

91297



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## Level 2 Agricultural and Horticultural Science, 2019

### 91297 Demonstrate understanding of land use for primary production in New Zealand

2.00 p.m. Monday 25 November 2019  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of land use for primary production in New Zealand.	Demonstrate in-depth understanding of land use for primary production in New Zealand.	Demonstrate comprehensive understanding of land use for primary production in New Zealand.

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.**

**TOTAL**

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**QUESTION ONE: PIP FRUIT PRODUCTION**ASSESSOR'S  
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The Hawke's Bay and Otago regions are major producers of pip fruit, such as apples.



Pip fruit orchard

- (a) Explain TWO environmental factors that make both these regions suitable for pip fruit production.

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(2) \_\_\_\_\_

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- ☐ Hawke's Bay ☐ Otago

Agricultural and Horticultural Science 91297, 2019



**QUESTION TWO: DAIRY CATTLE NUMBERS**ASSESSOR'S  
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Dairy cattle numbers in New Zealand have increased from 3.8 million in 1994 to 6.5 million in 2017. However, this increase has not been spread out equally across the regions.

The map below shows some regions have had a loss in dairy cattle numbers, while other regions have had increases of more than 400%.



Map of the change in dairy cattle numbers between  
1994 and 2015

- (a) Explain two possible reasons why the greater Auckland region has had a decrease in dairy cattle numbers.

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(a) Identify a region in New Zealand that has traditionally been used for grape production and explain in detail the impacts of viticulture on this region in terms of workforce and social factors.







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

ASSESSOR'S  
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QUESTION  
NUMBER

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

ASSESSOR'S  
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#### Acknowledgements

Material from the following sources has been adapted for use in this examination:

**Page 2**

Image: <https://www.bayleys.co.nz/media.ashx/orchardsmall.jpg>

**Page 5**

Image: [http://archive.stats.govt.nz/browse\\_for\\_stats/environment/environmental-reporting-series/environmental-indicators/Home/Land/livestock-numbers.aspx](http://archive.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/environmental-indicators/Home/Land/livestock-numbers.aspx) (recreated)

**Page 8**

Image: <http://www.oysterbaywines.com/nz/our-place/marlborough/>