

KA9: Acidic, Dystrophic, Brown Kandosol

General description of the soil

A strongly acid, loamy, yellowish Brown Kandosol with a very low base status (i.e. Dystrophic) in the B2 horizon.

Distribution:	A widely distributed soil, often a relict of past environments.
Typical land use:	Reserved land, extensive grazing, with horticulture and hobby farming locally in the Darwin district.
Common variants:	Texture profile may vary and ferruginous nodules (<20%) are often present.
World Reference Base:	Profondic Acrisol.
Other names:	Widely known as Yellow Earths, although the most common B horizon colour is yellowish brown.

Environment and location of the example profile

Landform:	Level to gently undulating plain.
Parent material or substrate:	Not determined.
Drainage class:	Moderately well-drained.
Surface condition:	Firm.
Site disturbance:	Cleared.
Native vegetation:	Tall open woodland with an upper stratum of <i>Eucalyptus miniata</i> , <i>Erythrophleum chlorostachys</i> and <i>Eucalyptus tetradonta</i> .

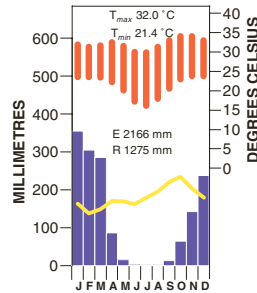


Darwin district, Northern Territory

Site location



Site climate



Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.10	very dark grey (10YR 3/1)	–	sandy loam	massive	–	–	firm (dry)	–	–	clear
A2	0.10–0.70	dark brown (10YR 3/3)	–	sandy loam	massive	–	–	weak (dry)	–	–	gradual
B1	0.70–1.10	yellowish brown (10YR 5/6)	–	sandy clay loam	massive	–	–	firm (slightly moist)	–	–	gradual
B2	1.10–2.20	yellowish brown (10YR 5/8)	–	sandy clay	massive	–	–	strong (slightly moist)	–	–	

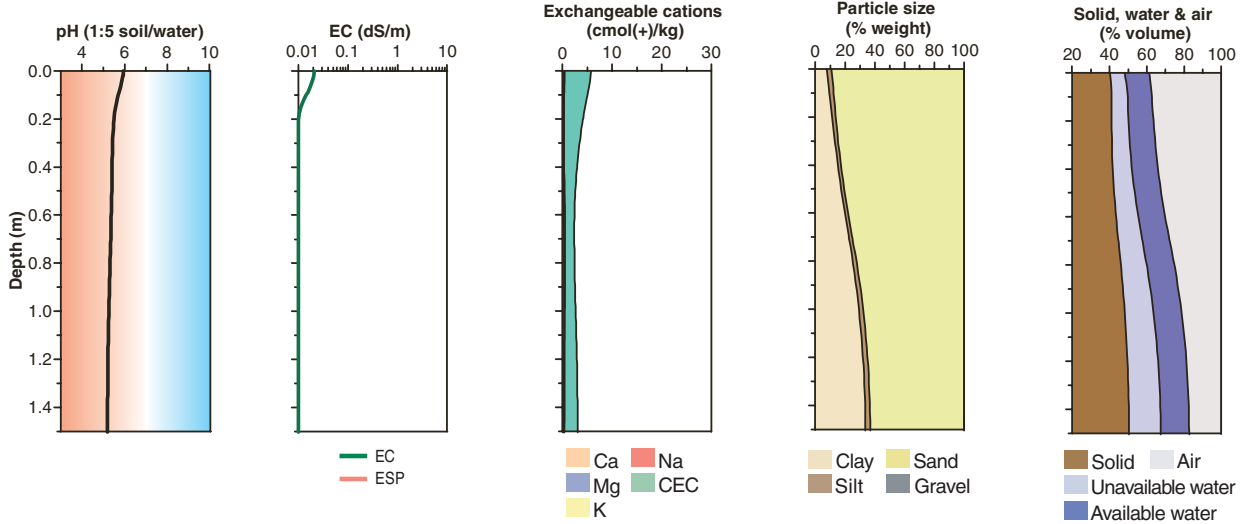
Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H ₂ O ^A	pH CaCl ₂	Elect. Cond. dS/m	CaCO ₃ %	Org. C % ^F	Extr. P mg/kg ^A	Tot. P % ^A	Tot. K % ^A	Cation exchange properties ^D						ESP %	Bulk dens. Mg/m ³	Particle size % ^E			
										cmol(+)/kg								CS	FS	Silt	Clay
										Ca	Mg	K	Na	H+Al	CEC	ECEC					
A1	0.00–0.10	4.4				1.1		0.019	0.121	0.2	0.2	<0.1	<0.1		6		–	3	73	10	13
A2	0.10–0.20	4.2				0.7		0.016	0.127	0.1	0.1	<0.1	<0.1		4		–	3	76	10	11
A2	0.20–0.30	4.1				0.4	3	0.016	0.127	0.1	<0.1	0.1	<0.1		3		–	3	75	8	13
A2	0.50–0.60	4.2				0.1	2	0.012	0.128	0.2	0.3	<0.1	<0.1		2		–	3	75	5	17
B1	0.80–0.90	4.0				0.1	3	0.011	0.141	0.1	0.3	<0.1	<0.1		2		–	4	77	2	17
B2	1.10–1.20	4.0				0.1	3	0.014	0.212	0.1	0.3	<0.1	<0.1		3		–	5	66	4	25
B2	1.40–1.50																–	4	58	3	36



Kandosols

Key profile properties



General qualities of the soil

Infiltration:	Slow to rapid depending on surface condition.
Available water store:	Moderate to large.
Permeability:	High.
Physical root limitations:	No restrictions. Good aeration throughout.
Erosion hazard:	Moderate on slopes.
Nutrient availability:	Low throughout the profile.
Toxicities:	None apparent.



Typical landscape occupied by Brown Kandosols, Elizabeth River district, Northern Territory

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