

## Assessment Schedule – 2021

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

#### Evidence

Task	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	<p><b>Market force:</b> Consumer Preference</p> <p><b>NZ primary product (1):</b> Kiwifruit</p> <ul style="list-style-type: none"> <li>Asian palettes prefer sweeter and smaller varieties. Kiwifruit Gold meets this preference, and so demand is increasing for this product in many Asian markets.</li> <li>The taste of kiwifruit is linked more to dry matter than to sugar (brix) measurement; growers are encouraged to alter production techniques in order to increase the proportion of dry matter in their kiwifruit.</li> </ul> <p><b>NZ primary product (1):</b> UK lamb market</p> <ul style="list-style-type: none"> <li>Because butchers make cuts based on the weather (steaks and chops on BBQ days, roasts on colder days), butchers in the UK prefer primal cuts (lamb leg / forequarter) so that they can make those decisions themselves.</li> <li>Consumers prefer New Zealand-fresh lamb to UK-fresh or New Zealand-frozen lamb. Using strict meat handling methods, New Zealand lamb can be “fresh chilled” for up to 73 days for delivery to the UK. <u>Higher prices are paid.</u></li> </ul>	<p><b>Explains</b> effect market force has on demand of a NZ primary product.</p> <p>The demand is likely to be represented by a change in quantity or the prices paid for the primary product.</p> <p>General response lacking specific supporting evidence or data.</p>	<p><b>Explains in detail</b> the effect a market force has on demand of a NZ primary product, supported with recent data, including <u>underlined</u>-type evidence.</p> <p>Specific response with supporting data or evidence.</p>	

- Halal-killed meat products are produced so that New Zealand meat is suitable for Muslims (approx. 5% of UK market) without needing further differentiation. This results in increased demand as more potential consumers' needs are catered for.

**Market force:** Quality Requirement

**NZ primary product (1):** Apples

- European retailers have highlighted the demand from their consumers for fruit with even lower chemical residues. New Zealand growers must change their practices to meet the demand for lower residues on their apples or risk having a lower demand for their products.
- Consumer research has shown that the sensory quality of fruit – the taste, texture and flavour – can be twice as important as price in determining consumer purchasing decisions. To maintain demand for their products a grower must ensure that they are producing apples on the highest quality.

**NZ primary product (1):** Lamb

- Export grade carcasses are Y- and P-grade. A Y-grade carcass is a low-fat carcass (up to 9mm of external fat, depending on carcass weight) and a P-grade carcass is a medium fat carcass (up to 12mm of external fat, depending on carcass weight). Carcass grades outside of this will need processing (trimming) prior to being exported therefore are generally not exported as whole carcasses.

