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.
Expected pasture composition	** Denotes non-native "Expected Pasture Composition" species.*
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.
Introduced 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	Land units (Gunn *et al* 1967; Story *et al* 1967) Avon 1, funnel 2, Kinsale 5, Mantuan 2, Oxford 2 and 3, Waterford 2, Racecourse 3; AMU (DPI 1993) Orion, Kia-Ora; Soil Associations (Shields *et al* 1993; Burgess 2003) May, May shallow phase, Mt Stuart, Russell, Diamond, Falkner.