise and showed their level of understanding. Many candidates gave longer answers, repeating the same idea multiple times without explaining how management practices impact the environment. Candidates who showed their understanding of a range of management practices, and addressed the environmental sustainability implications for all key natural resources (soil, water, biodiversity, and climate), were able to achieve higher grades. Candidates who gained higher grades understood the scientific links

between management practice and environmental impacts and could clearly articulate their justifications.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- described a management practice that has a positive or negative impact on the environment
- described the impact management practices have on soil and / or water quality.

Candidates who were awarded **Achievement with Merit** commonly:

- demonstrated a clearer understanding of the links between farming practices and environmental outcomes
- explained how a management practice affected soil and / or water quality
- linked management practices to environmental processes, such as nutrient leaching or sediment loss.

Candidates who were awarded **Achievement with Excellence** commonly:

- showed a strong understanding of environmental interactions by evaluating how farming management practices influence both soils and water quality
- discussed positive and negative impacts, and linked these to specific environmental processes and a named farming or production system
- gave responses that were well structured, clearly reasoned, and showed strong connections between management decisions, soil health, water quality, and environmental sustainability.

Candidates who were awarded **Not Achieved** commonly:

- showed limited understanding of the environmental focus of the paper
 - described management practices without linking them to impacts on soils or water quality
 - gave incomplete responses
 - did not demonstrate understanding of a Māori value with reference to environmental sustainability.
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