

Compost or Manure Analysis

Sustainable Soil Management with the Mikhail Balance System

FILE NO : 2506192445

LANDTASIA ORGANIC FARMS P/L
PO BOX 116

BUNGENDORE, NSW 2621

SAMPLE ID : 50042

DATE ISSUED : 15/07/2025
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CLIENT ID : LAN055
PHONE : 02 6238 0565
REFERENCE :
REFERENCE PHONE :

ANALYSIS REQUIRED : Total, Available
& CEC

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Analysis

| ITEM | unit | | RESULT |
|------|------|--|--------|
|------|------|--|--------|

Basic Measures:

| | | | |
|-----------------------------------|-----|-------|------|
| pH (1:5 Water) | | | 8.24 |
| pH (1:5 0.01M CaCl ₂) | | | 7.84 |
| Electrical Conductivity | EC | µS/cm | 1068 |
| TOTAL SOLUBLE SALT | TSS | ppm | 3524 |

Major Nutrients:

| | | | | | |
|------------------|---|------|------|----------------------------------|---------|
| TOTAL NITROGEN | N | kg/t | 14 | (Major Nutrients in percentages) | 1.4 % |
| TOTAL PHOSPHORUS | P | kg/t | 21.4 | | 2.141 % |
| TOTAL POTASSIUM | K | kg/t | 81.8 | | 8.181 % |
| TOTAL SULPHUR | S | kg/t | 1.4 | | 0.139 % |

Total Cations:

| | | | |
|-----------------|----|---|--------|
| TOTAL CALCIUM | Ca | % | 1.459 |
| TOTAL MAGNESIUM | Mg | % | 0.303 |
| TOTAL SODIUM | Na | % | 0.0473 |

Trace Minerals:

| | | | |
|------------------|----|-----|-------|
| TOTAL COPPER | Cu | ppm | 25.2 |
| TOTAL ZINC | Zn | ppm | 113 |
| TOTAL IRON | Fe | ppm | 12290 |
| TOTAL MANGANESE | Mn | ppm | 410 |
| TOTAL COBALT | Co | ppm | 5.06 |
| TOTAL MOLYBDENUM | Mo | ppm | 1.76 |
| TOTAL BORON | B | ppm | 13.5 |

Carbon Content:

| | | | |
|-----------------------|-----|---|------|
| TOTAL ORGANIC MATTER | | % | 49 |
| TOTAL ORGANIC CARBON | | % | 24.5 |
| CARBON NITROGEN RATIO | C:N | | 17.5 |
| MOISTURE CONTENT | MC | % | 49.4 |

Plant Available Nutrients

| ITEM | | unit | RESULT |
|----------------------|----|------|--------|
| AVAILABLE CALCIUM | Ca | ppm | 6126 |
| AVAILABLE MAGNESIUM | Mg | ppm | 1200 |
| AVAILABLE SODIUM | Na | ppm | 243.8 |
| AVAILABLE NITROGEN | N | ppm | 58.6 |
| AVAILABLE PHOSPHORUS | P | ppm | 262.8 |
| AVAILABLE POTASSIUM | K | ppm | 4305.6 |
| AVAILABLE SULPHUR | S | ppm | 30.9 |
| AVAILABLE COPPER | Cu | ppm | 1.25 |
| AVAILABLE ZINC | Zn | ppm | 28.93 |
| AVAILABLE IRON | Fe | ppm | 92.1 |
| AVAILABLE MANGANESE | Mn | ppm | 9.79 |
| AVAILABLE COBALT | Co | ppm | 1.83 |
| AVAILABLE MOLYBDENUM | Mo | ppm | 1.13 |
| AVAILABLE BORON | B | ppm | 3.66 |

Notes: These results represent the proportion of the Total nutrients (page 2) that will be immediately available for plant uptake.

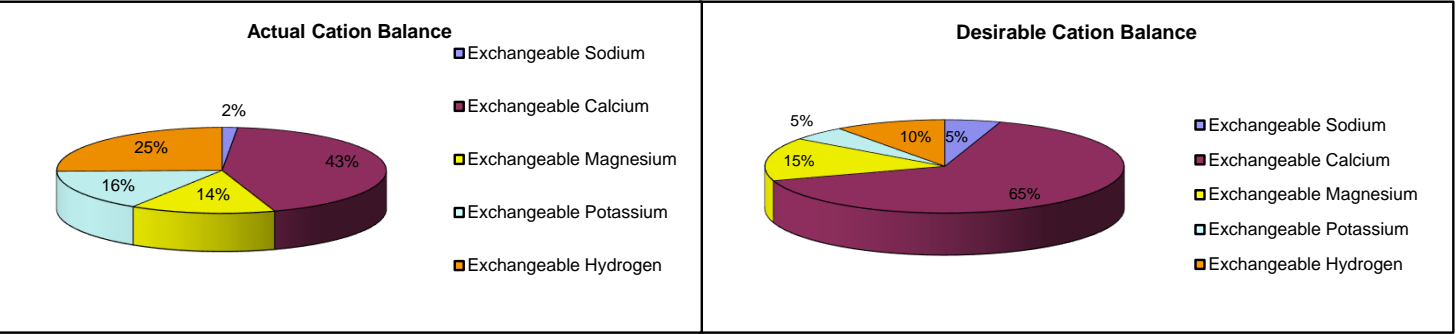
ppm (parts per million) = mg/L (milligram per litre) = mg/kg (milligram per kilogram)

