REGEN SOILS

Bringing soils back to life

AGRICULTURAL SOIL ANALYSIS REPORT

1 sample supplied by ReGen Soils on 14/08/2023. Lab Job No.P4103

Analysis requested by Declan McDonald. Your Job: E2

PO Box 58 ASCOT VALE VIC 3032

Analysis by Southern Cross University

	Sample 1	*Medium Soil*
Sample ID:	**E2**	
Crop:	**N/G**	
Client:	**Ecodynamics**	*Clay Loam*

Parameter		Method reference	P4103/1	
Phosphorus (mg/kg P)		**Rayment & Lyons 2011 - 9B2 (Colwell)	52	*50*
Nitrate Nitrogen (mg/kg N)		**Inhouse S37 (KCl)	14	*13*
Ammonium Nitrogen (mg/kg N)			14	*18*
Sulfur (mg/kg S)			305	*8.0*
pH		Rayment & Lyons 2011 - 4A1 (1:5 Water)	6.07	*6.5*
pH		**Rayment & Lyons 2011 - 4B4 ($CaCl_2$)	5.7	
Electrical Conductivity (dS/m)		Rayment & Lyons 2011 - 3A1 (1:5 Water)	0.658	*0.150*
Estimated Organic Matter (% OM)		**Calculation: Total Carbon x 1.75	5.5	*>4 .5*
Exchangeable Calcium	**(cmol./kg)**	Rayment & Lyons 2011 - 15D3 (Ammonium Acetate)	4.9	*10.8*
	(kg/ha)		2,211	*4816*
	(mg/kg)		987	*2150*
Exchangeable Magnesium	**(cmol./kg)**		3.2	*1.7*
	(kg/ha)		878	*448*
	(mg/kg)		392	*200*
Exchangeable Potassium	**(cmol./kg)**		1.6	*0.50*
	(kg/ha)		1,414	*426*
	(mg/kg)		631	*190*
Exchangeable Sodium	**(cmol./kg)**		1.2	*0.26*
	(kg/ha)		619	*134*
	(mg/kg)		276	*60*
Exchangeable Aluminium	**(cmol./kg)**	**Inhouse S37 (KCl)	0.04	*0.5*
	(kg/ha)		7.7	*101*
	(mg/kg)		3.4	*45*
Exchangeable Hydrogen	**(cmol./kg)**	**Rayment & Lyons 2011 - 15G1 (Acidity Titration)	0.05	*0.5*
	(kg/ha)		1.2	*11*
	(mg/kg)		<1	*5*
Effective Cation Exchange Capacity (ECEC) (cmol./kg)		**Calculation: Sum of Ca,Mg,K,Na,Al,H (cmol./kg)	11	*14.3*
Calcium (%)		**Base Saturation Calculations - Cation cmol./kg / ECEC x 100	45	*75.7*
Magnesium (%)			29	*11.9*
Potassium (%)			15	*3.5*
Sodium - ESP (%)			11	*1.8*
Aluminium (%)			0.35	*7.1*
Hydrogen (%)			0.47	
Calcium/Magnesium Ratio		**Calculation: Calcium / Magnesium (cmol./kg)	1.5	*6.4*
Zinc (mg/kg)		Rayment & Lyons 2011 - 12A1 (DTPA)	6.0	*5.0*
Manganese (mg/kg)			17	*22*
Iron (mg/kg)			156	*22*
Copper (mg/kg)			0.55	*2.0*
Boron (mg/kg)		**Rayment & Lyons 2011 - 12C2 (Hot $CaCl_2$)	0.80	*1.7*
Silicon (mg/kg Si)		**Inhouse S11 (Hot CaCl2)	97	*45*
Total Carbon (%)		Inhouse S4a (LECO Trumac Analyser)	3.1	*> 2.6*
Total Nitrogen (%)			0.09	*> 0.25*
Carbon/Nitrogen Ratio		**Calculation: Total Carbon/Total Nitrogen	37	*10–12*
Basic Texture		**Inhouse S65	Loam	..
Basic Colour			Brownish	..

Interpretation

This E2 loamy soil was tested to determine its suitability for a range of exotic and native plants.
The pH of the soil is slightly acid and EC is elevated. Organic matter is acceptable. Cation balance is acceptable with potassium and sodium elevated.
Plant nutrients are acceptable with phosphorus optimal for all but known P-sensitive species. Available nitrogen is acceptable and sulfur and potassium are high.
Trace elements are generally acceptable.

Recommendations
This soil has optimal pH, good levels of organic matter and moderate to high levels of fertility.
Of note is the EC of the mix. This is principally being driven by the salts of sulfur and sodium. Both elements are quite leachable and will quickly drop with the first leaching irrigations.

This soil is suitable for most exotic or native plants. Adequate moisture will be important during long dry spell to encourage establishment.