REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information	
Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information	
Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

POTENTIALLY TOXIC ELEMENTS[1] AND UNDESIRABLES

	As received (fresh)		In dry matter				
Parameter	**Result**	**Units**	**Result**	**Pas100 upper limit**	**Units**	**Pass or Fail**	**Method reference**
Arsenic as As	N/D	mg/l	N/D	N/A	mg/kg	N/A	
Cadmium as Cd	0.13	mg/l	0.31	1.50	mg/kg*	**Pass**	BS EN 13650
Chromium as Cr	9.55	mg/l	23.6	100.00	mg/kg*	**Pass**	BS EN 13650
Copper as Cu	20.5	mg/l	50.7	200.00	mg/kg*	**Pass**	BS EN 13650
Fluoride as Fl	N/D	mg/l	N/D	N/A	mg/kg	N/A	
Lead as Pb	21.7	mg/l	53.5	200.00	mg/kg*	**Pass**	BS EN 13650
Mercury as Hg	0.04	mg/l	0.11	1.00	mg/kg*	**Pass**	BS ISO 16772
Molybdenum as Mo	N/D	mg/l	N/D	N/A	mg/kg	N/A	BS EN 13650
Nickel as Ni	7.85	mg/l	19.4	50.00	mg/kg*	**Pass**	BS EN 13650
Selenium as Se	N/D	mg/l	N/D	N/A	mg/kg	N/A	
Zinc as Zn	50.6	mg/l	125	400.0	mg/kg*	**Pass**	BS EN 13650
Oils, Fats and Grease	N/D	mg/kg	N/D	N/A	mg/kg	N/A	

1 Zinc and Copper are required by plants but, similarly as with other PTEs, can be toxic to some plant species at high concentrations. Such effects are influenced by other factors, so may not necessarily occur if corresponding PTE upper limits are exceeded. Check plant response test results for any toxic effects.
N/D = Not Determined, N/A = Not Applicable, U/S = Unsuitable Sample
* The QP Manager (the 'web tool') requires the test result associated with this unit.

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information	
Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information	
Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

PHYSICO-CHEMICAL PROPERTIES

	As received (fresh)		In dry matter		Method
Parameter	**Result**	**Units**	**Result**	**Units**	**Reference**
Bulk Density [1]	496	g/l*		g/l	BS EN 12580
Oven Dry Matter	81.7	% m/m	N/A		BS EN 13040
Moisture	18.3	% m/m	N/A		
Organic Matter (Loss On Ignition)	12.2	% m/v	30.1	% m/m*	BS EN 13039
Organic Carbon (LOI / 1.72)	N/A		17.5	% m/m*	Calculated
pH	7.3	N/A*	N/A		BS EN 13037
Electrical Conductivity	873	uS/cm @ 20 C	N/A		BS EN 13038
	0.87	mS/cm @ 20 C	N/A		
Liming potential	N/D	% m/m CaO	N/D	% CaO	See Footnote 2

1 Bulk density in dry matter is termed 'Dry Weight Density' and expressed in (g/l).
DWD = fresh bulk density (g/l) - volumetric moisture content (g/l)

2 'The Fertilisers (Sampling and Analysis) Regulations 1996' Schedule 2, Part II, Section 6 - 'Determination of the neutralising value of liming materials'. Method adaptation: the stage of passing the sample through a 1 mm sieve is omitted and results are expressed as % by weight of CaO on the undried sample, as received.

N/D = Not Determined, N/A = Not Applicable, U/S = Unsuitable Sample

* The QP Manager (the 'web tool') requires the test result associated with this unit.

If we are unable to accurately measure the density of the sample due to its non-homogeneous state, the density will be assumed to be 700 g/l.

