

Effects of Grazing Systems on Diet and Production of Sheep Grazing WA Rangelands

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Grazing management in the Western Australian rangelands is very challenging due to highly variable climate, land systems and vegetation combined with expansive paddocks.

There is a debate about which of the two grazing management strategies

- Continuous: livestock graze one paddock throughout the year
 - Rotational: livestock rotate through paddocks monthly
- is better in terms of animal production, conservation and profit.

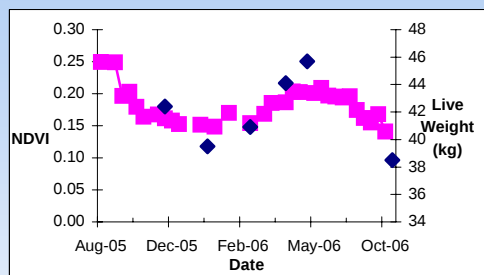
Comparisons have been studied previously, however this project will be one of few that has occurred in a commercial environment.

The management systems are compared by analysing sheep live weights, body condition scores, wool profiles and diet. These parameters will reflect the nutritional value of feed available, which will be influenced by the management systems.

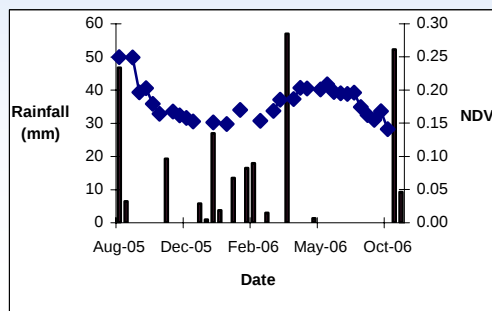
Additionally in this project, nutritional value of apparently palatable rangeland plants will be collected. This will be invaluable information for pastoralists and rangeland scientists.

A Significant Discovery

Preliminary results indicate that NDVI and sheep live weights have similar responses to rainfall & season.



NDVI (squares), Live weight (diamonds)



This could be significant information for scientists and pastoralists who could use NDVI as another management tool

NDVI (Normalised Difference Vegetation Index) measures the photosynthetic activity of plants using satellite technology

The Next Step...

Wool profiles will be analysed to see if they relate to NDVI. Also a composite NDVI data set relating to the paddocks rotationally grazed during the trial (rather than using the average NDVI for the station) will be created.

Analyses of plant & dung nutrient profiles and wool profiles are now occurring.