

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 16 September, 2020 - Lab Job No. J8433.

Analysis requested by Simone Dilkara. Revised results on the 15 October, 2020.

PO Box 116 BUNGENDORE NSW 2621

		Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:	Sample 1 50021 Compost Landtasia Organic Farms 14/09/2020 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Parameter	Method Reference		J8433/1	
Bulk Density (kg/L)	AS4454:2012 Appendix J		1.1	..
Moisture Content (%)	AS4454:2012 Appendix I		13	> 25
pH			8.18	> 5
Electrical Conductivity (dS/m)	AS4454:2012 Appendix B		2.65	< 10
Total Organic Carbon (%)			22.5	≥ 20
Total Carbon (%)	AS4454:2012 Appendix C		28.5	..
Total Nitrogen (%)			1.51	≥ 0.8 <i>see note 7</i>
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen		15.0	..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7		38.3	..
Ammonium Nitrogen (mg/L N)			80.6	< 200
Ammonium Nitrogen (mg/kg N)			403	..
Nitrate Nitrogen (mg/L N)			3.6	..
Nitrate Nitrogen (mg/kg N)	AS4454:2012 Appendix B		17.9	≥ 10 <i>see note 7</i>
Phosphate Phosphorus (mg/L P)			30.6	≤ 5 <i>see note 7</i>
Phosphate Phosphorus (mg/kg P)			153.0	..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate		22.6	< 3.0
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O		0.2	> 0.2
Total Calcium (%)			1.51	..
Total Magnesium (%)			0.33	..
Total Potassium (%)	AS4454:2012 Appendix D		0.79	..
Total Sodium (%)			0.07	< 1 Na
Total Sulphur (%)			0.17	..
Total Phosphorus (%)	AS4454:2012 Appendix D		0.27	≤ 0.1 P <i>see note 10</i>
Total Zinc (mg/kg)			139	< 300 Zn
Total Manganese (mg/kg)			359	..
Total Iron (mg/kg)			8,697	..
Total Copper (mg/kg)	AS4454:2012 Appendix D		28	< 150 Cu
Total Boron (mg/kg)			20	< 100 B
Total Silicon (mg/kg)			1,593	..
Total Aluminium (mg/kg)			4,937	..
Total Molybdenum (mg/kg)			2.14	..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D		3.81	..
Total Selenium (mg/kg)			<1	< 5 Se
Total Cadmium (mg/kg)			<0.5	< 1 Cd
Total Lead (mg/kg)			11.6	< 150 Pb
Total Arsenic (mg/kg)			3.6	< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D		16.0	< 100 Cr
Total Nickel (mg/kg)			6.5	< 60 Ni
Total Mercury (mg/kg)			<0.1	< 1 Hg
Total Silver (mg/kg)			<1	..

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Landtasia Organic Farms on the 16 September, 2020 - Lab Job No. J8433.

Analysis requested by Simone Dilkara. Revised results on the 15 October, 2020.

PO Box 116 BUNGENDORE NSW 2621

Parameter	Method Reference	J8433/1	Guideline
Product Name: Product Type: Manufacturing Site: Manufactured Date: Test Code: Standard Applicable:		Sample 1 50021 Compost Landtasia Organic Farms 14/09/2020 CA-PACK-003 AS4454:2012	Guideline AS4454:2012 Composted Product
Polychlorinated Biphenyls (mg/kg)		Not detected	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - SGS Laboratories SE211498	Not detected	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}		Not detected	< 0.02
Salmonella spp (Absent in 25 g)		Not detected	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B947443	Not detected	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		Not detected	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)		Nil	... ^{see note 5}
Particle Size Grading 5–16 mm Sieve (%)	AS4454:2012 Appendix G	9.2	... ^{see note 5}
Particle Size Grading < 5 mm Sieve (%)		90.8	... ^{see note 5}
Plastics Light Flexible or film > 5 mm (%)		<0.01	≤ 0.05
Stones and Lumps of Clay > 5 mm (%)	AS4454:2012 Appendix I	2.38	≤ 5
Glass, metal and rigid plastics > 2 mm (%)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	1m 51s	< 5
Total CaCO₃ Equivalent (%)	AS4454:2012 Appendix H	2.86	...
Plant Growth Test - Root Elongation (mm)	AS4454:2012 Appendix F	24	> 60
Viable Plant Propagules (7 days)	AS4454:2012 Appendix M	Nil	...
Viable Plant Propagules (21 days)	AS4454:2012 Appendix M	NA	Nil after 21 days

Comments: Due to a slightly higher than guideline, 0.024 (mg/kg) result for Dieldrin in sample J8433/1 there was a more thorough investigation of 4 composite samples made up of 20 subsamples across the stockpile in question. The results came back clear of any detectable Organochlorine Pesticides including Dieldrin. See the results for J9095 on the tab labelled J9095).

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. < 1 if applied to sandy soils
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full.
- Sub** - Analysis sub-contracted.
- All testing parameters have been facilitated by a NATA accredited laboratory.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions. These Terms and Conditions are available on the EAL website: scu.edu.au/eal, or on request.

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

RESULTS OF COMPOST ANALYSIS

4 samples supplied by Landtasia Organic Farms on the 7th October, 2020 - Lab Job No. J9095.

Analysis requested by Simone Diikara.

PO Box 116 BUNGENDORE NSW 2621

		Sample 1	Sample 2	Sample 3	Sample 4
	Method	50020	50021	20051	10238
	Job No.	J9095/1	J9095/2	J9095/3	J9095/4
PESTICIDE ANALYSIS SCREEN					
Organochlorine Pesticides (OCs)					
Hexachlorobenzene (HCB) (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Alpha BHC (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Lindane (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Heptachlor (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Aldrin (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Beta BHC (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Delta BHC (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Heptachlor epoxide (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Alpha Endosulfan (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Gamma Chlordane (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Alpha Chlordane (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
p,p'-DDE (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Dieldrin (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Endrin (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Beta Endosulfan (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
p,p'-DDD (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
p,p'-DDT (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Endosulfan sulphate (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Methoxychlor (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Endrin Ketone (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Isodrin (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Mirex (mg/kg)	subcontracted: SGS report SE 212103	<0.01	<0.01	<0.01	<0.01
Total CLP OC Pesticides (mg/kg)	subcontracted: SGS report SE 212103	Not detected	Not detected	Not detected	Not detected

Notes:

1. ppm = mg/Kg dried sample
2. All results as dry weight DW - samples were dried at 40oC for 24-48hrs prior to crushing and analysis.
3. Methods from Rayment and Lyons, Soil Chemical Methods - Australasia
4. Analysis conducted between sample arrival date and reporting date.
5. ** NATA accreditation does not cover the performance of this service.
6. . Denotes not requested.
7. This report is not to be reproduced except in full.
8. All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal or on request).

