

Qualification Title: New Zealand Certificate in Horticulture Production (Level 4) with strands in Fruit Production, Indoor Crop Production, Nursery Production, Outdoor Crop Production, Post-Harvest, and Wine Growing

Qualification number: 2676

Date of review: 17 May 2021

This report refers to graduates awarded all versions of this qualification prior to: **31 December 2020**

Final decision on consistency of the qualification: National consistency is confirmed

Threshold:

The threshold to determine sufficiency with the graduate profile was determined as evidence that graduates, working independently, will be able to:

Supervise and provide instruction to team members using a range of effective communication and interpersonal skills relevant to a horticulture sector:

- Implement and monitor routine horticultural operations.
- Assist with, take some responsibility for and supervise the routine operations in a horticulture production sector.
- Self-manage and take some responsibility for the performance of others.
- Use distinct skills and knowledge for specific horticulture sectors relative to the strand attained.

Strands covered in this particular review include:

- Fruit Production, Indoor Crop Production, Nursery Production.
- Graduates of the **Fruit Production strand** are able to: Implement and monitor sustainable fruit production operations to achieve production goals and standards. Implement and monitor a sustainable fruit crop protection programme to meet production goals and standards. Implement and monitor sustainable fruit crop management techniques to optimise fruit production.
- Graduates of the **Indoor Crop Production strand** are able to: Implement and monitor seasonal tasks to achieve production goals and standards for indoor crop production. Apply knowledge of environmental factors and sustainable practices to implement and monitor indoor crop management techniques to optimise crop performance and yield.
- Graduates of the **Nursery Production strand** are able to: Implement and monitor routine nursery operations to achieve production goals and standards. Apply knowledge of plant processes, environmental factors and sustainable practices to optimise crop production.

The agreed threshold statement is similar to the Graduate Profile Outcome (GPO) statements for the three strands (Fruit Production, Indoor Crop Production and Nursery) with some

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changes being made to the Nursery strand statements to relate better to the outcomes of the graduates.

It was agreed by all those at the review that the threshold needed to stay as broad as it could to cover all that their graduates could be, know and do.

Education Organisations with sufficient evidence

The following education organisations have been found to have sufficient evidence.

MOE Number	Education Organisation	Final rating
6007	Eastern Institute of Technology Ltd.	Sufficient
6010	Manukau Institute of Technology Ltd.	Sufficient
6011	Nelson Marlborough Institute of Technology Ltd.	Sufficient
6025	Toi Ohomai Institute of Technology Ltd.	Sufficient
6013	Otago Polytechnic Ltd.	Sufficient
8015	Primary Industry Training Organisation	Sufficient
8028	Franklin Institute of Agri-Technology	Sufficient

Introduction

This qualification is intended for experienced workers in the horticulture industry who want to develop their skills and knowledge to supervise day to day operations in horticulture production. Students build technical skills and knowledge in areas within the horticulture industry and have the opportunity to gain contextualised experience and knowledge in the areas of safe work practices, literacy, numeracy, timekeeping, communication and teamwork.

The qualification recognises the specific skills and knowledge of individuals who can, in a self-managed capacity, take responsibility for the routine operations in a horticulture production sector. Graduates will be able to work independently and at times may have some responsibility for the performance of others. The qualification includes strands that recognise the distinct skills and knowledge for specific horticulture production sectors.

This qualification may build on the New Zealand Certificate in Horticulture (Level 3), strands Fruit Production, Indoor Production, Outdoor Crop Production, Nursery Production and Wine Growing [Ref: 2678] and may lead to the New Zealand Diploma in Horticulture Production (Level 5) with strands in Fruit Production, Indoor Crop Production, Nursery Production, Outdoor Crop Production, Post-Harvest, and Wine Growing [Ref: 2666].

Graduates of this qualification are likely to be employed as:

- Fruit Production - Orchard Supervisor, Orchard Leading Hand, Foreperson
- Indoor Crop Production - Crop Supervisor, Team Leader, Crop Monitor
- Outdoor Crop Production - Crop Supervisor, Leading Hand - Nursery Production - Nursery Team Leader, Nursery Specialist
- Post-Harvest - Supervisor
- Wine Growing - Vineyard Supervisor, Vineyard Leading Hand, Technical Assistant

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The reporting range for this qualification is 1 January 2015 - 31 December 2020. Three versions of the qualification have been agreed over this time. Changes made were minor terminology updates rather than significant changes. One of the updates being the introduction of the word sustainability.

Free fees have started to increase learner numbers, but as noted later in the report the split into the various strands offered is contributing to the loss of learners when they realise they prefer a different field. The qualification is also available to in-work learners who study over a longer period to complete the qualification.

Primary ITO had only two graduates and was not required to present at the review and a paper review was undertaken.

Evidence

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes.

The criteria used to judge the evaluation question were:

- The nature, quality and integrity of the evidence presented by the education organisation
- How well the organisation has analysed, interpreted and validated the evidence, and used the understanding gained to achieve actual or improved consistency
- The extent to which the education organisation can reasonably justify and validate claims and statements relating to the consistency of graduate outcomes, including in relation to other providers of programmes leading to the qualification.

