



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

National Qualifications Framework Levels 1–3, 2006

Agricultural and Horticultural Science

National Moderator's Report

National Moderator's Report

General Guidance for Assessors of Achievement and Unit Standards

The purpose of external moderation is to provide reassurance that assessor judgments are at the national standard and are made on the basis of assessment materials that are fair and valid.

All assessment materials are expected to:

- give the learner the opportunity to meet the requirements of the standard
- have an assessment schedule that gives evidence of appropriate learner responses and clear judgments at all levels.

The Ministry of Education contracted subject experts to write assessment resources for achievement standards. These are not pre-moderated. The intention is that they are modified to suit teaching programmes and learner needs. They do not provide “rules” but suggest different ways of assessing to the nationally registered standard.

General Overall Comment

There have been minor alterations to the moderation process but moderation in 2006 highlights the need to repeat many comments made in the 2005 National Moderator's Report.

Assessors are urged to consult the Qualifications Authority website and use the latest versions of the achievement standards at all levels. The most recently developed, or modified, exemplar materials can be found on the Ministry of Education's (MOE) website, Te Kete Ipurangi (TKI) website.

Assessment materials from the TKI website used in previous years may no longer meet the requirements of newly registered achievement standards. Some require significant modification before being used again. Others, even with significant modification, would still not meet requirements of the current version of the standards.

The version number required on the moderation cover sheets refers to that of the achievement standard, not the version of the MOE assessment resource.

Assessors should be aware that they may change the context of the MOE assessment resources without affecting the validity of the task. Where significant changes are made to the assessment tasks, changes in the schedule are required. It is suggested that changes to exemplars should be minor, such as changing a horticulture focus to an agriculture focus, or vice versa. If widespread changes are required, it is advisable not to use the material. Providers are encouraged to develop their own assessment materials.

90156: Carry out a practical agricultural or horticultural investigation with direction

This standard has a single criteria with emphasis being placed on the ability of the plan to test the validity and accuracy of the aim or hypothesis. However, if group work is undertaken, assessors need to be confident about individual learner contribution and make their judgements accordingly. For moderation purposes, evidence of individual learner contribution must be provided, which could be achieved by a grid of learner names containing criteria relating to involvement.

Learners are required to identify both the dependent and independent variables at all levels of achievement. Often, learners do not understand that *a range for the independent variable* implies *at least three*. For example, it is no longer acceptable to investigate the effect of time on soaking seeds by selecting non-soaked and soaked for a set time period (eg 24 hours). The expectation is that learners will soak seeds over a range of time intervals. A valid range is required for merit, therefore seed soaking for lengthy periods (eg days) does not qualify.

The main determining factors at merit level are the quality of the plan and the quality of data processing. Learners who conduct multiple trials but then proceed to graph the results of all trials, not the averaged data, are not working at merit level. A valid conclusion is now required at merit level while evidence of the critical thinking involved with evaluation is required for excellence.

90157: Demonstrate practical skills and knowledge in agriculture or horticulture production

This achievement standard is concerned with demonstration of practical skills and recognition of materials, equipment, products and conditions. Assessment needs to cover both. For moderation purposes, material must be provided that shows which skills were assessed and how. A number of assessors submitted material only for the recognition criteria.

There is a concern that different levels of achievement are being determined by a total of correct answers rather than by reference to performance in each of the recognition categories. Assessors are awarding “achieved” grades in two categories only eg conditions and materials. Another concern is the limited number of tasks provided for learners to demonstrate recognition of a *range* within each of the four categories in order to achieve at the merit/excellence level.

Some assessment materials are being adapted to suit local needs but in some cases assessors require learners to “explain” or “justify” certain techniques or equipment used. The standard does not require explanations or justifications at any level of achievement. While these may be good teaching strategies, assessment of this standard should not include them.

In terms of assessment of practical skills there are often only three skills being assessed, and no criteria is provided indicating how the level of achievement is determined. The awarding of grades for the practical skills section requires criteria such as safety and time, as expressed in the explanatory notes of the standard, to be met.

18984: Demonstrate knowledge of plants and plant production

The following comment was made in the 2004 and 2005 reports:

A very popular unit standard with all assessors using material developed by Science Educators. The use of matching lists constitutes a form of “description”, however, the question relating to the glasshouse diagram does require attention in terms of intent and space for learner responses. Some questions relating to management are outside the scope of the standard and could be removed. The schedule does recognise that evidence from such questions is not required for achievement of the standard.

