

Certificate of Analysis E24-00-1709

Client:	Landtasia Organic Farms	Laboratory:	Environmental Analysis Laboratory
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Customer reference:	PO 6-1210	Request ID:	EAL/E24-00-1709
Number of samples:	1	Report ID:	E24-00-1709_EALS1_1
Date samples received:	04 December 2024	Issue date:	02 January 2025

Authorised by:	Brian Smith
Position:	Senior Technical Officer



Comments: EAL is a NATA accredited laboratory (14960), accredited for compliance with ISO/IEC 17025 - Testing.

Certificate of Analysis

Request ID: EAL/E24-00-1709 Report ID: E24-00-1709_EALS1_1 Issue date: 02 January 2025

				Client Sample ID:	50039 Windrow 6	---
				Sample Date:	27 November 2024	---
				Manufacturing Date:	27 November 2024	---
				EAL Sample ID:	E24-00-1709-0001	AS4454:2012 Composted Product
Parameter	Unit	Method Reference	LOR	---	---	---
Wet Bulk Density	kg/L	** AS4454:2012 Appendix J	---	0.57	---	---
Dry Bulk Density	kg/L	** AS4454:2012 Appendix J	---	0.35	---	---
Moisture Content 105°C	%	** AS4454:2012 Appendix I	<0.1	40	>25	>25
pH	---	** AS4454:2012 Appendix B	---	7.65	>5	>5
Electrical Conductivity	dS/m	** AS4454:2012 Appendix B	---	1.76	<10	<10
Total Organic Carbon	%	Inhouse S15b	<0.10	26.1	≥20	≥20
Organic Matter	%	Inhouse S15b	---	44.4	---	---
Total Carbon	%	Inhouse S4a	<0.02	26.1	---	---
Total Nitrogen	%	Inhouse S4a	<0.02	1.65	≥0.8	See Notes
Carbon / Nitrogen Ratio	---	Inhouse S4a	<0.1	15.8	---	---
Ammonium Nitrogen	mg/L N	** AS4454:2012 Appendix B	---	9.90	<200	<200
Ammonium Nitrogen	mg/kg N	** AS4454:2012 Appendix B	<0.5	49.5	---	---
Nitrate Nitrogen	mg/L N	** AS4454:2012 Appendix B	---	0.927	---	---
Nitrate Nitrogen	mg/kg N	** AS4454:2012 Appendix B	<0.5	4.64	≥10	See Notes
Ammonium/Nitrate Ratio	Ratio	** AS4454:2012 Appendix B	---	10.7	<3.0	<3.0
Phosphate Phosphorus	mg/L P	** AS4454:2012 Appendix B	---	16.4	≤5	See Notes
Phosphate Phosphorus	mg/kg P	** AS4454:2012 Appendix B	<0.5	81.8	---	---
Nitrogen Drawdown Index	---	** AS4454 Appendix O	>1	0.72	>0.2	>0.2
Sulfur	%	** ICPOES Total S - Compost	<0.01	0.18	---	---
Potassium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.86	---	---
Sodium	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.05	---	---
Phosphorus	%	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.01	0.29	---	---
Zinc	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	127	<300	<300
Manganese	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	360	---	---
Iron	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	8780	---	---
Copper	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	26.6	<150	<150
Boron	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<2	21.9	<100	<100
Silicon	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<50	1380	---	---
Aluminium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	4790	---	---
Molybdenum	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.2	1.97	---	---
Cobalt	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	3.84	---	---
Selenium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.5	< 0.5	---	---
Cadmium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.5	< 0.5	<1	<1
Lead	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	15.3	<150	<150
Arsenic	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	6.78	---	---
Chromium	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	16.6	<100	<100
Nickel	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	---	6.45	<60	<60
Mercury	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<0.1	< 0.1	<1	<1
Silver	mg/kg	** 1:3 Nitric:HCl - APHA 3125 ICPMS	<1	< 1	---	---
Symbio Report No.	---	** Subcontracted Symbio	---	B1703534	---	---

