

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

2 samples supplied by Landtasia Organic Farms on the 26 July, 2019 - Lab Job No. i4159.

Analysis requested by Simone Dilkara.

(PO Box 116 BUNDENDORE NSW 2621)

		Product Name: 50015	<b>Sample 2</b>	<b>Guideline</b>
		Product Type: Compost		
		Manufacturing Site: ..		<i>AS4454:2012</i>
		Manufactured Date: ..		<i>Composted</i>
		Test Code: CA-PACK-003		<i>Product</i>
		Standard Applicable: AS4454:2012		
Parameter	Method Reference	i4159/2		
Bulk Density (kg/L)	AS4454:2012 Appendix J	0.34	..	
Moisture Content (%)	AS4454:2012 Appendix I	51	> 25	
pH	AS4454:2012 Appendix B	7.69	> 5	
Electrical Conductivity (dS/m)		2.03	< 10	
Chloride (mg/kg)	**Rayment & Lyons 2011 - 5A3a	4,246	..	
Total Organic Carbon (%)		24.0	≥ 20	
Total Carbon (%)	AS4454:2012 Appendix C	28.4	..	
Total Nitrogen (%)		1.36	≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	17.6	..	
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	40.7	..	
Ammonium Nitrogen (mg/L N)		0.8	< 200	
Ammonium Nitrogen (mg/kg N)		4.1	..	
Nitrate Nitrogen (mg/L N)	AS4454:2012 Appendix B	2.1	..	
Nitrate Nitrogen (mg/kg N)		10.4	≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)		2.3	≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)		11	..	
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.4	< 3.0	
Nitrogen Drawdown Index (NDI <sub>150</sub> )	AS4454:2012 Appendix O	0.6	> 0.2	
Total Calcium (%)		2.13	..	
Total Magnesium (%)		0.35	..	
Total Potassium (%)	AS4454:2012 Appendix D	0.77	..	
Total Sodium (%)		0.21	< 1 Na	
Total Sulphur (%)		0.19	..	
Total Phosphorus (%)	AS4454:2012 Appendix D	0.27	≤ 0.1 P <i>see note 10</i>	
Total Zinc (mg/kg)		274	< 300 Zn	
Total Manganese (mg/kg)		309	..	
Total Iron (mg/kg)		13,728	..	
Total Copper (mg/kg)	AS4454:2012 Appendix D	90	< 150 Cu	
Total Boron (mg/kg)		27	< 100 B	
Total Silicon (mg/kg)		1,827	..	
Total Aluminium (mg/kg)		5,290	..	
Total Molybdenum (mg/kg)		1.65	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D	4.49	..	
Total Selenium (mg/kg)		<1	< 5 Se	
Total Cadmium (mg/kg)		0.7	< 1 Cd	
Total Lead (mg/kg)		81.2	< 150 Pb	
Total Arsenic (mg/kg)		11.3	< 20 As	
Total Chromium (mg/kg)	AS4454:2012 Appendix D	32.8	< 100 Cr	
Total Nickel (mg/kg)		12.0	< 60 Ni	
Total Mercury (mg/kg)		<0.1	< 1 Hg	
Total Silver (mg/kg)		<1	..	

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		Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:	Sample 2 50015 Compost .. .. CA-PACK-003 AS4454:2012	Guideline  AS4454:2012 Composted Product
Parameter	Method Reference	i4159/2		
Polychlorinated Biphenyls (mg/kg)	AS4454:2012 Appendix 3.1 (C)	<0.2		< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)		<0.01		< 0.5
Organochlorine Pesticides - Other (mg/kg) <sup>see note 9</sup>		<0.01		< 0.02
Salmonella spp (Absent in 25 g)	AS4454:2012 Appendix D	Not Detected		Absent in 25 g
E. coli (MPN/g DW)		Not Detected		< 100 MPN/g
Faecal Coliforms (MPN/g DW)		20		< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)	AS4454:2012 Appendix G	Nil		.. see note 5
Particle Size Grading 5–16 mm Sieve (%)		10.1		.. see note 5
Particle Size Grading < 5 mm Sieve (%)		89.9		.. see note 5
Plastics Light Flexible or film > 5 mm (%)	AS4454:2012 Appendix I	<0.01		≤ 0.05
Stones and Lumps of Clay > 5 mm (%)		1.19		≤ 5
Glass, metal and rigid plastics > 2 mm (%)		0.20		≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	>5min		< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	112		> 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, Fenitrothion, Malathion, Parathion, Ronnel.
- Guide only to be used if a product claims to be used for phosphorus sensitive plants. < 1 if applied to sandy soils
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full.
- Analysis sub-contracted - SGS Laboratories report no. SE195888, Symbio Laboratories report no. B810526.
- All testing parameters have been facilitated by a NATA accredited laboratory.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions. These Terms and Conditions are available on the EAL website: scu.edu.au/eal, or on request.

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