<p>(b)</p>	<p><b>Market force:</b> Weather Events</p> <p><b>NZ primary product (2):</b> Milk</p> <ul style="list-style-type: none"> <li>• Droughts reduce the growth of grass, so farmers run short of feed and need to dry off cows early or reduce stock numbers (sell to the works or to other farmers). <u>This results in lower quantities of milk and associated products on the market.</u></li> </ul> <p><b>NZ primary product (2):</b> Wine</p> <ul style="list-style-type: none"> <li>• Rain near grape harvest time impacts on the ability for good wine to be made. With too much rain, the grape berries start to swell and even split. Rain is also a concern in spring. Grapes are formed from flowers, and <u>a heavy rain can knock the blooms off the plant and reduce the size of the crop. If it is cloudy and overcast, the grapes will have a harder time ripening. Grape growers then worry about spoilage, mould and mildew. Damp conditions can also lead to mildew and other diseases.</u></li> <li>• Grapes need sunlight. If it rains, the grapes will take on more water, <u>which means the flavours become dilute and the sugar / acid balance that winemakers are looking for gets becomes unbalanced.</u></li> </ul> <p><b>Market force:</b> Seasonality</p> <p><b>NZ primary product (2):</b> Lamb</p> <ul style="list-style-type: none"> <li>• New Zealand has distinct seasons – <u>pasture growth and quality are at their peak in spring.</u> Lambing is timed to match this, and lambs will take 3–8 months to reach slaughter weights therefore there is increased supply of lamb from December through to May with the peak coming in February <u>with 2.5 million lambs slaughtered.</u></li> </ul> <p><b>NZ primary product (2):</b> Apples</p> <ul style="list-style-type: none"> <li>• Apple trees go through a period of dormancy during winter. Dormancy is broken in spring and the tree will produce leaves, buds and flowers. <u>Once the flowers are pollinated fruit will develop and once ripened it will be ready for picking. Apples tend to be ready for picking between February and May.</u></li> </ul>	<p><b>Explains</b> the impact a market force has on the supply of a NZ primary product.</p> <p>The supply is likely to be represented by a change in quantity, timing or attributes of the primary product.</p> <p>General response lacking specific supporting evidence or data.</p>	<p><b>Explains in detail</b> the impact a market force has on the supply of a NZ primary product, supported with recent data, including <u>underlined-type</u> evidence.</p> <p>Specific response with supporting data or evidence.</p>	
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<p>(c)</p>	<p><i>Plant-based milk</i></p> <ul style="list-style-type: none"> <li>• The rise of plant-based diets is a significant market trend that could have an impact on New Zealand’s milk and meat sectors.</li> <li>• <u>Milk is the most developed of the plant-based products with 25% of the milk market in New Zealand.</u> More people are turning to plant-based diets. <u>The market is growing at 8% per year, while the cow milk market is staying flat.</u> <b>With lower demand for cows’ milk we could see prices drop in the future. Lower price will lead to lower production and therefore supply.</b></li> <li>• Much of New Zealand’s milk is currently dried to whole milk powder and exported. <b>Plant-based milk powder is a small but emerging market and could be a threat in the future, though many countries purchasing milk powder do so because of the cheap nature of the product, so it will be more challenging to plant-based milks to compete in these markets.</b></li> </ul> <p>Lamb</p> <ul style="list-style-type: none"> <li>• <u>Lamb export value is expected to be down 14.8% during 2020/2021, mainly due to uncertainty in the market due to COVID-19.</u></li> <li>• New Zealand lamb is seen globally as a luxury product. <b>With less money in consumers’ pockets, they are likely to be cutting down on luxury purchases. When countries go into lockdown fewer people eat out in restaurants.</b></li> <li>• Some of the best cuts of New Zealand lamb are imported by restaurants in foreign countries. <b>With fewer customers eating out there is likely to be a lower demand for our lamb. If the price of lamb is to drop, many sheep farmers may choose to sell some breeding stock and put some of their farm into other products (dairy grazing, crops etc.). Therefore, there will be less lamb supplied to the market in the following season.</b></li> </ul>	<p><b>Discusses</b> how market trends affect the supply of and demand for one selected primary product – product (1) or (2).</p> <p>The supply is likely to be represented by a change in quantity, timing or attributes of both the primary products. The demand is likely to be represented by a change in quantity, or the prices paid for both primary products.</p> <p>General response lacking specific supporting evidence or data.</p>	<p><b>Explains in detail</b> how market trends affect the supply of and demand for one selected primary product – product (1) or (2), supported with recent data, including <u>underlined-type evidence.</u></p> <p>Specific response with supporting data or evidence.</p>	<p><b>Analyses</b> how market trends affect the supply of, and demand for, one selected primary product – product (1) or (2) in relation to its significance, including <b>bold-type evidence.</b></p> <p>The significance of the market trend discussed is justified in detail, and the impact that it has on the supply and demand for a New Zealand primary product is clearly identified and discussed.</p> <p>The answer will be well reasoned and supporting data is included.</p>
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<ul style="list-style-type: none"> <li>In the past four years, New Zealand has doubled lamb exports to China. <u>China is one of very few counties globally to have shown economic growth in 2020.</u> <b>This should help maintain the high demand for New Zealand lamb in China. China primarily imports cheaper cuts of meat therefore demand for these cuts are not going to be as affected by COVID-19 as the higher value cuts.</b></li> </ul>			
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N1	N2	A3	A4	M5	M6	E7	E8
<p><b>Partially explains</b> ONE market force.</p>	<p><b>Explains</b> ONE market force in general terms.</p>	<p><b>Explains</b> TWO market forces in general terms (one market force weak).</p>	<p><b>Explains</b> TWO market forces in general terms.</p>	<p><b>Explains in detail</b> ONE market force (using qualitative and / or quantitative material where appropriate)</p> <p>AND</p> <p><b>explains</b> ONE market force in general terms.</p>	<p><b>Explains in detail</b> TWO market forces (using qualitative and / or quantitative material where appropriate).</p>	<p><b>Explains in detail</b> TWO market forces (using qualitative and / or quantitative material where appropriate)</p> <p>AND</p> <p>Market trend is fully explained and either supply OR demand is discussed comprehensively, with the other partially discussed.</p> <p>The significance of the trend for supply or demand is partially discussed.</p>	<p><b>Explains in detail</b> TWO market forces (using qualitative and / or quantitative material where appropriate)</p> <p>AND</p> <p>Market trend is fully explained, and supply AND demand are both discussed comprehensively.</p> <p>The significance of the trend for supply or demand is clearly discussed.</p>

**N0** = No response; no relevant evidence.

### Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 2	3 – 4	5 – 6	7 – 8