

SUPERVISOR'S USE ONLY

91297



# Level 2 Agricultural and Horticultural Science, 2016 91297 Demonstrate understanding of land use for primary production in New Zealand

2.00 p.m. Monday 14 November 2016 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 2–8 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

## QUESTION ONE: HORTICULTURAL PRODUCTION

ASSESSOR'S USE ONLY

Horticultural land use changes to reflect variations in consumer demand. Some of the changes in land use between 1994 and 2014 are shown in the table below.

	Hectares under cultivation in New Zealand at 30 June						
Product	1994 2005 201						
Apples	15257	10982	8417				
Kiwifruit	12 174	12071	12081				
Wine grapes	7160	24793	33761				

Source (extract): Statistics New Zealand

Refer to the table and land use factors such as economic, environmental, technological, social, political, and workforce considerations to answer (a) and (b).

Explain in detail <sup>-</sup>	TWO factors that	may have led	to this change	in land use.	

	explain changes in land use between 1994 and 2014				
	explain, in detail, what this might mean for current land use				
•	predict how this information might affect future land use.				

# **QUESTION TWO: LAND USE CONFLICTS**

ASSESSOR'S USE ONLY

Но	rticulture New Zealand is calling for protection of land classified as highly productive:
Sou	rce (adapted): NZ Grower, 2015, Vol 70, No 6, p.13.
,	
	ncils need to consider the economic, environmental, and social effects when siting new sing developments on highly productive land.
Disc	uss the implications for land use if councils do not consider these effects.
In yo	our answer, using TWO land use factors:
•	explain why there is a conflict between horticultural land use and residential use
•	explain, in detail, how traditional land use has influenced the tension seen in current land use
•	compare and contrast the implications if a council does not consider highly productive land when changing horticultural land use to residential land use.

5 .	9			

ASSESSOR'
ASSESSOR'S

### **QUESTION THREE: EL NIÑO**

ASSESSOR'S USE ONLY

New Zealand is often affected by the El Niño weather pattern, which can lead to drought. El Niño is a set of warm conditions in the central Pacific that bring dry weather to the east of

Source (adapted): New Zealand Herald, 22 September 2015; article by Jamie Gray.



Source: http://www.stuff.co.nz/business/farming/sheep/67324546/ sheep-and-beef-are-doing-it-tough-in-drought

Justify, with reference to traditional and current land use, why NZIER made the above statement. Take into account land use factors such as economic, environmental, technological, social, political, and workforce considerations.

In your answer, explain in detail, using TWO land use factors:

- how traditional land use in 1997–1998 may have been affected by the El Niño weather pattern
- how current land use may not be as significantly affected by El Niño.

ASSESSOR'S USE ONLY
USE ONLY

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

ASSESSOR'S USE ONLY

QUESTION NUMBER		1	(-)	
NUMBER				