1 % = 10,000 ppm

Exchangeable Cations

| EXCHANGEABLE CATIONS | | | RESULTS |
|----------------------------|---------|--------------------|---------|
| CALCIUM | Ca | meq/100g of sample | 25.30 |
| MAGNESIUM | Mg | meq/100g of sample | 8.26 |
| SODIUM | Na | meq/100g of sample | 0.88 |
| POTASSIUM | K | meq/100g of sample | 9.12 |
| HYDROGEN | H | meq/100g of sample | 14.80 |
| ADJ. EXCH. HYDROGEN | H | meq/100g of sample | 0 |
| | | | |
| CATION EXCHANGE CAPACITY | CEC | meq/100g of sample | 58.36 |
| ADJUSTED CEC | Adj.CEC | meq/100g of sample | 43.56 |
| SATURATION BASE PERCENTAGE | BSP | | 78 |
| meq = milliequivalent | | | |

| EXCHANGEABLE CATION BALANCE | | % OF ADJUSTED CEC | DESIRABLE |
|-----------------------------|-------|-------------------|-----------|
| CALCIUM PERCENTAGE | | 58.08 | 65-70% |
| MAGNESIUM PERCENTAGE | | 18.96 | 12-15% |
| SODIUM PERCENTAGE | ESP | 2.02 | 0.5-5% |
| POTASSIUM PERCENTAGE | | 20.94 | 3-5% |
| ADJ. HYDROGEN PERCENTAGE | | 0 | <20% |
| | | | |
| CALCIUM / MAGNESIUM RATIO | Ca/Mg | 3.06 | 2 - 4 |



CATION BALANCE AMENDMENTS (For optimum effectiveness on application)

| | | | | |
|----------------------|-----------------------|----|-----------------|-----------------------|
| GYPSUM REQUIREMENT | 2.8 kg/m ³ | OR | MAGNESIUM OXIDE | 0.0 kg/m ³ |
| LIME REQUIREMENT | 0.0 kg/m ³ | | | |
| DOLOMITE REQUIREMENT | 0.0 kg/m ³ | | | |
| MAGNESIUM SULPHATE | 0.0 kg/m ³ | | | |

NB. The effectiveness of the compost may be improved by mixing in the suggested materials (above) prior to application.

ANALYTICAL METHODS

Items

Methods

| | |
|--|--|
| pH (1:5 Water) | 4A1 |
| pH (1:5 CaCl ₂) | 4B1 |
| Electrical conductivity (1:5 Water) | 3A1 |
| Total Soluble Salts | Calculation from Electrical conductivity |
| Total Nitrogen | Dumas method, 7A5 |
| Total Calcium, Magnesium, Sodium, Potassium | Acid digestion, ICPAES |
| Total Phosphorus, Sulphur, Copper, Zinc, Boron | Acid digestion, ICPAES |
| Total Iron, Manganese, Cobalt, Molybdenum | Acid digestion, ICPAES |
| Exchangeable Calcium, Magnesium, Sodium, Potassium | 15D3 or 15A1 |
| Exchangeable Hydrogen | Barium Chloride-Triethanolamine method* |
| Available Nitrogen | Copper-cadmium reductor column at a pH of 8.0 |
| Available Phosphorus | Olsen extractable, 9C2a |
| Available Sulphur | KCl 40, 10D1 |
| Available Copper, Zinc, & Cobalt | EDTA, 12B1 |
| Available Molybdenum | Ammonium Oxalate-Oxalic acid-di-iso propyl ether |
| Available Iron & Manganese | method of E.H. Mikhail (1981) |
| Available Boron | 12C2 |
| Total Organic Carbon | Method 6B3 |
| Total Phosphorus, Calcium, Magnesium | Acid digestion |

NB. For available Iron and Manganese, SWEP uses the method developed by E.H. Mikhail (1980) due to the tendency for the standard EDTA method to produce erroneously high results.

For numbered test methods:

Rayment, G.E. & Lyons, D.J. (2011). Soil Chemical Methods - Australasia. CSIRO Publishing, 150 Oxford Street, Collingwood Vic 3066, Australia.

*Peech, M., Cowan, R.L. & Baker, J.H. (1962). Soil Science Society American Procedures, A critical study of the Barium chloride-Triethanolamine and ammonium acetate methods for determining exchangeable Hydrogen of soils.

AQIS Approved Quarantine Site.

Victorian DPI accreditation to receive samples from PIZ and PCN infested zones.

Disclaimer: All results and/or recommendations in this report are made in good faith and are based on past and ongoing research by SWEP Pty Ltd. However, limitations such as the vagaries of climatic conditions mean that we cannot guarantee production of any crop by the use of this test and associated recommendations, and cannot be held responsible for any results obtained.