Evidence was presented of effective internal quality assurance systems to assure that graduates meet the graduate outcomes of the qualification, internal and external moderation processes that ensure alignment of the assessments to the learning outcomes, and extensive support from affiliated and associated industry, employers and graduates.

Comprehensive feedback from employers (and ongoing requests for more graduate feedback) collected by phone calls, face-to-face interviews and electronic surveys suggest that the skills, knowledge and behaviour inherent in the graduate outcomes are demonstrated by graduates.

There was evidence of good analysis of assessments and strong moderation practices demonstrating the range of student performance within a programme and showing that the graduate outcomes have been met.

Although sustainability was not explicitly mentioned throughout the presentations, those at the review assured the reviewer that sustainability underpinned much of what was taught and assessed. Many were working to change the learning outcomes and assessment to take into account the changes to the GPOs in version 3 of the Qualification (specifically noting sustainability) for delivery next year.

How well does the self-assessment and supporting evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes. Evidence included good internal quality processes, strong self-assessment with changes noted, programme mapping against the

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graduate profile outcomes, examples of good internal and external moderation practice, graduate surveys with substantial feedback and formal and informal employer feedback.

The providers were able to demonstrate clearly how the unit standards used to assess programmes of study related to the graduate profile outcomes. For some graduates it was noted that it may not be possible to be part of the pest and disease management programme. This relates to GPO 'Implement and monitor a fruit crop protection programme to meet production goals and standards (25 credits)'. This is a specialist operation and is conducted by one or two members of a team. It would be unrealistic for a graduate to be given this responsibility until several years of experience in the overall operation is achieved.

Field trips and work placements within many of the programmes ensure connection with industry. They also enable targeting of guest speakers at the cutting edge of the industry.

Across the sector, post-assessment moderation of horticulture sector assessors assessing horticulture standards in November 2018 saw 236 script samples moderated over all levels with an 88% compliance rate. Further post-assessment moderation of horticulture standards was completed in August 2019, with 186 samples moderated. Compliance was 90% covering 8 providers and 108 Primary ITO Training advisers or workplace assessors.

PIPTA, the Primary Industries Polytechnic Tutor's Association, draws together over 15 institutes to share in the process of moderation and provides an excellent opportunity for gaining good quality feedback on assessment processes and assessments.

Overall, the self-assessment and supporting evidence supplied by those organisations found sufficient demonstrates that their graduates meet the graduate outcomes at the determined threshold. This included moderation evidence, programme alignment to the GPOs, programme review information, graduate feedback, employer feedback, and destination data.

Special Focus (includes special focus on a strand or outcome)

There are three versions of the qualification – most providers at the meeting were using either version 2 or 3.

Version 3 title: (90-125 credits) New Zealand Certificate in Horticulture Production (Level 4) with strands in Fruit production, Indoor crop production, outdoor crop production, Nursery production, Post-Harvest, and Wine Growing.

Version 1 titles 1 (90-175 credits) and 2 (90-160 credits): New Zealand Certificate in Horticulture Production (Level 4) with strands in Fruit Production, Indoor Production, Outdoor Vegetable Production, Nursery Production, and Post-Harvest.

As a result of review, version 3 of this qualification was republished in November 2020. Please refer to Qualifications and Assessment Standards Approvals for further information. The last date for assessment for version 2 of this qualification is 31 December 2024.

Issues and concerns

The level 4 qualification and its anomalies around the varying range of credits associated with the strands was discussed. Not having a general strand not only disadvantaged potential students, it also created issues with TEOs in meeting the assigned credit values for the strands. TEOs offering this qualification noted that the vast range of credits and qualification options is causing a loss of potential entrants into the industry and difficulty retaining current ones. Some students start undecided in the discipline they wish to pursue; they know they want to do horticulture, and then in the study/learning process they decide

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their preference. For the TEOs, there are too many strands, and they are not able to offer all the strands to small groups of learners, which again results in a loss of graduates to the industry.

The total credit value range across the strand specialisations is significant. All TEOs noted that it is important for the qualification developer to determine a standard range credit level (specifically 120-140 credits) for the qualification and all the various strands. Offering a more standardised suite of qualifications with the same credit value is likely to promote a boost in enrolments. Better still, a more generic qualification would allow choice and perhaps a better opportunity for TEO's to reflect regional needs in their programmes.

Recommendations to Qualification Developer

Options discussed included a general qualification at Level 4 to cover Horticulture Services as well as Horticulture Production. This would enable the various TEOs to tailor delivery to the discipline/regional strength. A 'general' option along with 'strand options' would be ideal.

Another discussion was had around the need to be able to deliver both a work integrated learning model and a full-time, off-job delivery model.

Other recommendations:

The use of the Central Otago Labour Management Governance Group (COLMGG) as a feedback pathway may be as effective as the PEAC. The COLMGG is broader and has representation from growers across the region, MSD, MPI, Primary ITO, District Council, Summerfruit NZ, Winegrowers Association and Horticulture NZ. It is a strong group that will help ensure that the programme is meeting both the GPOs and industry needs. This group may well be a better feedback group through the transition into Te Pūkenga.

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