

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

1 sample supplied by Landtasia Organic Farms on the 9 October 2023. Lab Job No. P6129.

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

PO Box 116 BUNGENDORE NSW 2621

		Product Name:	Sample 1	Guideline	
		Product Type:	50032 Windrow 6	AS4454:2012 Composted Product	
		Manufacturing Site:	Compost		
		Manufactured Date:	LOF		
		Test Code:	4/10/2023		
		Standard Applicable:	CA-PACK-003		
			AS4454:2012		
Parameter	Method Reference	P6129/1			
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.62		..	
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.30		..	
Moisture Content (%)	AS4454:2012 Appendix I	52		> 25	
pH	AS4454:2012 Appendix B	7.90		> 5	
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	4.36		< 10	
Total Organic Carbon (%)	AS4454:2012 Appendix C	24.1		≥ 20	
Total Carbon (%)		27.4		..	
Total Nitrogen (%)		2.23		≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio		Calculation - Total Organic Carbon/Total Nitrogen	10.8		..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	40.9		..	
Ammonium Nitrogen (mg/L N)	AS4454:2012 Appendix B Dissolved Nutrients	299		< 200	
Ammonium Nitrogen (mg/kg N)		1,495		..	
Nitrate Nitrogen (mg/L N)		275		..	
Nitrate Nitrogen (mg/kg N)		1,375		≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)		49.1		≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)		246		..	
Ammonium/Nitrate Ratio		Calculation - Ammonium/Nitrate	1.1		< 3.0
Nitrogen Drawdown Index (NDI <sub>150</sub> )		AS4454:2012 Appendix O	>1.0		> 0.2
Total Calcium (%)	AS4454:2012 Appendix D Total Salts	1.82		..	
Total Magnesium (%)		0.37		..	
Total Potassium (%)		0.85		..	
Total Sodium (%)		0.13		<1 Na	
Total Sulphur (%)		0.26		..	
Total Phosphorus (%)		AS4454:2012 Appendix D	0.43		≤ 0.1 <i>see note 10</i>
Total Zinc (mg/kg)	AS4454:2012 Appendix D Total Metals	178		< 300 Zn	
Total Manganese (mg/kg)		384		..	
Total Iron (mg/kg)		9,027		..	
Total Copper (mg/kg)		35.0		< 150 Cu	
Total Boron (mg/kg)		19.7		< 100 B	
Total Silicon (mg/kg)		1,593		..	
Total Aluminium (mg/kg)		4,650		..	
Total Molybdenum (mg/kg)		AS4454:2012 Appendix D Total Metals	2.53		..
Total Cobalt (mg/kg)	4.29		..		
Total Selenium (mg/kg)	2.03		< 5 Se		
Total Cadmium (mg/kg)	<0.5		< 1 Cd		
Total Lead (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	15.8		< 150 Pb	
Total Arsenic (mg/kg)		4.13		< 20 As	
Total Chromium (mg/kg)		15.2		< 100 Cr	
Total Nickel (mg/kg)		6.57		< 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 50032 Windrow 6 Compost LOF 4/10/2023 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference	P6129/1	
Polychlorinated Biphenyls (mg/kg)		<0.1 ND	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - Symbio Laboratories B1404932 Pesticides and PCBs	<0.02 ND	< 0.5
Organochlorine Pesticides - Other (mg/kg) <sup>see note 9</sup>		<0.02 ND	< 0.02
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1401576-A (M16.1 AS 5013.10)	ND	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1401576-A (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	12.1	.. see note 5
Particle Size Grading < 5 mm Sieve (% DW)		87.9	.. 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	5.00	≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	3m 25s	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	Nil growth	> 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

\* DW = dry weight basis

**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](http://SCU.edu.au/eal/t&cs) or on request).
- This report was issued on 31/10/2023.

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