

Tall open forests on basalt



Landform	Mainly on plateaus, but also occurs undulating rises to rolling low hills (slopes 3–40%).
Woody vegetation	Flooded (rose) gum, Sydney blue gum, tallowwood, brush box with small areas of rainforest. Blue Mountains ash, stringybark, grey gum and white mahogany may also occur.
Expected pasture composition	<i>* Denotes non-native "Expected Pasture Composition" species.</i>
Preferred	Forest bluegrass, Queensland bluegrass, black speargrass, tambookie grass, scentedtop, kikuyu*, paspalum*, green panic*.
Intermediate	Umbrella grass, spring grass, slender bamboo grass, liverseed grass.
Non-preferred	Wiregrasses, blady grass, slender chloris.
Legumes	Glycine pea, woolly glycine, rhynchosia, creeping tick trefoil.
Annual grasses	Small burr grass.
Suitable sown pastures	Kikuyu, paspalum, green panic, white clover, glycine, siratro, leucaena.
Introduced weeds	Lantana, wild tobacco tree.
Soil	Deep, red, strongly structured clays that are friable and highly permeable. Occurrences also on shallow, dark friable clay loams and clays over weathered parent rock.
Description	Surface: Loose to self-mulching, occasionally hard-setting; Surface texture: clay loam to light or medium clay; Subsoil texture: medium to heavy clay.
Features	Deep soils (often >5 m), with varying amounts of ironstone gravel and rock fragments throughout profile. Shallower soils have bedrock at 0.3–0.8 m.
Water availability	High, PAWC 150–200 mm in root zone; low 50–100 mm in shallow soils.
Rooting depth	Effective rooting depth <0.8 m (prairie) to >1.5 m (krasnozems).

Fertility	Medium to high nitrogen; very low to low (krasnozems) to medium to high phosphorus; medium to high potassium; medium zinc and copper.
Salinity	Low to very low.
Sodicity	Non-sodic
pH	Soil surface strongly acid (5.5) (krasnozems) to slightly acid (6.5) (shallow clays); very strongly acid (4.8) to medium acid (6.0) (krasnozems) or strongly alkaline (8.5) (shallow clays).
Utilisation	30%
Enterprise	Growing and fattening.
Land use and management recommendations	<ul style="list-style-type: none"> • Suitable for grazing of improved pastures, dryland and irrigated cropping. • Do not cultivate on slopes greater than 10–15%. • Rotate intensively cultivated crops with broadacre field crops and legumes to improve soil structure and fertility. Periods under pasture rotation are recommended to enhance long-term soil stability and soil organic matter content. Adopt practices such as minimum tillage, stubble mulching, and weed control to maintain soil structure and reduce erosion on sloping lands. • Regular additions of fertiliser are required to maintain productivity. Lime application required on average every 3–5 years. • Maintain maximum surface cover to maintain soil structure and reduce erosion. Avoid trafficking and cultivation when wet to reduce soil compaction. • Burn every 4–6 years to help control weeds and undesirable ground cover species (lantana, wild tobacco).
Land use limitations	<ul style="list-style-type: none"> • Surface structure becomes cloddy and hard-setting under cultivation; plough pans may develop. Fertility is variable and declines rapidly under development. • Effective rooting depth limited by very strongly acid soils. Shallow soils often stony and <0.5 m above weathered bedrock. • Highly erodible on cultivated slopes >3% (krasnozems). Prairie soils are moderate to high erosion risk, particularly on steeper slopes.
Conservation features and related management	<ul style="list-style-type: none"> • These are wet sclerophyll forests and have been important sources of timber in the past. • They are associated with high rainfall on elevated and fertile sites. • These forests are rich in biodiversity; have outstanding fauna value, especially for arboreal hollow dwellers and a diverse variety of fauna that use the many associated springs; and provide vital corridors between the closely associated rainforest. • Many species are endemic to these land types in uplands areas. • Plants like snowgrass poa represent an ‘older’ ecology of the SE Bioregion.
Regional ecosystems	11.8.2a, 11.8.5a, 12.3.2, 12.5.6a-b, 12.8.1, 12.8.10, 12.8.2, 12.8.8, 12.8.9, 12.8.11, 12.8.12, 12.8.14, 12.8.19, 12.8.1a, 12.8.26, 12.8.8a.
Land resource area	Red volcanics, 2a, basaltic uplands 2b (Noble, 1996).