

Methods for Testing & Determining Compost Characteristics

A variety of factors will affect the quality and characteristic of compost. These factors range from, and include, the type and quantity of feedstock used, site characteristics, process adopted, composting and maturation period. Knowing the characteristics of the compost produced is essential in assessing the potential for a particular application, as well as an audit trail for quality control. Below are details of standards that list laboratory methods for assessing a variety of compost characteristics. (These are based on The Compost Association's Standards for Compost).

PARAMETER	STANDARD NUMBER (a)	TITLE	ISBN NUMBER (b)
<i>Salmonella spp</i>	BS EN 12824:1998	Microbiology of food and animal feeding stuffs. Horizontal method for the detection of Salmonella	0 580 29466 8
<i>E. coli</i>	Working ADAS method or similar (c)	MICRO/027 E.Coli by the plate count method, based on: BS ISO 11866-1:1997 Milk and milk products. Enumeration of presumptive Escherichia coli. Most probable number technique	0 580 27528 0
Total cadmium*	pr EN13650:1999	Soil improvers and growing media – extraction of aqua regia soluble elements.	Customer Services, British Standards Institution.
Total chromium*	pr EN13650:1999		
Total copper*	pr EN13650:1999		
Total lead*	pr EN13650:1999		
Total Mercury	ISO/TC 190/SC3/WG1	Soil Quality – Determination of mercury in aqua regia soil extracts. Committee draft, reference number CD16772 N 362.	Dr. R Wellings, British Standards Institution.
Total nickel*	pr EN13650	Soil improvers and growing media – extraction of aqua regia soluble elements.	Customer Services, British Standards Institution.
Total zinc*	pr EN13650		
Physical contaminants	CATM 01\2000	A method to determine particle size distribution and physical contaminants in composted organic materials.	The Compost Association.
Weed contaminants	CATM 02\2000	A method to assess contamination by weed propagules and phytotoxins in samples of composted organic materials.	
Phytotoxin bioassay	CATM 02\2000		
Quantity	BS EN 12580:2000	Soil improvers and growing media. Determination of a quantity.	0 580 35427 X
Organic matter	BS EN 13039:2000	Soil improvers and growing media. Determination of organic matter content and ash.	0 580 34253 0
Moisture content	BS EN 13040:2000	Soil Improvers and Growing Media – Sample preparation for chemical and physical tests, determination of dry matter, moisture content and laboratory compacted bulk density.	0 580 34252 2
pH	BS EN 13037:2000	Soil improvers and growing media. Determination of pH.	0 580 34255 7
Electrical conductivity	BS EN 13038:2000	Soil improvers and growing media. Determination of electrical conductivity.	0 580 34254 9



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PARAMETER	STANDARD NUMBER (a)	TITLE	ISBN NUMBER (b)
Total chloride	pr EN 13652:1998	Soil improvers and growing media – extraction of water soluble nutrients.	Customer Services, British Standards Institution.
Total Nitrogen **	pr EN 13654-1:1999 or pr EN43654-2:1999	Soil improvers and growing media – Determination of nitrogen – Part 1: Modified Kjeldahl method, or Soil improvers and growing media – Determination of nitrogen – Part 1: Dumas method	Customer Services, British Standards Institution.
NH ₄ -N and NO ₃ -N	pr EN 13652	Soil improvers and growing media – Extraction of water soluble nutrients.	Customer Services, British Standards Institution.
Organic carbon (for C:N)	BS 7755-3.8:1995 (ISO 10694:1995)	Soil quality. Chemical methods. Determination of organic and total carbon after dry combustion (elementary analysis).	0 580 24693 0
Particle size distribution	CATM 01\2000	A method to determine particle size distribution and physical contaminants in composted organic materials.	The Compost Association.
Total phosphorus *	pr EN 13650 plus Determination by ICP or Hoffmann 1996 Ammonium molybdate ascorbic acid/stannous chloride reduction	Soil improvers and growing media – extraction of aqua regia soluble elements.	Customer Services, British Standards Institution.
Total potassium *	pr EN 13650	Soil improvers and growing media – extraction of aqua regia soluble elements.	Customer Services, British Standards Institution.
Secondary nutrients and trace elements required by plants	pr EN 13650		

Notes:

(a) Documents coded 'pr EN' are draft standards.

(b) If an ISBN number is not available, more information should be available from the contact address.

(c) Prior approval shall be obtained from The Composting Association (particularly if compliance with The Composting Association's Standards for Compost is sought).

(*) As extractable in aqua regia.

(**) Method used shall be declared

The information provided above was obtained from The Composting Association's Standards for Compost (May 2000). *Useful addresses:* **The Composting Association**, Avon House, Tithes Barn Road, Wellingborough, Northamptonshire, NN8 1DH, United Kingdom. **The British Standards Institution**, 389 Chiswick High Road, London, W4 4AL, United Kingdom. **ADAS** (Wolverhampton HQ), Woodthorpe, Wergs Road, Wolverhampton, WV6 8TQ, United Kingdom.



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