

Qualification Title: New Zealand Diploma in Dairy Processing (Level 6)

Qualification number: 2270

Date of review: 8 May 2017

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 of:

An employee working in the dairy processing sector in a range of operational roles throughout the supply chain who:

- applies technical skills at an advanced level¹, and
- interprets, analyses and evaluates dairy processing information, and
- demonstrates technical leadership,

to assure the quality of the dairy products and bring about continuous improvement in dairy processing.

Tertiary Education Organisations with sufficient evidence

Tertiary Education Organisation	Final rating
Waikato Institute of Technology (Wintec)	Sufficient

Introduction

The purpose of this Level 6 qualification is to provide the dairy processing sector with experienced employees who have specialist technical skills that they use in a range of dairy processing operations, with an emphasis on quality assurance and systems improvement. Graduates require 120 credits to be awarded this qualification. Wintec was the only tertiary educational organisation delivering this qualification. There were 26 students who graduated in 2015 and 2016. All the students were employed in technical roles with dairy processing companies. The students were released from work over two years to attend three block courses, each of three weeks duration.

Two Wintec representatives attended the review meeting. A representative of the Primary Industry Training Organisation (Primary ITO) attended the review meeting as the qualification developer.

¹ See recommendation to the qualification developer.

Evidence

The education organisation 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 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

The key evidence included:

- The 2016 annual programme evaluation report and appendices, including:
 - credible evidence of dairy companies selecting suitable employees for programme
 - detailed list of subject matter experts tutoring on the programme
 - a report of a generic graduate programme survey
 - the schedule for the three block courses showing industry subject matter experts tutoring on the programme
 - descriptions and estimated costings of the significant industry contributions and support to the programme including, providing nine weeks paid study leave each year for students to attend the block courses, developing training materials, offering tutoring at no cost, providing access to their commercially sensitive dairy processing workplaces.
 - limited information about moderation process and spreadsheet tracking the moderation activity
 - minutes of meeting between a Fonterra manager responsible for technical capability and Wintec Science and Primary Industries Centre manager involved in the delivery of the programme.
- Samples of student's posters that describe their authentic real-world capstone event project. Students used their technical skills to investigate an issue (approved by the manager) from their dairy processing workplace and present their poster and findings at a tradeshow where industry stakeholders are present. Three experts contribute to the assessment of their project.
- A list of the 2015 and 2016 graduates who have been promoted since enrolling on the diploma programme.

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

The provider presented a broad range of evidence and justifications to demonstrate that their graduates match the graduate outcomes at the appropriate threshold:

1. Students match the graduate profile outcomes
 2. High level of industry engagement
 3. Student selection
 4. Moderation
 5. Workplace promotion of the graduates
-
1. Students Match the Graduate Profile Outcomes
Capstone event: The provider presented samples of the posters that form a key part of a presentation of a capstone project by the graduates at an industry event. Students used their technical skills to investigate an issue (approved by their manager) from their dairy processing workplace. Three industry experts contribute to the assessment of their project. This evidence would have been strengthened with an outline of learning outcomes of the module mapped against the graduate profile outcomes, the associated marking schedule. An outline of how the learning outcomes of the seven other programme modules mapped against the graduate profile outcomes will also supplement the evidence provided.
 2. High level of industry engagement
Industry stakeholders have made a major contribution to the design of this programme and continue to be significantly involved in the ongoing delivery of this programme. The robust and relevant evidence provided included minutes of meetings between Wintec and a senior dairy industry manager, programme schedule including subject matter experts tutoring students and participating in the 'poster day' capstone event, block course visits to a range of dairy processing sites. This evidence provides a high level of confidence that the graduates were acquiring real-world technical skills needed as technical specialists working in the dairy processing industry.
 3. Student Selection
The provider presented credible evidence that all 2015 and 2016 graduates had been employed in technical roles and their dairy processing site manager had selected them for the diploma programme.
 4. Moderation
A spreadsheet provided good evidence that 5 of the 8 training modules have been pre-moderated at some point in time. The moderation result for all five modules was that minor changes were required. Evidence of sound moderation would be strengthened by presenting the schedule for pre-and post-moderation for all the eight training modules. Evidence of post moderation results occurring would strengthen confidence in the assessment results. Moderation of the capstone event assessment has highest priority, given the rich discussion about the industry standard for posters being above a level 6 diploma standard.

5. Workplace Promotion of the Graduates

There was clear evidence that the majority of the 2015 and 2016 graduates had been promoted as dairy industry technical specialists since their enrolment on the diploma programme. This evidence would have been strengthened by

- stating what percentage of the graduates had been promoted
- feedback from the managers as to what extent the qualification had contributed to their promotion.

The threshold agreed by the consistency review meeting directly mapped onto the graduate profile outcomes and strategic purpose statement of this qualification. The evidence and justification provided makes a convincing overall case that the graduates match the graduate outcomes at the appropriate threshold.

Examples of good practice

There was a range of detailed relevant and real-world evidence provided including

- the provider made a convincing case to demonstrate that the graduates match the graduate profile outcomes, based on three key points (student selection, a capstone event showing graduates match the graduate profile outcomes, promotion in the industry) These points were typically supported by relevant evidence including
 - A range of evidence of industry engagement
 - samples of student posters from the capstone event
 - A table of the 2016 graduates showing their promotion from a junior technical specialist role to a more senior role.
 - minutes of senior industry manager involved in a programme review.

Recommendations to Qualification Developer

The first graduate profile outcome of this qualification states that students 'carry out advanced technical skills' and 'operate as a specialist in advanced level.' 'advanced' skills are a descriptor for a level 8 qualification on the national qualifications framework. The two reviewers propose that the qualification graduate profile be amended as follows:

- 'advanced technical skills' change to 'specialist² technical skills'
- 'operate as a technical specialist at an advanced level with an emphasis on quality assurance and systems improvement' should be changed to, 'operate as a technical specialist with an emphasis on quality assurance and systems improvement'.

² 'Specialist' is description of the level of skills for a level 6 qualification.