

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 2 March, 2023 - Lab Job No. N8128.

Analysis requested by David Tabner. Job Ref: 50029 Windrow 5.

PO Box 116 BUNGENDORE NSW 2621

		Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:	Sample 1 50029 Windrow 5 Compost Landtasia 28/02/2023 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference	N8128/1		
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.76		..
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.36		..
Moisture Content (%)	AS4454:2012 Appendix I	53		> 25
pH	AS4454:2012 Appendix B	7.36		> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	1.15		< 10
Total Organic Carbon (%)	AS4454:2012 Appendix C Calculation - Total Organic Carbon/Total Nitrogen Calculation - Total Organic Carbon x 1.7	19.5		≥ 20
Total Carbon (%)		24.1		..
Total Nitrogen (%)		1.46		≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio		13.4		..
Estimated Organic Matter (% OM)		33.2		..
Ammonium Nitrogen (mg/L N)	AS4454:2012 Appendix B Dissolved Nutrients	3.6		< 200
Ammonium Nitrogen (mg/kg N)		18.2		..
Nitrate Nitrogen (mg/L N)		36.6		..
Nitrate Nitrogen (mg/kg N)		183.0		≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)		18.1		≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)		90.3		..
Ammonium/Nitrate Ratio		0.10		< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	>1.0		> 0.2
Total Calcium (%)	AS4454:2012 Appendix D Total Salts	1.50		..
Total Magnesium (%)		0.35		..
Total Potassium (%)		0.53		..
Total Sodium (%)		0.07		<1 Na
Total Sulphur (%)		0.20		..
Total Phosphorus (%)		AS4454:2012 Appendix D	0.37	
Total Zinc (mg/kg)	AS4454:2012 Appendix D Total Metals	156		< 300 Zn
Total Manganese (mg/kg)		399		..
Total Iron (mg/kg)		11,317		..
Total Copper (mg/kg)		35.2		< 150 Cu
Total Boron (mg/kg)		22.7		< 100 B
Total Silicon (mg/kg)		2,556		..
Total Aluminium (mg/kg)		6,104		..
Total Molybdenum (mg/kg)		2.58		..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	4.89		..
Total Selenium (mg/kg)	AS4454:2012 Appendix D Total Metals	1.42		< 5 Se
Total Cadmium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	<0.5		< 1 Cd
Total Lead (mg/kg)		14.5		< 150 Pb
Total Arsenic (mg/kg)		4.7		< 20 As
Total Chromium (mg/kg)		18.9		< 100 Cr
Total Nickel (mg/kg)		8.3		< 60 Ni
Total Mercury (mg/kg)		<0.1		< 1 Hg
Total Silver (mg/kg)		<1		..

Product Name: 50029 Windrow 5		Sample 1	Guideline
Product Type: Compost			
Manufacturing Site: Landtasia			AS4454:2012
Manufactured Date: 28/02/2023			Composted
Test Code: CA-PACK-003			Product
Standard Applicable: AS4454:2012			
Parameter	Method Reference	N8128/1	
Polychlorinated Biphenyls (mg/kg)		<0.2 ND	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - SGS Laboratories SE244139 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 B1278342 (M16.1 AS 5013.10)	ND	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1278342 (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)		0.9	.. see note 5
Particle Size Grading 5–16 mm Sieve (% DW)	AS4454:2012 Appendix G Particle Size Grading	17.9	.. see note 5
Particle Size Grading < 5 mm Sieve (% DW)		81.2	.. 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	4.88	≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	2m 18s	< 5
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	53	> 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 22/03/2023.

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