

### AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 18 February 2022. Lab Job No. M6295.

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

PO Box 116 BUNGENDORE NSW 2621

		Product Name: 50026	Sample 1 50026	Guideline  AS4454:2012 Composted Product
		Product Type: Compost	Compost	
		Manufacturing Site: LOF	LOF	
		Manufactured Date: 16/02/2022	16/02/2022	
		Test Code: CA-PACK-003	CA-PACK-003	
		Standard Applicable: AS4454:2012	AS4454:2012	
Parameter	Method Reference	M6295/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.79	..	
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.36	..	
Moisture Content (%)	AS4454:2012 Appendix I	54	> 25	
pH		7.82	> 5	
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	3.98	< 10	
Total Organic Carbon (%)		21.1	≥ 20	
Total Carbon (%)	AS4454:2012 Appendix C	21.1	..	
Total Nitrogen (%)		1.52	≥ 0.8 see note 7	
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	13.9	..	
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	35.9	..	
Ammonium Nitrogen (mg/L N)		2.4	< 200	
Ammonium Nitrogen (mg/kg N)		12.1	..	
Nitrate Nitrogen (mg/L N)		11.7	..	
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B Dissolved Nutrients	58.5	≥ 10 see note 7	
Phosphate Phosphorus (mg/L P)		15.8	≤ 5 see note 7	
Phosphate Phosphorus (mg/kg P)		78.9	..	
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.2	< 3.0	
Nitrogen Drawdown Index (NDI <sub>150</sub> )	AS4454:2012 Appendix O	0.8	> 0.2	
Total Calcium (%)		1.62	..	
Total Magnesium (%)		0.39	..	
Total Potassium (%)	AS4454:2012 Appendix D Total Salts	0.80	..	
Total Sodium (%)		0.07	< 1 Na	
Total Sulphur (%)		0.19	..	
Total Phosphorus (%)	AS4454:2012 Appendix D	0.31	≤ 0.1 P see note 10	
Total Zinc (mg/kg)		150	< 300 Zn	
Total Manganese (mg/kg)		429	..	
Total Iron (mg/kg)		13,608	..	
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals	38.2	< 150 Cu	
Total Boron (mg/kg)		17.4	< 100 B	
Total Silicon (mg/kg)		1,496	..	
Total Aluminium (mg/kg)		6,842	..	
Total Molybdenum (mg/kg)		6.75	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	4.87	..	
Total Selenium (mg/kg)		1.24	< 5 Se	
Total Cadmium (mg/kg)		<0.5	< 1 Cd	
Total Lead (mg/kg)		15.6	< 150 Pb	
Total Arsenic (mg/kg)		6.86	< 20 As	
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	23.5	< 100 Cr	
Total Nickel (mg/kg)		8.89	< 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 50026 Compost LOF 16/02/2022 CA-PACK-003 AS4454:2012	Guideline  AS4454:2012 Composted Product
Parameter	Method Reference	M6295/1	
Polychlorinated Biphenyls (mg/kg)		<LOR	< 0.2
Organochlorine Pesticides - DDT, DDD (mg/kg)	Sub** - SGS Laboratories SE229283 Pesticides and PCBs	<LOR	< 0.5
Organochlorine Pesticides - DDE (mg/kg)		0.025	< 0.5
Organochlorine Pesticides - Other (mg/kg) <sup>see note 9</sup>		<LOR	< 0.02
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1124900 Indicator Pathogens	ND	Absent in 25 g
E. coli (MPN/g DW)		9.2	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		9.2	< 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 (%)		17.0	.. see note 5
Particle Size Grading < 5 mm Sieve (%)		83.0	.. 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 (%)		3.01	≤ 5
Glass, metal and rigid plastics > 2 mm (%)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	>5min	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	63	> 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

\* < LOR Less than limit of reporting. ND Not detected. NA Not applicable. NR Not required.

**Notes:**

1. Methods from AS4454:2012 Composts, soil conditioners and mulches.
2. Indicative guidelines are based on those in AS4454:2012 for raw mulches, pasteurized product, composted product, mature composts.
3. Total Acid Extractable Nutrients indicate a store of nutrients.
4. Conversions for 1 mg/kg = 1 ppm; 1% = 10,000 ppm; kg/ha = mg/kg x 2.24.
5. Coarse Mulch > 70% >16mm, Fine Mulch <20% >16mm and <20% <5mm, Soil Conditioner <20% >16mm.
6. The chloride calculation of Cl mg/L = EC x 640 is considered an estimate, and most likely an over-estimate.
7. Guide only to be used if a product claims to contribute to plant nutrition.
8. 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
9. 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.
10. Guide only to be used if a product claims to be used for phosphorus sensitive plants.
11. Testing completed in a NATA accredited laboratory.
12. Analysis conducted between sample arrival date and reporting date.
13. This report is not to be reproduced except in full. Results only relate to the item tested.
14. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer [SCU.edu.au/eal/t&cs](http://SCU.edu.au/eal/t&cs) or on request).
15. This report was issued on 15/03/2022.

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