

## REPORT ON SAMPLE OF SOIL

FILE NO : **EXAMPLE ORGANIC STANDARD SOIL REPORT**

DATE ISSUED : 13/08/2008

CLIENT NAME  
ADDRESS 1  
ADDRESS 2

CLIENT ID :  
PHONE :  
FAX :

SAMPLE ID : Paddock 1  
DEPTH OF SAMPLE (cm): 0 to 12  
LAND USE : PASTURE

REFERENCE : AGENT NAME  
REFERENCE PHONE : AGENT PH. #  
DATE RECEIVED :  
ANALYSIS REQUIRED : Full

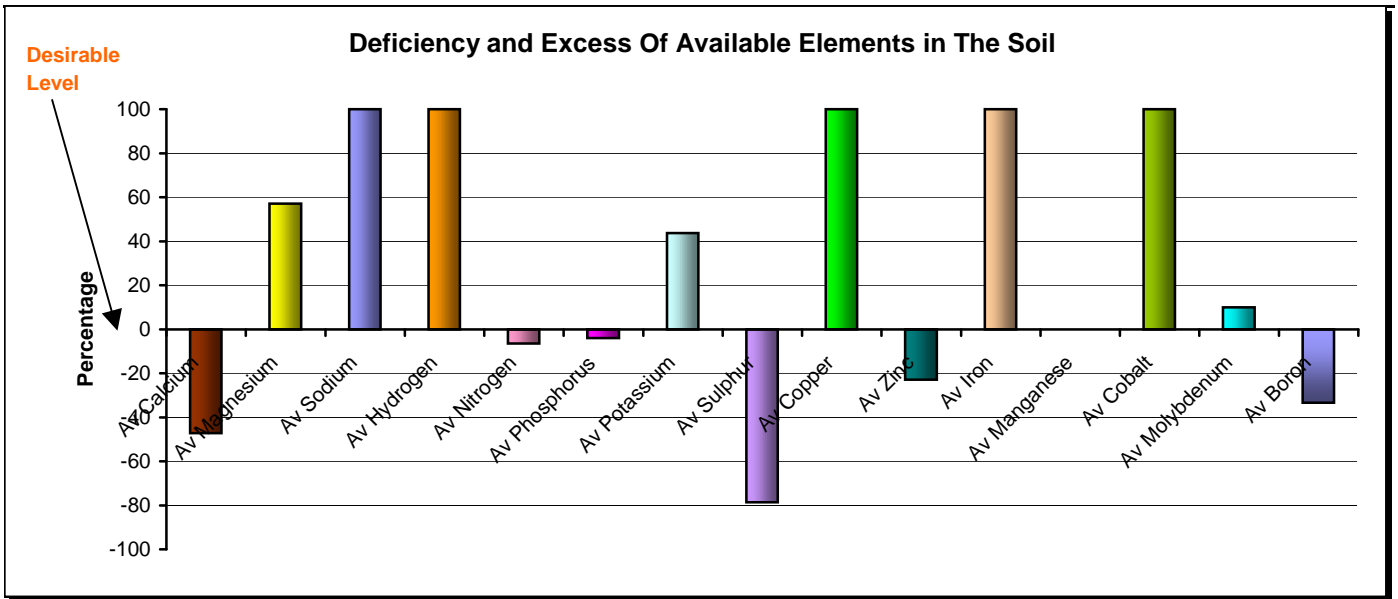
ITEMS	RESULTS	DESIRABLE LEVEL	
COLOUR :	BROWN		
TEXTURE :	LIGHT CLAY		
pH(1:5 Water)	7.2	5.5-7.5	
pH(1:5 0.01M CaCl <sub>2</sub> )	6.6		
Electrical Conductivity	EC      μS/cm	194	< 300
TOTAL SOLUBLE SALT	TSS      ppm	640.2	< 990
AVAILABLE CALCIUM	Ca      ppm	1200	2271
AVAILABLE MAGNESIUM	Mg      ppm	472.8	301
AVAILABLE SODIUM	Na      ppm	519.8	< 192
AVAILABLE NITROGEN	N      ppm	23.4	25
AVAILABLE PHOSPHORUS	P      ppm	28.8	30
AVAILABLE POTASSIUM	K      ppm	273	190
AVAILABLE SULPHUR	S      ppm	1.5	7
AVAILABLE COPPER	Cu      ppm	5.3	2
AVAILABLE ZINC	Zn      ppm	5.4	7
AVAILABLE IRON	Fe      ppm	115	> 20
AVAILABLE MANGANESE	Mn      ppm	20	> 20
AVAILABLE COBALT	Co      ppm	2.9	=> 1.0
AVAILABLE MOLYBDENUM	Mo      ppm	1.1	1.0
AVAILABLE BORON	B      ppm	0.4	0.6-1.0
TOTAL ORGANIC MATTER	OM      %	6	6 - 10
TOTAL ORGANIC CARBON	OC      %	3	3 - 5
TOTAL PHOSPHORUS	TP      ppm	not required	
EXTRACTABLE ALUMINIUM	Al      ppm	not required	
TOTAL NITROGEN	N      %	not required	
TOTAL CALCIUM	Ca      ppm	not required	
TOTAL MAGNESIUM	Mg      ppm	not required	
TOTAL CHLORIDE	Cl      ppm	not required	
EXTRACTABLE SILICA	Si      ppm	not required	

