

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 21 April 2023. Lab Job No. N9882.

Analysis requested by David Tabner. **Your Job: PO: 6-1210.**

PO Box 116 BUNGENDORE NSW 2621

| | | Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable: | Sample 1 50030 Compost Landtasia 19/04/2023 CA-PACK-003 AS4454:2012 | Guideline AS4454:2012 Composted Product |
|---|---|---|--|---|
| Parameter | Method Reference | | N9882/1 | |
| Wet Bulk Density (kg/L) | AS4454:2012 Appendix J | | 0.74 | .. |
| Dry Bulk Density (kg/L) | AS4454:2012 Appendix J | | 0.36 | .. |
| Moisture Content (%) | AS4454:2012 Appendix I | | 51 | > 25 |
| pH | | | 7.62 | > 5 |
| Electrical Conductivity (dS/m) | AS4454:2012 Appendix B | | 2.11 | < 10 |
| Total Organic Carbon (%) | | | 19.9 | ≥ 20 |
| Total Carbon (%) | AS4454:2012 Appendix C | | 22.7 | .. |
| Total Nitrogen (%) | | | 1.71 | ≥ 0.8 <i>see note 7</i> |
| Carbon/Nitrogen Ratio | Calculation - Total Organic Carbon/Total Nitrogen | | 11.6 | .. |
| Estimated Organic Matter (% OM) | Calculation - Total Organic Carbon x 1.7 | | 33.8 | .. |
| Ammonium Nitrogen (mg/L N) | | | 79.9 | < 200 |
| Ammonium Nitrogen (mg/kg N) | | | 400 | .. |
| Nitrate Nitrogen (mg/L N) | | | 196 | .. |
| Nitrate Nitrogen (mg/kg N) | AS4454:2012 Appendix B Dissolved Nutrients | | 980 | ≥ 10 <i>see note 7</i> |
| Phosphate Phosphorus (mg/L P) | | | 36.8 | ≤ 5 <i>see note 7</i> |
| Phosphate Phosphorus (mg/kg P) | | | 184 | .. |
| Ammonium/Nitrate Ratio | Calculation - Ammonium/Nitrate | | 0.41 | < 3.0 |
| Nitrogen Drawdown Index (NDI ₁₅₀) | AS4454:2012 Appendix O | | >1.0 | > 0.2 |
| Total Calcium (%) | | | 1.65 | .. |
| Total Magnesium (%) | | | 0.47 | .. |
| Total Potassium (%) | AS4454:2012 Appendix D Total Salts | | 0.89 | .. |
| Total Sodium (%) | | | 0.08 | <1 Na |
| Total Sulphur (%) | | | 0.27 | .. |
| Total Phosphorus (%) | AS4454:2012 Appendix D | | 0.45 | ≤ 0.1 P <i>see note 10</i> |
| Total Zinc (mg/kg) | | | 189 | < 300 Zn |
| Total Manganese (mg/kg) | | | 438 | .. |
| Total Iron (mg/kg) | | | 13,132 | .. |
| Total Copper (mg/kg) | AS4454:2012 Appendix D Total Metals | | 49.4 | < 150 Cu |
| Total Boron (mg/kg) | | | 20.7 | < 100 B |
| Total Silicon (mg/kg) | | | 3,268 | .. |
| Total Aluminium (mg/kg) | | | 6,702 | .. |
| Total Molybdenum (mg/kg) | | | 4.53 | .. |
| Total Cobalt (mg/kg) | AS4454:2012 Appendix D Total Metals | | 5.19 | .. |
| Total Selenium (mg/kg) | | | 3.06 | < 5 Se |
| Total Cadmium (mg/kg) | | | <0.5 | < 1 Cd |
| Total Lead (mg/kg) | | | 16.1 | < 150 Pb |
| Total Arsenic (mg/kg) | | | 7.49 | < 20 As |
| Total Chromium (mg/kg) | AS4454:2012 Appendix D Total Heavy Metals | | 29.2 | < 100 Cr |
| Total Nickel (mg/kg) | | | 10.2 | < 60 Ni |
| Total Mercury (mg/kg) | | | <0.1 | < 1 Hg |
| Total Silver (mg/kg) | | | <1 | .. |

| | | Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable: | Sample 1 50030 Compost Landtasia 19/04/2023 CA-PACK-003 AS4454:2012 | Guideline |
|---|---|---|---|-------------------------------|
| Parameter | Method Reference | N9882/1 | | |
| Polychlorinated Biphenyls (mg/kg) | | | <0.2 ND | < 0.2 |
| Organochlorine Pesticides - DDT, DDD, DDE (mg/kg) | Sub** - SGS Laboratories SE246430 Pesticides and PCBs | | <0.010 ND | < 0.5 |
| Organochlorine Pesticides - Other (mg/kg) <small>see note 9</small> | | | <0.010 ND | < 0.02 |
| Salmonella spp (Absent in 25 g) | Sub** - Symbio Laboratories B1305349 (M16.1 AS 5013.10) | | ND | Absent in 25 g |
| E. coli (MPN/g DW) | Sub** - Symbio Laboratories B1305349 (M8.3 AS 5013.15) | | <3.0 ND | < 100 MPN/g |
| Faecal Coliforms (MPN/g DW) | | | <3.0 ND | < 1000 MPN/g |
| Particle Size Grading > 16 mm Sieve (% DW) | | | 4.6 | ... <small>see note 5</small> |
| Particle Size Grading 5–16 mm Sieve (% DW) | AS4454:2012 Appendix G Particle Size Grading | | 26.3 | ... <small>see note 5</small> |
| Particle Size Grading < 5 mm Sieve (% DW) | | | 69.1 | ... <small>see note 5</small> |
| Plastics Light Flexible or film > 5 mm (% DW) | | | <0.01 | ≤ 0.05 |
| Stones and Lumps of Clay > 5 mm (% DW) | AS4454:2012 Appendix I Visible Contaminants | | 9.12 | ≤ 5 |
| Glass, metal and rigid plastics > 2 mm (% DW) | | | 0.03 | ≤ 0.5 |
| Wettability (min) | AS4454:2012 Appendix E | | 0m 42s | < 5 |
| Plant Growth Test - Root Elongation (mm) | AS4454:2012 Appendix F | | Nil Growth | > 60 |
| Viable Plant Propagules (7 days) | AS4454:2012 Appendix M | | Nil | .. |
| Viable Plant Propagules (21 days) | AS4454:2012 Appendix M | | NR | Nil after 21 days |

Notes:

- Methods from AS4454:2012 Composts, soil conditioners and mulches.
- Indicative guidelines are based on those in AS4454:2012 for raw mulches, pasteurized product, composted product, mature composts.
- Total Acid Extractable Nutrients indicate a store of nutrients.
- Conversions for 1 mg/kg = 1 ppm; 1 % = 10,000 ppm; kg/ha = mg/kg x 2.24.
- Coarse Mulch > 70% >16mm, Fine Mulch <20% >16mm and <20% <5mm, Soil Conditioner <20% >16mm.
- The chloride calculation of Cl mg/L = EC x 640 is considered an estimate, and most likely an over-estimate.
- Guide only to be used if a product claims to contribute to plant nutrition.
- The full test observes the potential growth of viable plant propagules in a 21 day test period. In order to pass there should be Nil after 21 days
- Other Organochlorines include: Aldrin, Dieldrin, Chlordane, Heptachlor, HCB, Lindane, BHC Other Organophosphorus include: Guthion, Bromophos-ethyl, Chlorpyrifos, Chlorpyrifos-methy, Diazinon, Dichlorvos, Dimethoate, Ethion, Fenitrothion, Malathion, Parathion, Ronnel.
- Guide only to be used if a product claims to be used for phosphorus sensitive plants.
- < LOR Less than limit of reporting. ND Not detected. NA Not applicable. NR Not required.
- All testing has been done so in accordance with AS4454:2012 as a Composted Product.
- Testing completed in a NATA accredited laboratory.
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full. Results only relate to the item tested.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer SCU.edu.au/eal/t&cs or on request).
- This report was issued on 15/05/2023.

Quality Checked: Brian Smith
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