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Level 3 Agricultural and Horticultural Science, 2018

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

2.00 p.m. Tuesday 27 November 2018
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.

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

Achievement

TOTAL

10

ASSESSOR'S USE ONLY

INSTRUCTIONS

This assessment requires you to answer questions related to at least TWO distinctly different primary products. Note the following points.

1. Select your primary products and write them in the box below. **Before** doing this, however, carefully read ALL of the questions in this paper to ensure that your selection will allow you to meet ALL the requirements of the questions.
2. The primary product for your discussion of supply (Question One) **must** be different from that for your discussion of demand (Question Two).
3. At least ONE of your selected products must gain significant export earnings for New Zealand producers.

Choice of market forces affecting product **supply** for discussion in **Question One**:

- price received by the grower
- production costs
- weather events.

Choice of market forces affecting product **demand** for discussion in **Question Two**:

- exchange rate
- consumer preference
- reliability of supply.

Question Three asks you to discuss how sanitary and phytosanitary regulations affect the supply of, and demand for, a New Zealand primary product. This may be a product you have already used, or a different product.

SELECTION OF PRIMARY PRODUCTS

Primary product (1) for discussion of supply: milk

Primary product (2) for discussion of demand: wool

Primary product for discussion in Question Three: milk

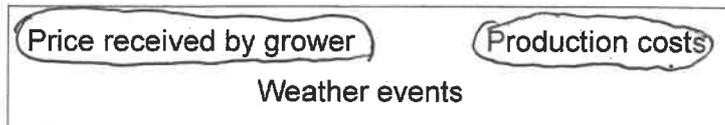
Note: In your answers, use specific examples, including recent units and values where appropriate, to help explain how market forces affect supply and demand – e.g. volume of product, typical costs, and returns to producers.

QUESTION ONE: Market forces affecting the supply of primary products

Note that the product you have chosen for discussion in Question Two cannot be used for this question.

Primary product (1): milk

Explain the impact of TWO of the market forces listed below on the supply of your product.



In your answer:

- select TWO of the market forces from the box above, and explain the relative importance of each to the supply of the product
- select the market force that has the greater effect on the supply of your primary product, and justify your selection, using data and evidence as appropriate.

Milk ~~has~~ is one of NZ's largest exports and is still increasing by the year. There are many things that affect or impact this industry. Two of these are price received by grower and production costs. These can interlink as well. I believe the price received by grower has a larger effect. This can be seen when comparing the price per litre vs the amount that is sent off shore. As price increases the supply also e.g. early 2000's milk was at \$8.60 a litre and as the market was still growing to the milk the most of its production was high then there was a serious decline in the 2000's when milk dropped to

about \$3.50/L at this point supply sharply decreased as farmers were unable to produce large volumes of milk for that price. This is where production costs come into play. As they are receiving less money they are unable to keep up with the production costs it takes to keep the whole farm running they have to decrease production therefore reducing costs to try and stay afloat. These 2 market forces both have large individual effects on the supply of milk however when combined they have an even larger effect.

A3

QUESTION TWO: Market forces affecting the demand for primary products

Note that the product you have chosen for discussion in Question One cannot be used for this question.

Primary product (2): wool

Demand for a product can often be influenced by more than one factor.

For your second selected product, identify TWO market forces from the box below that impact on demand, and explain the relative importance of each of these forces.

Exchange rate Consumer preference
Reliability of supply

In your answer:

- select TWO of the market forces from the box above, and explain the relative importance of each to the demand for the product
- select the market force that has the greater effect on the demand for your primary product, and justify your selection, using data and evidence as appropriate.

wool is an important market for NZ but is on decline. There are many factors for this and 2 of these are customer preference and reliability of supply. ~~The~~ Customer preference takes the most effect on the demand for wool as they set the demand. The introduction of synthetics have decreased the demand for wool as synthetics are usually cheaper and have many other properties that consumers prefer. There is a market within wool that does not suffer as heavily. This is fine micron wools, these wools used in merino garments

such as icebreaker are in high consumer preference and are sold at a premium price. Many consumers enjoy its non-scratch or soft properties and enjoy wearing merino wool. This has become more preferable to consumers over the last few years as kg/culture has increased from 950 in 2016/17 to 1065 in 2018-19. This shows an increase of demand as more is having to be supplied to meet the demand. Reliability of supply also has an affect although somewhat smaller. Farmers have bred fair sheep to produce as much wool as possible in a bid to control their reliability. However there can be contributing factors such as sudden deaths or otherwise that decrease the reliability. Farmers also bred fine wool sheep to produce the best wool possible this makes it more reliable but the product will be top quality improving the demand. However as wool cannot be fully controlled unlike synthetics there is a decrease in demand.