ITEMS			RESULTS	DESIRABLE LEVEL
EXCHANGEABLE CALCIUM	Ca	me/100g of soil	<b>5.35</b>	<b>9.95</b>
EXCHANGEABLE MAGNESIUM	Mg	me/100g of soil	<b>3.51</b>	<b>2.30</b>
EXCHANGEABLE SODIUM	Na	me/100g of soil	<b>2.02</b>	<b>&lt; 0.77</b>
EXCHANGEABLE POTASSIUM	K	me/100g of soil	<b>0.62</b>	<b>0.77</b>
EXCHANGEABLE HYDROGEN	H	me/100g of soil	<b>6.8</b>	
ADJ. EXCHANG. HYDROGEN	H	me/100g of soil	<b>3.8</b>	<b>&lt; 2.30</b>
CATION EXCHANGE CAPACITY	CEC		<b>18.3</b>	
ADJUSTED CEC	Adj.CEC		<b>15.3</b>	
EXCH. SODIUM PERCENTAGE	ESP		<b>13.2</b>	<b>&lt; 5</b>
CALCIUM / MAGNESIUM RATIO	Ca/Mg		<b>1.52</b>	<b>2 - 4</b>
BASE SATURATION PERCENTAGE	BSP		<b>65</b>	

ITEMS		PERCENTAGE OF ADJUSTED CEC
EXCHANGEABLE CALCIUM	Ca	<b>35</b>
EXCHANGEABLE MAGNESIUM	Mg	<b>22.9</b>
EXCHANGEABLE SODIUM	Na	<b>13.2</b>
EXCHANGEABLE POTASSIUM	K	<b>4.1</b>
EXCHANGEABLE HYDROGEN	H	<b>24.8</b>