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				EAL Sample ID:	E24-00-1709-0001	AS4454:2012 Composted Product
Parameter	Unit	Method Reference	LOR	---	---	---
PCB 1016	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1232	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1242	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1248	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1254	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1260	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
PCB 1221	mg/kg	** Subcontracted Symbio	<0.1	<0.1	<0.2	<0.2
Symbio Report No.	---	** Subcontracted Symbio	---	B1703534	---	---
Aldrin	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Alpha-endosulfan	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Beta-endosulfan	mg/kg	** Subcontracted Symbio	<0.02	<0.050	---	---
Alpha-BHC	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Beta-BHC	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
cis-Chlordane	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Delta-BHC	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Dieldrin	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Endosulfan sulphate	mg/kg	** Subcontracted Symbio	<0.02	<0.050	---	---
Endrin	mg/kg	** Subcontracted Symbio	<0.02	<0.050	---	---
Gamma-BHC (Lindane)	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Heptachlor	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Heptachlor epoxide	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Hexachlorobenzene	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.02	<0.02
Methoxychlor	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
pp-DDD	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
pp-DDE	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
pp-DDT	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
trans-Chlordane	mg/kg	** Subcontracted Symbio	<0.02	<0.050	---	---
Endrin ketone*	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
op-DDT*	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
Oxychlordane*	mg/kg	** Subcontracted Symbio	<0.02	<0.050	---	---
op-DDD*	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
op-DDE*	mg/kg	** Subcontracted Symbio	<0.02	<0.020	<0.5	<0.5
2,4,5-T	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Chlordane Total	mg/kg	** Subcontracted Symbio	<0.05	<0.020	---	---
DDT Total	mg/kg	** Subcontracted Symbio	<0.01	<0.020	---	---
Dicofol-o,p	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Dicofol-p,p	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Dicofol Total	mg/kg	** Subcontracted Symbio	<0.01	<0.020	---	---
Endosulfan Total	mg/kg	** Subcontracted Symbio	<0.01	<0.020	---	---
Endrin aldehyde	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Endrin Total	mg/kg	** Subcontracted Symbio	<0.01	<0.020	---	---
Heptachlor Total	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Mirex	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Pentachloroaniline	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Pentachloroanisole	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Pentachlorothioanisole	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Quintozene	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
S 421	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Tecnazene	mg/kg	** Subcontracted Symbio	<0.02	<0.020	---	---
Trichloronate	mg/kg	** Subcontracted Symbio	<0.02	<0.02	---	---
Triforine	mg/kg	** Subcontracted Symbio	<0.10	<0.10	---	---
Symbio Report No.	---	** Subcontracted Symbio	---	B1702751-A	---	---
Salmonella spp.	/25g	** Subcontracted Symbio	<0	ND	Absent in 25 g	Absent in 25 g
Escherichia coli	MPN/g	** Subcontracted Symbio	---	<3.0	<100 MPN/g	<100 MPN/g

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Parameter	Unit	Method Reference	LOR	---	---	---
Faecal Coliforms	MPN/g	** Subcontracted Symbio	---	<3.0	<1000 MPN/g	
Particle Size Grading > 16 mm Sieve	%	** AS4454:2012 Appendix G	<0.01	< 0.01	See Notes	
Particle Size Grading 5–16 mm Sieve	%	** AS4454:2012 Appendix G	<0.01	13.6	See Notes	
Particle Size Grading < 5 mm Sieve	%	** AS4454:2012 Appendix G	<0.01	87.3	See Notes	
Plastics Light Flexible or film > 5 mm	%	** AS4454:2012 Appendix I	<0.01	< 0.01	≤0.05	
Stones and Lumps of Clay > 5 mm	%	** AS4454:2012 Appendix I	<0.01	2.05	≤5	
Glass, metal and rigid plastics > 2 mm	%	** AS4454:2012 Appendix I	<0.01	< 0.01	≤0.5	
Wettability (min)	---	** AS4454:2012 Appendix E	---	>5m	<5	
Plant Growth Test - Root Elongation	mm	** AS4454:2012 Appendix F	---	62.7	>60	
Viable Plant Propagules (7 days)	---	** AS4454:2012 Appendix M	---	Nil	---	
Viable Plant Propagules (21 days)	---	** AS4454:2012 Appendix M	---	Nil	Nil after 21 days	

Notes:

- Conversions to kg/ha = mg/kg x 2.24.
- The chloride estimate result (Electrical Conductivity x 640) is considered an estimate, and is generally an over-estimate.
- Total Acid Extractable Nutrients indicate a store of nutrients.
- Total Phosphorus guide only to be used if a product claims to be used for phosphorus sensitive plants.
- Nitrate guide only to be used if a product claims to contribute to plant nutrition.
- The full propagule 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
- LOR' means less than limit of reporting. 'ND' means not detected. 'NA' means not applicable. 'NR' means not requested.
- Analysis completed in a NATA accredited laboratory.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (available on request or at scu.edu.au/eal).
- 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.
- Indicative guidelines are based on those in AS4454:2012 for raw mulches, pasteurized product, composted product, mature composts.
- Methods from AS4454:2012 Composts, soil conditioners and mulches.
- Conversions for 1 mg/kg = 1 ppm 1 % = 10,000 ppm.
- Coarse Mulch: > 70% of sample is > 16 mm. Fine Mulch: 20% of sample is > 16 mm and 20% is 5 mm. Soil Conditioner: 20% of sample is > 16 mm.