

**Internal Assessment Resource**

Agribusiness Level 3

This resource supports assessment against Achievement Standard 91871

Standard title: Analyse how a product meets market needs through innovation in the value chain

Credits: 4

Resource title: Adding value to kiwifruit

**Resource reference:** Agribusiness 3.10B Version 1

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| This resource:   * Clarifies the requirements of the achievement standard * Supports good assessment practice * Should be subjected to the school’s usual assessment quality assurance process * Should be modified to make the context relevant to students in their school/kura environment and ensure that submitted evidence is authentic |

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| Date version published by Ministry of Education | December 2017 Version 1  To support internal assessment from 2018 |
| Authenticity of evidence | Teachers must manage authenticity for any assessment from a public source, because students may have access to the assessment schedule or exemplar material.  Using this assessment resource without modification may mean that students’ work is not authentic. Teachers may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

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Teacher guidelines

The following guidelines are supplied to enable teachers to carry out valid and consistent assessment using this internal assessment resource.

Teachers need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing students against it.

**Context/setting**

This activity requires students to comprehensively analyse how kiwifruit meets market needs through innovation in the value chain.

Students will explain how kiwifruit shows innovation in the value chain through a presentation.

**Conditions**

Where a group approach is used, the teacher needs to ensure that there is evidence that each student has met all aspects of the standard.

A student can present their information in a format of their own choice. For example, written paragraphs, tables, graphs, videos and/or diagrams, which could form part of a poster, slideshow, a blog or website. You may want to give students guidance on the appropriate style and format for their findings. This achievement standard does not assess format or style.

As a guide, the assessment should reflect approximately 40 hours of teaching, learning and assessment in and out of the classroom.

Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards>

**Resource requirements**

Access to the internet and a range of sources.

**Additional information**

If you are choosing an agribusiness context for this assessment, there is no expectation to cover all seven primary industries.

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Student instructions

**Introduction**

This assessment activity requires you to analyse how kiwifruit meets market needs through innovation in the value chain.

You are going to be assessed on how comprehensively you analyse how kiwifruit meets market needs through innovation in the value chain.

Teacher note: Insert due dates and timeframes

**Task**

You are going to investigate kiwifruit and its value chain and present your information.

Your presentation should:

* explain the value chain for kiwifruit
* explain an innovation that may occur at a stage of the kiwifruit value chain
* examine how the innovation adds greater value to kiwifruit
* evaluate how the innovation meets market needs for kiwifruit
* evaluate the impact and consequences of the innovation on the whole kiwifruit value chain
* evaluate the ability for kiwifruit to meet future needs.

Present your evidence in a format agreed to with your teacher. Your presentation could take the form of written paragraphs, posters, video, annotated timeline, audiovisual presentation, website, blog etc. This should be no longer than 2000 words.

Throughout your presentation, refer to information you have gathered and include supporting evidence, accurately recording the details of the source(s)

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**Assessment schedule: Agribusiness 91871 – Adding value to kiwifruit**