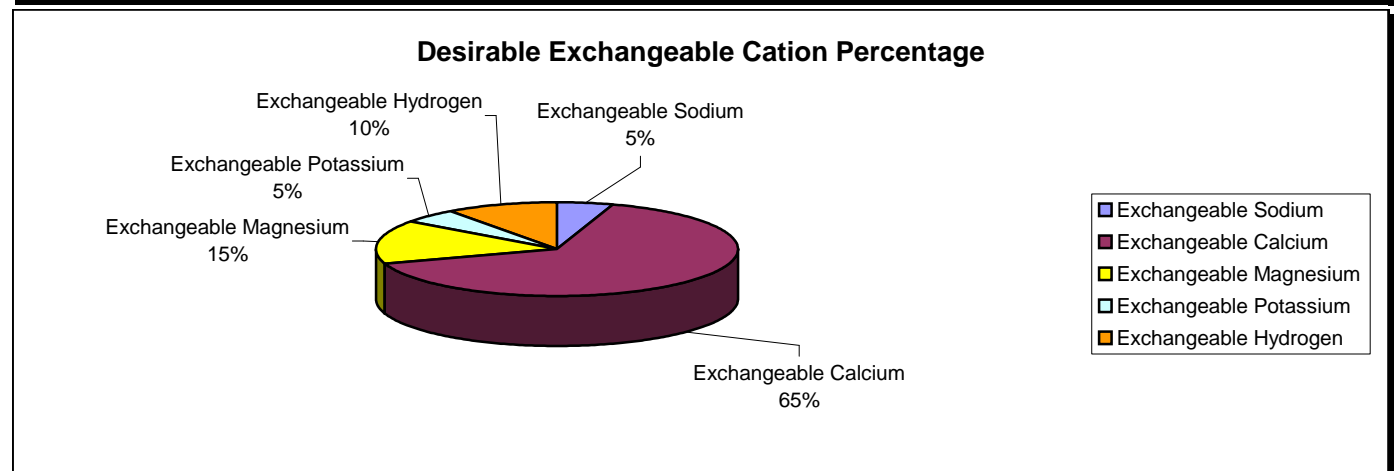
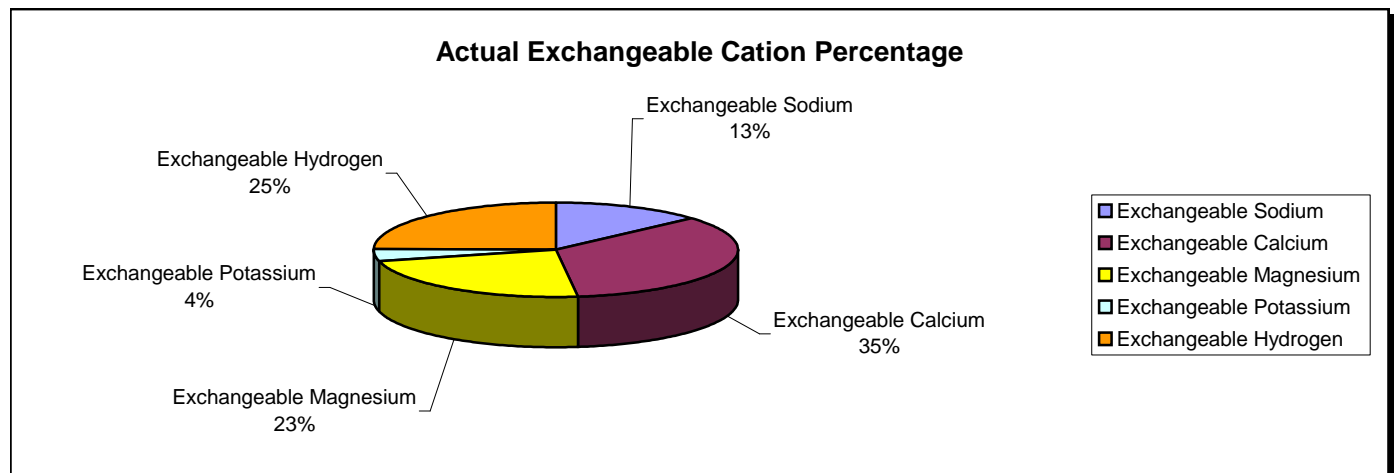
PREVIOUS APPLICATIONS ( IF APPLICABLE)		DATE OF APPLICATION
GYPSUM APPLIED	t/ha	
LIME APPLIED	t/ha	
DOLOMITE APPLIED	t/ha	
Magnesium Sulphate	kg/ha	

CEC = Cation Exchange Capacity



Notes:

- Phosphorus fixation effects if Iron is more than 300 ppm
- Manganese will be at toxicity level if it reaches 500 ppm



