THE NUTRITIONAL REQUIREMENTS FOR LIVESTOCK PRODUCTION GRAZING SALTLAND PASTURES
Mt Charles Saltland PPP Group, Upper South East, SA

Research Objectives
To determine the nutritional requirements for sheep and cattle production from saltland pastures.
To identify nutritional deficiencies that are potentially limiting production.

The Trial
- Blood samples were taken from Merino wether lambs and calves grazing on puccinellia and tall wheat grass pastures, for analysis of trace element status.
- Pasture samples were taken for analysis of nutrient/mineral content and feed quality.
- Four properties were involved in the study.

Results
- Vitamin B\textsubscript{12} deficiency (arising from unavailability of cobalt) was an issue on all of the properties tested.
- This represents a change from the historical cobalt status of the properties and is thought to be associated with salinisation and rising highly alkaline groundwater.
- Copper, selenium and zinc levels in the stock were satisfactory.
- The mineral contents of the saltland pastures declined sharply over the summer-autumn period.

Fast Facts
Location: Mt Charles, Upper South East, SA
Soil Type: Sand over clay
Rainfall: 500mm
Pasture Base: puccinellia and tall wheat grass
Landscape: Sandy interdunal flats
Results (continued)

- Significantly reduced concentrations over the summer–autumn period were detected in the puccinellia pasture of the main trial site in the major nutrients N, P, K, S, Ca and Mg, and in the trace elements Cu and Zn.

- Crude protein levels declined noticeably in the puccinellia pasture during summer-autumn, below reference levels for maintenance of dry sheep (7-10% dry matter). Hence feed supplementation is warranted over this period.

- Options to manage Vitamin B$_{12}$ deficiencies can include a combination of:
  - Supplementary feeding,
  - Vitamin B$_{12}$ injections,
  - Cobalt ‘bullets’, and
  - Pasture cobalt sprays.

Want to know more?

Participating Host Farmer:
Trevor Egel

Technical Support:
Jock McFarlane, Tel: (08) 8762 9100

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