

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 8 March 2024. Lab Job No. R1573.

Analysis requested by David Tabner. **Your Job: 50034 Windrow 6.**

PO Box 116 BUNGENDORE NSW 2621

		Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:	Sample 1 50034 Windrow 6 Compost LOF 5/03/2024 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product	
Parameter	Method Reference		R1573/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J		0.76	..	
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J		0.38	..	
Moisture Content (%)	AS4454:2012 Appendix I		49	> 25	
pH	AS4454:2012 Appendix B		7.75	> 5	
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B		0.89	< 10	
Total Organic Carbon (%)	AS4454:2012 Appendix C		22.1	≥ 20	
Total Carbon (%)			24.3	..	
Total Nitrogen (%)			1.54	≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio		Calculation - Total Organic Carbon/Total Nitrogen		14.3	..
Estimated Organic Matter (% OM)		Calculation - Total Organic Carbon x 1.7		37.5	..
Ammonium Nitrogen (mg/L N)	AS4454:2012 Appendix B Dissolved Nutrients		3.9	< 200	
Ammonium Nitrogen (mg/kg N)			19.5	..	
Nitrate Nitrogen (mg/L N)			8.6	..	
Nitrate Nitrogen (mg/kg N)			42.8	≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)			25.0	≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)			125	..	
Ammonium/Nitrate Ratio		Calculation - Ammonium/Nitrate		0.5	< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O		0.6	> 0.2	
Total Calcium (%)	AS4454:2012 Appendix D Total Salts		1.66	..	
Total Magnesium (%)			0.41	..	
Total Potassium (%)			0.74	..	
Total Sodium (%)			0.06	<1 Na	
Total Sulphur (%)			0.16	..	
Total Phosphorus (%)		AS4454:2012 Appendix D		0.34	≤ 0.1 P <i>see note 10</i>
Total Zinc (mg/kg)	AS4454:2012 Appendix D Total Metals		166	< 300 Zn	
Total Manganese (mg/kg)			433	..	
Total Iron (mg/kg)			11,586	..	
Total Copper (mg/kg)			31.3	< 150 Cu	
Total Boron (mg/kg)			17.5	< 100 B	
Total Silicon (mg/kg)			2,004	..	
Total Aluminium (mg/kg)			6,478	..	
Total Molybdenum (mg/kg)			2.01	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals		4.96	..	
Total Selenium (mg/kg)		<1	< 5 Se		
Total Cadmium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals		<0.5	< 1 Cd	
Total Lead (mg/kg)			24.7	< 150 Pb	
Total Arsenic (mg/kg)			4.59	< 20 As	
Total Chromium (mg/kg)			21.8	< 100 Cr	
Total Nickel (mg/kg)			8.26	< 60 Ni	
Total Mercury (mg/kg)			<0.1	< 1 Hg	
Total Silver (mg/kg)			<1	..	

		Sample 1	Guideline
Product Name:		50034 Windrow 6	
Product Type:		Compost	
Manufacturing Site:		LOF	AS4454:2012
Manufactured Date:		5/03/2024	Composted
Test Code:		CA-PACK-003	Product
Standard Applicable:		AS4454:2012	
Parameter	Method Reference	R1573/1	
Polychlorinated Biphenyls (mg/kg)		<0.1 ND	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - Symbio Laboratories B1488695 Pesticides and PCBs	<0.02 ND	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}		<0.02 ND	< 0.02
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1488258 (M16.1 AS 5013.10)	ND	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1488258 (M8.3 AS 5013.15)	<3.0 ND	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		<3.0 ND	< 1000 MPN/g
Bacillus cereus (CFU/g DW)	Sub** - Symbio Laboratories B1488235 (M5.1 AS 5013.2)	<10 ND	< 100 MPN/g
Clostridium perfringens (CFU/g DW)	Sub** - Symbio Laboratories B1488235 (M7.1 AS 5013.16)	<10 ND	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (% DW)		3.0	.. see note 5
Particle Size Grading 5–16 mm Sieve (% DW)	AS4454:2012 Appendix G Particle Size Grading	29.8	.. see note 5
Particle Size Grading < 5 mm Sieve (% DW)		67.2	.. 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	3.85	≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)		0.12	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	1m 00s	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	101	> 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-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.
- < 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 27/03/2024.

Quality Checked: Brian Smith
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