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OUTSTANDING SCHOLARSHIP EXEMPLAR



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Scholarship 2024 Agricultural and Horticultural Science

Time allowed: Three hours
Total score: 24

ANSWER BOOKLET

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

Write your answers 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 2–23 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.

QUESTION ONE: Agricultural and horticultural production in a regulatory environment

Primary production system: Dairy

PLANNING

Regulatory environments

Structure

competitions { → Dairy Industry Restructuring Act → Commerce Commission.
→ Commerce Act.

{ For = good for producers (eg. 201. rule)
Against = against the creation / usage to make for better.

Environmental

→ ~~NZ freshwater~~ national environmental ^{standards} freshwater (2020)

→ Resource management Act
{ For = producers (brand diff)
producers future viability
Against = 90/120k m environmental
↳ extra costs ↳ NZ exempt from ETS

✓ Production

→ Animal products act 1999

↳ RMPs

→ MPI

↳ NZ dairy export

→ NTMs

→ JPSs

Regulators 2016

→ TBTs

Resilience & market access

{ For = sustained

{ Against = slows down the process
annual review of RMPs

→ compliance costs.

Begin your answer to Question One here:

The NZ dairy industry is one of the most important industries in NZ, ~~for~~ where export revenue is \$25.7 billion annually and 50,000 New Zealanders are employed in this sector. However, it is also one of the most heavily regulated industries in both its production processes, its marketing and export. ~~Various compliances~~ whilst compliances required, regarding the environment, production and exportation, as well as the supplying regulations are, ultimately, to support the industry. There are both positives and negatives, and ~~at~~ a myriad of perspectives regarding the regulatory environment of NZ dairy.

Firstly, one of the key regulators ~~are~~ that governs NZ dairy is the Animal Products Act 1999 (APA), and the NZ dairy export regulations. The APA requires all NZ dairy producers to have Risk Management Programmes (RMPs) which outline all stages of production, and establish critical control points throughout the stages. This is reviewed by the MPI (Ministry of Primary Industries). ~~and~~ when only once approved, can be marketed domestically and internationally. ~~A key advantage or benefit of this is~~ Under the APA, there is also the NZ Dairy Export Regulations 2016, whereby the MPI provides official certification and assurances for export.

dairy, in terms of phytosanitary certification, and international standards are met. The key benefit of such regulations are the resilience of the dairy products through food safety, and traceability, which has ~~an~~ essentially allowed NZ to maintain access and high demand for its dairy for decades. For instance, the critical control points allow for quick retraction of any affected products due to possible contamination, ~~or~~ avoid ~~our~~ harm to NZ dairy's reputation on an international scale, and the MPI's official certification allows for ~~the~~ exporting. ~~However~~ However, such regulations also pose negative effects. Inevitably, additional ~~R&D~~ risk management programmes and ~~an~~ annual reviews for each dairy farmer are additional cost and lower efficiency. As such, some producers may ~~be~~ not be wholly optimistic about such stringent regulations. However, on the whole, producers too, ~~as~~ may overall be supportive of measures, because dairy, as a primary product, poses considerable risk to human health if ~~the~~ MPI monitoring is not to standard. Thus, considering the long-term benefit to producers, who can sustain access to key markets (eg. China, US and EU) through tightly regulated production, ultimately, it serves to benefit them. Also, ~~through~~ as a part of the marketing and selling aspect of

and of notable consideration because NZ exports 95% of dairy produced,
5

✓ dairy, non-tariff ^{measures (NTMs)} ~~barriers~~ in import nations, such as technical barriers to trade, and phytosanitary and sanitary barriers to trade also pose positive ~~and~~ negative. These regulations surround chemical residue and contamination, as well as traceability, design, and packaging regulations. The main negative of this is though lower ~~price~~ profits (from a quantitative point of view) for NZ dairy farmers. Dairy in particular is heavily burdened by such barriers, as where in 2023, it cost \$7.8 billion, almost around 1/3 of NZ total dairy export revenue. In key markets such as Japan and the US, dairy (NZ) NZ dairy products face on average, 40 NTMs per product. Therefore, some producers, considering most export (95% of dairy produced is exported) may perceive this as additional compliance. Yet, most perceive NTMs as vital for sustained market access. For instance, even though China has the most NTMs on NZ dairy in the world, ^{*} they remain the largest and most profitable ^{export} market. ^{importing 42% of NZ dairy exports} ~~therefore~~, ultimately, this can be attributed to the safety and reputation of NZ dairy regulations, hence on the whole, ~~as~~ many producers may see this compliance as a necessary tradeoff for long term profitability gains.