Moderation reports have highlighted deficiencies in the tasks and schedules provided for this standard. However, few assessors have attempted to modify tasks to accommodate moderator comments.

90450: Carry out a practical agriculture or horticulture investigation with supervision

The intent of this standard is that learners plan their own investigation that extends over a period of time, unlike the level 1 standard where the plan could be carried out in a single class period. The expectation is that learners will carry out their own plan and therefore that plans will reveal differences in wording, even if a common task is set.

Revised versions of the original resources *Growing Chickens* and *Cuttings* are available on the TKI website.

90455: Describe how livestock behaviour impacts on productivity

While this standard is popular in agriculture-orientated courses, assessors are reminded that a new generic resource is available on the TKI website.

At achieved and merit levels, learners are required to explain how interactions between behaviour and management impact on productivity within a production system.

The standard relates to livestock behaviour in a production system. There is a tendency for tasks to examine understanding of a range of behaviours pertaining to different livestock species without providing opportunity for learners to show linkage to productivity of a production system.

90456: Describe and redesign landscape sites

Only a small number of providers offered this standard in 2006.

Assessors should note the need for students to both describe and explain the significant needs of users.

Many assessors have not modified the evidence statements to reflect the task relating to their local areas. As a result moderators cannot judge the accuracy of learner work and how well it meets standard requirements. Justification required for excellence should exhibit critical thinking skills and include detailed information.

90649: Research the production of a marketable, locally produced primary product

Evidence of learner research should be exacting and comprehensive. At least two market forces affecting supply and two affecting demand need to be explained at all levels of achievement and detailed information on significant management practices within the production process is essential. The standard has a research focus but evidence from 2006 moderation indicates that many learners were content with downloading and/or submitting extracts from secondary data that had some relevance to the product selected. Such information was rarely processed in a manner that allowed for the integration of ideas essential for merit and excellence. Explanations of management practices and market requirements were, at best, descriptions. A single interview with a producer, on its own, does not constitute “research”. It must be supported by information derived from other sources.

Learners who present relevant and some irrelevant material on both production and marketing but who cannot establish linkages may be awarded an “achieved” grade at best.

While it is relatively straight-forward to access relevant information on the production process, information on marketability is often more difficult to access. As a result projects reflect an imbalance between production and marketability. Learners need to be encouraged to provide equally detailed information on marketability as for production process.

Assessors are reminded that where oral evidence is sought to clarify deficiencies in written projects, it is useful to provide written evidence of such information for moderation purposes.

Many assessors do not modify the exemplar assessment schedule to fit the primary product that learners are investigating. It is expected that if all learners are researching apples then evidence statements specific to apples are provided. If learners are researching different primary products then it is not possible to provide evidence for this in the schedule but it is expected that evidence will be of an equivalent standard to that provided in the exemplar.

90650: Investigate production and marketing of a nationally significant primary product

The information-gathering techniques to be used are stipulated in explanatory note 3 and the MOE exemplar has been modified to accommodate the changes made in the reviewed standard.

Materials moderated in 2006 indicate that most learners were directed to use a range of information-gathering techniques. Learners should be informed that this involves *at least three* information gathering techniques. It may also be necessary to explain what constitutes a information-gathering technique. Using a range of techniques is necessary to meet the requirements of the first achievement criterion at all levels.

Most learners gather the bulk of their information from secondary data which they then analyse, and draw conclusions and make recommendations from. One technique alone does not meet standard requirements. Learners are keen to conduct surveys but if this technique is to provide relevant information, care with question focus and response analysis is required. Often surveys are a random collection of questions, most with no relevance to the aspect of production or marketing being investigated. In cases where the questions are relevant, learners do not analyse the responses or, if they do, rarely use the information to draw conclusions and make

recommendations. Experimentations follow a similar pattern. Learners are keen to cook and eat but reluctant to use the information gained using this technique.

It is not uncommon for learners to introduce new information that has not been referred to previously when collecting and analysing information.

As with 2005 performance, learners are still not making linkages between production and marketing using the information they have gathered.

It is essential that the sample assessment schedule is modified to fit the primary product that learners are investigating. It is expected that if all learners are investigating apples then evidence statements specific to apples and not potatoes are provided.