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91531



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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 3 Agricultural and Horticultural Science 2025

91531 Demonstrate understanding of how the production process meets market requirements for a New Zealand primary product(s)

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how the production process meets market requirements for a New Zealand primary product(s).	Demonstrate in-depth understanding of how the production process meets market requirements for a New Zealand primary product(s).	Demonstrate comprehensive understanding of how the production process meets market requirements for a New Zealand primary product(s).

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–11 in the correct order and that none of these pages is blank.

Do not write in the margins (//////). This area will be cut off when the booklet is marked.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

Achievement

TOTAL 4

Page 1

INSTRUCTIONS

This examination has THREE parts. Carefully read ALL instructions and parts before answering.

You need to answer ALL parts of the examination using the **same** primary product.

You will need to discuss the market requirements of TWO separate markets (one market can be the domestic New Zealand market).

Name a specific primary product and two separate markets.

Primary product:

Market (1):

Market (2):

Using the market requirements listed below, you must select **different** requirements for each market.

Market requirements

- Price
- Timing
- Quantity
- Quality

PLANNING

TASK: Discussing how management practices meet market requirements

Market requirement for Market (1):

- (a) (i) For Market (1), explain one requirement that this market has. Use recent data to support your answer. In your answer, consider what the specific requirement is and why this requirement exists.

B I U

China requires timing as a result of their holidays being spread out throughout key points in the years such as golden week, Chinese new year and other holidays celebrated in China. China is a very giving country which shares gifts frequently so it is important to note that throughout seasons where demand is high. This requirement exists because it's important to note when demand will be highest for the market and when supply will also need to meet the demand. This allows for the most efficient timing and sales will be highest as a result of the fruit. This also allows other buyers to choose your product because of the price which you can sell your product as because you can predict a price which will beat your competitors. Having timing allows for higher demand throughout a season which has lots of holidays. Timing can also improve the quality of the fruit through management practices which allow for optimal seasons where the fruit will get the best quality and quantity. This overall will rise the value of the product making it seem of better value to consumers.

Market requirement for Market (2):

- (ii) For Market (2), explain one requirement that this market has. Use recent data to support your answer. It must be a different requirement from that used for Market (1). In your answer, consider what the specific requirement is, and why this requirement exists.

B I U

In Europe the quality of the product is a large dictator of whether the product will be of value or not is through the quality and value of the product. If the product has good reputation such as the Zespri Kiwifruit then large amounts of consumers will purchase the product because of the reputation it has. The quality is often determined through the preference of the consumer and how well the experience of eating the fruit every time is. Whether the experience is bad once will impact the reputation dramatically as the buyer may not want the level of quality again. Kiwifruit is also a rarely bought fruit in some parts of the world so just trying the kiwifruit is a large leap for consumers already. The requirement exists to prove the value of the fruit is worth the experience of eating the fruit over and over. Majorly Europe tends to be a continent which doesn't exactly buy kiwifruits on the daily so this is often a new experience just to try the fruit. Another factor of the quality is consumer preference which may lead some consumers into not buying purely on first taste.

Management practices are carried out by producers in order to produce products that meet the requirements of the market.

Management practice for Market (1):

- (b) (i) Explain how this management practice enables producers to meet the market requirement. Use recent data to support your answer.

B I U

Timing is a major enabler for producers as they often grow in long periods based on the seasonal growth. Growers for kiwifruit often use pruning is another way growers tend to increase grow leading into an important season which is the process of removing some of the plant to encourage more growth to help support the plant leading into the season which helps increase the supply throughout winter seasons. This also helps act upon any unwanted growth which may lead into a unsuccessful season where fruit may be smaller and unpleasant. Winter pruning overall prevents seasonal growth from going bad throughout important seasons where China has holidays. Pruning is the action of removing any other fruit buds which share energy with the other buds which often creates ugly fruit and slower growth rates and smaller amounts of fruit flavour. Pruning then redirected the energy into the king fruit which attracts all the energy into the fruit.

- (ii) For Market (2), explain one requirement that this market has. Use recent data to support your answer. It must be a different requirement from that used for Market (1).

In your answer, consider what the specific requirement is, and why this requirement exists.

B I U     

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Management practice for Market (2):

- (ii) Explain how this management practice enables producers to meet the market requirement. Use data to support your answer. It must be different from the practice used for Market (1).

B I U     

Girdling is the process of removing the outer layer of bark from the stem of the kiwifruit vine and improves growth production by sending the nutrients from the roots towards the leaves and fruit which overall improves the growth rates and therefore quality of the fruit. Girdling is risky as the exposed plant then becomes valnarable to pests, disease and if done incorrectly possibly killing the plant. However, I find the rewards fitting and worth while because the plant will be more valuable for a small expense if done right this gives the fruit a more promising look and improves the value overall. This is said to increase dry matter by 50% using girdling and to increase brix levels by 1-3 which is a must as people often prefer the Sungold kiwifruit which is the sweeter kiwifruit.

A major goal of producers is to earn a profit. Producers who meet a **broader range of market requirements** are likely to be more economically successful.

Select one management practice from part (b).

Management practice:

(c) Discuss why this management practice has a more significant impact on meeting the **market requirements** when compared to another management practice for your chosen product.

Use recent data to support your answer.

In your answer, consider:

- the **market requirements** this management practice has an impact on
- the impact this management practice has on the price received.

B I U     

Girdling works well with both timing and quality as it allows for a estimated growth time and a estimated production rate which has been used and tested many times before I feel the risks of pests, disease and the plant dying to be small if handled well and the risk reward is balanced well while also being cost effective. Girdling is a cheap and reliable way of bringing out the best of the plant if taken care with and looked after properly. Winter pruning is good throughout the seasons it needs to be used in and can easily also be implemented into a plan if though-out well. Overall, girdling also allows for better brand recognition because of the quality and reliability of the product being big and sweet because of the extra nutrients being added. Girdling also adds and extra 50% dry matter compared to without girdling. The brix of the fruit is also increased by 1-3 through girdling and most New Zealander growers tend to use girdling as its cheap and reliable. Overall this increases the quality of the fruit through moving the nutrients into the fruit increasing consumer preference and reliability of the fruit being the same throughout the vine.

Achievement

Subject: Agricultural and Horticultural Science

Standard: 91531

Total score: 4

Q	Grade score	Marker commentary
One	A4	The candidate explains the specific timing requirement for kiwifruit to China, and the quality required for the European market. These were linked to management practices that the grower could carry out to meet these selected market requirements. No quantitative data was given to support the explanation.