

COC Cocata Land System

Area: 162.3 km²

Landscape: Rises formed on calcrete, partly overlain by calcareous silty sands of the Woorinen Formation, and minor calcareous sands. Deeply buried basement granites protrude through to the surface in places.

Annual rainfall: 335 – 390 mm average

Main soils:

Wookata - A1a (Supravescent, Hypercalcic / Lithocalcic Calcarosol)
Highly calcareous (more than 40% CaCO₃) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content.

Wookata (shallow) - A1/B1 (Supravescent, Petrocalcic, Hypercalcic / Lithocalcic Calcarosol)
Highly calcareous (more than 40% CaCO₃) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content, over calcrete at about 40 cm.

Chintumba - B1 (Hypervescent, Petrocalcic, Lithocalcic Calcarosol)
Medium thickness highly calcareous sandy loam to sandy clay loam containing increasing amounts of rubble with depth, over sheet calcrete at less than 50 cm.

Minor soils:

Cungena - A1b (Supravescent, Hypercalcic / Lithocalcic Calcarosol)
Thick to very thick highly calcareous loamy sand to sandy loam grading to Class III A, B or C carbonate in a sandy loam matrix.

Haslam - H1 (Supravescent, Hypercalcic Calcarosol / Shelly Calcarosol)
Thick highly calcareous sand, becoming more calcareous with depth and continuing below 100 cm. These soils may consist of up to 90% fine shell fragments.

Skeletal soil - L1 (Lithic, Leptic Tenosol / Rudosol)
Variable gravelly loamy sand to sandy clay loam over basement rock at depths usually less than 50 cm.

Summary: Rises characterized by highly calcareous sandy loams and shallow soils on calcrete. The main factors affecting productivity are wind erosion potential, marginal fertility and limited waterholding capacity, the latter particularly significant on the stony rises formed on calcrete. High subsoil boron and salinity commonly affect the sandy loam soils.



Soil Landscape Unit summary: 6 Soil Landscape Units (SLUs) mapped in the Cocata Land System:

SLU	% of area	Component	Main soils	Prop#	Notes	
A-g	0.4	Granite outcrops	Skeletal	D	Shallow soils, rocky outcrops - non arable.	
QEB	23.6	Stony rises	Chintumba Shallow	V	Calcrete rises, mostly non arable due to extensive surface stone and shallow sheet rock. Deeper soils (shallow Wookata and Haslam) are arable, but have low fertility and water holding capacities, and moderate wind erosion potential.	
		Sandy loam rises	Wookata	C		
QZB	3.6	Stony rises	Chintumba	D		
		Sand spreads	Haslam	M		
YEp	16.0	Stony rises	Shallow	V	Rises formed on Woorinen Formation deposits with mainly highly calcareous sandy loams. Main factors affecting productivity are wind erosion potential, marginal fertility and limited water holding capacity.	
		Sand spreads	Wookata Haslam	C		
YNp	8.5	Sandy loam rises	Wookata	V		
		Sand spreads	Haslam	L		
YPp	47.9	Sandy loam rises	Wookata/ Cungena	D		Main soils: <u>Wookata</u> : Highly calcareous sandy loam with slightly limited water holding capacity, low fertility, subsoil boron and salt, and slight to moderate wind erosion potential. <u>Shallow Wookata</u> : As for Wookata, except that water holding capacity is reduced, and surface stone is increased to the point where it interferes with tillage. <u>Cungena</u> : Highly calcareous loamy sand with low fertility, moderate wind erosion potential and elevated subsoil boron and salt. <u>Haslam</u> : Highly calcareous sand with very low fertility and high wind erosion potential.

PROPORTION codes assigned to Soil Landscape Unit (SLU) components:

- D Dominant in extent (>90% of SLU)
- V Very extensive in extent (60–90% of SLU)
- E Extensive in extent (30–60% of SLU)
- C Common in extent (20–30% of SLU)
- L Limited in extent (10–20% of SLU)
- M Minor in extent (<10% of SLU)

Further information: [DEWNR Soil and Land Program](#)

