

SUPERVISOR'S USE ONLY

91297



# Level 2 Agricultural and Horticultural Science, 2013 91297 Demonstrate understanding of land use for primary production in New Zealand

2.00 pm Friday 29 November 2013 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

Explain, in detail, what economic and environmental factors may have contributed to farmers

You are advised to spend 60 minutes answering the questions in this booklet.

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# **QUESTION ONE: CHANGING LAND USE**

(a)

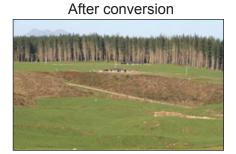
Last century, land traditionally used for sheep and beef production was changed to forestry production.

ECOHOITII	cfactors		
Environm	ental factors		

Many forestry areas are now being converted into dairy farms, as shown in the photographs below.

# During conversion





- (b) Justify the decision of farmers to change land use from forestry to dairy production. In your answer, consider production in terms of:
  - positive effects on economic returns
  - negative impacts on the environment
  - technological improvements.

## QUESTION TWO: ROOT CROP PRODUCTION

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Ohakune is located in the central North Island, where land is traditionally used for root crops such as carrots.

	economic factors which make root crop growing in the Ohakune area a preferred op
(i)	Environmental factors
/::\	
(ii)	Economic factors

An environmental court has ruled to restrict the amount of fertiliser that growers in Ohakune can use on their land, to stop it leaching into waterways. This may have an influence on the profitability of root crop growing. One grower is considering changing the land use to dairy production.

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	lyse the advantages and disadvantages of changing the land use to dairy production. our answer, consider:
•	the environmental issue of fertiliser
•	existing workforce considerations
•	economic returns of root crop production compared with dairy production.
	conforme returns or root crop production compared with daily production.

Explain, in detail, why the land in Northland is suitable for kumara production. Consider the

## **QUESTION THREE: KUMARA PRODUCTION**

(a)

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A Dargaville (Northland) farmer has been producing kumara for many years. It has been considered to be the best use of the land.

)	Environmental factors
i)	Economic factors
.,	

nec	ision, in terms of:	
•	social factors that include the grower's family and the wider community	
•	existing infrastructure and markets which impact on economic returns.	

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