

Investigating salty soils and water

N. Gammie, Salinity Advisory Officer NSW Agriculture.

High soil salt loads can occur in the Condobolin district in central western NSW. Often the salts present are deeper in the soil. Lower surface concentrations result in little impact currently seen on local agricultural production. Where the salt store is able to reach near the surface, few production options may be available. This is due to the high soil salinities that can result as observed locally on other scalded areas. Irrigating these soils could have long term impacts on productivity that is concerning local landholders.

The other issue facing local irrigators is varying Lachlan River salinity levels. Variability is due to conditions locally and in the upper catchment. Irrigation alters the natural hydraulic balance that can mobilise the existing salt store while adding more salts with irrigation water. To encourage more water quality monitoring and assist local irrigators in working out salt loads applied over the irrigation water, sampling was undertaken throughout the 2001/2002 summer irrigation season for different crops under various methods.

Previous testing has shown river water contains a proportion of sodium chloride that impacts on crop and pasture productivity. Testing of irrigation water samples has shown sodium chloride levels vary between irrigations and through the respective layouts. Information on salinity levels allows landholders to make decisions about water quality and management options to limit possible impacts on long term productivity.

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Nicole Gammie

Graduated with an Honours degree in Natural Resources from UNE Armidale in 1998. First employed by NSW Agriculture to work as a Technical Officer on the rice soil suitability project at Deniliquin before moving to Cowra to work as a Salinity Strategic Planner for Department of Land and Water Conservation. This involved determining areas where salinity may be a problem in the Lachlan catchment. Currently employed by NSW Agriculture as a Salinity Advisory Officer based at Condobolin in NSW to provide assistance to the mid to lower Lachlan catchment community regarding salinity.