

# Open downs



Photo: F3 (Winton) Land System

## General description

Undulating open Mitchell grass plains on cracking clay soils with scattered or isolated trees. Minor areas of sparse forbland on scalds. Generally drain into open alluvial plains and adjoin gidgee woodlands, jump ups or soft mulga sand ridges.

## Landform

Undulating plains.

## Woody vegetation

Whitewood, bauhinia, vine tree, corkwood, emu apple and boonaree on sandstone outcrops and ridges.

## Expected pasture composition

*\* Denotes non-native "Expected Pasture Composition" species.*

### Preferred

Mitchell grass, Queensland bluegrass, finger panic.

### Intermediate

Star grass/native millet, bottlewasher grasses.

### Non-preferred

Feathertop, white speargrass (in the south), hairy ribbon grass (in the north).

### Annual grasses

Flinders grass, button grass, downs couch.

### Common forbs

Native legumes (e.g. glycine, rhynchosia), lamb's tongue, daisy burr, wild carrot, sida, annual verbine, tarvine, cow vine, pigweed. Non-preferred species include black roly poly, goathead burr, copperburrs, roly poly.

## Suitable sown pasture

Mitchell grass, Queensland bluegrass. Buffel grass, Bambatsi, purple pigeon grass, and Angleton grass may be useful in scald reclamation.

## Introduced weeds

Parthenium, mesquite (hybrid), prickly acacia, Bathurst burr, florestina, spiked malvastrum.

<b>Soil</b>	Deep grey, brown and red, strongly cracking clays with self-mulching surfaces derived from freshwater sandstone sediment. Nearly half of the soils are shallower and occur on scattered outcrop ridges.												
Description	<b>Surface:</b> Self-mulching with some crusting; <b>Surface texture:</b> heavy clay; <b>Subsoil texture:</b> heavy clay.												
Features	Seasonal scalding occurs. Calcium carbonate nodules and or gypsum occur at depth.												
Water availability	High												
Rooting depth	Deep												
Infiltration	High initially on a dry soil profile, slowing to moderate levels after 50 mm of rain as cracks close and to low levels after 75 mm of rain. Increasing runoff following 75 mm of rain. Estimates based on low to moderate intensity storm rain.												
Fertility	Moderately high.												
Salinity	Non-saline												
Sodicity	Non-sodic at surface; subsoils sodic.												
pH	Alkaline throughout profile.												
<b>Utilisation</b>	22%												
<b>Enterprise</b>	Breeding, fattening and wool production.												
<b>Land use and management recommendations</b>	<ul style="list-style-type: none"> <li>• Suitable for grazing of native pastures.</li> <li>• Rotational wet season spelling to maintain perennial pasture composition.</li> <li>• Maintain adequate ground cover to minimise soil erosion.</li> <li>• Strategic burning to manage feathertop with mid dry season clean fires, and woody species (e.g. prickly acacia, gidgee) with late dry season hot fires.</li> </ul>												
<b>Land use limitations</b>	<ul style="list-style-type: none"> <li>• Shade and browse trees limited to crests and stony outcrops.</li> <li>• Heavier clay soils require 50–75 mm of rain for Mitchell grasses to grow.</li> </ul>												
<b>Conservation features and related management</b>	<ul style="list-style-type: none"> <li>• Maintaining groundcover and tussock structure is important for crack dwelling marsupials and reptiles e.g. dunnarts, planigales and Collett's snake.</li> </ul>												
<b>Regional ecosystems</b>	4.4.1c-g, 4.4.1x4, 4.4.1x7, 4.4.2, 4.9.1, 4.9.1a-b, 4.9.2, 4.9.2b, 4.9.4a, 4.9.4x1, 4.9.4x1a-c, 4.9.8.												
<b>WARLUS land systems</b>	<table border="1"> <thead> <tr> <th>I</th> <th>II</th> <th>III</th> <th>IV</th> <th>V</th> <th>VI</th> </tr> </thead> <tbody> <tr> <td>F1</td> <td>F1, F3, F6, F7, F8</td> <td>A1, A2, A3</td> <td>F3</td> <td>F3, F4</td> <td>F2, F3</td> </tr> </tbody> </table>	I	II	III	IV	V	VI	F1	F1, F3, F6, F7, F8	A1, A2, A3	F3	F3, F4	F2, F3
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