

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 6 November 2023. Lab Job No. P7231.

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

PO Box 116 BUNGENDORE NSW 2621

		Sample 1	Guideline
		Product Name: 50033 Windrow 5	<i>AS4454:2012 Composted Product</i>
		Product Type: Compost	
		Manufacturing Site: LOF	
		Manufactured Date: 2/11/2023	
		Test Code: CA-PACK-003	
		Standard Applicable: AS4454:2012	
Parameter	Method Reference	P7231/1	
Wet Bulk Density (kg/L)	AS4454:2012 Appendix J	0.68	..
Dry Bulk Density (kg/L)	AS4454:2012 Appendix J	0.34	..
Moisture Content (%)	AS4454:2012 Appendix I	50	> 25
pH		8.02	> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B	3.20	< 10
Total Organic Carbon (%)		23.6	≥ 20
Total Carbon (%)	AS4454:2012 Appendix C	23.6	..
Total Nitrogen (%)		1.59	≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	14.8	..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	40.1	..
Ammonium Nitrogen (mg/L N)		202	< 200
Ammonium Nitrogen (mg/kg N)		1,010	..
Nitrate Nitrogen (mg/L N)		2.1	..
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B Dissolved Nutrients	10.3	≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)		43.4	≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)		217	..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	98.1	< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	>1.0	> 0.2
Total Calcium (%)		1.43	..
Total Magnesium (%)		0.40	..
Total Potassium (%)	AS4454:2012 Appendix D Total Salts	0.89	..
Total Sodium (%)		0.06	<1 Na
Total Sulphur (%)		0.15	..
Total Phosphorus (%)	AS4454:2012 Appendix D	0.36	≤ 0.1 <i>see note 10</i>
Total Zinc (mg/kg)		164	< 300 Zn
Total Manganese (mg/kg)		395	..
Total Iron (mg/kg)		10,286	..
Total Copper (mg/kg)	AS4454:2012 Appendix D Total Metals	31.5	< 150 Cu
Total Boron (mg/kg)		15.1	< 100 B
Total Silicon (mg/kg)		1,184	..
Total Aluminium (mg/kg)		4,671	..
Total Molybdenum (mg/kg)		3.63	..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D Total Metals	4.15	..
Total Selenium (mg/kg)		1.18	< 5 Se
Total Cadmium (mg/kg)		<0.5	< 1 Cd
Total Lead (mg/kg)		22.1	< 150 Pb
Total Arsenic (mg/kg)		7.09	< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D Total Heavy Metals	23.5	< 100 Cr
Total Nickel (mg/kg)		6.90	< 60 Ni
Total Mercury (mg/kg)		<0.1	< 1 Hg
Total Silver (mg/kg)		<1	..

Product Name: 50033 Windrow 5 Product Type: Compost Manufacturing Site: LOF Manufactured Date: 2/11/2023 Test Code: CA-PACK-003 Standard Applicable: AS4454:2012		Sample 1	Guideline
Parameter	Method Reference	P7231/1	
Polychlorinated Biphenyls (mg/kg)		<0.1 ND	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - Symbio Laboratories B1420663 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 B1416372-A (M16.1 AS 5013.10)	ND	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1416372-A (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 S1423128 (M5.1 AS 5013.2)	<10 ND	..
Clostridium perfringens (CFU/g DW)	Sub** - Symbio Laboratories S1423128 (M7.1 AS 5013.16)	<10 ND	..
Particle Size Grading > 16 mm Sieve (% DW)		0.6	.. ^{see note 5}
Particle Size Grading 5–16 mm Sieve (% DW)	AS4454:2012 Appendix G Particle Size Grading	14.7	.. ^{see note 5}
Particle Size Grading < 5 mm Sieve (% DW)		84.7	.. ^{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	4.10	≤ 5
Glass, metal and rigid plastics > 2 mm (% DW)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	0m 07s	< 5
Total CaCO ₃ Equivalent (%)	AS4454:2012 Appendix H	3.57	..
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	35	> 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 22/11/2023.

Quality Checked: Brian Smith
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