^{*} also requiring mandatory checks under the National Administrations of Customs of China and Export Certification.

Another compliance is primarily targeting the production of dairy on the farm - environmental compliances. NZ dairy industry are significant contributors to environmental harm through greenhouse gases (over 50% of NZ ~~dairy~~ emissions are from the dairy industry), as well as water pollution through nitrogen and phosphorus runoff.

Two key environmental compliances are the Resource Management Act, and the NZ National Environmental standards of Freshwater 2020.

The Resource management Act aims to "promote the sustainable management of natural and physical resources" especially targeting effluent systems. Farmers are required to impose nitrogen budgeting and minimize runoff into waterways, otherwise fines of up to \$200,000 may be imposed, or even prosecution if failure to comply. Likewise, the Freshwater management ~~2020~~ regulations requires minimal phosphorus runoff. The key purpose of that are environmental ~~status~~ harm is reduced. Nitrogen soil leaching leads to eutrophication and destroys ~~more~~ freshwater systems through algae overgrowth, therefore, such compliance avoids this. However, some producers may see the negative through greater compliance costs and lower efficiency, as ~~an~~ adhering to such standards cost \$90,000 ~ 120,000 extra in 2023. Nevertheless, some producers may turn this into a positive, as sustainable practices ~~it~~ will allow for brand differentiation and possibly

greater profits in markets, especially from wealthier consumers who prioritise environmental sustainability. Therefore, some firms may see this as an opportunity for adopting more sustainable practices to target these markets. ~~And~~ And, whilst not a mandatory part of the NZ dairy industry or yet, environmental regulations such as the ~~NZ Climate Change~~ NZ Emissions trading scheme, could perhaps, in the future, become a part of regulatory compliance. Whilst some farmers may oppose this, due to having to pay for carbon credits, and hence why currently, the NZ dairy industry is exempt from the Emissions Trading Scheme. It's positives such as lower emissions could bring some perspectives in favour, especially Maori dairy farmers, who ~~are~~ have already adopted a similar, voluntary act "He Waka Eke Noa" ^{*} that also is exploring an Emissions trading scheme approach, to uphold Kaitiakitanga. ~~Thus~~ Thus, considering that some Maori farmers and processors are already adopting environmental practices, such as the Taupo Miraka farm which relies on geothermal energy, some farmers could be in support of the aforementioned, mandatory Resource Management Act & Freshwater regulations. ~~are~~

* a collective, voluntary action between Maori, the Dairy industry, and the government.

QUESTION TWO: Weather events and climate change

Primary production system: kinifruit

PLANNING

Climate Regs

- winter chm
- 600+ hours $< 7^{\circ}\text{C}$ (especially Hayward).
- flower
- water $\Rightarrow$ irrigation
- stable cool.

Negative impacts of climate change

- ✓ warmer temp.
- Adverse weather events (2020-2022)
- ✓ Disease / pest.

Options

- ✓ changed location.
 - irrigation systems
 - Automated + Drp.
- Climate rate actors (Espri's climate change - design plan)
- ✓ Buddy enhancer → Hydrogen Cyanamide.
- ✓ Gene editing (agResearch perspective for & against).
(HISNO act → upon)
+ Research → new varieties.

Begin your answer to Question Two here:

The NZ kiwifruit industry is one that relies heavily on climate. Whilst there are obvious risks incurred by climate change and adverse weather events, there are also an abundance of mitigation plans that may ensure the future viability of the kiwifruit industry.

In terms of the climate conditions required, kiwifruit firstly, is highly water intensive, however, this is currently ~~managed~~ ^{managed} through extensive irrigation systems on orchards. However, more importantly, kiwi requires cold temperatures, especially the Hayward variety, due to requiring 600 hours minimum of temperatures 7°C or below for "winter chill". This condition will determine how many buds and flowers will survive during the kiwifruit season and thus, directly impacts the yield. This second condition is perhaps the most problematic, as climate change and global temperature rise has detrimented winter chilling, and thus, budding of kiwi.

