

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 8 August 2023. Lab Job No. P3906.

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

PO Box 116 BUNGENDORE NSW 2621

		Product Name:	Sample 1	Guideline
		Product Type:	50031 windrow 5	AS4454:2012 Composted Product
		Manufacturing Site:	Compost	
		Manufactured Date:	LOF	
		Test Code:	2/08/2023	
		Standard Applicable:	CA-PACK-003	
Parameter	Method Reference	P3906/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.76	..	
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.40	..	
Moisture Content (%)	AS4454:2012 Appendix I	47	> 25	
pH		6.48	> 5	
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	2.21	< 10	
Total Organic Carbon (%)		23.4	≥ 20	
Total Carbon (%)	AS4454:2012 Appendix C	23.4	..	
Total Nitrogen (%)		1.89	≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	12.4	..	
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	39.7	..	
Ammonium Nitrogen (mg/L N)		2.67	< 200	
Ammonium Nitrogen (mg/kg N)		13.4	..	
Nitrate Nitrogen (mg/L N)		170	..	
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B Dissolved Nutrients	850	≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)		32.1	≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)		161	..	
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.02	< 3.0	
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	0.86	> 0.2	
Total Calcium (%)		1.45	..	
Total Magnesium (%)		0.35	..	
Total Potassium (%)	AS4454:2012 Appendix D Total Salts	0.70	..	
Total Sodium (%)		0.06	< 1 Na	
Total Sulphur (%)		0.19	..	
Total Phosphorus (%)	AS4454:2012 Appendix D	0.44	≤ 0.1 P <i>see note 10</i>	
Total Zinc (mg/kg)		174	< 300 Zn	
Total Manganese (mg/kg)		371	..	
Total Iron (mg/kg)		10,463	..	
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals	36.3	< 150 Cu	
Total Boron (mg/kg)		15.4	< 100 B	
Total Silicon (mg/kg)		935	..	
Total Aluminium (mg/kg)		4,661	..	
Total Molybdenum (mg/kg)		2.30	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	4.33	..	
Total Selenium (mg/kg)		1.14	< 5 Se	
Total Cadmium (mg/kg)		<0.5	< 1 Cd	
Total Lead (mg/kg)		18.2	< 150 Pb	
Total Arsenic (mg/kg)		4.48	< 20 As	
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	20.1	< 100 Cr	
Total Nickel (mg/kg)		7.85	< 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 50031 windrow 5 Compost LOF 2/08/2023 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference	P3906/1		
Polychlorinated Biphenyls (mg/kg)	Sub** - Symbio Laboratories B1370784-B	<0.1 ND	< 0.2	
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - Symbio Laboratories B1370784-A	<0.02 ND	< 0.5	
Organochlorine Pesticides - Other (mg/kg) <small>see note 9</small>		<0.02 ND	< 0.02	
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1370805 (M16.1 AS 5013.10)	ND	Absent in 25 g	
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1370805 (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)		Nil	... see note 5	
Particle Size Grading 5–16 mm Sieve (% DW)	AS4454:2012 Appendix G Particle Size Grading	19.1	... see note 5	
Particle Size Grading < 5 mm Sieve (% DW)		80.9	... see note 5	
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	6.27	≤ 5	
Glass, metal and rigid plastics > 2 mm (% DW)		0.05	≤ 0.5	
Wettability (min)	AS4454:2012 Appendix E	0m 14s	< 5	
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	96	> 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-methyl, 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 1/09/2023.

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