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information	
Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information	
Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

PATHOGENS

	As received (fresh)				**Method Reference**
Parameter	**Result**	**PAS 100 upper limit**	**Unit**	**Pass or Fail**	
E. coli at 44 C [3]	80	1000	CFU/g	**Pass**	BS ISO 16649-2
Salmonella spp at 37 C [3]	Absent	Absent	Abs/Pres	**Pass**	BS EN 6579

STABILITY / MATURITY

	As received (fresh)				**Method Reference**
Parameter	**Result**	**PAS 100 upper limit**	**Unit**	**Pass or Fail**	
Carbon dioxide (evolution rate) [3]	9.4	16.0	mg CO2 / g organic matter / day	**Pass**	WRAP ORG0020
Proportion of particles < 20 mm [3]	100	N/A	% g/g	N/A	

Parameter	**As received (fresh)**				**Method Reference**
	Result	**Units**	**Result**	**Units**	
NH4-N : NO3-N (ratio)	N/D	:1	N/D	:1	Calculated
Carbon : Nitrogen (ratio)	N/D		N/D	:1	Calculated
Self-heating (Dewer flask)	N/D	Max deg C increase	N/D		See footnote 1
Nitrogen Drawdown Index	N/D	None	N/D		AS 3743-2003[2]

1 Methods book for the analysis of compost, Bundesgutegemeinschaft Kompost e. V., 2002.
ISBN 3-928179-33-0 (English translation, 2003)

2 Australian standard (2003), Appendix E, Potting Mixes. The Nitrogen Drawdown Index AS 3743 - 2003.
(Indicates likelihood of nitrogen lock-up.)

3 Determinand has been analysed by a subcontractor approved and audited by the Appointed Laboratory (NRM)

N/D = Not Determined, N/A = Not Applicable, U/S = Unsuitable Sample

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information	
Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information	
Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

PLANT RESPONSE ~ GERMINATION AND GROWTH OF TOMATO PLANTS AND WEEDS

Method as per PAS 100:OFW004-006

Parameter	**Peat unamended**	**Compost unamended**	**Unit**
Quantity 'Selected before sieving'	981	988	g
Quantity 'Sieved, particles < 10 mm'	981	967	g
Proportion of particles < 10 mm'	100	98	% g/g
Electrical conductivity	24	873	uS cm
Bulk density	218	496	g/l
Mass dolomitic limestone mixed in	18	13.5	g
Mass fertiliser mixed in	4.8	4.8	g

Parameter	**Peat control** For 3 trays		**Compost-peat test** For 3 trays		**Unit**
Quantity of sieved peat	4.50		3.375		litres prepared
Quantity of sieved compost	0.00		1.125		litres prepared
Substrate(s) ratio (vol : vol)	4.50	: 0.00	3.00	: 1.00	peat:compost

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information		**Laboratory information**	
Composting site	Lane Farm	Received at lab	09/10/2020
Grade (particle size range)	0-15mm	Lab sample name	6205 0-15MM 17 WEEKS
Grade Type	Principal	Lab sample number	116635
CA's Code	GLR-LF-0015	Report by	Gina Graham
Date sampled	08/10/2020	Report date	11/11/2020 11:55am
Batch age when sampled	17 weeks	Report number	26284
Producer's sample code	6205		

PLANT RESPONSE ~ GERMINATION AND GROWTH OF TOMATO PLANTS AND WEEDS

Method as per PAS 100:OFW004-006

Parameter	**Peat control**			**Compost-peat test**			**Overall**	**Unit**
	Tray 1	Tray 2	Tray 3	Tray 1	Tray 2	Tray 3		
Weed plants	0	0	0	0	0	0	**0**	per litre
PAS 100 upper limit							0.0	compost as
Pass or Fail							**Pass**	received
Germinated tomato plants								
10 days after sowing	10	7	9	9	9	10	107.7	test as % of
14 days after sowing	10	8	9	9	10	10	107.4	controls
28 days after sowing	10	8	9	9	10	10	**107.4**	
PAS 100 minimum performance							80.0	
Pass or Fail							**Pass**	
14 day total for all 3 trays	27						**Test Valid**	
Tomato plant growth after 28 days sowing								
Total mass per tray (g)	61.36	53.17	64.21	53.84	63.66	61.94	100.4	test as % of
Average mass per plant (g)	3.14	6.65	7.13	5.98	6.37	6.19	**109.6**	controls
PAS 100 minimum performance							80.0	
Pass or Fail							**Pass**	
Average tomato plant mass	5.64						**Test Valid**	

