

From eyesore to 'orchard' for Grenfell saltland

Case study: Stephen Pereira

Location: *Spring Vale* near Grenfell in Central West NSW

Property size: 400 ha undulating to creek flats

Mean annual rainfall: 625 mm

Soils: Ironbark ridges; grey sandy loams to heavy creek flats

Enterprises: Self-replacing Merinos, winter cereals, lucerne



Grazing and cropping farmer Stephen Pereira cannot believe the abundant growth of salt-tolerant pastures on a trial site on his property *Spring Vale* near Grenfell in Central West NSW.

The trial, part of a *Sustainable Grazing on Saline Lands (SGSL)* project (funded by the national Land, Water & Wool initiative), is now in its second year and showing promising results.

The project is an effort to explore better use of saline ground or land that is showing the effects of salinity. In the Pereiras' case it was scalding.

The 11 hectare trial plot is now home to a productive pasture mix of grasses and legumes that Stephen has successfully cut for hay and grazed with Merino wethers.

"Last spring the growth was so thick, you could hardly walk through the trial site," Stephen said.

"My dad jokingly refers to the site as 'the orchard' because the growth was so vigorous," he added.

"We cut it for hay and baled 35 tonnes which was a fantastic result given the ground had previously been more or less unproductive, especially in a pasture sense."



Photo: L. Beange

Members of the NSW SGSL Producer Network Committee knee-deep in healthy pasture on what was previously a salt-scalded area at *Spring Vale*. Stephen Pereira, (second from left) cut over 35 tonnes of hay from the site following strategic grazing by Merino wethers

The trial site pasture mix comprises tall wheatgrass, puccinellia, phalaris, fescue, prairie grass, balansa and strawberry clovers, chicory and lucerne. It was conventionally sown, is opportunistically grazed by sheep (mostly wethers) at rates of up to 50 DSE/ha and is now one of the property's most productive paddocks.

Spring Vale is a fourth generation property bordering a State forest and with the semi-permanent Bungalong Creek passing through. The previous two years have been exceptionally dry, making the vigorous saltland pasture growth at the trial site even more critical to the grazing component of the enterprise.

Spring Vale is also home to a self-replacing Merino flock (adult micron is 20.5) and a cropping program of winter cereals including wheat, oats and canola. Lucerne

is also grown as a valuable source of feed for the sheep.

Cereal crop yields are typically 3–4 t/ha and the cropping program involves minimum or no-till techniques.

From trial to verdict

The SGSL trial site is a result of Stephen's open-minded approach to farming, which has been fostered by his involvement in the Central West NSW Sustainable Farmers Network and Resource Consulting Services.

Key points

- Saltland can be as productive as most parts of the property
- Saltland needs to be managed as part of an overall property plan

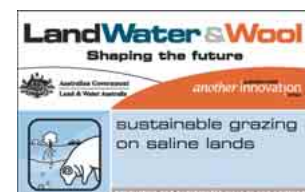




Photo: S Pereira

Jessica Pereira looks over a salt-scalded paddock near the SGSL trial site. Depending on how the season shapes up, Stephen intends to sow this paddock with a similar pasture mix to that on the SGSL site

Stephen also works under a contract basis for the Lachlan Catchment Management Authority performing EM surveys and a variety of other salinity related tasks, so he is no stranger to salinity and tracking its effects on the land.

“There is scalding and pasture species change in many of the drainage lines throughout the district, including my property. So a couple of years ago I applied for and received funding to establish some salt-tolerant pasture species on *Spring Vale* where there was evidence of scalding,” he said.

“Not long after that I was approached by Luke Beange from the NSW DPI who suggested being involved in an SGSL trial. It sounded like a great chance to improve the soil and take some steps to prevent the further spread of salinity at the same time.”

After a somewhat delayed establishment of the pasture on the SGSL trial plot due to poor seasonal conditions early in 2005, the various salt-tolerant species are now well established. Stephen is so impressed by the growth and productivity, he has already decided that the site will not be cropped again and he plans to introduce a similar pasture mix to other drainage lines on the property.

The renovation of the scalded areas of land is timely, as Stephen also made a conscious decision four years ago to implement whole farm change to ensure the land’s long-term future.

“While the farm was productive, I knew we had to change our management,” he said. “I had been to plenty of other farms on bus trips and field days and, in very similar conditions, they were achieving much better production.

“You initially think maybe they have more rain or run less stock, but when you find out that is not the case, you realise it is the way the whole farm is managed.”

As part of his new approach to farming, Stephen recently installed a new stock watering system that will allow him to fence off creek lines and waterways for future renovation.

Bores provide water to tanks and stand pipes can service several paddocks. This allows Stephen greater flexibility in his stock and pasture management. For example, he will soon be investigating the introduction of cell grazing and continues to be involved in on-going training and education activities.

“The trial results so far have been impressive and given me the confidence to implement many changes on the property such as the cell grazing.”

CONTACT

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The science behind the story

The NSW SGSL Producer Network comprises 25 sites across NSW. Six of these sites are part of the Central West Sustainable Farmers Network (CWSFN), which is strongly focused in central NSW where most salinity expression is evident.

Apart from the Pereira family’s site near Grenfell, CWSFN sites have been established on farms at Rye Park, Young, Eugowra, Maryvale and Stuart Town. These are trialling the same mix of pasture species on various salinity ‘hot spots’.

All sites were characterised (soil testing for salinity, EM surveys, groundwater condition, landscape position, soil and geology, altitude, climate) before establishment and the various species trials are providing on-going information relating to germination, survival, dry matter estimates, pasture assessment, species performance, landholder experience and financial data.