

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 5 August 2024. Lab Job No. R7261.

Analysis requested by David Tabner. **Your Job: PO 6-1210 50037 Windrow 7.**

PO Box 116 BUNGENDORE NSW 2621

		Product Name:	50037 Windrow 7 31/07/24	Sample 1	Guideline
		Product Type:	Compost		
		Manufacturing Site:	LOF		<i>AS4454:2012</i>
		Manufactured Date:	31/07/2024		<i>Composted</i>
		Test Code:	CA-PACK-003		<i>Product</i>
		Standard Applicable:	AS4454:2012		
Parameter	Method Reference		R7261/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J		0.44		..
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J		0.24		..
Moisture Content (%)	AS4454:2012 Appendix I		46		> 25
pH			7.44		> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B		2.01		< 10
Total Organic Carbon (%)			30.2		≥ 20
Total Carbon (%)	AS4454:2012 Appendix C		30.4		..
Total Nitrogen (%)			1.60		≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen		18.9		..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7		51.4		..
Ammonium Nitrogen (mg/L N)			1.8		< 200
Ammonium Nitrogen (mg/kg N)			8.9		..
Nitrate Nitrogen (mg/L N)			3.5		..
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B Dissolved Nutrients		17.7		≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)			19.4		≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)			96.9		..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate		0.5		< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O		0.9		> 0.2
Total Calcium (%)			1.90		..
Total Magnesium (%)			0.41		..
Total Potassium (%)	AS4454:2012 Appendix D Total Salts		1.00		..
Total Sodium (%)			0.06		<1 Na
Total Sulphur (%)			0.15		..
Total Phosphorus (%)	AS4454:2012 Appendix D		0.32		≤ 0.1 P <i>see note 10</i>
Total Zinc (mg/kg)			156		< 300 Zn
Total Manganese (mg/kg)			409		..
Total Iron (mg/kg)			9,385		..
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals		30.2		< 150 Cu
Total Boron (mg/kg)			21.2		< 100 B
Total Silicon (mg/kg)			1,400		..
Total Aluminium (mg/kg)			5,526		..
Total Molybdenum (mg/kg)			1.59		..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals		4.05		..
Total Selenium (mg/kg)			<1		< 5 Se
Total Cadmium (mg/kg)			<0.5		< 1 Cd
Total Lead (mg/kg)			15.3		< 150 Pb
Total Arsenic (mg/kg)			4.19		< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals		18.7		< 100 Cr
Total Nickel (mg/kg)			6.85		< 60 Ni
Total Mercury (mg/kg)			<0.1		< 1 Hg
Total Silver (mg/kg)			<1		..

		Product Name:	50037 Windrow 7 31/07/24	Sample 1	Guideline
		Product Type:	Compost		
		Manufacturing Site:	LOF		AS4454:2012
		Manufactured Date:	31/07/2024		Composted
		Test Code:	CA-PACK-003		Product
		Standard Applicable:	AS4454:2012		
Parameter	Method Reference		R7261/1		
Polychlorinated Biphenyls (mg/kg)			<0.1 ND		< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - Symbio Laboratories B1598380 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 B1594550 (M16.1 AS 5013.10)		ND		Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1594550 (M8.3 - AS 5013.3 & AS 5013.15)		<3.0 ND		< 100 MPN/g
Faecal Coliforms (MPN/g DW)			<3.0 ND		< 1000 MPN/g
Bacillus cereus (CFU/g)	Sub** - Symbio Laboratories S1595383 (M5.1 - AS 5013.2)		<10 ND		..
Clostridium perfringens (CFU/g)	Sub** - Symbio Laboratories S1595383 (M7.1 - AS 5013.16)		<10 ND		..
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		9.3		.. see note 5
Particle Size Grading < 5 mm Sieve (% DW)			90.7		.. see note 5
Plastics Light Flexible or film > 5 mm (% DW)			0.10		≤ 0.05
Stones and Lumps of Clay > 5 mm (% DW)	AS4454:2012 Appendix I Visible Contaminants		2.23		≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)			<0.01		≤ 0.5
Wettability (min)	AS4454:2012 Appendix E		2m 10s		< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F		68		> 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 29/08/2024.

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