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| **Evidence/Judgements for Achievement** | **Evidence/Judgements for Achievement with Merit** | **Evidence/Judgements for Achievement with Excellence** |
| The student has analysed how a product meets market needs through innovation in the value chain.  In their presentation, the student:   * explains the value chain for kiwifruit * explains an innovation that may occur at a stage of the kiwifruit value chain * explains how the innovation meets market needs.   **For example: (partial evidence)**  The production of the best quality, superior tasting and safe kiwifruit products using sustainable growing production methods.  The student has explained several stages in the selected product’s journey from raw materials to final consumer.   * Growing kiwifruit * Harvesting * Grading * Transport * Packaging * Distribution * Marketing * Retail   Innovation.  Consumers are becoming increasingly concerned about how their food is produced and the associated impacts of getting fruit to market. Some consumers look for options that are more environmentally friendly. BayPark Orchard (Kiwifruit Farm) has developed sustainable growing strategies to manage some of the environmental impacts associated with fresh kiwifruit production. One of the management practices associated with this strategy involves planting 8% of the orchard with native and exotic tress to store carbon, protect the kiwifruit crop and to encourage birdlife and biodiversity. Another method is to use integrated pest management to reduce spray usage and minimise the impact on other insects, which further increases biodiversity.  Market needs.  These are best practise growing techniques that use natural methods to ensure quality fruit. This is fruit with the attributes desired by export markets, as well as reducing impacts in the environment / enhancing the environment.  *The examples above are indicative samples only.* | The student has analysed, in depth, how a product meets market needs through innovation in the value chain.  In their presentation, the student:   * thoroughly explains how kiwifruit meets market needs through innovation in the value chain * examines how the innovation adds greater value to kiwifruit.   **For example: (partial evidence)**  In addition to the evidence for achieved:  BayPark Orchard developed a strategy to manage the environmental impacts associated with fresh kiwifruit production for the top five globally important environmental impact areas. These areas are greenhouse gas emissions (carbon footprint), water, waste, non-renewable resources and biodiversity.  To improve biodiversity, BayPark Orchard has planted native and exotic plant species to provide the kiwifruit crop with protection and have minimised the nutritional inputs, which has increased the natural bird and insect life causing the biodiversity to flourish. This is innovative as the kiwifruit grower can produce a premium quality kiwifruit and at the same time protect and enhance the natural environment.  These innovative growing practices add value to the kiwifruit. Customers value the sustainable growing of the kiwifruit and therefore are willing to pay more than the total costs of the product. Growers who use these sustainable growing practices create willingness in the mind of the consumers of kiwifruit to pay more for their product than the total cost of the inputs. This enables the kiwifruit farmer to make a profit, as the selling price is higher than the cost of product.    *The examples above are indicative samples only.* | The student has comprehensively analysed how a product meets market needs through innovation in the value chain.  In their presentation, the student:   * evaluates the innovation meeting market needs for the product * evaluates the impact and consequences of the innovation on the whole value chain * evaluates the ability for the selected product to meet future needs.   **For example: (partial evidence)**  In addition to the evidence for achieved and merit:  Global demand for organic kiwifruit produce or produce produced by sustainable methods continues to grow strongly with growth rates ranging from 8 to 12 percent per annum based on the traditional markets of Europe and North America. Sustainable demand is increasing in Asia and is aligned to the trend toward safe, healthy food. By Baypark Orchard implementing a strategy to manage environmental impacts associated with the production of kiwifruit, they are meeting the increasing market demand from their consumers. BayPark Orchard was concerned that greater interest in sustainability from the marketplace will create compliance issues that may add cost and reduce the choices they have to manage their orchards, hence their reason for being proactive and starting to make changes within their production system. Zespri has also been proactive in developing tools so that growers have a range of options to manage environmental impacts.  BayPark Orchard will continue to make changes within their production system such as better optimisation of fertiliser application timing and rate to reduce leaching or runoff and improve efficiency, to continue to plant riparian zones and steep banks to reduce erosion and sediment flows. These sustainable management practices will have significant gains in orchard productivity and will reduce the environmental impact per kilogram of fruit sold in market. BayPark Orchard has also found that efficiencies in water use, fertiliser application and energy usage can provide cost savings without significant losses in productivity. Figures show that kiwifruit orchards that adopt these growing practices appeal to the conscientious consumers. 75% of consumers surveyed would be willing to pay an additional 5% for kiwifruit if the growers protected the natural environment using sustainable growing practices. By growing in a more sustainable way Baypark are able to market specifically to the environmentally minded consumer, tailoring advertising and promotion to appeal to them.  Sustainable production systems optimise inputs while maximising yield and quality and gaining market access to the environmentally concerned consumer.  In recent years, using sustainable growing practices or producing organic kiwifruit in New Zealand has been strong in terms of yields and returns. The New Zealand green image is identified in the global food market, but with an increasing conscientious consumer, growers need to be able to meet future needs. The sustainability produced fruit may, over time, eventually become the conventional, hence BayPark Orchard is well on their way to meeting these future needs.  *The examples above are indicative samples only.* |

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.