Firstly, on average, compared to 2022, ~~2023 was~~ temperatures are 1.5°C ~~to~~ higher. This has, especially in the Bay of Plenty region, meant many kiwifruit orchards were unable to get sufficient winter chill to produce optimal yield. Warmer temperatures delays the flowering ~~season~~ ^{period} and also affects

the quality of kiwi. Although some farmers in the Bay of Plenty region have tried to mitigate this impact by planting more kiwi, this has not mitigated the issue on kiwifruit quality. As such, export ~~for~~ forecasts in ~~2022~~ to 2023 where lowered by 20-31% compared to 2022, due to ~~for~~ for the Hayward variety. due to warmer temperatures and lower yields, thus harming the profitability of Bay of Plenty growers who produce 80% of the Hayward variety.

Warmer temperatures though at global warming and climate changes also pose the risk of biosecurity threats. ~~At~~ Pests and ~~also~~ bacterial/viral infections thrive in warmer temperatures. For instance, fruit flies which lay eggs in fruit and thus if entered the kiwifruit industry would deem affected products unmarketable, thrive in humid, warm temperatures. NZ has already spent \$1 million per insect killed to protect the industry in recent years, however, with temperature rising, this is becoming an even greater threat.

~~At~~ Although this was not directly caused by climate change, we have already witnessed the detriment of biosecurity risks in November 2010, where the PSA vine disease ~~at~~ wiped out Hort 16A, and almost eradicated the kiwifruit NZ industry,

as 80% of orchards were harmed. Therefore, with a greater risk of other disasters that have not yet reached NZ's fruit orchards, climate change indeed is a major risk for this production system.

Finally, ~~adverse~~ climate change and global warming have accelerated the frequency of extreme weather events. In 2020, the ~~the~~ hailstorms cost the Tasman region's kiwifruit industry \$45 million, the 2021 extreme wind speeds ~~that~~ led to up to 50% loss in crops for some farmers, and the 2022 North Island Flooding led to \$80 million worth of damage to the NZ economy, with adverse delays to the Gisborne area in harvesting. ~~That, weather events directly in themselves, there are various~~ → considering that climate change is not showing any signs of stagnating, it is likely that these succession of climate events will be the future trend, and pursuing is sure though higher costs and lower yield for NZ kiwifruit growers.

However, there are various options for mitigating these negative harms of climate change and ensuring future sustainability.

Firstly, some areas will become more suitable to kiwi

production and quality compared to others. ~~thus~~
 For instance, the Hayward variety, which requires cold, is unlikely to continue to thrive in the Bay of Plenty area in the future due to warmer temperatures. This means that production could become more suited to ^{the} colder lower North Island or the upper South Island, where sufficient winter chill can be achieved, and thus the sustainability of this variety can be upheld.

Secondly, is through the use of budding enhancers. Various kiwi growers are using the budding enhancer of Hydrogen Cyanamide to compensate for the hindered budding caused by insufficient ~~winter~~ winter chill, which has allowed them to uphold their fruit yield to an extent. However, this is, of course, not an ideal solution because ~~it does not~~ any sprays or enhancers pose environmental concerns, and also ~~could~~ could impact the profitability through consumers being less in favour of such chemicals.

Thirdly, there is innovation and possibly, gene editing. Currently, Zespri ^{Spends} ~~Receives~~ around \$180 million in ~~for~~ research and development for new kiwi fruit varieties. They achieve this through releasing about 700 hectares of kiwifruit licences on tender at about \$500,000 ~~each~~ per hectare. Through this innovation, Zespri has already made

