

# SGSL TRIAL SITE SUMMARY #3



## ESTABLISHMENT & MANAGEMENT OF SALTBUSH & SALT LAND PASTURE ON A JUMBLED LAND SYSTEM

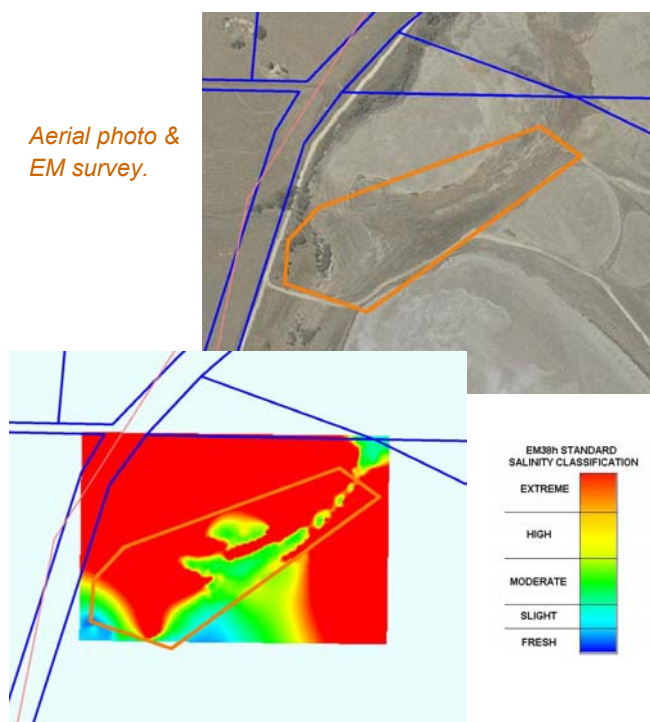
Kapinnie Landcare Group, Eyre Peninsula

### Research Objectives

To trial establishment and management techniques for saltbush and other saltland pastures on a jumbled land system adjacent to a salt lake.

To demonstrate that higher productivity is achievable in a sustainable way on saline land. There are hundreds of hectares of saline land in the Kapinnie district on which very little has been done to improve productive or environmental values.

Aerial photo & EM survey.



### The Trial

- Different pastures were trialled to maximise production from a variable land system, which included areas of:
  - Samphire & Melaleuca swamp grazing land.
  - Sea barley grass areas.
  - Rising ground of low to moderate salinity.
- In the low-lying, higher salinity ground, mounds were formed and rows of old man saltbush planted.
- Puccinellia was sown on the flats between saltbush rows.
- Lucerne and balansa clover were sown on the rising ground.

### Fast Facts

**Location:** Kapinnie, Eyre Peninsula

**Soil Type:** Variable soils: sands/loams over clays, loams.

**Rainfall:** 450mm

**Pasture Base:** Puccinellia & saltbush

**Landscape:** Salt scalds and low ridges adjacent to a salt lake (Lake Malata).

### Results

- Puccinellia, lucerne/ balansa clover and saltbush pastures established well in their respective niches.

## Results (continued)

- Waterlogging impacted on some saltbush plants in lower-lying areas.
- Productivity has improved dramatically on this site. Estimated gains are from 0.5-1 dse/ha/yr to 5-8 dse/ha/yr after pasture establishment.
- Production gains were possible, despite the odds. Within a regional discharge zone subject to seasonal inundation of low-lying areas, a mix of pastures has been found to suit the conditions.



*Puccinellia boosts production on previously low value ground. Applying fertiliser would boost production further.*



*Formed mounds, prior to saltbush establishment. The areas between rows were sown to puccinellia.*



*Saltbush doesn't like waterlogging. Despite planting on mounds, productivity declined towards the lower-lying, wetter area.*



*Rises (in foreground) were sown to lucerne and balansa clover. In the background, rows of old man saltbush and flats sown to puccinellia offer productive options for saline ground. (Photo taken: March 2006)*



*The site was located in a regional groundwater discharge zone (note the salt lake in the background) and subject to seasonal inundation.*

## Where to from here?

Encouraged by the success of the SGSL trial, Michael is looking to set up a cell grazing system on other areas adjacent to the salt lake. This will include lucerne and balansa clover on the higher banks, puccinellia on the lower ground and saltbush plantings around the edges of the banks to help control bank erosion.

## Want to know more?

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