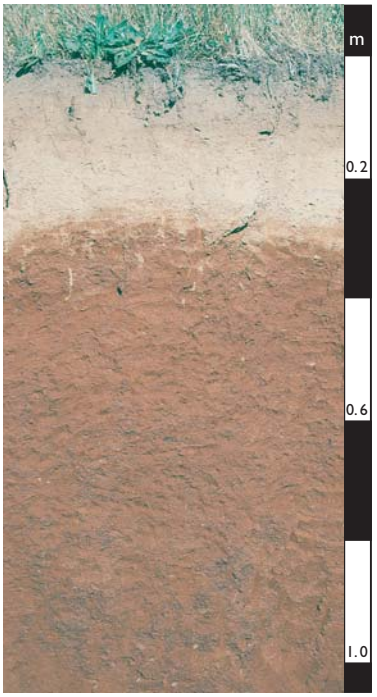
KU2: Bleached, Eutrophic, **Red Kurosol**



Near Wangaratta, north-east Victoria

General description of the soil

A strongly acid, texture-contrast soil with a moderately high base status (i.e. Eutrophic) in the major part of the red clayey B2 horizon. A conspicuously bleached A2e horizon is present.

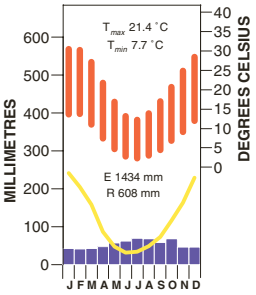
Distribution:	A common soil in eastern subcoastal Australia on acidic rocks and sediments.
Typical land use:	Grazing of improved pastures.
Common variants:	Horizon thicknesses may vary.
World Reference Base:	Abruptic Acrisol (incomplete data).
Other names:	Red Podzolic and Red Duplex soils.

Environment and location of the example profile

Landform:	Undulating rises.
Parent material or substrate:	Granite.
Drainage class:	Moderately well-drained.
Surface condition:	Hardsetting.
Site disturbance:	Cleared and sown to improved pastures.
Native vegetation:	Eucalypt woodland.

