Win-win:
how drought conditions can improve pastures and reduce salinity

John Ive is a Merino wool producer in the Yass Valley, half an hour north of Canberra. He is only one of a handful of ultra-fine wool producers in Australia.

The soil on John's property *Talaheni* is shallow, rocky and of poor quality. Most cropping soils, for example, can hold from 150 mm to 240 mm of rainfall. 'Our soils can hold about 60 mm of moisture', says John.

If the region does not get good rain in early autumn, John says the property is 'in for a pretty bleak winter.'

To make the best of these dry times, John has two moisture-saving strategies.

'We have to retain as much soil as possible to minimise the run-off and make sure we have the right mix of pastures so that they can use as much of the rainfall, whenever it falls', John says.

During the recent droughts, John restricted his sheep to the stony ridges of his property by opening and closing gates at critical times. They were hand-fed instead of grazing the more productive pastures.

This strategy had multiple benefits for John: the manure left behind helped regenerate the pasture on the hills quickly, which later helped reduce weeds and allowed the native tree seedlings to take over—promoting the natural regeneration of about 250 000 trees.

When the drought broke, the stock were moved back to the more productive, flatter pastures.

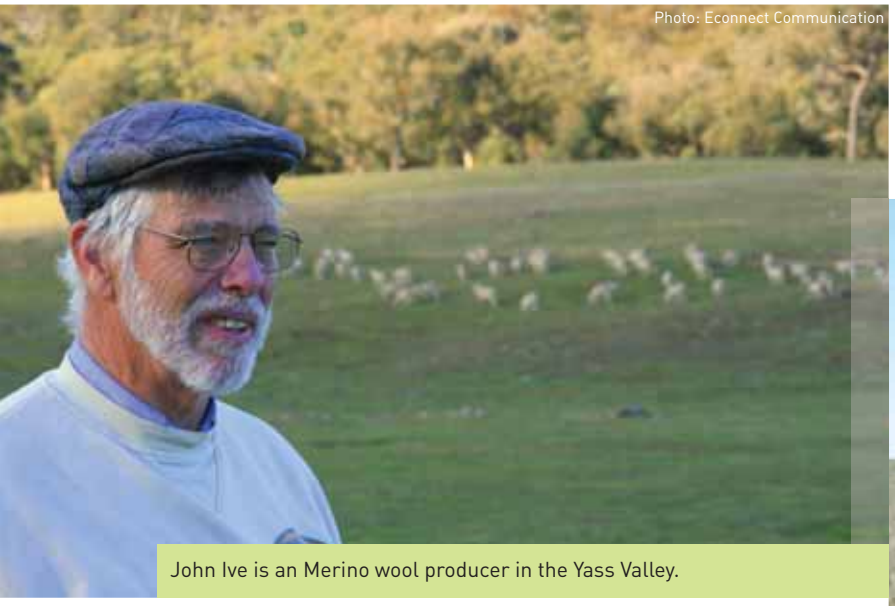

Photo: Econnect Communication

John Ive is an Merino wool producer in the Yass Valley.

Another challenge that John deals with at *Talaheni* is dryland salinity. The salinity was just one issue among others to fix when he bought the property. 'We needed to work on a lot of other things at the time, such as re-fencing and establishing pasture. We couldn't concentrate on just reducing salinity', John says.

But John says he always dealt with re-fencing and establishing pasture with salinity in mind. In this way, even restricting sheep to the rocky hills on his farm has helped—the regenerated natural trees on the ridges have drastically reduced this salinity problem, especially in lower paddocks.

Trees with deep roots absorb and use rainwater before it drains through the soil. If water drains through to lower levels of soil (a variable depth, but for example deeper than five metres) this is known as 'deep drainage'. Deep drainage makes the watertable rise. If the watertable is too high, it can bring salt to the surface, which can kill plants and adversely affect soil structure.

'Our flat paddocks, which were badly saline affected, have now recovered. Some of them now have our best pastures', John says. 'One paddock used to support only 2.5 sheep per hectare, but can now support up to seven sheep per hectare.'

Other advantages of the trees include:

- ground cover for areas which do not have good pasture potential
- shelter for stock and native birds

Photo: Econnect Communication