



GEOFFREY FAIRFOULL
 ADAS ENVIRONMENTAL GROUP
 11D MILTON PK
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Please quote above code for all enquiries

WOODSTOCK BOWER FARM
 HAMLEY BROAD HEATH
 WORCESTERSHIRE
 WR15 3QN

 ELITE GROUND PRODUCTS

MANURE ANALYSIS RESULTS (Metric Units)

Sample Reference : HORSE MANURE

Sample Matrix : MANURE

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	37580
Sample Number	34496

Date Received	09-JUN-2011
Date Reported	27-JUN-2011

ANALYTICAL RESULTS

Determinand on a DM basis unless otherwise indicated	Units	Result	Amount per fresh tonne	Amount applied at an equivalent total Nitrogen application of...		Units
				170 kg N/ha	250 kg N/ha	
pH		6.65				
Dry Matter	%	21.1	211.00	9827	14451	kg DM
Total Nitrogen	% w/w	1.73	3.65	170	250	kg N
Ammonium Nitrogen	mg/kg	499	0.11	4.90	7.21	kg NH4-N
Nitrate Nitrogen	mg/kg	<0.1	< 0.01			kg NO3-N
Total Phosphorus (P)	% w/w	0.478	2.31	107.56	158.18	kg P2O5
Total Potassium (K)	% w/w	1.35	3.42	159.19	234.10	kg K2O
Total Magnesium (Mg)	% w/w	0.302	1.06	49.26	72.45	kg MgO
Total Sulphur (S)	% w/w	0.150	0.79	36.85	54.19	kg SO3
Total Copper (Cu)	mg/kg	25.4	0.01	0.25	0.37	kg Cu
Total Zinc (Zn)	mg/kg	108	0.02	1.06	1.56	kg Zn
Total Sodium (Na)	% w/w	0.097	0.28	12.85	18.90	kg Na2O
Total Calcium (Ca)	mg/kg	5457	1.15	53.62	78.86	kg Ca
Equivalent field application rate		—	1.00	46.57	68.49	tonnes/ha

The above equivalent field application rates for total nitrogen of 170 kg/ha and 250 kg/ha have been provided purely for guidance purposes only. Organic manures should be used in accordance with the Defra Code of Good Agricultural Practice and where required within the specific regulatory guidance for the spreading of that material to land. To get the most benefit from your organic manures it is recommended that you follow the principles as set out in Defra's Fertiliser Manual (RB209) or as directed by a FACTS qualified adviser.

Released by Dr R C Wilkinson

Date 27/06/11

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How does your sample analysis compare with the 'standard' figures for organic manures?

Farmyard Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Ammonium Nitrogen (Kg NH ₄ -N/t)	Nitrate Nitrogen (Kg NO ₃ -N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Cattle FYM - 'fresh'	25	6.0	1.2	0.0	3.2	8.0	2.4	1.8
Cattle FYM - 'old'	25	6.0	0.5	0.1	3.2	8.0	2.4	1.8
Pig FYM - 'fresh'	25	7.0	1.8	0.0	6.0	8.0	3.4	1.8
Pig FYM - 'old'	25	7.0	0.9	0.1	6.0	8.0	3.4	1.8
Sheep FYM - 'fresh'	25	7.0	1.4	0.0	3.2	8.0	3.0	1.6
Sheep FYM - 'old'	25	7.0	0.6	0.1	3.2	8.0	3.0	1.6
Duck FYM - 'fresh'	25	6.5	1.6	0.0	5.5	7.5	2.6	1.2
Duck FYM - 'old'	25	6.5	0.9	0.1	5.5	7.5	2.6	1.2
Horse FYM	30	7.0	0.6	0.1	5.0	6.0	ND	ND
Goat FYM	25	6.0	0.5	0.1	3.2	8.0	2.4	1.8

Notes: ND = no data. The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Poultry Manure	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Ammonium Nitrogen (Kg NH ₄ -N/t)	Uric Acid Nitrogen (Kg uric acid-N/t)	Nitrate Nitrogen (Kg NO ₃ -N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Layer manure	35	19.0	5.6	3.7	0.2	14.0	9.5	4.0	2.6
Broiler/turkey litter	60	30.0	6.2	4.1	0.2	25.0	18.0	8.0	4.4

Notes: The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 60% & 90% respectively.

