

### AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Candy Soil on the 26 May 2021. Lab Job No. K7343.

Analysis requested by Dan Lucas. **Your Job: Top Pad Row 7.**

Po Box 784 IPSWICH QLD 4305

		Product Name: Top Pad Row 7	<b>Sample 1</b> Top Pad Row 7	<b>Guideline</b>
		Product Type: Compost	Compost	
		Manufacturing Site: Candy Soil	Candy Soil	<b>AS4454:2012</b>
		Manufactured Date: ..	..	<b>Mature</b>
		Test Code: CA-PACK-011	CA-PACK-011	<b>Compost</b>
		Standard Applicable: AS4454:2012	AS4454:2012	
Parameter	Method Reference	K7343/1		
Bulk Density (kg/L)	AS4454:2012 Appendix J	0.4	..	
Moisture Content (%)	AS4454:2012 Appendix I	37	> 25	
pH	AS4454:2012 Appendix B	6.25	> 5	
Electrical Conductivity (dS/m)		3.33	< 10	
Total Organic Carbon (%)		26.7	≥ 20	
Total Carbon (%)	AS4454:2012 Appendix C	25.1	≥ 20	
Total Nitrogen (%)		1.20	≥ 0.8 <i>see note 7</i>	
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	22.3	..	
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	45.3	..	
Ammonium Nitrogen (mg/L N)		160	< 100	
Ammonium Nitrogen (mg/kg N)		800	..	
Nitrate Nitrogen (mg/L N)	AS4454:2012 Appendix B	4.4	..	
Nitrate Nitrogen (mg/kg N)		22.1	≥ 10 <i>see note 7</i>	
Phosphate Phosphorus (mg/L P)		11.6	≤ 5 <i>see note 7</i>	
Phosphate Phosphorus (mg/kg P)		57.8	..	
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	36.3	< 0.5	
Nitrogen Drawdown Index (NDI <sub>150</sub> )	AS4454:2012 Appendix O	0.7	> 0.5	
Total Calcium (%)		1.03	..	
Total Magnesium (%)		0.31	..	
Total Potassium (%)	AS4454:2012 Appendix D	0.33	..	
Total Sodium (%)		0.18	< 1 Na	
Total Sulphur (%)		0.35	..	
Total Phosphorus (%)	AS4454:2012 Appendix D	0.35	≤ 0.1 P <i>see note 10</i>	
Total Zinc (mg/kg)		172	< 300 Zn	
Total Manganese (mg/kg)		199	..	
Total Iron (mg/kg)		13,897	..	
Total Copper (mg/kg)	AS4454:2012 Appendix D	25.1	< 150 Cu	
Total Boron (mg/kg)		9.48	< 100 B	
Total Silicon (mg/kg)		8,527	..	
Total Aluminium (mg/kg)		6,470	..	
Total Molybdenum (mg/kg)		1.10	..	
Total Cobalt (mg/kg)	AS4454:2012 Appendix D	4.13	..	
Total Selenium (mg/kg)		< 1	< 5 Se	
Total Cadmium (mg/kg)		< 0.5	< 1 Cd	
Total Lead (mg/kg)		6.68	< 150 Pb	
Total Arsenic (mg/kg)		5.31	< 20 As	
Total Chromium (mg/kg)	AS4454:2012 Appendix D	24.9	< 100 Cr	
Total Nickel (mg/kg)		15.1	< 60 Ni	
Total Mercury (mg/kg)		< 0.1	< 1 Hg	
Total Silver (mg/kg)		< 1	..	

		<b>Sample 1</b>	<b>Guideline</b>
Product Name:		Top Pad Row 7	AS4454:2012 Mature Compost
Product Type:		Compost	
Manufacturing Site:		Candy Soil	
Manufactured Date:		..	
Test Code:		CA-PACK-011	
Standard Applicable:		AS4454:2012	
Parameter	Method Reference	K7343/1	
Polychlorinated Biphenyls (mg/kg)		< LOD (Not detected)	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)	Sub** - SGS Laboratories SE220194	< LOD (Not detected)	< 0.5
Organochlorine Pesticides - Other (mg/kg) <sup>see note 9</sup>		< LOD (Not detected)	< 0.02
Salmonella spp (Absent in 25 g)		Not detected	Absent in 25 g
E. coli (MPN/g DW)	Sub** - Symbio Laboratories B1034427	Not detected	< 100 MPN/g
Faecal Coliforms (MPN/g DW)		9.2	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)		Nil	... see note 5
Particle Size Grading 5–16 mm Sieve (%)	AS4454:2012 Appendix G	7.4	... see note 5
Particle Size Grading < 5 mm Sieve (%)		92.6	... 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	2.13	≤ 5
Glass, metal and rigid plastics > 2 mm (%)		<0.01	≤ 0.5
Wettability (min)	AS4454:2012 Appendix E	0m 11s	<5
Plant Growth Test - Germination (%)		78	> 90
Plant Growth Test - Root Elongation (%)	TMECC 05.05-B	98	> 90
Oxygen Consumption Rate (mgO <sub>2</sub> /g/min)		0.09	..
Specific Oxygen Uptake Rate (mgO <sub>2</sub> /gVVS/hr)		0.03	≤ 1
Solvita Compost Maturity Index	Solvita NH3	5	..
	Solvita CO2	8	..
	Solvita Maturity Index	8	7 - 8
Viable Plant Propagules (7 days)	AS4454:2012 Appendix M	Nil	..
Viable Plant Propagules (21 days)	AS4454:2012 Appendix M	NA	Nil after 21 days

**Summary:** All testing has been done so in accordance with AS4454:2012 as a Mature Compost.

**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
- 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).
- This report was issued on 16/06/2021.

Quality Checked: Brian Smith  
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