





# Australian Perry Agricultural Laboratory

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Member of ASPAC

## PASTURE ANALYSIS REPORT

Client Name:	ABC FARMS	Date Received:	17-May-08
Sample ID:	NUMBER 1	Date Reported:	21-May-08
Analytical No:	PT 001	Pasture composition:	Mixed grass/clover
Plant sampled:	2008/42	Animal Species:	Sheep
Growth stage:	vegetative	Reporting consultant:	Dr Colin Trengove

### COMMENTS: (with respect to desired plant / animal nutrition)

- Nitrogen: Excess - expect a very lush pasture. Supplement hay, barley straw or if possible add bicarb soda to water @ 8gms/hd/day
- Nitrate: Low risk of Nitrate poisoning
- Sulphur: Very high - will suppress animal copper reducing wool quality. Blood sample for copper
- Phosphorus: High - refer Ca:P ratio to see if potential impact on animal health
- Potassium: High - will suppress magnesium. Increasing soil boron will help.
- Magnesium: Slightly high - may suppress plant potassium & reduce growth.
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- Calcium: Low - soil test to check lime application needs
- Sodium: High - can upset fluid balance in animal - refer cation:anion balance
- Chloride: High - excess can cause upset fluid balance in grazing animals resulting in scours & dehydration
- Iron: Good level for plant & animal health
- Manganese: Very high - often associated with low soil calcium. Can suppress cobalt
- Boron: Very low - add to fertiliser or spray solubor boron at 1-2kg/ha in spring or whenever pastures are very fresh.
- Copper: Low - blood test to establish levels. Will result in poor growth in young stock & lower fertility & production in ewes.
- Zinc: High - can suppress the uptake of phosphate.
- Cobalt: Very low. Treat lambs at weaning; weaners, 1 & 2 year olds with vit. B12. Also vit B12 at any time during stress periods.
- Molybdenum: High - may suppress animal copper. Blood test to establish levels.
- Selenium: na
- Ca:P ratio: Too low - indicates a calcium deficiency
- Cation Index: Normal - healthy cation balance for livestock production
- Cation:anion rat: Extreme - gross excess of K &/or Na relative to S &/or Cl.
- Grass Tetany: High risk - very high K relative to Ca + Mg
- ADF: Good - sufficient fibre to promote good rumen health
- Ash: High - indicating high mineral content
- DDM: Low - digestibility only sufficient for livestock maintenance or modest weight gain
- Dry Matter: High moisture - silage or winter / spring pasture
- Fat: Good - fat content is sufficient in this feed
- Metab Energy: Good - suitable for modest production in livestock
- Moisture: High moisture - typical of winter pasture
- NDF: High - fibre limits feed intake & production
- Crude Protein: Good - suitable for livestock growth / lactation

### CONCLUSIONS / RECOMMENDATIONS:

All macro elements are high indicating a good clay soil with pasture in the active growth stage.

High sodium and chloride indicates either lack of top soil leaching or poor subsoil drainage or poor water quality in the case of irrigation.

Trace elements are good apart from low boron and cobalt and marginal copper - see comments above.

Very high cation:anion ratio is a result of the abundant potassium and sodium in the plant sample and is likely to cause reduced palatability and potential for body fluid imbalances.

The high grass tetany index is due to the excess potassium relative to calcium and magnesium and indicates a high risk of grass tetany in lactating cows grazing this pasture. Ad lib hay will reduce this risk.

Good ash and fat content reflects the high nutrient status of this winter pasture and indicates active plant metabolism.

The good energy and protein content is typical of actively growing winter pasture facilitated by good nutrient status.

The NDF (fibre) content is surprisingly high for the stage of growth and indicates adequate fibre for rumen function.