Cattle & Pig Slurries	Dry Matter (% DM)	Total Nitrogen (Kg N/m ³)	Ammonium Nitrogen (Kg NH ₄ -N/m ³)	Total Phosphate (Kg P ₂ O ₅ /m ³)	Total Potash (Kg K ₂ O/m ³)	Total Sulphur (Kg SO ₃ /m ³)	Total Magnesium (Kg MgO/m ³)
Cattle slurry	6	2.6	1.2	1.2	3.2	0.7	0.6
Dirty water (from cattle)	0.5	0.5	0.3	0.1	1.0	0.1	0.1
Separated cattle slurries							
- strainer box liquid	1.5	1.5	0.8	0.3	2.2	ND	ND
- weeping wall liquid	3	2.0	1.0	0.5	3.0	ND	ND
- mechanically separated liquid	4	3.0	1.5	1.2	3.5	ND	ND
- solid portion after separation	20	4.0*	1.0*	2.0*	4.0*	ND	ND
Pig slurry	4	3.6	2.5	1.8	2.4	1.0	0.7
Separated pig slurry - liquid	3	3.6	2.2	1.6	2.4	ND	ND
Separated pig slurry - solid	20	5.0*	1.3*	4.6*	2.2*	ND	ND

Notes: * These values are kg per tonne. ND = no data.

The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively (50% & 100% for dirty water).

Biosolids	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Ammonium Nitrogen (Kg NH ₄ -N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Digested liquid	4	2.0*	0.8*	3.0*	0.1*	1.0*	0.3*
Digested cake	25	11.0	1.6	18.0	0.6	6.0	1.6
Thermally dried	95	40.0	2.0	70.0	2.0	23.0	6.0
Lime stabilised	40	8.5	0.9	26.0	0.8	8.5	2.4
Composted	60	11.0	0.6	6.0	3.0	2.6	2.0

Notes: * These values are kg per m³. The 'standard' phosphate & potash availability figures to the next crop grown from Defra's Fertiliser Manual are 50% & 90% respectively.

Other Organic Manures	Dry Matter (% DM)	Total Nitrogen (Kg N/t)	Ammonium Nitrogen (Kg NH ₄ -N/t)	Total Phosphate (Kg P ₂ O ₅ /t)	Total Potash (Kg K ₂ O/t)	Total Sulphur (Kg SO ₃ /t)	Total Magnesium (Kg MgO/t)
Composts							
Green compost	60	7.5	0.1	3.0	5.5	2.6	3.4
Green/food compost	60	11.0	0.6	3.8	8.0	3.4	3.4
Mushroom compost	35	6.0	0.2	5.0	9.0	ND	ND
Paper Crumble							
Chemically / physically treated	40	2.0	0.2	0.4	0.2	0.6	1.4
Biologically treated	30	7.5	0.8	3.8	0.4	2.4	1.0
Water Treatment Cake							
Water treatment cake	25	2.4	0.1	3.4	0.4	5.5	0.8
Food industry 'wastes'							
Dairy waste	4	1.0	0.1	0.8	0.2	ND	ND
Soft drinks waste	4	0.3	ND	0.2	Trace	ND	ND
Brewing waste	7	2.0	ND	0.8	0.2	ND	ND
General food waste	5	1.6	0.1	0.7	0.2	ND	ND

Notes: ND = no data

The 'standard' figures for the above organic manures have been taken from Defra's Fertiliser Manual 2010 (RB209) 8th edition and the corresponding PLANET version 3 software. Further information on fertiliser recommendations for organic manures can be obtained from the Fertiliser Manual or from a FACTS qualified adviser.