



**B O A R D O F S T U D I E S**  
NEW SOUTH WALES

**2002**

**HIGHER SCHOOL CERTIFICATE  
EXAMINATION**

# Agriculture

## Paper 2

### **General Instructions**

- Paper 2 should be attempted only by students who have studied Electives
- Reading time – 5 minutes
- Working time – 1 hour
- Write using black or blue pen
- Board-approved calculators may be used

### **Total marks – 30**

- Attempt TWO questions from Questions 1–6
- Allow about 30 minutes for each question

**Total marks – 30**

**Attempt TWO questions from Questions 1–6**

**Allow about 30 minutes for each question**

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

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	<b>Marks</b>
<b>Question 1 — Agribusiness (15 marks)</b>	
(a) Name ONE study of the impact of a large rural business organisation on the agricultural industries in which it is involved. Outline the study's methodology and the way in which its findings were presented.	<b>3</b>
(b) Explain the role of TWO advisory services available to farmers when they are considering a change in their farm management or farming system.	<b>4</b>
(c) Select an agricultural product for which there are overseas markets. Evaluate TWO impacts of international markets on farm businesses in that industry.	<b>8</b>
<b>Question 2 — Animal Management (15 marks)</b>	
(a) Name ONE study of a current technique/technology which is advancing productivity in animal production systems. Outline the study's methodology and the way in which its findings were presented.	<b>3</b>
(b) Explain TWO potential impacts of the use of genetic engineering on an animal production system that you have studied.	<b>4</b>
(c) A variety of management practices are used for disease control in animals. Evaluate TWO such practices.	<b>8</b>
<b>Question 3 — Horticulture (15 marks)</b>	
(a) Name ONE study of a technological innovation in a particular horticultural industry. Outline the study's methodology and the way in which its findings were presented.	<b>3</b>
(b) Explain TWO ways in which the production cycle of a nominated horticultural system may be affected by a plant's response to environmental conditions.	<b>4</b>
(c) Analyse TWO ways that changing markets may influence horticultural practice.	<b>8</b>

**Question 4 — Innovation and Diversification (15 marks)**

- (a) Name ONE study of the development and implementation of one alternative agricultural production system or technology. Outline the study's methodology and the way in which its findings were presented. **3**
- (b) Explain, with TWO examples, how technological innovations can help improve an existing agricultural enterprise. **4**
- (c) Explain TWO challenges that research has addressed, allowing the development of alternative enterprises. **8**

**Question 5 — Plant Management (15 marks)**

- (a) Name ONE study of the role of plant breeding or related research in advancing productivity in plant production systems. Outline the study's methodology and the way in which its findings were presented. **3**
- (b) Explain TWO ways in which plant density may affect the vegetative or reproductive yield of a plant production system that you have studied. **4**
- (c) Use a plant production system you have studied to explain how TWO environmental factors can be managed to manipulate plant production. **8**

**Question 6 — Sustainable Land and Resource Management (15 marks)**

- (a) Name ONE study of innovative technologies or practices that are assisting with the conservation and efficient use of water in agricultural production systems. Outline the study's methodology and the way in which its findings were presented. **3**
- (b) Explain TWO ways in which water quality and/or water supply are important issues in sustainable land and resource management. **4**
- (c) Analyse TWO strategies that can be used to improve sustainability in agriculture. **8**

**End of paper**

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