Site location

Site climate



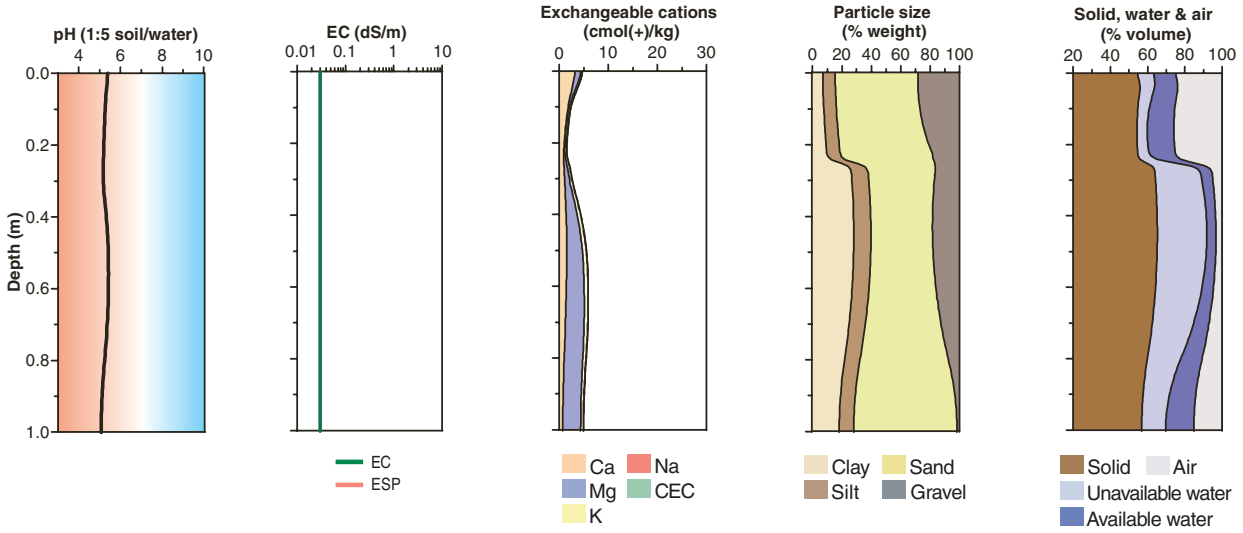
Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.05	dark brown (10YR 3/3)	–	sandy loam	weak	angular blocky	10–20 mm	firm (moist)	15% quartz gravel (5 mm)	–	abrupt
A21	0.05–0.12	strong brown (7.5YR 4/6)	–	sandy loam	massive	–	–	firm (moist)	10% angular quartz gravel (5 mm)	–	abrupt
A22e	0.12–0.25	pink (5YR 7/4 d) yellowish red	–	light sandy loam	massive	–	–	firm (moist)	10% angular quartz gravel (5 mm)	–	abrupt
B21	0.25–0.35	dark red (2.5YR 4/8)	–	light clay	moderate	angular blocky	5–10 mm parting to 2–5 mm	very firm (dry)	10% angular quartz gravel (4 mm)	–	clear
B22	0.35–0.55	dark red (2.5YR 4/6)	–	light clay	weak	angular blocky	10–20 mm	very firm (dry)	10% angular quartz gravel (4 mm)	–	gradual
B23	0.55–0.80	dark red (2.5YR 3/6)	–	light clay	moderate	angular blocky	5–10 mm parting to 2–5 mm	very firm (moist)	15% angular quartz gravel (4 mm)	–	gradual
B3	0.80+	dark red (2.5YR 3/6)	–	fine sandy clay loam	moderate	angular blocky	5–10 mm parting to 2–5 mm	very firm (moist)	<2% ironstone nodules	–	

Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H_2O[A]	pH $CaCl_2$[B]	Elect. Cond. dS/m[A]	$CaCO_3$ %	Org. C %[A]	Extr. P mg/kg	Tot. P %	Tot. K %	Cation exchange properties[J] cmol(+)/kg							ESP %	Bulk dens. Mg/m^3	Particle size %[G]			
										Ca	Mg	K	Na	H+Al	CEC	ECEC			CS	FS	Silt	Clay
A1	0.00–0.05	5.4	4.6	< 0.05		2.7				3.9	0.8	0.3	< 0.1						29	44	11	10
A21	0.05–0.12	5.2	4.3	< 0.05						0.7	0.2	0.3	< 0.1									
A22e	0.12–0.25	5.2	4.3	< 0.05						0.5	0.2	0.3	< 0.1									
B21	0.25–0.35	5.0	4.1	< 0.05						1.0	0.8	0.5	< 0.1						21	34	14	33
B22	0.35–0.55	5.5	4.5	< 0.05						2.1	3.1	0.9	< 0.1									
B23	0.55–0.80	5.5	4.8	< 0.05						1.5	4.0	0.8	< 0.1									
B3	0.80+	5.0	4.3	< 0.05						0.4	3.8	0.5	< 0.1									

Key profile properties



General qualities of the soil

Infiltration:	Rapid unless compacted.
Available water store:	Moderate.
Permeability:	Moderately permeable B horizon.
Physical root limitations:	The A22e is seasonally saturated and may restrict growth.
Erosion hazard:	Moderate on slopes.
Nutrient availability:	Deficiencies in phosphorus and molybdenum may occur in the strongly acid soils.
Toxicities:	Potential aluminium toxicity in the surface horizons.

Undulating granitic landscapes with Red Kurosols, east of Wangaratta, Victoria

Acknowledgements: Soil image, soil description and laboratory data: Department of Primary Industries, Victoria. Site NE 15, Springhurst. Landscape image: Department of Primary Industries, Victoria.