A3

QUESTION THREE: Biosecurity and New Zealand's primary products

RESOURCE A

At the heart of the world trading system is the World Trade Organization (WTO). Tariffs and quotas have for many years been the biggest barriers to trade. These are continually being reduced through negotiations in the WTO.

Measures to protect against the spread of diseases and pests by traded goods may also be barriers to trade. The Sanitary and Phytosanitary (SPS) Agreement is about how to apply sanitary (human and animal health) measures and phytosanitary (plant health) measures in a way that does not unnecessarily restrict trade.

Due to steadily increasing volumes of international trade and travel, all countries, New Zealand included, need to be more vigilant than ever against pests and diseases that threaten the health of their people, animals, and plants. Likewise, countries rightly expect the food they import to meet their own standards of safety.

Source (adapted): <https://www.mpi.govt.nz/dmsdocument/12576-balance-in-trade>.

RESOURCE B

The boxes below provide some examples of current or recent biosecurity issues.

Preventing foot-and-mouth disease

New Zealand is officially recognised as being free of foot-and-mouth disease (FMD).

Our geographical isolation and strict border controls reduce the risk of an outbreak of FMD in New Zealand.

Milk powder exports

In 2013, China halted imports of all milk powder from New Zealand and Australia after bacteria related to botulism were found. This raised food safety concerns and threatened New Zealand's \$9.4 billion annual dairy trade.

Bees as pollinators and honey-makers

The varroa bee mite affects agriculture and horticulture in two ways:

- directly, in the beekeeping sector; and
- indirectly, in sectors that benefit from honey bee pollination.

Varroa is likely to cost New Zealand at least \$400 million and possibly as much as \$900 million (in present value terms) over the next 35 years.

WTO win for NZ apples

In 2007, New Zealand challenged Australia's apple quarantine measures, which had prevented our apples from being exported to Australia for nearly 100 years, due to an alleged risk of fireblight.

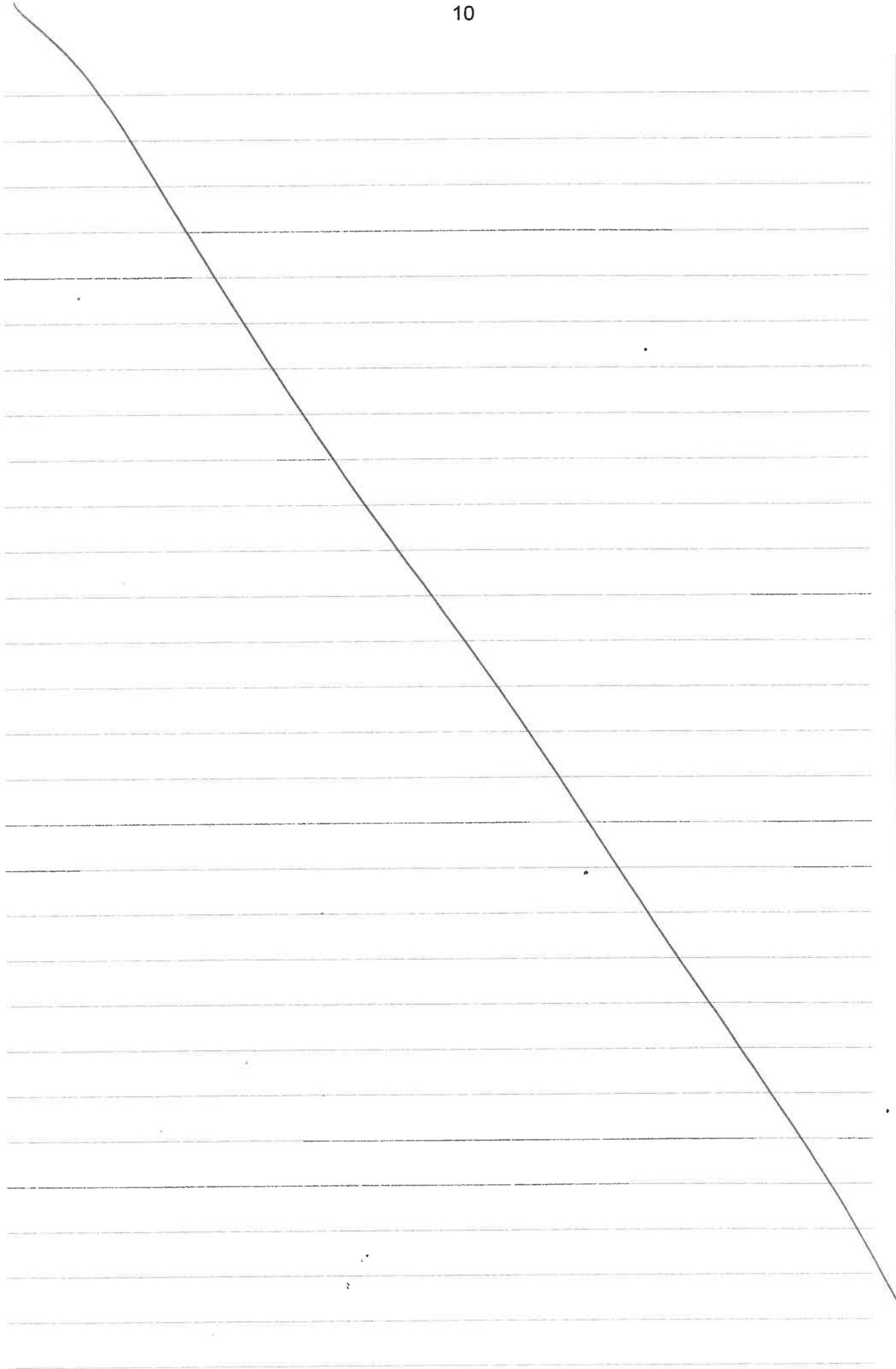
A country's sanitary and phytosanitary regulations can become a non-tariff trade restriction for New Zealand exports of primary products.

