

Australian Standard™

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**Soils for landscaping  
and garden use**

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This Australian Standard was prepared by Committee CS/37, Garden Soils and Potting Mixes. It was approved on behalf of the Council of Standards Australia on 4 September 1998 and published on 5 November 1998.

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The following interests are represented on Committee CS/37:

Australian Association of Certification Bodies  
Australian Institute of Horticulture  
Australian Society of Soil Science  
Department of Natural Resources and Environment  
Department of Public Works and Services, N.S.W.  
New South Wales TAFE Commission  
N.S.W. Agriculture  
Nursery Industry Association of Australia  
State Chemistry Laboratory, Agriculture Victoria

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Originated as AS 2223—1978.  
Previous edition AS 4419(Int)—1996.  
Revised and designated as AS 4419—1998.

## PREFACE

This Standard was prepared by the Standards Australia Committee CS/37, Garden Soils and Potting Mixes to supersede AS 4419(Int)—1996, *Soils for landscaping and garden use*.

Major changes made to the interim Standard as a result of comments are as follows:

- (a) The two grades of soil in Table 1 that were termed unsuitable for landscaping were deleted, for the reason that, as the Standard lists the types of soil that are suitable, the others logically are not suitable.
- (b) On-slab soil has now been termed 'low density' soil, as it is not only used on slabs.
- (c) Some bulk densities and organic matter content requirements were changed to fill the gaps between the soil types in the interim Standard, as soils that fell into these gaps were unable to be classified.
- (d) It was decided to add the health warning labelling requirement regarding diseases such as legionella as these can be a hazard in soils.
- (e) The toxicity test was thought to be too laborious and was changed to align with the one specified in AS 3743, *Potting mixes*.
- (f) Deletion of the C/N ratio requirement and a new test for dispersibility.

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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## FOREWORD

Due to the complexities of soil science, the large number of different soil types that occur in nature and the fact that many soils now sold for use in landscapes and gardens are blends of organic and mineral components, soils that meet the general requirements of this Standard fall within a fairly wide range of properties.

Some plants have a distinct preference for soils with particular properties, therefore the appropriate soil should be carefully selected if optimum results are desired. Consequently, additional information on the suitability of soils with various properties for particular situations is provided. When in doubt, the consumer should seek specialist advice. In many cases the addition of fertilizer will also be necessary to achieve satisfactory results.

As consumers may be confused by the various terms for soils of different types, this Standard defines the major types and gives information on soil selection and use in an Appendix.

Products complying with AS 4454, *Composts, soil conditioners and mulches*, and soils complying with this Standard must meet the chemical contaminants criteria for unrestricted use, therefore the use of composts complying with AS 4454 as ingredients in landscaping soil blends, will ensure that chemical contaminants are not undesirably high in soils.

## STANDARDS AUSTRALIA

### Australian Standard

### Soils for landscaping and garden use

**1 SCOPE** This Standard sets out requirements for general purpose soils, top dressing, topsoil and landscaping mixes, for domestic and commercial use, supplied in either bulk or bagged lots.

**NOTES:**

- 1 The requirements of this Standard specify soils suitable for the vast majority of plants but do not cover soils for plants with special requirements, cricket pitch soils, other specialist sporting turf soils, on-site soils or fertilizers.
- 2 Requirements for potting mixes are specified in AS 3743.
- 3 It is often assumed that the darker the soil the better the quality. As this is not always the case, this specification does not specify colour requirements for soils.
- 4 Guidelines for taking soil samples are given in Appendix A.
- 5 Information on selection and use of soils is given in Appendix K.

**2 OBJECTIVE** The objective of this Standard is to provide manufacturers, landscape architects, educational institutions, consumers and growers with a set of requirements which will ensure that soils can culture and maintain plant growth.

**3 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

**AS**

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|------------|--|
| 1289       | Methods of testing soils for engineering purposes  |
| 1289.2.1.1 | Method 2.1.1: Soil moisture content tests—Determination of the moisture content of a soil—Oven drying method (standard method) |
| 1289.4.1.1 | Method 4.1.1: Soil chemical tests—Determination of the organic matter content of a soil—Normal method                          |
| 3743       | Potting mixes  |

**AS/NZS**

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|--------|--|
| 1336   | Recommended practices for occupational eye protection            |
| 1715   | Selection, use and maintenance of respiratory protective devices |
| 1716   | Respiratory protective devices                                   |
| 2161   | Occupational protective gloves                                   |
| 2161.1 | Part 2: General requirements                                     |

**4 DEFINITIONS** For the purpose of this Standard the definitions below apply.

**4.1 General purpose soil**—a material consisting of natural soil, amended natural soil, a blend of sand and organic materials or a blend of sand, natural soil materials and organic materials, which is suitable for the culture of plants usually grown in domestic gardens and landscaped areas other than those situations covered by Clause 4.4.

**NOTE:** General purpose soils include topsoils, natural soils, organic soils and soil blends.