Overview Unit 4

**Mathew:** [00:00:04] Hello, I'm Matthew, and I'm here today with Caitlin, and we're going to talk about Unit 4 of the Agricultural and Horticultural Studies Study Design. Hi, Caitlin. Hello. Unit 4 is sustainable food and fibre production. It also has two years of study. The first area of study is sustainable land management and the second, is sustainable business practices. Could you please explain the first study for me?

**Caitlin:** [00:00:29] Yes. The first area study is sustainable land management. This is where students study the impacts of climate change, environmental degradations and techniques with monitoring sustainability in food and fibre industries.

**Mathew:** [00:00:42] What content do students learn in sustainable land management.

**Caitlin:** [00:00:46] So students study the impact of climate change on food and fibre production and adverse extreme weather conditions such as drought, frosts, floods in areas that are not accustomed to those types of weather. They evaluate sustainability strategies and also property management that can adapt to help with such climate change issues. Students explore different environmental degradations that involve land and soil, such as salinity, water logging, erosion and nutrient depletion. They explore different environmental degradations that affect water such as nitrogen levels, phosphorus and dissolved oxygen that PH levels, electrical conductivity and turbidity. And gather understanding for techniques that prevent and rehabilitate degradations that involve soil, land air and water. Students also learn about the relationships between biodiversity and sustainable agriculture and horticulture practices, such as planting native tree lines.

**Mathew:** [00:01:52] In this second area of study, sustainable business practices, students examine business challenges and opportunities across the food and fibre supply chain with a focus on sustainability. What content do students learn in sustainable business practices?

**Caitlin:** [00:02:09] So students draw knowledge on the social, environmental and economic sustainability related to agriculture and horticulture businesses. They look at practices such as carbon footprints, work safe practices and healthy communities. They're able to explain challenges and opportunities across the food and fibre supply chain, such as bordering markets, market demands and value adding opportunities and tools and techniques to support.

**Mathew:** [00:02:38] Could you please explain the quality assurance content found in this area of study in more detail.

**Caitlin:** [00:02:43] Students will need to explain quality standards and assurance programs in the food and fibre industries and the effects of mainstream media like pressure groups such as the Victorian Farmers Federation and Animals Australia. Finally, students will look at two regulations and policies that affect Australian agriculture and horticulture. And this is located on page 21 of the study design. Students can also refer to page 8 of the study design. For more information on sustainability.

**Mathew:** [00:03:17] Thank you very much for your insights today, Caitlin.

**Caitlin:** [00:03:20] Thanks.

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