

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 27 September 2021. Lab Job No. M1773.

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

PO Box 116 BUNGENDORE NSW 2621

Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:		Sample 1 50025 Compost LOF 21/09/2021 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference	M1773/1	
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.76	..
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.33	..
Moisture Content (%)	AS4454:2012 Appendix I	56	> 25
pH		7.52	> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	2.15	< 10
Total Organic Carbon (%)		24.4	≥ 20
Total Carbon (%)	AS4454:2012 Appendix C	24.4	..
Total Nitrogen (%)		1.49	≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	16.4	..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	41.5	..
Ammonium Nitrogen (mg/L N)		2.9	< 200
Ammonium Nitrogen (mg/kg N)		14.3	..
Nitrate Nitrogen (mg/L N)	AS4454:2012 Appendix B Dissolved Nutrients	66.6	..
Nitrate Nitrogen (mg/kg N)		333	≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)		20.4	≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)		102	..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.04	< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	0.6	> 0.2
Total Calcium (%)		1.64	..
Total Magnesium (%)		0.42	..
Total Potassium (%)	AS4454:2012 Appendix D Total Salts	0.83	..
Total Sodium (%)		0.09	< 1 Na
Total Sulphur (%)		0.17	..
Total Phosphorus (%)	AS4454:2012 Appendix D	0.30	≤ 0.1 P <i>see note 10</i>
Total Zinc (mg/kg)		155	< 300 Zn
Total Manganese (mg/kg)		414	..
Total Iron (mg/kg)		11,895	..
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals	31.5	< 150 Cu
Total Boron (mg/kg)		22.0	< 100 B
Total Silicon (mg/kg)		1,894	..
Total Aluminium (mg/kg)		6,375	..
Total Molybdenum (mg/kg)		2.26	..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	5.06	..
Total Selenium (mg/kg)		< 1	< 5 Se
Total Cadmium (mg/kg)		< 0.5	< 1 Cd
Total Lead (mg/kg)		20.2	< 150 Pb
Total Arsenic (mg/kg)		4.80	< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	21.4	< 100 Cr
Total Nickel (mg/kg)		9.18	< 60 Ni
Total Mercury (mg/kg)		< 0.1	< 1 Hg
Total Silver (mg/kg)		< 1	..

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Polychlorinated Biphenyls (mg/kg)	Sub** - SGS Laboratories SE224273 Pesticides and PCBs	Not detected	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)		Not detected	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}		Not detected	< 0.02
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1078107 Indicator Pathogens	Not detected	Absent in 25 g
E. coli (MPN/g DW)		Not detected	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		Not detected	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)	AS4454:2012 Appendix G Particle Size Grading	Nil	.. see note 5
Particle Size Grading 5-16 mm Sieve (%)		18.4	.. see note 5
Particle Size Grading < 5 mm Sieve (%)		81.6	.. see note 5
Plastics Light Flexible or film > 5 mm (%)	AS4454:2012 Appendix I Visible Contaminants	<0.01	≤ 0.05
Stones and Lumps of Clay > 5 mm (%)		0.36	≤ 5
Glass, metal and rigid plastics > 2 mm (%)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	0m 38s	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	71	> 60
Viable Plant Propagules (7 days)	AS4454:2012 Appendix M	Nil	..
Viable Plant Propagules (21 days)	AS4454:2012 Appendix M	NA	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, Fentrothion, Malathion, Parathion, Ronnel.
- Guide only to be used if a product claims to be used for phosphorus sensitive plants.
- 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 18/10/2021.

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