new varieties such as SunGold and Ruby Red, both of which are, compared to Hayward, more resistant to warmer climate, and also ~~more~~ PSA resistant. They also pose considerable revenue as an export product ~~to ensure the~~ meaning that such varieties are not only ensuring the sustainability of the kiwifruit industry through profitability and ~~more~~ market premiums for such varieties, but also ensuring the climate resilience of kiwifruit. Considering that SunGold currently makes up over 50% of ~~the~~ kiwifruit demand, and varieties like Ruby Red receive \$17 to \$19 per tray as premiums, this is arguably one of the best options for ensuring the climate and economic sustainability of the kiwifruit industry. Furthermore, although until recently, gene editing was banned under the Hazardous Substances and New Organisms Act, ~~Chris~~ Chris Luxon recently announced the relaxation of such restriction, and scientists like AgResearch ~~to~~ perceive that gene editing will be ~~a fast climate~~ a great way to ensure NZ kiwifruit can be climate-resilient, describing traditional breeding techniques as "slow" and "limited". Through editing kiwifruit genes with ~~fast~~ technology like CRISPR, where favorable alleles (e.g. alleles for climate resilience) can be ~~fast~~ inserted into the genetic code, gene editing may be the path to

QUESTION THREE: Exporting New Zealand's agricultural and horticultural production

Primary production system (1): Dairy

Primary production system (2): kiwifruit

PLANNING

~~Be~~

Benefits

- ✓ → market access
- ✓ → profits
- ✓ → innovation funds

Risks/threats → economy?

→ Protectionism. (EU CAP)

→ NTMs.

→ changing global demand {
 plant
 type
 variety

Actions for greater resilience

→ FTAs more

→ ~~also~~ reduce protectionism

→ Diversification.

Begin your answer to Question Three here:

NZ is an exporting nation, and to an extent, it is quite ~~and~~ inevitable that ~~is~~ the case, because we produce enough to feed 40 million, despite our population of 5 million. Export brings immense benefits, but also challenges and threats economically. Therefore, there is ^{a lot of} room for ~~of~~ improvements to allow for increased resilience when supplying export markets.

~~Exporting~~ Exporting is the backbone of both the dairy and kiwifruit industry. Each year, the kiwifruit ~~and~~ industry exports ~~to~~ 90% of domestically produced produce, and receives \$6-9 billion in export receipts, and for the dairy industry, \$25-7 billion in export revenue, with ~~one~~ ~~to~~ 95% of NZ dairy exported, and 1 in every 4 NZD earned in export revenue comes from the dairy sector. ~~that~~ Therefore, with the dairy industry employing 50,000 workers, mostly from rural areas and receiving above-median wages, as well as the kiwi industry employing about 2300 growers, export markets, and the revenue they provide have been the reason behind high employment and earnings in this sector. This is one of the main benefits of export markets - high export revenue comes from ~~high~~ ~~and~~ large markets.

access, as well as better trade relations through FTAs (free trade agreements). The recent China-NZ FTA has ~~seen~~ allowed NZ dairy and meat industry to gain untariffed access to their 1.4 billion population, amounting to \$350 million in annual tariff savings. They have also shown growing demand for milk powder, ~~the~~ and thus, correspondingly to greater demand and higher export earnings ~~from~~ for New Zealand producers. Furthermore, ~~the~~ recently, the NZ-EU FTA was established in response to the EU being NZ's 4th largest trading partner via exportation. Trade is projected to rise by 30%, with ~~be~~ \$100 million annual tariff savings, as well as a significantly larger quota for NZ butter and ~~the~~ cheese. ~~the~~ and Zespri estimates this Exporting FTA will save each grower in NZ \$16000 in costs. ~~A dramatic trend is~~ Thus, export markets are allowing both industries to not only gain more revenue, but also establish NZ as a more integral part of the global economy through FTAs. We see this through the Comprehensive and Progressive Agreement For Trans Pacific Partnership where 11 nations (including NZ) collectively ~~representing~~ representing over 10% of the global ~~economy~~ economy will phase out 98%.

of tariffs. ~~For instance~~ Mexico for instance, will phase out dairy tariffs of up to £45t by 2030. Therefore, ~~among~~ global export markets ~~to~~ are pivotal for establishing trade relations through FTAs and increasing profitability of NZ primary products. Furthermore, the export markets have allowed NZ to fully benefit from economies of scale through large-scale production, yet even so, due to global brand image, of both Fanta and Zespri as reputable brands, NZ exporters benefit from 10-20% premium compared to international competitors. As a flow on effect, this has, especially for the kiwi industry allowed for more research and development, such as the SunGold variety, which is facing higher prices and growing demand globally.

