

Mixed open forests on duplex and loam



Landform	Widespread occurrence on mid, lower and upper slopes and crests of low basalt rises and stony knolls; upper slope positions on relict alluvial plains; mid and lower slopes of undulating plains and low hills, and mid to upper slopes of broad rises.
Woody vegetation	Open forest or woodland of gum-topped box, silver-leaved ironbark, narrow-leaved ironbark, with occasional Queensland blue gum, broad-leaved apple, pink bloodwood and spotted gum. Scattered occurrences of rusty gum, and wattle and dogwood.
Expected pasture composition	<i>Southern black speargrass pastures.</i> * Denotes non-native "Expected Pasture Composition" species.
Preferred	Black speargrass, Queensland bluegrass, kangaroo grass, hooky grass, leafy panic.
Intermediate	Slender chloris, slender rat's tail grass.
Non-preferred	Wiregrasses (e.g. dark), purple lovegrass, reedgrass.
Legumes	Woolly glycine, glycine pea.
Suitable sown pastures	Rhodes grass, creeping bluegrass, shrubby stylo.
Introduced weeds	
Soil	Yellow or brown texture contrast soils (solodics), deep red clay loams (euchrozem) or deep or shallow dark clays (black earths).
Description	Surface: Crusting to hard-setting or weakly self-mulching; Surface texture: sandy clay loam, clay loam or light medium clay; Subsoil texture: light to medium to heavy clay.
Features	Bleached subsoils and concretionary carbonate below 70 cm common (solodics). Gravel may occur throughout profile (euchrozems, black earths).
Water availability	Low to moderate (solodic), moderate (black earth, euchrozem) PAWC.
Drainage	Poor or imperfect (solodic) to moderately well or well (black earth, euchrozem) drained.

Rooting depth	20–35 cm (solodic), 30 cm (black earth) and >100 cm (black earth, euchrozem)
Fertility	Medium. Low to moderate nitrogen; moderate to high phosphorus; low to moderate to very high potassium.
Salinity	Very low (black earths, euchrozem); low to moderate to high below 60 cm (solodics).
Sodicity	Non-sodic (black earths, euchrozem) to sodic to strongly sodic subsoil (solodic).
pH	Acid (pH 5.4) to slightly acid (pH 5.9–6.9) surface; neutral or alkaline (pH 9.0) at depth.
Utilisation	30%
Enterprise	Breeding and fattening.
Land use and management recommendations	<ul style="list-style-type: none"> • Suitable for grazing of native and improved pastures and cropping in some areas. • Use of minimum tillage and maintenance of effective ground cover (>70%) and conservative stocking practices (spelling pastures, flexible stocking rates) are important to retain organic matter, maintain soil structure, reduce runoff and minimise risk of erosion. • Retain timber on ridges, in drainage lines and at changes of slope at base of hills to lower watertable and control salinity. • Burning every three years in winter or just prior to summer rains is an optimum regime to control regrowth (ironbarks, wattles) and to enhance preferred pasture species.
Land use limitations	<ul style="list-style-type: none"> • Low PAWC will restrict dryland crop growth. Poor drainage in subsoils due to sodicity. • Surface sealing, hard-setting surfaces, narrow moisture range all affect crop establishment. Surface structure breaks down with continual cultivation (euchrozems). • High to very high erosion hazard, subject to scalding and gully erosion (solodics). • Moderate erosion hazard (black earths, euchrozems).
Conservation features and related management	<ul style="list-style-type: none"> • This woodland provides habitat for larger marsupials (e.g. wallabies); tree hollows for possums and gliders; rough fissured bark for skinks and geckoes; grass cover for ground fauna such as button-quail. • Mosaic burning of patches for regeneration and retention of microhabitats is critical for maintaining species richness. • Selective overgrazing in the burnt areas needs to be managed. • Conservation management should aim to retain larger older trees with hollows and remnant patches especially where these offer connectivity values.
Regional ecosystems	11.5.1, 11.5.2.
Land resource area	Basalt Rises; Volcanic Uplands; Terraces; Relict Alluvial Plains; Red Tablelands.