

Assessment Schedule – 2017

Agricultural and Horticultural Science: Demonstrate understanding of how market forces affect supply of and demand for New Zealand primary products (91530)

Achievement	Achievement with Merit	Achievement with Excellence
<p>“Demonstrate understanding” involves explaining how market forces affect supply and demand for New Zealand primary products.</p>	<p>“Demonstrate in-depth understanding” involves explaining in detail how market forces affect supply and demand for New Zealand primary products, with quantitative data.</p>	<p>“Demonstrate comprehensive understanding” involves analysing how market forces affect supply and demand for New Zealand primary products, with a focus on the significance and impact of the market forces.</p>

Question One: Market forces affecting the demand for primary products

Sample evidence
<p><i>Consumer preferences</i></p> <ul style="list-style-type: none"> • The Asian palette prefers sweeter and smaller fruit; Kiwifruit GOLD meets this preference (with a Brix value of 12, compared with 8 for the green variety), and so demand is increasing. • UK lamb market. Because butchers make cuts based on weather (steaks and chops on BBQ days, roasts on colder days), New Zealand exports “primal” cuts (lamb leg/forequarter) so that those decisions can be made over there. • Potatoes for processing need to be large (>75 mm), oval-shaped, and with low sugar content. This allows large French fries to be made, which is a preference of the final consumer. Potatoes meeting these requirements get \$300/tonne. Potatoes more suited for the table/fresh potato market are smaller and more rounded, and fetch \$500/tonne. Absence of potato tomato psyllid (PTP) is another quality requirement of processors, as it infects potatoes with <i>Liberbacter</i>, which causes “zebra chip”. Potatoes infected with this cannot be processed, and so are dumped on the fresh market (zebra chip becomes evident with deep frying, not normal cooking), lowering the price of fresh potatoes to ~\$300/tonne. <p><i>Promotion</i></p> <ul style="list-style-type: none"> • “Named promotion strategy” targeted at xxxx audience through xxxx media. In response to xxxx, research has increased demand of the product by xx%. <p><i>Quality requirements of processors / buyers</i></p> <ul style="list-style-type: none"> • Answers are to be in terms of “What the factory will buy from growers”, for example: Through market research in the UK, the ideal lamb roast is 2 kg (to feed the nuclear family of 2 adults and 2.4 children). To produce this size roast, a lamb liveweight of 40–45 kg (CW 17.5–19.5 kg) is required. Therefore, lambs with a liveweight of 45 kg and GR of 9–13 mm at the shoulder fetch premium prices. <p><i>Reliability of supply</i></p> <ul style="list-style-type: none"> • Zespri New Zealand performs two main functions that provide advantages to New Zealand Kiwifruit growers. Firstly, because they are a single point seller to export markets, they can reliably supply large markets with significant volumes to make the contract appeal to supermarket chains, etc. Secondly, in order to have a continual shelf presence throughout the year, Zespri have contracted Northern Hemisphere growers to provide fruit under the Zespri brand. By providing buyers with a reliable supply of produce, they are able to secure better contracts and year-round supplies of fresh kiwifruit.

N1	N2	A3	A4	M5	M6	E7	E8
ONE market force partially explained.	TWO market forces partially explained, with reference to a specified product.	ONE market force explained in general terms, with reference to a specified product.	TWO market forces explained in general terms, with reference to a specified product.	ONE market force explained in general terms and the other explained in detail, using qualitative and/or quantitative material where appropriate.	TWO market forces explained in detail, using qualitative and/or quantitative material where appropriate.	TWO market forces explained in detail, using qualitative and/or quantitative material where appropriate. <i>AND</i> Partial justification, using both qualitative and quantitative material where appropriate.	TWO market forces explained in detail, using qualitative and/or quantitative material where appropriate. <i>AND</i> A full and comprehensive justification, using both qualitative and quantitative material where appropriate.

N0 = No response; no relevant evidence.

Question Two: Market forces affecting the supply of primary products

Sample evidence

Biosecurity (phytosanitary regulations)

- New Zealand's isolation means we are relatively free from many pests and diseases. Many countries are happy to accept our exports because we pose little risk to them in terms of biosecurity.
- For a long time, Australia excluded New Zealand-grown apples because of claimed "fire blight". Petitions to the World Trade Organisation (WTO) saw New Zealand finally succeed in having this restriction removed in 2011.

Seasonality

- Perhaps New Zealand's greatest advantage is our growing hemisphere. We produce products outside of the Northern Hemisphere season. Because of this, we are usually not directly competing with their local producers for shelf space, or against price. Retailers and restaurants, etc, want year-round supply, so New Zealand growers can cater to the off-season market quite effectively. The population in the Northern Hemisphere is much larger, although other Southern Hemisphere countries such as Chile compete with New Zealand for that lucrative market.

Political intervention

- Trade block-out from Russia.
- Free trade agreements, loss of TPP (USA backs out, Jan 2017).
- Tariffs are a considerable disadvantage to any country attempting to export to another country. Governments introduce tariffs (of varying value) in order to raise the cost of imported products, with the aim of protecting local industries.

Food miles

- A disadvantage to New Zealand exporters is the distance that product needs to travel. "Food miles" is a measure of the distance that food has travelled to get to the consumer, and is mainly promoted to coerce consumers into buying locally grown product. Food miles transfer into carbon units (fuels used to transport goods), and for consumers with a particular "green" viewpoint, this could be a significant barrier to New Zealand-grown product. Possibly balanced by New Zealand's "clean, green" image.

