

Project Name: BAGO-MARAGLE ESM
Project Code: BGM_ESM **Site ID:** 1009 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	16/12/94	Elevation:	1210 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6044736 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	598679 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	SGGH	Substrate Material:	Granodiorite

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	3 %	Aspect:	225 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Red Kandosol Thin Non-gravelly Clay-loamy Clay-loamy Deep	Principal Profile Form:	Um7.11
ASC Confidence:	Great Soil Group:	Red earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 2-10% , Faint; Clay loam; Strong grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Firm consistence; Slightly plastic; Moderately sticky; Field pH 6 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Clear, Smooth change to -
A3	0.1 - 0.22 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 10-20% , Faint; Clay loam, sandy; Strong grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; Field pH 5.5 (pH meter); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
B21	0.22 - 0.46 m	Dark reddish brown (2.5YR3/4-Moist); Biological mixing, 2-10% , Faint; Clay loam, sandy; Moderate grade of structure, 5-10 mm, Subangular blocky; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; Field pH 5 (pH meter); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.46 - 0.81 m	Red (2.5YR4/6-Moist); Biological mixing, 0-2% , Faint; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Diffuse, Smooth change to -
B3	0.81 - 1.16 m	Yellowish red (5YR4/6-Moist); ; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Slightly plastic; Slightly sticky; Field pH 5 (pH meter);
C	1.16 - 1.41 m	Light yellowish brown (10YR6/4-Moist); ; Clayey coarse sand; Non-plastic; Non-sticky; Field pH 6 (pH meter);

Morphological Notes

B3	Muscovite mica common in sand fraction.
C	Augered to substrate to 1.4m.

Observation Notes

Pit located between plots. Ash seedling. Trial planted off-site into predominantly mountain gum forest type.

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VI/1.17, ALPINE ASH SPACING TRIAL

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0.01 - 0.09	4.46C 5.25A		5.75H	2.25	1	0.09	2.15J 0K		11.24E	
0.11 - 0.21	4.2C 5.13A		1.6H	1.12	0.66	0.07	2.98J 0K		6.42E	
0.31 - 0.39	3.87C 4.79A		0.16H	0.58	0.63	0.07	4.09J 0K		5.53E	
0.61 - 0.71	3.77C 4.78A		0.06H	0.5	0.46	0.07	3.55J 0K		4.64E	
0.91 - 1.01	3.77C 4.76A		0.04H	0.28	0.36	0.08	2.67J 0K		3.43E	
1.31 - 1.41	4.33C 5.17A		0.06H	0.05	0.28	0.06	0.33J 0K		0.78E	

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0.01 - 0.09		7.24B		867.8B	0.3A		0.95	3.12				
0.11 - 0.21		3.4B		715.5B	0.14A		1.02	0.22				
0.31 - 0.39		1.31B		494B	0.07A		1.20	1.94				
0.61 - 0.71		0.41B		404.7B	0.03A		1.43	0.56				
0.91 - 1.01		0.15B		356.7B	0.02A		1.58	4.66				
1.31 - 1.41		0.14B		492.6B	0.01A			17.96				

[illegible]

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Laboratory Analyses Completed for this profile

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble
15E1_H	Exchangeable H - by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
2A1	Air-dry moisture content
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_GRAV	Gravel (%)
P3A1	Bulk density - g/cm ³