



The following report gives feedback to assist assessors with general issues and trends that have been identified during external moderation of the internally assessed standards in 2024. It also provides further insights from moderation material viewed throughout the year and outlines the Assessor Support available for Agricultural and Horticultural Science.

Insights

91928: Demonstrate understanding of how a life process is managed in a primary production system

Performance overview:

This standard requires demonstrating an understanding of how a life process is managed in a primary production system. A focus on the student's understanding being shown, rather than a numerical quantity of features, led to the best quality student work and the higher grades.

For Achieved, this involved describing a life process that was managed in a primary production system, describing a relevant management practice that influenced the life process (using supporting evidence), and showing an understanding of a Māori concept in the context of the management practice that was relevant to the life process.

A life process is any of the basic physiological functions of the plant or animal such as nutrition, growth, reproduction. The most common life processes successfully described were reproduction, lactation, photosynthesis, pollination, nutrition, growth.

Describing a life process required the inclusion of a variety of features of the life process. Using the context of the chosen primary production system made the description more authentic and appropriate to the subject.

A management practice is an action taken by a grower or farmer that is carried out as part of production. When students demonstrated an understanding of the relevant management practice, the management practice chosen had a direct influence on the life process, and a variety of features of the management practice were described. The description of the management practice was linked to the life process, but a description of the influence is not necessary to get Achieved.

When using supporting evidence, the evidence was integrated into, and used to back up or support, the student's reasoning. Photos and diagrams were the most common form of supporting evidence used. For students to 'use' this evidence there was a linkage, made by the student, between the evidence and the student's reasoning. Often, this included referring to detail in the evidence, or captions or annotations on the photo/diagram that aligned with the student's reasoning. The 'supporting' requirement used the evidence to back up or support the student's reasoning.

Students showed an understanding of a Māori concept in the context of the management practice that was relevant to the life process.

For Merit, an explanation of how the life process is influenced by the management practice is required. When Merit was awarded, the explanation was built on the features in the description of the management practice. The explanation involved linking (with detail), the

ideas or steps between the features of the management practice and its influence on the life process. Success at this grade usually included several aspects of explanation.

For Excellence, an evaluation of how the life process is influenced by the management practice to improve production is required. Successful evaluations involved a judgement with analysis of the management practice improving production. This often included a comparison between two options.

Practices that need strengthening:

In the 2025 version of the standard, the examples for life processes no longer includes “*response to disease*”.

For Achieved, when choosing the life process and relevant management practice it can be advantageous to select a well understood management practice, then select a life process that is most influenced by the management practice. Management practices that influenced transpiration were found to be difficult to describe. The description of the life process should be given in an agricultural or horticultural context, which often includes science concepts.

In some evidence for the description of the life process, aspects of some biological concepts described were beyond the scope of level 6 of the curriculum. Only key structural parts and functions of the parts of the cell should be included in the description, as well as other features of the life process.

When describing the life process and management practice, a variety of features should be included in the description. When searching for a variety of features, the question starters “what, when, who, how” in the preparation of the students’ reports can assist in providing a wide variety of information in the description. A list of procedural steps can be used as part of the management practice description.

The most common barrier to gaining Achieved and higher grades was meeting the requirement for “using supporting evidence” when describing the management practice. A list of references, in-text referencing on its own, a picture in isolation, or a table with data that was not referred to in the report, did not meet the requirement. Refer to the performance overview section for ways to demonstrate using supporting evidence. Examples of evidence include annotated photos from field trips, diagrams, tables of data, and quotes from named experts.

To meet the Māori concept requirement, the focus should be on the plant or animal rather than profit, money, or income.

For Merit, the influence of the management practice on the life process needs to be explained. This involves linking ideas with detail between the features of the management practice and the life process.

For Excellence, when evaluating how the life process is influenced by the management practice to improve production, a judgement with analysis is required. The step up from Merit is the focus on improving production. The judgement with analysis could involve considering the management practice with not carrying out the management practice, considering different forms of the management practice, or an evaluation of different forms of the management practice on improving production with consideration being given to the life process.

91929: Demonstrate understanding of factors that influence the purpose and location of primary production

Performance overview:

For Achieved, a description of the purpose and location of a primary production system and the factors that influence the purpose and location is required.

A successful approach to the task and describing the purpose was considering the assessment at a local level with field trips to local growers. This enabled the purpose of the grower/farmer to be identified and fully described by the student. Another successful approach was to consider the purpose and the location as one entity, rather than separating purpose and location. This made the description more authentic for some students. Often the purpose for a producer was interlinked with the location, for example growing avocados in Te Puna to make money.

When describing the location, the factors that were part of the location and influenced it were the same, and were also described.

A focus on an understanding being shown in the reports, rather than a numerical quantity of factors, correlated with the best quality student work and the higher grades.

When successfully describing the influencing factors, a variety of factors from several categories were covered.

For Merit, an explanation of the factors that influence the purpose and location is required. Where Merit was awarded, the explanation involved linking (with detail) the influence of the factors on the purpose and location. The influence of factors on the location was explained with more ease for most students.

For Excellence, an evaluation of the factors that influence the purpose and location is required. Where awarded, the evaluation involved a judgement with analysis or reasons why a specific factor had more influence than others on the purpose and location. Talking with a grower or farmer about their situation often gave good insight for the evaluation.

Practices that need strengthening:

For Achieved, when describing the purpose and location, the emphasis is on a local production system.

The most common deficit to reaching this requirement was the lack of features when describing the purpose. The description of the purpose requires features of the purpose of the grower/farmer to produce the product. For example, to make money, what is the specific use of making profit from the producer's perspective. The description could include the features of making a profit, such as where it is sold, to who, by who.

When describing the purpose and location, and the influencing factors, a variety of features should be described. The use of the question starters "what, when, how, who" can be useful to achieve this. To give a description that satisfies the standard, a demonstration of understanding of the influence of these factors should be considered, rather than setting a numerical minimum number of factors to cover.

For Merit, when explaining the factors that influence the purpose and location of a primary production system, the factors should be linked to the purpose and location, and reasons or detail given. When data is given, the influence of the data on the specific factor needs to be explained. The explanation of the factors requires a step up of critical thinking from the description, and could include reasons, a linking of ideas, or the impact of the factors on the purpose and location. Where Merit was not awarded, the purpose was often not included in the explanation.

For Excellence, when evaluating the factors that influence the purpose and location, a judgement with analysis or reasons is required. This will involve several factors in the evaluation.

Assessor Support

NZQA offers online support for teachers as assessors of NZC achievement standards. These include:

- Exemplars of student work for most standards*
- National Moderator Reports*
- Online learning modules (generic and subject-specific)**
- Clarifications for some standards*
- Assessor Practice Tool for many standards**
- Webcasts*

*hosted on the NZC Subject pages on the NZQA website.

**hosted on Pūtake, NZQA's learning management system. Accessed via Education Sector Login.

We also may provide a speaker to present at national conferences on requests from national subject associations. At the regional or local level, we may be able to provide online support.

Please contact workshops@nzqa.govt.nz for more information or to lodge a request for support.

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