**RECOMMENDATION**

1285 Kg of Calcium is needed to raise the Available Calcium to 68% and/or Exchangeable Calcium to 65%

GYPSUM REQUIREMENT	<b>4.7</b> t/ha				
LIME REQUIREMENT	<b>0.5</b> t/ha				
DOLOMITE REQUIREMENT	<b>0</b> t/ha				
MAGNESIUM SULPHATE	kg/ha	or	MAGNESIUM OXIDE		kg/ha
TOTAL FERTILIZER REQUIREMENT (kg/ha)			N	P	K
			<b>5</b>	<b>6</b>	S
WITH					
	COPPER	<b>0</b> kg			
	ZINC	<b>1</b> kg			
	COBALT	<b>0</b> kg			
	MOLYBDENUM	<b>0</b> kg			
	IRON	<b>0</b> kg			
	MANGANESE	<b>0</b> kg			
	BORON	<b>0.5</b> kg			

**NOTES :**

- Gypsum Requirement is to increase the Calcium and Sulphur and decrease the Exchangeable Sodium and/or the Exchangeable Magnesium in the soil.
- Lime Requirement is to increase the Calcium and decrease the hydrogen in the soil
- Lime Requirement is based on Lime containing 40% Calcium.
- We advise that Lime should be applied first in Autumn then followed by Fertiliser in Spring.

We recommend that 25 kg/ha of Potassium should be applied after cutting of Hay.

**SOIL CONTAMINANT AUDIT**

**TOTAL HEAVY METALS:**

		Result	Limit for Organic Production *
Copper	Cu	6.67	50 ppm
Zinc	Zn	57.9	150 ppm
Cadmium	Cd	0	2 ppm
Lead	Pb	4.25	100 ppm
Mercury	Hg	0.012	1 ppm
Chromium	Cr	8.96	150 ppm
Nickel	Ni	3.34	50 ppm
Arsenic	As	2.3	10 ppm

\* The lowest of either NASAA or ACO standards.

**\* CONTAMINANT PESTICIDES**

**ORGANO-CHLORINE PESTICIDES:**

Result (ppm)		Result (ppm)	
alpha-BHC	n/d	Dieldrin	n/d
Hexachlorobenzene	n/d	4,4-DDE	n/d
beta-BHC	n/d	Endrin	n/d
gamma-BHC (Lindane)	n/d	beta-endosulphan	n/d
delta-BHC	n/d	4,4-DDD	n/d
Heptachlor	n/d	Endrin aldehyde	n/d
Aldrin	n/d	Endosulphan sulphate	n/d
Heptachlor epoxide	n/d	4,4-DDT	n/d
trans-chlordane	n/d	Endrin ketone	n/d
alpha-endosulphan	n/d	Methoxychlor	n/d
cis-chlordane	n/d		

**ORGANO-PHOSPHATE PESTICIDES:**

Result (ppm)		Result (ppm)	
Dichlorvos	n/d	Parathion	n/d
Demeton-S-methyl	n/d	Pirimphos ethyl	n/d
Monocrotophos	n/d	Chlorfenvinphos	n/d
Dimethoate	n/d	Bromophos ethyl	n/d
Diazinon	n/d	Fenamiphos	n/d
Chlorpyrifos methyl	n/d	Prothiofos	n/d
Parathion methyl	n/d	Ethion	n/d
Malathion	n/d	Carbophenothion	n/d
Fenthion	n/d	Azinphos methyl	n/d
Chlorpyrifos	n/d		

n/d = not detected

- Compounds tested are those included in the USEPA 8270 analyte list.
- Composts and Manures should show no detectable levels of any pesticide compound.
- The Organic Soil Maximum is an indicator only, set at 10% of the lowest FSANZ Australian MRL. Refer to your auditor for further details and tissue test follow up in the event of a detection.
- Some MRLs are defined as the sum of two or more compounds. Here the same standard is applied to each of the component compounds.
- Where no Human Food MRL is set, Animal Feedstuff MRLs are applied.
- Where no MRL is defined at all, the Organic Soil Maximum level has been set as "nil".
- All results are given on a 'dry weight' basis.

\* Organo-chloride and Organo-phosphate pesticides have been tested by ALS Laboratory Group work order: EM0805490