



## AGRICULTURE

### **Stage 6: Years 11-12 Subject Overview**

Agriculture provides people with food, fibre, fuel, shelter and the possibility of diverse lifestyles. Agriculture is a composite of rural and urban industries that are structured to produce both raw and value-added materials from plants and animals to meet identified consumer needs.

Agricultural industries make a significant contribution to Australia's economy through investment, employment of skilled workers, consumption of products from other sectors of the economy and export. Agricultural products contribute significantly to Australia's export income. The total chain, from the farm and the research laboratory to the processing plant, retail outlet and exporter, accounts for a major portion of the nation's Gross Domestic Product. Australia's agricultural industries must undergo significant and continuous change to maintain and possibly enhance this contribution to the Australian economy.

Agriculture's dynamic nature results from the increase in knowledge and the application of technology to the production, processing and marketing of products in complex national and international marketplaces. This complexity has political, social, ethical, economic and environmental implications for Australia. The majority of consumers are isolated from the production and processing of food and fibre. This course provides students with an understanding of the relationships between production, processing and consumption to enable them to participate in debate on the impact of each upon society and the environment.

The *Agriculture Stage 6 Syllabus* has been designed to allow students to develop knowledge and understanding of the interaction between the components of agriculture and the scientific principles that explain the processes that take place when inputs are transformed into outputs. Its opportunities for multiple pathways to employment and further education. Some students may well be stimulated to move into post-secondary agricultural courses or to seek employment in rural and related industries.

Opportunities are also provided for students to develop awareness of the welfare, ethical and legal issues relating to animal research.



Year 11 Topics	Year 12 Topics
<b>Overview (15%)</b> <ul style="list-style-type: none"><li>• Agricultural systems</li><li>• Agricultural history</li><li>• Social aspects surrounding agriculture</li></ul>	<b>Plant/Animal production (50%)</b> <ul style="list-style-type: none"><li>• Soil, nutrients and water</li><li>• Factors contributing to the degradation of soil and water</li><li>• Sustainable resource management</li><li>• Plant production systems</li><li>• Constraints on plant production</li><li>• Managing plant production</li><li>• Animal nutrition</li><li>• Animal growth and development</li><li>• Animal reproduction and genetics</li><li>• Animal pests and diseases</li><li>• Animal ethics and welfare</li><li>• Experimental analysis and research in plant/animal systems</li></ul>
<b>The farm case study (25%)</b> <ul style="list-style-type: none"><li>• The farm as a unit of production</li><li>• Farm management</li><li>• Marketing</li><li>• Farm technology</li><li>• The agricultural workplace</li></ul>	<b>Farm product study (30%)</b> <ul style="list-style-type: none"><li>• The farm as a business</li><li>• Decision-making processes and management strategies</li><li>• Agricultural technology</li><li>• Marketing of a specific farm product</li></ul>
<b>Plant production (30%)</b> <ul style="list-style-type: none"><li>• Plants and their commercial production</li><li>• Animals, climate and resource interaction</li><li>• Microbes, invertebrates and pests</li><li>• Technology</li><li>• Experimental design and research</li></ul>	<b>Elective (20%)</b> <p>Choose ONE of the following electives to study.</p> <ul style="list-style-type: none"><li>• Agri-food, Fibre and Fuel Technologies</li><li>• Climate Challenge</li><li>• Farming for the 21st Century</li></ul>
<b>Animal production (30%)</b> <ul style="list-style-type: none"><li>• Animals and their commercial production</li><li>• Plants, climate and resource interaction</li><li>• Microbes, invertebrates and pests</li><li>• Technology</li><li>• Experimental design and research</li></ul>	