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91530



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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 3 Agricultural and Horticultural Science 2025

91530 Demonstrate understanding of how market forces affect supply of and demand for New Zealand primary products

Credits: Five

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how market forces affect supply of and demand for New Zealand primary products.	Demonstrate in-depth understanding of how market forces affect supply of and demand for New Zealand primary products.	Demonstrate comprehensive understanding of how market forces affect supply of and demand for New Zealand primary products.

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 2–12 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.

Excellence

TOTAL 7

INSTRUCTIONS

Carefully read ALL instructions AND parts (a) to (c) before answering.

Use TWO different primary products to answer parts (a) and (b).

Part (c) may be answered using a primary product used in either part (a) or (b), or with a completely different product.

The primary products chosen must earn significant export revenue in their processed or unprocessed form, or allow for self-sufficiency within New Zealand.

All parts of this examination must be answered.

PLANNING

Salmon

\$15.80 To produce 1 NZ King Salmon

\$11 on feed

2.66 Per kg ^{to} feedover 30 on rock scale - Dur to Pink flesh - Antioxidant ^{added in feed.}
20% ideal fat content

\$60-80 for NZ King Salmon

\$40-60 for Atlantic

Omega 3

35 T exported / 5 Days / week.
Per dayDemand is very high
365 days / year.

Apples

around 14 Brix

6.5-7.5 firmness

Royal Gala Tree 3770 ^{diameter} amount of apples it takes to
Beecham Tree 2572 ^{diameter} get to 18 kg - TCE

Rocust 217 - 60mm diameter

11,490 Ha total planted in NZ

68% exported

~~35% exported~~

To the EU Union FTA

9% apple that is consumed in 2022 ~~that~~ that
serves 1.3 million

TASK: Discussing how market forces affect supply and demand

Name a primary product.

Primary product (1): Apples

Select (✓) a market force:

- Weather events
 Production costs
 Market manipulation

- (a) How has the selected market force impacted the **supply** of your chosen product? Use evidence and data within the past five years to support your answer.

Weather events impact the supply of Apples in NZ because of the specific quality standards they have to meet to be sold. Weather events such as wind, snow, no sunshine, etc. ~~could~~ can affect the supply of apples by negatively affecting the overall quantity of the apples. With around 11,410 Ha of apples planted in NZ, the role weather plays in allowing these to grow is crucial. With weather events such as frosts or high winds, this could lead the apples to not reach their maximum quantity, for apples like Braeburn, royal gala, where consumers prefer a firm-ish apple, around 6.5-7.5 kg firmness, this would be affected as the wind could cause the apples to collide with each other or the tree, resulting in bruising which makes the apple soft, which then will affect the

amount of apples available for supply as they do not ~~meet~~ ^{pass} the quality checks for these apples to be able to be sold. Other weather events like frosts, cloud, rain will decrease the ideal brix level as the weather events have limited the apples growth so that they couldn't reach the ideal brix ^{level} (amount of sugar in the fruit), Braeburn, Royal Gala, reekit all may see drops in brix level around 10, compared to the ideal (a more sour apple) 14 consumers seek. and Granny Smith may see drops to around ~~10~~ 13-14 brix - when it should be 18. This again affects the supply of the apples as these may not pass quality checks which then reduces the supply of apples to the consumers. Diameter of the apples is also affected with the ideal 60mm for reekit not being able to be reached due to frosts that stunt growth in the apple, Braeburns 72 diameter will also be down, and Royal Galas 70mm will also be down, this will affect the supply as the TCE (amount of product it takes to get to 18 kg) ~~it~~ will be up due to the small size fruit. Reekits 217 TCE will rise meaning it will take alot more apples to reach 18kg, so will Royal Galas 37 TCE and Braeburn 25 TCE. So with the weather events occurring, it results in less supply of apples in NZ because of the size, quality being negatively affected by significant weather events. with this, NZ's export

Name a primary product.

Primary product (2): Salmon

Select (✓) a market force:

- Consumer preference
 Price
 Promotion

(b) How has the selected market force impacted the **demand** for your chosen product? Use evidence and data within the past five years to support your answer.

