



Rice and Water



The production of food and fibre is dependent on water and rice growers know better than most the real value of water. Without it, Australian rice growers can't plant a crop, make a living or continue to grow the rice which feeds up to 20 million people around the world everyday.

What farmers do to improve water use:

- Follow strict regulations for the growing of rice
- Undergo whole farm planning techniques
- Recycle all their water
- Grow shorter season rice varieties - these require less water for growth
- Use the moisture left in the soil after harvest to plant another grain crop – they grow more crop per drop
- Adopt high tech precision agriculture technology which delivers advancements in water use efficiency

The Australian rice industry is one of the most efficient users of water in the world.

Australian rice growers use 50% less water to grow one kilo of rice than the world average and are recognised worldwide for growing high quality rice varieties suited to Australia's climate known as temperate rice. Water use per hectare continues to decline because of our commitment to developing high yielding rice that uses less water, and the use of world's best management practices.

Conservationists recognise the Australian rice industry is careful with water and is an ethical employer. They recommend our rice.

"When you buy Australian rice...you know they're careful with the water, you know they treat their labourers well. Who knows what happens overseas?"

Arlene Harriss-Buchan, Australian Conservation Foundation.

Rice grown in Australia has been developed to especially for our climate.

The type of rice grown in Australia is different to that which is grown in Asia. Rice varieties grown in Australia have been specially developed to the conditions of southern NSW, the main growing region.

Rice growing is Australia's most regulated agricultural industry in terms of land and water use and environmental impacts.

Much of this regulation has been industry-initiated. Rice can only be grown on soils that are deemed suitable based on soil textural classification, electromagnetic induction to determine clay depths and sodicity.

Overall water availability for irrigated agriculture in the region is determined by Water Sharing Plans with announcements made by the NSW Government of actual water allocations for each irrigation area.



Rice and Water

Careful water management of rice farms is needed to ensure both environmental sustainability and rice productivity.

Land and Water Management Plans are the cornerstone of environmental initiatives in the irrigation areas of the Riverina. Each plan is an integrated natural resource management strategy prepared by landholders and local communities with technical and financial assistance in partnership with the NSW and Federal governments.

Plans set out the best practices for managing irrigation farming and improving water and soil management within the landscape. They also provide for long-term biodiversity restoration and better farm management techniques, so the land is preserved for future generations.

Farmers grow annual crops, such as rice, only when enough water is available. This makes it perfectly suited to our variable climate.

Rice growers are allocated their water last – after the environment, towns, livestock and permanent plantings. Unlike permanent plantings, rice production can be switched on or off depending on water availability. If water is available, the area of rice planted will depend on economic considerations to optimise the value of the water.

Australian rice is not the same as that grown in Asia.

Most rice varieties grown in Australia have been specifically developed for our climate and have been bred to suit the environmental conditions of south-eastern Australia.



A common perception is that rice is a tropical crop, but almost all of the rice produced in Australia is *Japonica*, a variety which is perfectly suited to the dry temperate micro-climate of the Australian rice growing region.

Internationally, Australian rice production uses less water per hectare than other countries and is consistently in the top 4 of water efficient producers.

If we imported all our rice, particularly from developing countries, we would consume food that is produced by countries with natural resources including water that are under considerable pressure.

The Australian rice industry has a record of continuous improvement in product quality, productivity, land and water use, and environmental management. Australian rice growers surpassed the international average production of 5.4 tonnes per hectare 45 years ago. Today the Australian industry averages 9.7 tonnes per hectare with the 2013 crop averaging 10.3 tonnes per hectare.

A rice crop forms one part of a farming system.

Australian farmers make decisions about which crops they will plant each season taking into consideration variable conditions such as water allocations and the weather. A rice crop forms one part of a farming system, and is only planted when the conditions are suitable.

In Australia, rice is grown from October until March and in rotation with other crops such as wheat, barley and maize. Many of these crops grown in rotation with rice utilise the existing soil moisture from the harvested rice crops, meaning they don't require further irrigation. This allows for further water savings and more efficient water usage, and effectively provides growers with two crops from the one application of water.

“One year I'll grow rice in a paddock and after harvest I'll directly sow in a wheat crop. I am getting two crops from the same water because I utilise the moisture remaining in the soil from the rice”

Les Gordon, rice grower for over 30 years