KK 5 Environmental issues in food product design

**TASK 1**

Go to the link below and watch the sections below

 [www.youtube.com/view\_play\_](http://www.youtube.com/view_play_list?p=77EAB10EB9E5598A&amp;sort_field=original&amp;page=1) [list?p=77EAB10EB9E5598A&sort\_field=original&page=1](http://www.youtube.com/view_play_list?p=77EAB10EB9E5598A&amp;sort_field=original&amp;page=1).

Students should view the following sections of the video:

* Organic Farming Video, Australia, How to – Broadacre
* Organic Farming – Dealing with weeds organically
* Organic Farming – Why organic produce is so popular with consumers?
* Organic Farming – Weed and insect control in vegetables This should take approximately 10 minutes.

The following questions can be provided to students.

1. What is meant by the term ‘organic farming’?
2. What is the purpose of organic farming?
3. How does organic farming contribute to sustainable food production in Australia and globally?
4. Why is consumer demand for organic foods increasing?
5. What is meant by the term ‘host plant’? How does the practice of planting host plants help to maintain organic crops?
6. How do organic farmers keep pests such as flies and moths from attacking their crops?

TASK 2

Sales of organic produce on the increase

Read the following media release from the Organic Federation of Australia and answer the related questions.

**MEDIA RELEASE**

Survey Shows that 61% of Consumers buy Organic Products

**For Release: Monday 17 Nov 2008**

A survey conducted by Newspoll has revealed that 61% Australian grocery buyers buy some organic products.

The Newspoll was commissioned by the Organic Federation of Australia, the peak body for the organic sector and was conducted nationally among 966 main grocery buyers.

A previous survey, conducted in 2003 by the University of Central Queensland, showed that 43% of consumers purchased organic products. ‘This is a 50% increase in buyers in five years and confirms the other data that “organic” is the fastest growing food category in the world’, Andre Leu, Chairman of the Organic Federation of Australia stated.

‘The organic industry is emerging from a small nic he to a significant part of the Australian food industry. A recent report showed that it is worth over $600 million. When we add flow-on industries such as the compost industry that is worth over $400 million it is easy to see that the organic industry is worth over a billion dollars to the Australian economy.’

‘The Organic Federation of Australia would like to see industry and governments prioritise organic sector investments so that we can continue to facilitate more viable farms, increase employment and expand the range of organic goods and services across all areas of Australia’, Andre stated.

*Source: Organic Federation of Australia,* [*www.ofa.org.au*](http://www.ofa.org.au/)*, accessed November 2010*

1. What is meant by the term ‘organic’?
2. Organic produce was once considered a niche market. What is meant by ‘niche market’?
3. Identify and explain two reasons why more consumers are choosing to purchase organic foods.
4. Although the purchase of organic products is on the increase, there are still a significant percentage of consumers who do not buy organic products. List three reasons that may prevent people from purchasing organic products.

TASK 3

Salinity

1. Explain what is meant by salinity.
2. How does salinity contribute to land degradation?
3. Outline the possible consequences of salinity for:

**a** farmers (give three consequences)

**b** consumers (give three consequences)

**c** the environment (give three consequences).

1. Outline two ways that salinity can be managed to reduce its impact on the environment.
2. Seeds can be genetically modified to grow in saline soil. Briefly outline the benefits of genetically modified crops to the farmer and the consumer.
3. Identify three other environmental issues that contribute to land degradation in Australia.

TASK 4

Calculating your water footprint

Visit the Water Footprint Network at [www.waterfootprint.org](http://www.waterfootprint.org/) and click on the water footprint calculator.

Complete the extended survey to calculate your water footprint. Once you have completed it, answer the following questions.

1. How does your water footprint compare on a global scale?
2. How does your water footprint compare with other members of your class?
3. If everyone in Australia had a similar water footprint to you, how sustainable do you think Australia’s water supply would be?
4. List three general ways that you can minimise your water footprint.
5. List three ways that the water footprint associated with the foods you consume could be reduced. Think about both primary and secondary production of foods
6. Why is water management essential to achieving sustainable farming practices in Australia?