

## **Southern Cross University**

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## **COMPOST 'TOTALS' ANALYSIS REPORT**

1 sample supplied by JR Richards & Sons Pty Ltd on the 7 May 2024. Lab Job No. R3923. Analysis requested by Phil Hay. **Your Job: PO TBA DROPP Irrigation 2024**.

15 Brickworks Lane SOUTH GRAFTON NSW 2460

| Product Name:<br>Product Type:<br>Manufacturing Site:<br>Manufactured Date:<br>Test Applicable: |   | Sample 1 DROPP Irrigation 2024 Soil JR Richards & Sons 3/05/2024 CA-PACK-001 | Guideline  AS4454:2012  Composted Product |
|---|---|--|---|
| Parameter   | Method Reference                                    | R3923/1  |   |
| Moisture Content (%)  | **Inhouse S2 (105°C)                                | 55   | > 25                                      |
| рН  | Rayment & Lyons 2011 - 4A1 (1:5 Water)              | 9.07   | > 5                                       |
| Electrical Conductivity (dS/m)  | Rayment & Lyons 2011 - 3A1 (1:5 Water)              | 3.88   | < 10                                      |
| Chloride (mg/kg)  | **Rayment & Lyons 2011 - 5A3a                       | 2,797  |   |
| Total Carbon (%)  | Inhouse S4a (LECO Trumac Analyser)                  | 24.9   | ≥ 20                                      |
| Total Nitrogen (%)  |   | 2.20   | ≥ 0.8                                     |
| Carbon/Nitrogen Ratio   | **Calculation - Total Carbon/Total Nitrogen         | 11   |   |
| Estimated Organic Matter (% OM)   | **Calculation - Total Carbon x 1.7                  | 42.3   |   |
| Total Calcium (%)   |   | 4.18   |   |
| Total Magnesium (%)   |   | 0.69   |   |
| Total Potassium (%)   | Rayment & Lyons 2011 - 17C1 Aqua Regia Total Salts  | 1.27   |   |
| Total Sodium (%)  |   | 0.19   | < 1 Na                                    |
| Total Sulphur (%)   |   | 0.26   |   |
| Total Phosphorus (%)  | Rayment & Lyons 2011 - 17C1 Aqua Regia              | 0.63   | ≤ 0.1 P                                   |
| Total Zinc (mg/kg)  | Rayment & Lyons 2011 - 17C1 Aqua Regia Total Metals | 234  | < 300 Zn                                  |
| Total Manganese (mg/kg)   |   | 440  |   |
| Total Iron (mg/kg)  |   | 14,816   |   |
| Total Copper (mg/kg)  |   | 51.1   | < 150 Cu                                  |
| Total Boron (mg/kg)   |   | 45.4   | < 100 B                                   |
| Total Silicon (mg/kg)   |   | 1,522  |   |
| Total Aluminium (mg/kg)   |   | 5,018  |   |
| Total Molybdenum (mg/kg)  |   | <1   |   |
| Total Cobalt (mg/kg)  | Rayment & Lyons 2011 - 17C1 Aqua Regia Total Metals | 7.39   |   |
| Total Selenium (mg/kg)  |   | <1   | < 5 Se                                    |
| Nitrogen/Sulphur Ratio  | **Calculation - Total Nitrogen/Total Sulfur         | 8.5  |   |
| Nitrogen/Phosphorus Ratio   | **Calculation - Total Nitrogen/Total Phosphorus     | 3.5  |   |
| Nitrogen/Potassium Ratio  | **Calculation - Total Nitrogen/Total Potassium      | 1.7  |   |
| Nitrate Nitrogen (mg/kg N)  | **Inhouse S37 (KCI)                                 | 132  |   |

## Notes:

- 1. All analysis is dry weight Samples reported on an oven dried basis at 105°C (testing conducted on finely ground sample dried at 40°C).
- 2. Methods from Rayment and Lyons, 2011. Soil Chemical Methods Australasia.CSIRO Publishing: Collingwood.
- 3. Indicative guidelines are based on those in AS4454:2012 for a composted product.4. Total Acid Extractable Nutrients indicate a store of nutrients.
- 5. Conversions for 1 mg/kg = 1 ppm; 1 % = 10,000 ppm
- 6. Conversions to kg/ha = mg/kg x 2.24
- 7. The chloride calculation of CI mg/L = EC x 640 is considered an estimate, and most likely an over-estimate
- 8. < LOR Less than limit of reporting. ND Not detected. NA Not applicable. NR Not required.
- 9. Testing completed in a NATA accredited laboratory.
- 10. Analysis conducted between sample arrival date and reporting date.
- 11. This report is not to be reproduced except in full. Results only relate to the item tested.
- 12. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer <a href="SCU.edu.au/eal/t&cs">SCU.edu.au/eal/t&cs</a> or on request).
- 13. This report was issued on 23/05/2024.

Quality Checked: Brian Smith Compost & Landscape Soils Co-ordinator





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