However, there are also risks and threats to New Zealand. Firstly, NZ consumers must pay higher prices due to exporting, due to greater international supply and lower domestic supply. However, more importantly, exporting ~~is not~~ brings key economic threats or barriers, such as through 3 key factors - protectionism, non-tariff measures and changing global market trends. With each issue/threat however, comes possible actions that could be taken for greater resilience when supplying export markets.

Firstly, a notable threat is protectionism in global markets. ~~What NZ does~~ 57% of dairy trade occurs behind tariffs of 20% or more and ~~87%~~ 87% of 10% or more, therefore, to the dairy industry, this amounts to \$1.5 billion to our top 20 markets in costs. Any barrier to trade ~~to~~ become reduced market access and profitability, thus becoming a threat to our export reliance. Even to the kiwi industry, in areas like India, 30% tariffs on kiwi amount to \$6.4 million per year. However, threats due to protectionism are not exclusive to tariffs - they also manifest in the form of domestic subsidies (in importing nations). The EU Common Agriculture ~~Policy~~ Policy subsidises domestic ~~good~~ EU growers, making NZ kiwi fruit less price competitive for EU consumers, and thus lowering ~~domestic~~ EU domestic demand. Thus, a key action that could be taken is to negotiate FTAs more extensively with various other nations to allow for higher export revenue which would offset the losses due to protectionism. Alternatively, NZ could negotiate the reduction of protectionist policies such as in the EU, although the 1st option of a ~~better~~ FTA may be more realistic.

Secondly, ~~the~~ ~~the~~ another threat is non-tariff measures. NTMs are extensive globally, especially in China, Japan and US where over 50% of NTMs on dairy are concentrated in. ~~the~~ Considering that this cost the dairy industry about 30% of its total revenue in 2023. It poses an economic threat. It also slows down the process of ~~the~~ distribution through mandatory certification under the MPI (Ministry of Primary Industries), whilst this may appear as an economic threat, such ~~as~~ measures are necessary, however, we could still perhaps increase the resilience of exporting through improved efficiency of monitoring - this would have to be done through government investment into the MPI who monitor the process, or perhaps adoption of better technology which may speed up phyto-sanitary checks.

Finally, another threat is changing global demand and consumer choices. Demand for plant-based alternative for dairy is growing namely oat, almond and soy products, ~~then~~ and for kiwi. Demand for ~~per~~ premium varieties (Sun Gold & Ruby Red) is also growing. Whilst this isn't much of an issue for the kiwifruit industry because growers can easily switch to growing other

Extra space if required.

Write the question number(s) if applicable.

QUESTION
NUMBER

Q1

Finally, another key compliance is regarding the structure of the Dairy industry in NZ - the NZ Dairy industry ^(DIPA) ~~res~~ Restructuring Act 2001, and the Commerce Act 1986. ~~Under~~ Under DIPA 2001, ~~the~~ NZ saw the merger of the 2 largest dairy cooperatives to form Fonterra, now responsible for ~~exporting~~ ~~85%~~ processing 85% of NZ dairy. There are various compliances Fonterra must abide to. Firstly, there is a 20% rule - suppliers of Fonterra can supply up to 20% of their raw milk to other processors, & secondly, there is open entry and exit of dairy farmers, and thirdly, the commerce commission annually reviews ~~the~~ Fonterra's Farm gate milk pricing calculation. The Commerce Act, alongside DIPA, also prevents anti-competitive behaviour, such as price fixing, collusion, and thus, such compliances bring positives not only to consumers, in terms of lowered monopoly power and price-fixing of Fonterra dairy products, but also positives to NZ dairy farmers through open entry and exit and greater autonomy over their supplying. ~~Whilst these negatives such as~~ Therefore, producers are likely to be in favour of such

Extra space if required.

Write the question number(s) if applicable.

QUESTION
NUMBER

compliance, as they are allowed to supply elsewhere
 again, and under Fonterra, they receive higher
 profits in general (though both domestic and
 export markets via brand image). Some pressure
 may have been against the merging of
 processors to form only one dominant
 one - Fonterra - yet considering how
 well-regulated the structure is, preventing
 possibility of anticompetitive behaviour.
~~Overall~~ Overall, this has brought great
~~positive~~ positive to the processor
 and market of dairy in NZ.

In conclusion, the NZ dairy industry
 faces a myriad of ~~a~~ compliance,
 that bring both positives and negatives,
 each ~~but~~ with varying perspectives.

