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93105Q





# Scholarship 2011 Agricultural and Horticultural Science

2.00 pm Thursday 24 November 2011 Time allowed: Three hours Total marks: 24

## **QUESTION BOOKLET**

There are THREE questions in this booklet. Answer ALL questions.

Write your answers in Answer Booklet 93105A.

Check that this booklet has pages 2–3 in the correct order and that none of these pages is blank.

YOU MAY KEEP THIS BOOKLET AT THE END OF THE EXAMINATION.

You have three hours to complete this examination.

#### **QUESTION ONE (8 marks)**

Choose TWO of the following contemporary issues:

- carbon footprint
- market access
- water (availability and/or quality).

Discuss the TWO chosen issues, with reference to ONE nationally significant, export-oriented, primary production system that you have studied, and **other** primary production systems for which the issues have particular relevance.

The discussion should include:

- a detailed explanation of your chosen issues
- a comprehensive analysis of the impact of the two issues on your selected primary production system
- an overview of the impact of the two issues on other primary production systems.

Plan your answer to this question on page 2 of the Answer Booklet and begin your answer on page 3.

#### QUESTION TWO (8 marks)

As agricultural and horticultural production systems intensify, the potential for the management practices used to cause negative environmental impacts also increases.

Referring to TWO specific New Zealand environmental issues associated with primary production systems, critically analyse the conflicts that exist between **balancing** the risk of negative **environmental** impacts with the desire for **economic and social sustainability**.

The analysis should include:

- a detailed explanation of the environmental issues selected and the management practices that cause them
- a comprehensive analysis of the conflicts that exist and the perspectives/viewpoints that may cause these conflicts
- a discussion of possible innovative solutions that may be developed and implemented in the future.

Plan your answer to this question on page 8 of the Answer Booklet and begin your answer on page 9.

### **QUESTION THREE (8 marks)**

Choose ONE of the following contemporary issues:

- animal welfare
- climate change
- change in land use
- country of origin labelling
- foreign ownership of land
- value-added products.

Critically analyse the impacts of this issue on TWO nationally significant, export-orientated, primary production systems.

For ONE of the selected primary production systems, discuss the impact of the chosen contemporary issue on the production and marketing of the product in the global economy.

Plan your answer to this question on page 14 of the Answer Booklet and begin your answer on page 15.