

ALMONDS AND BEES. A HEALTHY PARTNERSHIP.

Almonds and honey bees are vital to one another. Almond blossoms provide one of the first natural sources of food for bees each spring. Australia currently uses over 180,000 hives during the pollination season.

Hives arrive into orchards just before the trees begin to blossom in July.

Almond growers stage the introduction of the bees to the orchards in line with the quantity of blossom available. As more of the almond trees come into flower, a greater number of hives are placed in the orchard and as some of the trees near the end of their blossom season, hives are removed.

Note: no chemical sprays are used in almond orchards while the bees are flying and pollinating the trees.



"The pollen in almond blossoms is an excellent source of nutrition for bees.
Our bee hives are stronger and healthier after being in an almond orchard than before".

Peter McDonald, Commercial beekeeper and Chair of the Australian Honey Bee Industry Council.





Continuous Improvement
From Nursery to Kitchen





GOOD FOR HEALTH

WHY ALMONDS ARE GOOD.

GOOD FOR BEES

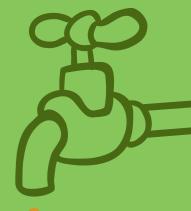






GOOD FOR OUR ENVIRONMENT

GOOD USE OF WATER













GOOD FOR THE ECONOMY

Almonds are Australia's most valuable horticultural crop. In 2018/2019
Almond exports were worth \$552 million. For every one tonne of almonds sold in Australia, 2.6 tonnes were exported.

GOOD FOR RIVER COMMUNITIES AND OUR NATIONAL ECONOMY

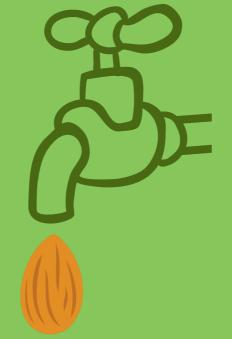
Almond farming brings vital jobs to the local communities along the Murray River and half a billion dollars in exports last year.

GOOD USE OF WATER

Improvements in watering practices and technology has resulted in a

33%
REDUCTION IN WATER USAGE

over the past 20 years.



Historically almonds have a demonstrated track record of producing a high value return per megalitre of water applied. Sophisticated irrigation systems ensure that water application matches tree requirements and minimises environmental impact. Irrigation technology used throughout the industry is of the highest standard and latest design, with in excess of 90% of plantings under drip irrigation





then



now

GOOD FOR THE ENVIRONMENT

The Shell

The shells are used for livestock bedding, landscape material similar to wood chips and as a fuel source.

The Hull

The hulls are rich in sugar, nutritious minerals and fibre and are used for livestock feed.



Biomass

The shell is used to generate electricity, food grade sugars, plastics, natural absorbent materials and as part of a process to produce fish and poultry foods.

In a multi-year lifecycle assessment analysing energy use and greenhouse gas emissions associated with typical almond orchard production systems in California, a team of researchers found that 1 kilogram of almonds produces less than 1 kilogram of carbon emissions. (For comparison, the Environmental Working Group estimated that beef causes more than 20 kilograms of CO2-eq emissions, cheese more than 10, and beans

By improving the use of orchard biomass, California's almond production could eventually become carbon neutral or carbon negative, she said.

"Almond orchards capture and store a significant amount of carbon both above and below the surface over their 25 year lifecycle," said Kendall. "This carbo storage provides a climate benefit not considered in conventional carbon footprints."

Alissa Kendall, Associate Professor of Civil Engineering at the University of California.