

Assessment Schedule – 2015

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

Assessment Criteria

| Achievement | Achievement with Merit | Achievement with Excellence |
|---|--|--|
| “Demonstrate understanding” involves explaining how market forces affect supply and demand for New Zealand primary products. | “Demonstrate in-depth understanding” involves explaining in detail how market forces affect supply and demand for New Zealand primary products, with quantitative data. | “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. |

Question One: Market forces affecting the supply of primary products

| Sample evidence |
|--|
| <p>Note: Specific data (quantities, etc) for Merit can be provided on the graph or in written answers.</p> <p><i>Exchange rates</i></p> <ul style="list-style-type: none"> The drop in the NZD/USD rate from \$0.82 to \$0.75 gives farmers approximately NZ\$7 more per head of lamb at the farm gate. The increase in income will mean farmers will want to supply more. While the exchange rate can play a large role in determining the payout farmers receive, in recent years, despite a strengthening \$NZ (up to US\$0.83 in April 2014) the payout received by farmers has remained favourable. They would not be looking at changing their production, as they have committed financially and physically to this product, and any other product produced would need to be exported, and would face the same unfavourable exchange rate. <p><i>Price trends</i></p> <ul style="list-style-type: none"> Recent market trends in the price paid to farmers for milk solids have had a greater effect on the supply of milk than either the exchange rate or seasonality. Farmers are very responsive to farm gate prices. Dairy farmers have a number of options to quickly increase their level of production if the outlook appears favourable. The increase in large-scale conversions from sheep, beef, and forestry operations over the past decade is a result of higher returns having been paid to dairy farmers. This has been a major factor in determining the supply of milk. Despite the rise in the \$NZ over the last 5–10 years to levels as high as \$US 0.84, a factor that would normally reduce returns, the increase in price received to more than \$8.00/kg milk solids in 2014 negated the downside of the exchange rate, encouraging more dairy farm conversions/increases in dairy cow numbers and higher production volumes. But due to falling international prices in 2015, the decreased scheduled milk payout of \$3.80 (or even lower) will hurt farmers. <p><i>Political intervention</i></p> <ul style="list-style-type: none"> Discussion of fruitfly outbreak in February – how has that played out through the year? <p><i>Weather events</i></p> <ul style="list-style-type: none"> Drought in Canterbury increased cattle slaughter as farmers moved stock off their properties. Drought in Canterbury ideal for grape growing. Drought in the North Island over the last two years is expected to reduce lamb numbers at the works, as farmers hold on to stock to re-grow numbers. |

| 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 specified product. | TWO market forces explained in general terms, with reference to specified product. | ONE market force explained in detail, using quantitative material where appropriate. | TWO market forces explained in detail, using 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 demand for primary products

Sample evidence

Consumer preferences

- The Asian palette prefers sweeter and smaller fruit; kiwifruit GOLD meets this preference, 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 “tribal” 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 liberbacter, 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.

Promotion

- “Named promotion strategy” targeted at xxxx audience through xxxx media. In response to xxxx, research has increased demand of the product by xx%.

Quality requirements of processors / buyers

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.

Price

- China has always demanded lower-value cuts for low cost (but also because many traditional meals are made from cheaper cuts anyway).
- Potato has many substitute goods, such as rice and pasta. When the price for potatoes increases too much, many buyers swap over to these other products.

| 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 specified product. | TWO market forces explained in general terms, with reference to specified product. | ONE market force explained in detail, using quantitative material where appropriate. | TWO market forces explained in detail, using 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 Three: Supply of kiwiberries and another primary product for export

Sample evidence

Main points in summary:

- Kiwiberries have a short harvest window, which does not allow consumers to buy regularly or get in the habit of buying. Lamb has year-round supply to UK/China. Zespri contracts growers in the Northern Hemisphere to ensure a longer supply window.
- Kiwiberries are exported in low volumes, making visibility (i.e. retail shelf space) low and availability too short for stores to invest significant effort. By comparison, New Zealand apples and kiwifruit have significant branding and promotion overseas.
- Kiwiberry production is carefully managed to avoid over-supply, so that prices can be manipulated. Single desk sellers (e.g. Fonterra and Zespri) may manipulate supply to control pricing.
- Asia is the fastest-growing market for kiwiberries, and for most other New Zealand produce at the moment.

In order to be visible on the international market, products need to be well promoted and have an in-store presence. Because New Zealand is a small country, our production volumes are relatively small by world standards. However, we are one of the world's leading exporters of primary products such as milk powder, beef and lamb, and kiwifruit, because our small population does not consume all we produce. (Other countries produce more than we do, but a higher proportion of output is used to feed their domestic populations.)

New Zealand kiwifruit also has the advantage of being in the opposite season to the Northern Hemisphere, so we can supply countries when their own domestic supply is off-season. This avoids direct competition with local growers, and makes us more welcome in their markets.

New Zealand-produced kiwifruit are exported under an SPE (Single Point of Entry) – namely, Zespri. This is so that we present as a large single producer (over 86.1 million trays), with the promotion strategies of many small growers unified into one large “machine” that maintains a quality standard and can establish market share. New Zealand is not the biggest producer of kiwifruit in the world, but Zespri is the biggest marketer in the world, with over 20% of the market share, year-round.

Kiwiberries are a developing product. The production quantities are very small, and although we are exporting a large proportion of the total production, it barely fills a shelf in any supermarket, and you would need to somehow “come across” a kiwiberry in order to try one.

The SPE combines the small volumes of many small growers, and presents as one large brand. By contrast, kiwiberries, having an exorbitant licence fee in order to restrict quantities, will always be a luxury good confined to small numbers of people who come across it. Growers who have paid this fee are frustrated that competing countries within our own hemisphere will also be able to buy the licence, and ‘rob’ them of the premium and controlled market they are trying to establish.

| N1 | N2 | A3 | A4 | M5 | M6 | E7 | E8 |
|---|---|--|--|--|---|---|--|
| <p>The market for kiwiberries is partially described, using the resource provided.</p> <p><i>OR</i></p> <p>Limited information about their own product is supplied.</p> | <p>The market for kiwiberries is described.</p> <p><i>AND</i></p> <p>Limited information about their own product is supplied.</p> | <p>Two obvious comparisons between kiwiberries and their nominated product are made.</p> | <p>Comparisons between kiwiberries and their nominated product are made, beyond the immediately obvious.</p> | <p>Two obvious comparisons between kiwiberries and their nominated product are made, with supporting data.</p> | <p>Comparisons between kiwiberries and their nominated product beyond the immediately obvious are made, with supporting data.</p> | <p>A full and balanced discussion between their nominated product and kiwiberries, with supporting data that compares and contrasts the obvious points.</p> | <p>A full and balanced discussion between their nominated product and kiwiberries, with supporting data that compares and contrasts beyond the obvious points.</p> |

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 |