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## DEVELOPMENT OF GRASSLAND MONITORING TECHNIQUE

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### ABSTRACT

The Department of Agriculture, Western Australia has completed development of a ground based monitoring system for grassland pastures in rangelands. The monitoring system has been divided into two components, a pastoralist management decision aid and a rangeland trend assessment. The rangeland trend assessment system consists of objective vegetation measurement, soil surface condition and erosion assessment, and photographic records.

### DEVELOPMENT OF GRASSLAND MONITORING TECHNIQUE

Making appropriate long term management decisions relies on having objective information on current rangeland condition trend and magnitude of changes.

The Department of Agriculture, Western Australia has completed development of a ground based monitoring system for grassland pastures in rangelands to provide such information.

The monitoring system has been divided into two components:

- \* A pastoralist management decision aid
- \* A rangeland trend assessment

The pastoralist component is designed to help with season-to-season management decisions at a paddock level. It is based on fixed photographic sites.

The rangeland trend assessment component will provide aggregated trend information at a catchment, regional or statewide level. Sites will be selected on a stratified basis and will cover major pasture types and representative condition classes.

The rangeland trend assessment system consists of objective vegetation measurement, soil surface condition and erosion assessment, and photographic records.

The objective data collection techniques have been exhaustively tested and selected on the basis of being repeatable between operators, efficient to record and providing simple data sets. Techniques tested were those providing some measure of basal cover and species composition. Wheel point method and use of photographic standards were rejected, with frequency being selected.

Vegetation parameters recorded on monitoring sites are species frequency and shrub cover. Soil surface condition and overall site erosion ratings is recorded.