

# Brigalow with melonholes



<b>Landform</b>	Undulating scrub plains.
<b>Woody vegetation</b>	Brigalow belah open forest, false sandalwood, currant bush.
<b>Expected pasture composition</b>	<i>* Denotes non-native "Expected Pasture Composition" species.</i>
Preferred	Forest bluegrass, Queensland bluegrass, buffel grass*.
Intermediate	Slender chloris, twirly windmill grass, brigalow grass, Warrego summer grass.
Non-preferred	White speargrass, curled wiregrass, rat's tail couch, fairy grass.
Legumes	Glycine pea, gilgai darling pea.
<b>Suitable sown pastures</b>	Buffel grass, Bambatsi, purple pigeon, Angleton grass, desmanthus, medic (barrel, burr), Caatinga stylo. Leucaena where soils >120 cm. Short term (2 to 5 years) lucerne, burgundy bean, snail medic.
<b>Introduced weeds</b>	Parthenium, Noogoora burr, Bathurst burr, prickly pear.
<b>Soils</b>	Gilgaied, deep, grey or brown cracking clays (brown or grey vertosol).
Description	<b>Surface:</b> Variations between self-mulching to hard-setting (depends on depressions and mounds); <b>Surface texture:</b> medium to heavy clay; <b>Subsoil texture:</b> medium to heavy clay.
Water availability	Low to moderate (usually lower on mounds).
Rooting depth	Shallow

Fertility	Low to moderate total nitrogen; low to moderate phosphorus.
Salinity	Deep subsoils are highly (depressions) to very highly (mounds) saline.
Sodicity	Subsoils are sodic to strongly sodic.
pH	Neutral to alkaline at surface, becoming strongly alkaline with depth, and then grades to strongly acid in deep subsoil.

**Utilisation** 30%

**Enterprise** Finishing

**Land use and management recommendations**

- Land use in heavily gilgaied areas is predominantly grazing of cattle on improved pastures.
- Suitable for continuous grain and fodder cropping where melonholes are not severe.

**Land use limitations**

- Melonholes and poor surface structure.
- Regrowth, particularly limebush, can limit productivity.
- Subsoil sodicity.
- Effective soil depth – levelling will expose strongly sodic and highly saline subsoils which will increase plant growth problems.
- Difficult to blade plough effectively.
- Dense stands of burrs (galvanised) and broad-leaved plants (pigweed) may limit pasture growth, productivity and be toxic to stock.

**Conservation features and related management**

- The brigalow areas provide potential habitat for rare and threatened flora species (e.g. western white gum, Maranoa wattle or womal), *Eleocharis blakeana*, *Solanum stenopterum*, *Xerothamnella herbacea*); birds (e.g. glossy black-cockatoo, painted honeyeater, black-chinned honeyeater); mammals (greater long-eared bat, little pied bat); reptiles (golden-tailed gecko, brigalow scaly-foot); frogs (rough frog); and insects (imperial hairstreak butterfly).
- Melonhole or gilgai areas are extremely important wetland habitat as many species prefer breeding in temporary, rather than permanent, water sources. These areas provide breeding habitat for many frogs (e.g. burrowing frogs such as water-holding, rough, and New Holland; salmon-striped, marsh, barking and holy-cross). They are also important for aquatic insects adapted to temporary waterholes (e.g. shield shrimps).
- This land type has been extensively cleared for cropping and pasture and often exists primarily as regrowth, isolated paddock trees, or small clumps of brigalow/belah.
- Use of a combination of soil conservation techniques will help minimise soil erosion and scalding.
- Natural regeneration should be encouraged to develop connectivity with other areas of remnant vegetation; provide shelter for stock/crops; enhance grass growth and productivity.
- Control of feral animals such as pigs and foxes can help to protect native wildlife in this habitat.

**Regional ecosystems**

6.4.2, 11.4.3, 11.4.3b.

**Land units; Map units; land resource areas, Soil associations**

Land Units (Galloway *et al* 1974) 44, 58; Map Units (DPI 1984) 6 (124); LRA, Soil Associations (DPI 1996) Brigalow Plains, Tara 4a/4b; LRA (DPI 1987) 5 - Tartulla (minor area).