

Australian Standard™

**Composts, soil conditioners and  
mulches**

This Australian Standard was prepared by Committee CS-037, Garden Soils and Potting Mixes. It was approved on behalf of the Council of Standards Australia on 15 August 2003 and published on 18 September 2003.

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The following are represented on Committee CS-037:

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Australian Society of Soil Science Incorporated  
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NSW Agriculture  
NSW Department of Public Works and Services  
Nursery & Garden Industry Australia  
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Waste Management Association of Australia

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Central Queensland University  
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## **Composts, soil conditioners and mulches**

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## PREFACE

This Standard was prepared by the Standards Australia Committee CS-037, Garden Soils and Potting Mixes to supersede AS 4454—1999.

The Standard sets out minimum requirements for composts, soil conditioners and mulches as well as summarized ‘best practice’ guidelines for composting and vermiculture. By following these procedures, products of consistent quality can be produced.

The major changes to this edition of the Standard include:

- (a) Changes to definitions.
- (b) Modification of the heavy metal contamination requirements.
- (c) Modification of the methods for determining wettability and toxicity.
- (d) Addition of a test for the presence of plant propagules.
- (e) Admission of vermicast to the Standard, subject to its passing a sieve test for identification, and a new incubation test to determine their plant propagule content.
- (f) Deletion of a requirement to determine nitrogen drawdown index.
- (g) Modification of the soluble nitrogen requirements as a guide to product maturity.
- (h) The self-heating test is now mandatory for soil conditioners, fine mulches and vermicast.

The reader should also be aware that relevant local, state and federal government regulations not referenced in this Standard may detail additional requirements. In particular, prior to establishing a manufacturing facility, investigations should be undertaken to ensure approval of the location.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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## STANDARDS AUSTRALIA

### **Australian Standard** **Composts, soil conditioners and mulches**

#### SECTION 1 SCOPE AND GENERAL

##### **1.1 SCOPE**

This Standard applies to organic products and mixtures of organic products that are to be used to amend the physical and chemical properties of natural or artificial soils and growing media. It specifies physical, chemical, biological and labelling requirements for composts, mulches, soil conditioners and related products that have been derived largely from compostable organic materials and which meet the minimum requirements as set out in this Standard. It covers materials marketed or distributed both in bags and in bulk.

This Standard applies to organic products and mixtures of organic products that have been treated by pasteurizing or composting procedures as defined by this Standard.

This Standard does not apply to home composting end products for self-use, nor does it apply to organic fertilizers such as blood and bone. Also excluded are liquid organic wastes, liquid seaweed products, non-organic mulches (e.g. gravel), non-organic soils and soil conditioners (e.g. gypsum and sand), non-compostable organic materials (e.g. plastics) and materials variously described as ‘compost starters’ and ‘activators’.

Shredded garden organics (sometimes referred to as ‘green waste’, ‘green organics’, ‘garden wastes’ or ‘yard wastes’) that have not been subjected to either a pasteurization or composting procedure are specifically excluded from this Standard, mainly because they have a high probability of containing plant propagules and pathogens. Vermicast that has not been subject to pasteurization or composting before or after being worked by worms may conform with this Standard if they pass the provisions of Appendices L and M, along with all the other criteria in Table 3.1.

Test methods for the analysis of these materials are set out in Appendices A to M.

NOTE: Appendices N and O give guidance on best practice. Adherence to the criteria given in the ‘best practice’ guidelines should lead to the production of quality compost or vermicast that will not spread plant propagules or pathogens. Appendix P gives guidance on the determination of compliance with this Standard.

##### **1.2 APPLICATION**

This Standard is intended for use by local government, those who manufacture or supply compost, mulches and soil conditioners, and those involved in providing compostable organic materials.

##### **1.3 OBJECTIVE**

The objective of this Standard is to provide manufacturers, suppliers and local government bodies, with the minimum requirements for the physical, chemical and biological properties of composts, soil conditioners, mulches and vermicast as well as labelling and marking, in order to facilitate the beneficial recycling and use of compostable organic materials with minimal adverse impact on environmental and public health, and give users such as growers and consumers assurance of quality.