Open downs

**Landform**
Undulating downs.

**Woody vegetation**
Treeless plains with occasional mountain coolibah, bloodwood, silver-leaved ironbark, brigalow, black tea tree (in some drainage lines) and wattles.

* Denotes non-native “Expected Pasture Composition” species.

**Expected pasture composition**

**Preferred**
Queensland bluegrass, king bluegrass, curly, bull and hoop Mitchell grass, umbrella grass, satintop grass.

**Intermediate**
Native millet, yabila/star grass, curly windmill grass.

**Non-preferred**
White speargrass, feathertop wiregrass, fairy grass, coolibah grass, bottlewasher grasses.

**Annual grasses**
Flinders grass, liverseed grass, weeping lovegrass.

**Expected pasture composition**

**Preferred**
Queensland bluegrass, king bluegrass, curly, bull and hoop Mitchell grass, umbrella grass, satintop grass.

**Intermediate**
Native millet, yabila/star grass, curly windmill grass.

**Non-preferred**
White speargrass, feathertop wiregrass, fairy grass, coolibah grass, bottlewasher grasses.

**Annual grasses**
Flinders grass, liverseed grass, weeping lovegrass.

**Suitable sown pastures**
Purple pigeon grass, Angleton grass, Bambatsi panic, leucaena (on deeper soils >100 cm), butterfly pea (>90 cm), Desmanthus, Caatinga stylo.

**Introduce weeds**
Parthenium, mimosa, prickly acacia.

**Soil**
Black or brown cracking clay (black or brown vertosol).

**Description**
*Surface*: Strong and fine self-mulching; *Surface texture*: medium to heavy clay; *Subsoil texture*: medium to heavy clay.

**Water availability**
Moderate to high.

**Rooting depth**
Usually around 75 cm, occasionally shallow (45 cm).

**Fertility**
Low to moderate total nitrogen; low to moderate phosphorus.

**Salinity**
Low to high (depending on landscape position).
Sodicity
Non-sodic

pH
Strongly alkaline.

Utilisation

30%

Enterprise
Finishing

Land use and management recommendations
• Suitable for cropping on soils deeper than 45 cm and on slopes less than 4%.
• Tea tree should not be cleared (to minimise saline seepages).
• Maintain surface cover to minimise erosion.
• In open areas, fire is only useful to remove older (rank) grass. Burning should occur only after adequate rainfall as a dry, hot fire could kill the grass.
• This land type has some potential for pasture improvement.

Land use limitations
• Soil erosion hazard when cultivated.
• Rooting depth (in some shallow soils).
• Some rockiness.
• Low fertility.
• Establishment problems with some small seeded plants and pastures.
• High water tables in tea tree drainage lines.

Conservation features and related management
• These grasslands provide vital habitat for a diverse range of plants and animals including the rare and threatened species king bluegrass (*Dichanthium queenslandicum*) and the daisy *Trioncinia retroflexa*.
• Any existing patches of downs on the edges of a cultivated area are important wildlife refuges.
• Grass owls can be found in ungrazed areas such as road reserves.
• The grass tussocks and deep cracking clay soils provide a critical habitat for grassland dependent birds (e.g. brown quail, golden-headed cisticola), and have historically provided habitat for the presumed extinct legless lizard – Allan’s lerista.
• Good grass cover helps protect soils from erosion, salinity and they improve water quality by reducing runoff and stream sediment.
• Avoid burning during dry months. As a rule of thumb, introduce ‘cool’ burns after heavy rain. Burn bluegrass pastures approximately every five to ten years.
• These grasslands are readily infested with parthenium, especially when ground cover becomes too low.
• Spell degraded bluegrass pastures during summer months and allow them to seed before re-stocking the paddocks.
• Where bluegrass pastures are in good condition maintain the existing management practises.

Regional ecosystems
11.3.21, 11.4.4, 11.8.11, 11.8.11a, 11.9.3, 11.9.3a, 11.9.12, 11.11.17, 11.12.2c.

Land units; Agricultural management unit; Soil associations