Observations at any time during test

Abnormal Tomato Plants

Description of Abnormalities:	No abnormal tomato plants in any tray.	
Abnormalities in plants grown in test sample trays that are not present in plants grown in control trays:	Absent	**Pass**

Assessment of Test Validity

Abnormalities in plants grown in control trays:	Absent	
Valid if abnormalities absent in plants grown in control trays:		**Test Valid**
Additional factors affecting the report:	None.	

All of the above tests have been analysed by a subcontractor approved and audited by the Appointed Laboratory (NRM)

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information

Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information

Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

PHYSICAL CONTAMINANTS (air-dry sample)

Sieve apertures	Glass	Metal	Plastic	Other[2]	Description	Total[3]	of which sharps[4]	Stones[5]	Method Reference
mm	g	g	g	g		g	g	g	
31.5	Zero	Zero	Zero	Zero		Zero	Zero	Zero	AfOR MT, PC&S[1]
16.0	Zero	Zero	Zero	Zero		Zero	Zero	Zero	
12.5	Zero	Zero	Zero	Zero		Zero	Zero	Zero	
8.0	Zero	Zero	Zero	Zero		Zero	Zero	6.07	
4.0	Zero	Zero	Zero	Zero		Zero	Zero	8.31	
2.0	0.29	Zero	0.07	Zero		0.36	0.29	Zero	
1.0	N/D	N/D	N/D	N/D	N/A	N/D	N/D	N/D	
Pan	N/D	N/D	N/D	N/D	N/A	N/D	N/D	N/D	
% of total sample > 2 mm	**0.04**	**0.00**	**0.01**	**0.00**		**0.05**	**0.04**	**N/A**	
% of total sample > 4 mm	**N/A**	**N/A**	**N/A**	**N/A**		**N/A**	**N/A**	**1.95**	
PAS 100 upper limit for 'mulch'			**0.12**			**0.25**	**R**	**10.0**	
Pass or Fail			**Pass**			**Pass**	**R**	**Pass**	
for other than 'mulch'			**0.12**			**0.25**	**R**	**8.0**	
Pass or Fail			**Pass**			**Pass**	**R**	**Pass**	

A = Paper/Card B = Textile C = Matting D = String G = Wool H = Cigarette Butt

1 State whether with modification, i.e. sieves added or omitted
2 Any different physical contaminant type; name in 'Description'
3 'Total' is for glass, metal, plastic and 'other'. N.B.: excludes stones
4 Sharps > 2mm, or any inorganic physical contaminant type (excludes woody fragments)
5 Stones and other consolidated mineral contaminants
R Refer to composter's quality policy for upper limit allocation to the compost grade and intended market / end use, and evaluate sharps result against that limit.
N/D = Not Determined, N/A = Not Applicable, U/S = Unsuitable Sample

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information

Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information

Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

PARTICLE SIZE DISTRIBUTION (air-dry sample)

Sieve apertures	Sample	of which Compost	Cumulative		Method
	Retained	Retained	Retained	Passing	Reference
mm	g	g	%	%	
31.5	0.00	0.00	0.0	100.0	AfOR MT,
16.0	0.00	0.00	0.0	100.0	PC&S[1]
12.5	0.00	0.00	0.0	100.0	
8.0	15.40	9.33	1.3	98.7	
4.0	62.44	54.13	8.8	91.2	
2.0	95.14	94.78	21.8	78.2	
1.0	107.3	107.3	36.7	63.3	
Pan	458.9	458.9	100.0	0.0	
Total	**739.2**	**724.4**			

