

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 15 April 2021. Lab Job No. K5727.

Analysis requested by David Tabner.

PO Box 116 BUNGENDORE NSW 2621

		Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:	Sample 1 50023 Compost Landtasia Organic Farms 13/04/2021 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference	K5727/1		
Bulk Density (kg/L)	AS4454:2012 Appendix J	0.3	..	
Moisture Content (%)	AS4454:2012 Appendix I	48	> 25	
pH	AS4454:2012 Appendix B	8.10	> 5	
Electrical Conductivity (dS/m)		1.06	< 10	
Total Organic Carbon (%)		26.8	≥ 20	
Total Carbon (%)	AS4454:2012 Appendix C	25.6	..	
Total Nitrogen (%)		1.42	≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	18.8	..	
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	45.5	..	
Ammonium Nitrogen (mg/L N)		33.5	< 200	
Ammonium Nitrogen (mg/kg N)		168	..	
Nitrate Nitrogen (mg/L N)	AS4454:2012 Appendix B	3.2	..	
Nitrate Nitrogen (mg/kg N)		16.1	≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)		26.2	≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)		131.0	..	
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	10.4	< 3.0	
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	0.9	> 0.2	
Total Calcium (%)		1.71	..	
Total Magnesium (%)		0.36	..	
Total Potassium (%)	AS4454:2012 Appendix D	0.52	..	
Total Sodium (%)		0.05	< 1 Na	
Total Sulphur (%)		0.15	..	
Total Phosphorus (%)	AS4454:2012 Appendix D	0.28	≤ 0.1 P <i>see note 10</i>	
Total Zinc (mg/kg)		147	< 300 Zn	
Total Manganese (mg/kg)		411	..	
Total Iron (mg/kg)		11,616	..	
Total Copper (mg/kg)	AS4454:2012 Appendix D	32.0	< 150 Cu	
Total Boron (mg/kg)		18.2	< 100 B	
Total Silicon (mg/kg)		1,210	..	
Total Aluminium (mg/kg)		6,453	..	
Total Molybdenum (mg/kg)		2.12	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D	5.05	..	
Total Selenium (mg/kg)		1.19	< 5 Se	
Total Cadmium (mg/kg)		<0.5	< 1 Cd	
Total Lead (mg/kg)		17.2	< 150 Pb	
Total Arsenic (mg/kg)		4.94	< 20 As	
Total Chromium (mg/kg)	AS4454:2012 Appendix D	19.3	< 100 Cr	
Total Nickel (mg/kg)		8.42	< 60 Ni	
Total Mercury (mg/kg)		<0.1	< 1 Hg	
Total Silver (mg/kg)		<1	..	

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Parameter	Method Reference	K5727/1	Guideline
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Polychlorinated Biphenyls (mg/kg)		<LOR (Not detected)	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - SGS Laboratories SE218796	<LOR (Not detected)	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}		<LOR (Not detected)	< 0.02
Salmonella spp (Absent in 25 g)		Not detected	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1020076	Not detected	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		Not detected	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)		Nil	... ^{see note 5}
Particle Size Grading 5–16 mm Sieve (%)	AS4454:2012 Appendix G	4.8	... ^{see note 5}
Particle Size Grading < 5 mm Sieve (%)		95.2	... ^{see note 5}
Plastics Light Flexible or film > 5 mm (%)		<0.01	≤ 0.05
Stones and Lumps of Clay > 5 mm (%)	AS4454:2012 Appendix I	0.29	≤ 5
Glass, metal and rigid plastics > 2 mm (%)		0.08	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	>5min	< 5
Total CaCO₃ Equivalent (%)	AS4454:2012 Appendix H	3.14	...
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	93	> 60
Viable Plant Propagules (7 days)	AS4454:2012 Appendix M	Nil	...
Viable Plant Propagules (21 days)	AS4454:2012 Appendix M	N/A	Nil after 21 days

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. < 1 if applied to sandy soils
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).
15. This report was issued on 5/05/2021.

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