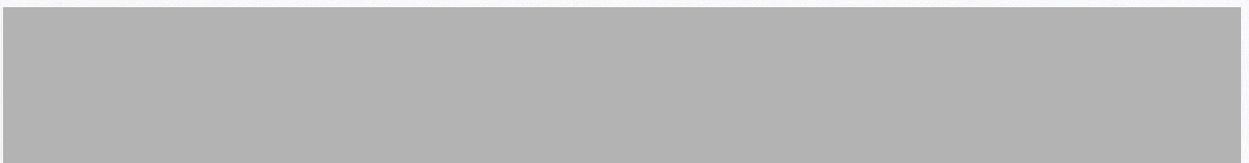
Consumer preference plays a big part in the demand for Salmon in NZ but also overseas. around 35T of NZ King Salmon is exported per day for 5 days a week. this is because of the standards the salmon meets, that consumers all want and like. Prices can reach between \$60-\$80 per Kg for NZ King Salmon, this is because consumer preference is being met, the NZ King Salmon is grown with care, being held in a 99% water - 1% fish tank, this is the reason NZ King Salmon business. Which allows preferences to be met like. 3-3.5 kg carcass size, around 20% but is ideal to consumers. have orange 3 cards, clear eyes, no bruising, blemishes or blood spotting. and have dark pink flesh, - over 30 on the roe scale. Breeders can add antioxidants to the salmon's feed perhaps to ensure the consumer's preferences are being met. So by following the

Consumer Preference, NZ King Salmon
 Demand is very high - 365 days a year. Because
 of the quality ~~stand~~ and care that goes into
 breeding and feeding these NZ King salmon. These
 salmon take around 18 months to get to the
 high demand - consumer preference quality. and around
 \$2.65 is spent per kg of the salmon on feed
 so around \$11 on feed per fish. The consumer
 preferences make the salmon have to go through
 quality checks to ensure they are up to
 the standard that allows them to have the
 high demand it has for the NZ King salmon.
 demand is also very high for Atlantic salmon,
 but the quality of fish isn't as high as
 NZ King salmon because consumer preference
 is different, Atlantic sells around a \$40-60
 range per kg compared to the \$60-\$80 that
 NZ King salmon does. This is because the consumer
 preference is not entirely met, meaning the demand
 is slightly lower than NZ King salmon. So by
 the consumer preference being met, 3 to 3.5 carcass weights/
 size, 20% fat content, orange gills, clear eyes,
 no bruising / blood spotting, stemless, and having
 just pink skin. The consumer preferences are
 met, resulting in the demand for salmon to be
 very high - 365 days a year which all
 comes from consumer preferences
 being met, which means the overall cost of
 or 25T/day can be reached due to the high
 quality salmon preferences being met.

Political Intervention



Source: https://www.stats.govt.nz/assets/Uploads/Overseas-merchandise-trade/Overseas-merchandise-trade-May-2023/Download-data/OMT_Infographics_countries-exports-May23.png



Source: <https://www.mfat.govt.nz/en/trade/mfat-market-reports/nz-exports-to-the-us-strong-growth-continues-june-2024>



Source: <https://www.aut.ac.nz/news/stories/nz-needs-to-build-trade-with-india>

Name a primary product.

Primary product: Apples

- (c) Discuss the significance of a New Zealand trade agreement and its impact on the supply of, and demand for, your chosen primary product. Use evidence and data within the past five years to support your answer.

A New Zealand FTA that has been agreed is the New Zealand European Union FTA, this is very significant as New Zealand aims to export 68% of its apples, ~~14~~¹⁴% of which go to Europe/European unions. So this FTA is highly beneficial for New Zealand and its supply of apples to the European Union, before this FTA there was a 9% tariff on fruit (apples) that was removed in 2022 that now saves New Zealand around 1.3 million dollars per year when exporting apples to European unions, not only is this great for the 15% of exports supply going there, but also great for the demand for NZ apples within these European unions. This is because, ~~now~~ with the FTA in place, the past tariff has been removed

Which will decrease the price for NZ
 apples in European nations because 1.3 million
 is being saved per year - so with this,
 the demand will go up as the apples
 will now be cheaper (2022 - present) as the
 tariff has been removed and as the
 New Zealand European Union FTA has been
 put in place to boost the economy of exports
 between New Zealand ~~and~~ ^{to} European nations
 that are in on the FTA. So the
 significance of the FTA is widely beneficial
 for NZ and the European Union, because
 it allows New Zealand to save 1.3 million
 per year ~~but~~ ^{which} also will increase the supply
 in the EU nations, but the demand for NZ
 apples will increase due to these being
 cheaper and more affordable which will make
 the demand increase.

Extra space if required.
Write the question number(s) if applicable.

QUESTION
NUMBER

A market will also see reductions as demand supply will mean less available for exporting NZ aims for 68% of all apples to be exported overseas, which will not be able to be met ~~due~~ as a result of weather events negatively affecting the supply of apples.

Excellence

Subject: Agricultural and Horticultural Science

Standard: 91530

Total score: 7

Q	Grade score	Marker commentary
One	E7	The candidate provided an explanation of how a free trade agreement that New Zealand has with the European Union impacts the supply of apples into this market. Quantitative data was given throughout the response to support the candidate's argument, as well as good qualitative data to support the discussion.