1 State whether with modification, i.e. sieves added or omitted
N/D = Not Determined, N/A = Not Applicable, U/S = Unsuitable Sample

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information

Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information

Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

SUMMARY ~ PAS100 "PASS" OR "FAIL"

Parameter	Result	PAS 100 upper limit	Unit	Pass or Fail	Method Reference
E. coli [1]	80	1000	CFU/g	**Pass**	BS ISO 16649-2
Salmonella spp [1]	Absent	Absent	Absent/Present	**Pass**	BS EN 6579
Cadmium as Cd	0.31	1.50	mg/kg	**Pass**	BS EN 13650
Chromium as Cr	23.6	100.00	mg/kg	**Pass**	BS EN 13650
Copper as Cu	50.7	200.00	mg/kg	**Pass**	BS EN 13650
Lead as Pb	53.5	200.00	mg/kg	**Pass**	BS EN 13650
Mercury as Hg	0.11	1.00	mg/kg	**Pass**	BS ISO 16772
Nickel as Ni	19.4	50.00	mg/kg	**Pass**	BS EN 13650
Zinc as Zn	125	400.00	mg/kg	**Pass**	BS EN 13650
CO2 (stability) [1]	9.4	16.0	mg/g OM / d	**Pass**	WRAP ORG0020
Weed plants [1]	0	0	number growing	**Pass**	PAS100:OFW004-006
Glass,metal,plastic and other	0.05	0.25	% of 'air-dry' sample	**Pass**	PAS100:2005, Annex E
Plastic	0.01	0.12	> 2mm	**Pass**	
Stones in "mulch"	1.95	10	% of 'air-dry' sample	**Pass**	
Stones in other than "mulch"	1.95	8	> 4mm	**Pass**	

Parameter	Result	PAS 100 min.	Unit	Pass or Fail	Method Reference
Plants germinated	107.4	80	no. of plants, test as % of controls	**Pass**	PAS100:OFW004-006
Plant top growth	109.6	80	average g / plant, tests as % of controls	**Pass**	
Tomato plant abnormalities	Absent	Absent	Abnormal tomato plants in test trays	**Pass**	

1 Determinand has been analysed by a subcontractor approved and audited by the Appointed Laboratory (NRM)

OVERALL ASSESSMENT

Pass if all above results are 'Pass' and weed propagules and phytotoxins test is valid.
Fail if any of above results are 'Fail'.

REAL CCS
Approved Laboratory

GREEN LEAF RECYCLING LTD
LANE FARM
BEDLINGTON
NORTHUMBERLAND
NE22 6AA

ANALYSIS REPORT ~ COMPOSTED MATERIAL

Customer information

Composting site	Lane Farm
Grade (particle size range)	0-15mm
Grade Type	Principal
CA's Code	GLR-LF-0015
Date sampled	08/10/2020
Batch age when sampled	17 weeks
Producer's sample code	6205

Laboratory information

Received at lab	09/10/2020
Lab sample name	6205 0-15MM 17 WEEKS
Lab sample number	116635
Report by	Gina Graham
Report date	11/11/2020 11:55am
Report number	26284

SUMMARY ~ PAS100 "PASS" OR "FAIL"

Validity of the Plant Response Test

Parameter	Result	Validity Criterion	Outcome
Germination of tomato seeds sown in control trays	27	>=27 tomato plants in control trays by 14 days after sowing	**Valid**
Tomato plant top growth in control trays	5.64	>2.00g per tomato plant in control trays	**Valid**
Abnormal tomato plants in control trays	Absent	No abnormal tomato plants in control trays	**Valid**

OVERALL ASSESSMENT

Pass if all above results are 'Pass' and weed propagules and phytotoxins test is valid.
Fail if any of above results are 'Fail'.

The sample was dispatched on the same day as sampling
The sample was received within 48 hours after dispatch.
The compost was received in a cool box with ice packs