

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 28 September 2022. Lab Job No. N3134.

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

PO Box 116 BUNGENDORE NSW 2621

		Product Name:	Sample 1	Guideline
		Product Type:	50028 window 6	
		Manufacturing Site:	Compost	
		Manufactured Date:	Landtasia Organic Farms	AS4454:2012
		Test Code:	26/09/2022	Composted
		Standard Applicable:	CA-PACK-003	Product
			AS4454:2012	
Parameter	Method Reference	N3134/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.76		..
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.31		..
Moisture Content (%)	AS4454:2012 Appendix I	59		> 25
pH		6.97		> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	2.59		< 10
Total Organic Carbon (%)		22.1		≥ 20
Total Carbon (%)	AS4454:2012 Appendix C	22.1		..
Total Nitrogen (%)		1.58		≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	14.0		..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	37.6		..
Ammonium Nitrogen (mg/L N)		2.17		< 200
Ammonium Nitrogen (mg/kg N)		10.9		..
Nitrate Nitrogen (mg/L N)		193		..
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B Dissolved Nutrients	965		≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)		22.6		≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)		113		..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.01		< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	0.97		> 0.2
Total Calcium (%)		1.75		..
Total Magnesium (%)		0.47		..
Total Potassium (%)	AS4454:2012 Appendix D Total Salts	0.80		..
Total Sodium (%)		0.08		<1 Na
Total Sulphur (%)		0.17		..
Total Phosphorus (%)	AS4454:2012 Appendix D	0.39		≤ 0.1 P <i>see note 10</i>
Total Zinc (mg/kg)		147		< 300 Zn
Total Manganese (mg/kg)		420		..
Total Iron (mg/kg)		12,342		..
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals	37.4		< 150 Cu
Total Boron (mg/kg)		25.1		< 100 B
Total Silicon (mg/kg)		7,263		..
Total Aluminium (mg/kg)		6,917		..
Total Molybdenum (mg/kg)		3.02		..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	4.80		..
Total Selenium (mg/kg)		1.40		< 5 Se
Total Cadmium (mg/kg)		<0.5		< 1 Cd
Total Lead (mg/kg)		15.5		< 150 Pb
Total Arsenic (mg/kg)		5.17		< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	22.9		< 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
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Product Type:		Compost	
Manufacturing Site:		Landtasia Organic Farms	<i>AS4454:2012</i>
Manufactured Date:		26/09/2022	<i>Composted</i>
Test Code:		CA-PACK-003	<i>Product</i>
Standard Applicable:		AS4454:2012	
Parameter	Method Reference	N3134/1	
Polychlorinated Biphenyls (mg/kg)		<0.2 ND	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - SGS Laboratories SE237440 Pesticides and PCBs	<0.010 ND	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}		<0.010 ND	< 0.02
Salmonella spp (Absent in 25 g)	Sub** - Symbio Laboratories B1203162 (M16.1 AS 5013.10)	ND	<i>Absent in 25 g</i>
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1203162 (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	.. <i>see note 5</i>
Particle Size Grading 5–16 mm Sieve (% DW)	AS4454:2012 Appendix G Particle Size Grading	22.2	.. <i>see note 5</i>
Particle Size Grading < 5 mm Sieve (% DW)		77.8	.. <i>see note 5</i>
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	11.16	≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)		0.03	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	0m 27s	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	89	> 60
Viable Plant Propagules (7 days)	AS4454:2012 Appendix M	Nil	..
Viable Plant Propagules (21 days)	AS4454:2012 Appendix M	NR	<i>Nil after 21 days</i>

* < LOR Less than limit of reporting. ND Not detected. NA Not applicable. NR Not required. DW Dry weight.

Notes:

1. Methods from AS4454:2012 *Composts, soil conditioners and mulches*.
2. Indicative guidelines are based on those in AS4454:2012 for raw mulches, pasteurized product, composted product, mature composts.
3. Total Acid Extractable Nutrients indicate a store of nutrients.
4. Conversions for 1 mg/kg = 1 ppm; 1 % = 10,000 ppm; kg/ha = mg/kg x 2.24.
5. Coarse Mulch > 70% >16mm, Fine Mulch <20% >16mm and <20% <5mm, Soil Conditioner <20% >16mm.
6. The chloride calculation of Cl mg/L = EC x 640 is considered an estimate, and most likely an over-estimate.
7. Guide only to be used if a product claims to contribute to plant nutrition.
8. 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
9. 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.
10. Guide only to be used if a product claims to be used for phosphorus sensitive plants.
11. Testing completed in a NATA accredited laboratory.
12. Analysis conducted between sample arrival date and reporting date.
13. This report is not to be reproduced except in full. Results only relate to the item tested.
14. 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).
15. This report was issued on 19/10/2022.

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