Yet, on the whole, such regulatory environment
 is necessary, as it ensures the sustainability
 and long-term resilience of
 such industries, which ~~are~~ is
 why dairy has remained a pillar of
 NZ agriculture to this day.

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

QUESTION
NUMBER

Q2

a climate resilient future of kiwi. Whilst there are both views for and against, for instance Greenpeace and some farmers believe it could affect NZ's "gene-editing free image" in global markets. It is still a considerable opportunity worth ~~at~~ investigating.

Finally, even though as a production system, horti industry is not a large contributor to climate change, there are still some practices that ~~farm~~ farmers can do to minimise their contribution and thus, impacts of climate change. Firstly, climate change may see, in the future, more drought and water shortages. To overcome this, farmers could use precision agriculture, such as automated and drip irrigation systems where water is applied directly to the base of the plant to minimise ~~water~~ evaporation and excess water consumption. Furthermore, Zespri is already undertaking climate ~~the~~ ~~or~~ ~~different~~ mitigation efforts through their "Climate Change Adaption Plan", where they aim to reduce CO₂ production by 50% by 2030, and have 100% biodegradable packing by 2025. ~~They also~~

Extra space if required.

Write the question number(s) if applicable.

QUESTION
NUMBER

Although this is not directly mitigating the harms of climate change, it is certainly minimising their contribution to it, ~~and it~~ and also poses considerable opportunity in terms of economic sustainability as global consumers are becoming more aware about climate change, and are willing to pay premiums for safer practices - ~~an~~ ~~the~~ ~~opport~~ a market opportunity of \$1.9 billion USD if responded to.

Thus, whilst the kiwi industry is under immense threat due to climate change, there are many options for mitigating its effects and ensuring the future sustainability of both growers and the industry itself.

Q3

varieties through buying Teepri licenses, it is mostly a threat to the dairy industry through lowered demand and profitability. ~~Actions can be taken~~ Actions could be taken by possibly exploring into new varieties of products which are facing strong demand, such as cheese ~~or~~ where Fonterra estimates cheese revenue will double in the next 5 years. We must also concede that

Q3

~~growing~~ consumer preferences around climate ~~and~~ - sound products are growing, hence, both for dairy and kiwi. If NZ does not change in response to global export demand shifts, it may threaten the profits of both industries. Thus, actions NZ can take are adopting environmentally - safe practices and branding our products as such to ~~we~~ receive higher returns on such products. ~~Zespri~~ Zespri is already adopting biodegradable packaging and reducing CO₂ by 2030, ~~in~~ ~~response~~ to issues as ~~practice~~ growers practicing precision-ag to minimize water intensification.

Meanwhile, the dairy industry is exploring some ways to reduce environmental harm such that demand ~~about~~ is not detrimented ~~in~~ in global markets. For instance, a farm in Northern Canterbury has adopted ~~an~~ ~~for~~ "Eco Pond" which reduces methane emissions from an effluent tank by 99%. Such trends and changes are imperative for the resilience of supplying our key export

markets.

Therefore, undeniably, exporting is pivotal to NZ. Whilst there are threats and current issues, there are many actions NZ can take to ensure the resilience of our exports in global markets.

Outstanding Scholarship

Subject: Agricultural and Horticultural Science

Standard: 93105

Total score: 22

Q	Score	Marker commentary
1	08	The candidate provided a detailed and perceptive response to the regulation or compliance for their primary production system. They provided a range of compliances at a range of levels in the production and marketing of their primary product. The candidate showed perception in their balanced understanding of the benefits or advantages, as well costs and challenges.
2	07	The candidate provided a detailed and insightful response of the climatic requirements of their primary production system as well as the potential impact on the primary production system from weather events. The candidate provided insightful and perceptive impacts on the primary production system, from changing climate due to impacts on the vines to pest and disease challenges. The candidate provided preceptive mitigations to overcome these challenges for their primary production system to be sustainable.
3	07	The candidate provided a detailed response to the benefits of the export market to producers and the wider New Zealand economy. The candidate could have provided more evidence of the risks or threats to our reliance on specific markets, and the reasons why. The candidate provided some perception of how the primary production systems could be more resilient when exporting.