Discuss how both the supply of, and demand for, a New Zealand primary product of your choice is, or could be, affected by regulations imposed in New Zealand, or in other market destinations.

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Milk supply and demand ~~could~~ would have been affected in 2013 when China ~~imported~~ stopped importing milk powder from NZ due to bacteria being found. This would have stopped all demand from China but also many other countries including our own due to the scare as people wouldn't want to drink milk with possible bacteria in it. This in turn would affect NZ's annual dairy trade heavily. Due to a massive decrease in demand there would also be one in supply as farmers could not afford to keep up producing that much milk as well as they would be in excess and a lot of milk that cost a lot to produce would be wasted. This would force farmers to decrease their annual milk supply and produce.

More space for this answer is available on the next page.



A4

Achievement Exemplar 2018

Subject	Level 3 Agricultural and Horticultural Science		Standard	91530	Total score	10
Q	Grade score	Annotation				
1	A3	<p>The candidate provided evidence on TWO market forces, and their influence on the supply of their chosen primary product. ONE of the market forces was completed to Achieved level. There was some specific data provided in the candidate's response, citing specific prices of milk solids. The candidate was vague on the dates of the milk prices they provided, and their response on production costs was weak. This needed to be more accurate to gain a merit grade. The candidate needed to provide volumes of supply increase or decrease due to their selected market forces to gain a merit grade.</p>				
2	A3	<p>The candidate provided evidence on TWO market forces, and their influence on the demand of their chosen primary product. ONE of the market forces was completed to Achieved level. Under the heading of consumer preference, the candidate covered synthetics as a competing fibre to wool, and how the price of wool has increased due to the increasing demand. The candidate should have provided clearer price information over time or wool volume supplied to represent the change in demand to gain a Merit grade. The candidates second market force on reliability of supply was not up to achieved standard. The candidate needed to show supply volumes over time to demonstrate whether the produce is or is not reliable in its supply.</p>				
3	A4	<p>The candidate has provided a response on how supply and demand of milk is influenced by sanitary or phytosanitary regulations. They have covered bacteria being found in milk and how this can result in a decreased demand both domestically and in our export markets. The candidate also links to the decreased supply from NZ producers if there was a decreased demand for our milk. To gain a merit grade the candidate needed to provide more depth in their response, such as the change in milk price, the volume demanded, the time that importing stops for our product, the increased costs of compliance etc.</p>				