

National Certificate of Educational Achievement

2012 Assessment Report

Agricultural and Horticultural Science Level 1

- 90919 Demonstrate knowledge of soil management practices**
- 90921 Demonstrate knowledge of livestock management practices**
- 90924 Demonstrate knowledge of horticultural plant management practices and related plant physiology**

COMMENTARY

It was apparent some candidates that had been taught to the assessment specifications which limited their ability to write complete answers. Candidates should be taught a minimum of all aspects that the standard covers not just to the assessment specifications where this specifies management practices. Knowledge of management practices outside the assessment specifications may be required to give answers with sufficient depth.

When answering questions, candidates need several points of description, explanation or justification/comparison for all three achievement grades. This allows the candidate to show their understanding of the situation the question is addressing. The quantity of points for each grade is stated in the assessment schedule when published by NZQA.

STANDARD REPORTS

90919 Demonstrate knowledge of soil management practices

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- wrote detailed descriptions of how a management practice is carried out
- identified the equipment used when describing how the practice is done
- drew labelled diagrams in the spaces provided
- used the correct terminology.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- demonstrated a limited understanding of soil properties
- showed little understanding of the steps or actions undertaken when carrying out specific management practices
- demonstrated limited understanding of the growing conditions required for plant growth
- wrote insufficient descriptions of how practices are carried out.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- explained how the management practice affected soil properties
- explained how and why the steps or actions are taken when carrying out a given management practice
- made links between how the practice is carried out and what effect/s the practice had on soil properties or plant growth.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- discussed the advantages and disadvantages of both given practices
- focused their comparisons around the bullet points
- justified their chosen practice over the alternative by comparing the advantages and disadvantages.

OTHER COMMENTS

A notable number of candidates stated that irrigation gave the plants nutrients. They did not explain that the nutrients were added through the irrigation system or that nutrients are dissolved in soil water then taken up by the plant.

Candidates commonly described how actions of a management practice are done with one descriptive point where several points are required.

90921 Demonstrate knowledge of livestock management practices

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- had a detailed knowledge of a variety of agricultural practices
- had the skill of writing a description (how, what and when agricultural practices are carried out)
- used the photograph provided to assist them writing a description of the management practice.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- did not provide answers to all parts of each question
- wrote answers that were too short to provide sufficient evidence
- wrote in a style that was illegible
- read the question incorrectly and therefore wrote answers that were not related to the topic.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- were able to read a table and extract data from the table
- quoted the data and demonstrated an understanding of the importance of the data
- explained with reasons why a management practice was carried out
- highlighted key words in the question to assist with writing an answer
- used diagrams to assist with the clarification of a description or explanation

- used correct terms (both scientific and agricultural) rather than slang words
- used bullet point formatting to separate key ideas.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- wrote clear, concise logical answers within in the spaces provided in the answer booklet
- wrote in paragraph format and restricted each paragraph to one key idea which also contained a comparison and/or contrast statement
- highlighted key words in the question and focused on these key words in the answer
- were able to compare and contrast various management practices with confidence
- completed all parts of each question and used the ruled pages in the answer booklet
- used correct terms in relation to equipment, animal systems and agricultural practices.

OTHER COMMENTS

In most cases, candidates demonstrated a good understanding of the tasks assessed in relation to agricultural practices. The majority of candidates wrote clear, well structured answers that focussed on the question being asked.

Extracting and comparing the information in a table is a skill that many candidates need to develop to a higher standard in order to use the information to write a well structured answer.

90924 Demonstrate knowledge of horticultural plant management practices and related plant physiology

ACHIEVEMENT

Candidates who were awarded Achievement for this standard demonstrated the required skills and knowledge. They typically:

- attempted all questions
- described several aspects of management practices
- showed an understanding of terminology
- described a range of practical activities which they had experienced.

NOT ACHIEVED

Candidates who were assessed as Not Achieved for this standard lacked some or all of the skills and knowledge required for the award of Achievement. They typically:

- did not attempt all questions
- failed to fully understand what the questions were asking
- had difficulty in writing basic answers
- showed poor practical knowledge.

ACHIEVEMENT WITH MERIT

In addition to the skills and knowledge required for the award of Achievement, candidates who were awarded Achievement with Merit typically:

- had a good knowledge of plant physiology and structure
- linked management practices to plant processes
- wrote logical answers using correct terminology.

ACHIEVEMENT WITH EXCELLENCE

In addition to the skills and knowledge required for the award of Achievement with Merit, candidates who were awarded Achievement with Excellence typically:

- justified actions taken to resolve problems
- were able to compare and contrast management practices
- wrote logical and well structured answers which showed planning
- had in-depth knowledge of a wide range of horticultural practices.

OTHER COMMENTS

There was an overall improvement in the standard of student answers. The greater majority of candidates attempted all three questions. The importance of this is reflected in the increased number of Achieved grades.

The clear examination specifications obviously helped better in-depth teaching. However, the topics ensured a wide range of the curriculum was covered.

The questions involving plant parts and processes were poorly answered. This shows a need for greater focus.

Some of the Excellence answers showed a great depth and breadth of understanding which has not been evident before.