

## Land use studies in western Queensland

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The wool industry of Queensland, concentrated in western Queensland, has been concerned with fluctuating incomes, property sizes and land degradation. A detailed resource survey of 60 million hectares was initiated in 1970 (Dawson 1974, Turner 1978) so that critical assessments and land use strategies could be formulated.

Land system maps (1:250,000 scale) and maps of major soil types and vegetation associations (1:500,000 scale) were prepared. All data on landforms, geology, soils and vegetation are stored on computer data file which was used to assess their condition under current systems of use and their potential for improvement. (Table 1)

**Table 1. Characteristics of major law zones.**

Land zone	Existing/potential Problems	Management requirements	Development potential
Mulga Sandplains	Woody weed invasion; erosion.	Maintain ground cover, manage drought reserves.	Water harvesting.
Mulga (soft)	Woody weed invasion; manage drought reserves.	Maintain ground cover, manage drought reserves.	Selective tree thinning, water harvesting, improved pastures.
Mulga (hard)	Serious erosion where overgrazed, overcleared.	Maintain ground cover, conservative stocking.	
Alluvia	Serious scalding in places.	Structural improvements conservative stocking.	Pasture improvement (in the east).
Gidgee	woody weeds (sandalwood)	Selective clearing. Structural improvements. Cash flow.	Clearing, improved pastures.
Brigalow	Woody weeds. Erosion on steeper lands.	Selective clearing. Structural improvements. Cash flow.	Clearing, improved pastures.
Downs	Lack of shade, drought reserves.	Improved husbandry practices, maintain financial reserves.	Shallow water storage, opportunity fodder cropping (in east).

Eucalypt  
woodlands

Eucalypt regrowth, erosion.

Maintain ground cover.

Limited opportunity for  
improved pastures.

This study highlights the following points in the two areas of main concern:

a) Land degradation

- Improved land management practices through property planning using existing research findings, need emphasis.
- Sensitive yet productive land types identified in the survey need monitoring.
- Maintaining high stocking rates during drought periods has led to land degradation particularly in the mulga and alluvial land zones.

b) Economics:

- Property sizes in the sheep lands are marginal. with 20% of properties carrying less than 5 000 sheep. The rural reconstruction program could be used to improve economic conditions.
- Incentives such as taxation concessions and rent adjustments are preferable to drought assistance.

Dawson, N.M. (1974). Tech. Bull. Div. Ld. Util. Qd. Dep. Prim. Inds. No. 13.

Turner, E.J. (1978). Tech. Bull. Div. Ld. Util. Qd. Dep. Prim. Inds. No. 23.