Issues in sustainable farming

There are a number of sustainability issues that face rural and agricultural Australia. These issues include:

* native vegetation
* efficiency of water use
* dryland salinity
* soil acidity.

Native vegetation

Clearing native vegetation in rural areas can lead to increased salinity, reduced water quality and loss of biodiversity. It is essential that existing native vegetation is conserved on farms and new areas of native vegetation established to help mitigate these problems.

Water-use efficiency

It is important to use water wisely, especially with growing demands on existing water resources. Different ways of improving water-use efficiency need to be used including helping farmers to use water more efficiently while still maintaining productivity. Water management to prevent salinity needs to incorporate crop management, pasture controls and native vegetation programs.

Ideally land and water will be used in ways that ensure maximum social and environmental as well as economic benefits. Successful water management aims to keep Australian farms productive and sustainable into the future, while minimising broader environmental issues.

Dryland salinity

Dryland salinity is a major environmental issue in Australia. Salinity is caused by rising water tables. In order to address this issue, we need to focus on:

* understanding the causes
* finding ways to minimise it
* restoring areas affected by it.

Strategies aimed at preventing dryland salinity involve improving water management practices through more suitable crop, pasture and native vegetation management.

Strategies aimed at reducing the impact of salinity on farming include genetic engineering of plants so they can grow and produce high yields in saline soil, and identifying sustainable grazing options, in particular shrubs, to provide out-of-season livestock feed in saline areas. This may improve profitability and biodiversity, and reduce salinity.

Soil acidity

Soil acidity is a major problem costing over $1 billion every year. Currently research bodies, such as the CSIRO, are developing plants that can tolerate higher levels of acidity in the hope of addressing this increasing environmental concern.

In the low and medium rainfall regions of southern Australia shrubs are being used to stabilise soil and reduce soil acidification and salinity while maintaining livestock production.

*Source: Adapted from ‘Sustainable farming (overview)’, CSIRO,* [*www.csiro.au*](http://www.csiro.au/)*, accessed November 2010*