

On-Farm Irrigation Efficiency Program

Case study: Lacton Pty Ltd

New irrigation system for 40 year old almond orchard



Next generation: A new variety of almond trees have been planted as part of Lacton's modernisation project.

Forty-year-old orchards at Lindsay Point almond property watered by a 30-year-old sprinkler system will be revolutionised when the area is replanted with new varieties and placed on a drip irrigation system.

The almond property, owned by Lacton Pty Ltd, is undertaking four irrigation infrastructure modernisation projects with funding through the On-Farm Irrigation Efficiency Program (OFIEP).

Lacton agronomist, John Kennedy, said the first almond trees were planted in 1972 when the Lindsay Point property, located on the South Australian and Victorian border, was initially developed.

"We are now in the process of replanting 42.6 hectares that was planted in 1972 and 1974 and placing the new trees on drip irrigation," Mr Kennedy said.

"While converting to a modern drip irrigation system, we are taking the opportunity to build the soil organic matter with compost applications, while improving irrigation flexibility and labour cost by adding automated valves and filters."

Mr Kennedy said the conversion to drip irrigation infrastructure will provide more control than the previously used sprinkler system and it will allow the property manager to irrigate in two shifts during peak capacity.

"When drip irrigation was first installed in other areas of the property 10 years ago, an understanding of what is required to run the system effectively was not wholly understood," Mr Kennedy said.

"Since that time we have learnt that a system will require regular maintenance to run at an optimal performance and to ensure that the system operates at its peak for many years to come."

Mr Kennedy said water savings have already been noticed on the property after making the conversion to drip irrigation.

"Drip irrigation provides for more flexibility and we've made between 1.5 and 1.7 megalitre water savings per hectare," he said.

"We've also noticed an increase in long term average yields from 2.5 tonnes per hectare to 3.2/3.4 tonnes per hectare."

Mr Kennedy said the increase in yield has been the result of daily water and precision nutrient application via the drip irrigation system.

"With a sprinkler system you don't have flexibility and choice about water application," he said.

One of the objectives of the OFIEP is to help secure a long-term future for irrigation communities and Mr Kennedy believes the modernisations made at the Lindsay Point property will safeguard future production.

"Funding through the OFIEP has been used for projects that will make the property more robust and able to maintain productivity in the case of another drought," he said.

A root stock trial is also being conducted at the property to investigate which varieties suit different soils and weather conditions. These rootstocks can be grafted onto other varieties to help them





Lacton agronomist John Kennedy, AgriExchange agronomist Trevor Sluggett and Natural Resources SAMDB project officer Brenton Fenwick at an almond orchard converted to drip irrigation with funding through the On-Farm Irrigation Efficiency Program.

survive drier conditions with less available water.

The water savings generated from on-farm projects are shared between the irrigator and the Australian Government. The government returns a portion of the water savings to the environment to protect and restore rivers, wetlands and other environmental assets in the Murray-Darling Basin.

This project has also benefited Riverland businesses and will contribute towards securing a long-term future for the local irrigation community.

More information about the On-Farm Irrigation Efficiency Program is available at www.naturalresources.sa.gov.au/samurraydarlingbasin/ or by calling (08) 8580 1800.



Long term average yield have increased by 28% as a result of irrigation system upgrades

Location: Lacton, Lindsay Point property

Australian Government funding: \$1,011,910 (ex GST)

Project water savings: 332.5ML over five projects

Find out more about the On-Farm Irrigation Efficiency Program, the SAMDB NRM Board and its activities:

SA Murray Darling Basin NRM Board

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The program aims to increase water use efficiency in rural Australia, deliver substantial and lasting returns of water for the environment and secure a long-term future for irrigation communities. To-date local OFIEP projects have generated total water savings in excess of 20 gigalitres.



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South Australian Murray-Darling Basin
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