Reliability of supply

- New Zealand's hemisphere position is a significant advantage to supplying Northern Hemisphere consumers in the off-season. However, in order to maintain shelf space or to ensure that consumers become loyal to New Zealand products, some companies, such as Zespri, contract growers in the northern hemisphere to supply product under their brand. This helps to ensure reliable supply throughout the year.

Climate

- The climate in New Zealand is temperate, meaning we experience all four seasons throughout the year, but not to any of the extremes. With good rainfall and reasonable sunshine hours, and with year-round average growing temperatures, New Zealand's climate lets us produce a wide range of agricultural and horticultural goods.

Production costs

- New Zealand can produce agricultural and horticultural products at a price that is globally competitive, even with the costs of transport. Most stock are grass-fed (as opposed to grain-fed in the US and UK). Our temperate climate means we can grow or keep stock outside year-round, and we are still able to manage effluent in a cost-effective manner.
- Cost of transport can be prohibitive, especially for some products that need to be transported by air (e.g. flowers, strawberries, etc).

N1	N2	A3	A4	M5	M6	E7	E8
ONE market force partially explained.	TWO market forces partially explained, with reference to specified product.	ONE market force explained in general terms, with reference to New Zealand's geographic position for a specified product.	TWO market forces explained with reference to New Zealand's geographic position for a specified product.	ONE market force explained in general terms and the other explained in detail, with reference to New Zealand's geographic position for a specified product, using quantitative material where appropriate.	TWO market forces explained in detail, with reference to New Zealand's geographic position for a specified product, using qualitative and/or quantitative material where appropriate.	TWO market forces explained in detail, with reference to New Zealand's geographic position for a specified product, using qualitative and/or quantitative material where appropriate. <i>AND</i> Partial justification of the ranking, using both qualitative and quantitative material where appropriate.	TWO market forces explained in detail, with reference to New Zealand's geographic position for a specified product, using qualitative and/or quantitative material where appropriate. <i>AND</i> A full and comprehensive justification of the ranking, using both qualitative and quantitative material where appropriate.

N0 = No response; no relevant evidence.

Question Three: Trends in New Zealand’s primary production

Sample evidence
<p>New Zealand’s main trading partners have changed significantly. From our establishment as a British colony, the majority of our exports headed to the UK. As the global economy has slowly changed, our significant partners follow free trade agreements (FTAs) that we successfully establish. Japan, Australia, and China are currently the most significant. Unfortunately, the Trans Pacific Partnership (TPP) agreement is all but dead, with the USA signing out in January 2017.</p> <p>New Zealand has been trying to sell its agricultural products into the USA for many many years, but because tariffs and quotas are protective of US-produced products, we are unable to be competitive in the US market. The TPP was the first opportunity we had to successfully negotiate an FTA with the USA.</p> <p>New Zealand is not the world’s largest producer of (<i>lamb, dairy, kiwifruit, etc</i>), however we are one of the largest exporters of (<i>lamb, dairy, kiwifruit, etc</i>).</p> <p>We rely heavily on the UK and China markets. Should one of these no longer demand New Zealand products (e.g. due to increased dairy production in China), it will create an issue for selling at profitable prices to other markets. Also, there will still be a need to meet sanitary/phytosanitary requirements to access these other markets.</p> <p>New Zealand export products are generally of high quality and promote the “New Zealand green and pure” brand, enabling us to become suppliers of consumer-preferred products, with consequent increases in quantity demanded and produced.</p> <p>Need to increase production to gain greater market presence, as economies of scale create further opportunities.</p>

N1	N2	A3	A4	M5	M6	E7	E8
<p>The market impacts for changing market trends are partly described, using the resource provided.</p> <p>OR</p> <p>Limited information about the market impacts for their own product is supplied.</p>	<p>The market impacts for changing market trends are described in general terms.</p>	<p>Market trends and market impacts for their own nominated product are described.</p>	<p>Market trends and market impacts for their own nominated product are described. Some attempt to include data from sources beyond the resource supplied.</p>	<p>Market trends and the market impacts for their own nominated product are explained, using supporting data outside the resource supplied.</p>	<p>Market trends and the market impacts for their own nominated product are explained, using supporting data outside the resource supplied, with either supply OR demand discussed in depth.</p>	<p>Market trends and the market impacts for their own nominated product are fully explained, using supporting data outside the resource supplied. Either supply OR demand is discussed comprehensively, and the other mentioned.</p>	<p>Market trends and the market impacts for their own nominated product are fully explained, using supporting data outside the resource supplied. BOTH supply and demand are discussed comprehensively.</p>

	<i>AND</i> Limited information about the market impacts for their own product is supplied.	<i>OR</i> An attempt to discuss stability of their product with other international trading partners, with some data provided.	<i>OR</i> A description of the relationship between their nominated product and other international trading partners, giving reasons and explaining the impacts of changing supply and demand over time.	<i>OR</i> A balanced discussion of the future stability of their nominated product and other international trading partners with supporting data, beyond simply lifting directly from the resource.	<i>AND</i> An attempt to discuss future stability of their nominated product, with a fair attempt to discuss the issue beyond simply lifting directly from the resource.	<i>AND</i> A balanced discussion of the future stability of their nominated product and other international trading partners, with supporting data. Material should not simply be lifted directly from the resource.	<i>AND</i> A full and balanced discussion of the future stability of their nominated product and other international trading partners, with supporting data. Material should not simply be lifted directly from the resource.
N0 = No response; no relevant evidence.							

Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 6	7 – 12	13 – 18	19 – 24