



Soils for landscaping and garden use

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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 31 October 2018. This Standard was published on 21 December 2018.

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- Australian Institute of Horticulture
 - Australian Institute of Landscape Architects
 - Australian Organics Recycling Association
 - Centre for Organic Research and Education
 - Department of Environment and Science, Qld
 - Horticulture Innovation Australia
 - NSW Department of Industry
 - NSW Environment Protection Authority
 - Nursery and Garden Industry Australia
 - Soil Science Australia
 - TAFE NSW
 - Waste Management Association of Australia
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard[®]

Soils for landscaping and garden use

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PREFACE

This Standard was prepared by the Standards Australia Committee CS-037, Garden Soils and Potting Mixes, to supersede AS 4419—2003.

The objective of this Standard is to provide manufacturers with a set of requirements which will ensure that soils can support plant growth and to give users, such as growers, landscape architects and consumers, assurance of the suitability and quality of soils.

The principal differences between this and the previous edition are as follows:

- (a) Soil classifications have been revised and changed from classification by bulk density to classification by end use, fitness for purpose and specific application.
- (b) Specification parameters have been reviewed, and some have been removed for certain products, and others added, in order to produce a testing regime which will more closely determine a product's properties and potential performance in use.
- (c) The test methods were extensively reviewed and new or revised test methods added where necessary to cover changed specification parameters. An alternative test method to the root elongation test method set out in Appendix I has been nominated.
- (d) Compliance with national health standards has been expanded to include chemical contamination, biosecurity and physical contamination.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by 'C' preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

CONTENTS

	<i>Page</i>
1 SCOPE.....	5
2 OBJECTIVE.....	5
3 NORMATIVE REFERENCES	5
4 DEFINITIONS.....	6
5 GENERAL REQUIREMENTS.....	8
6 DELIVERIES OF SOILS.....	11
7 DOCUMENTATION.....	15
8 COMPLIANCE WITH ENVIRONMENTAL STANDARDS AND GUIDELINES	17
9 HEALTH WARNING AND HAZARDOUS INFORMATION LABELS.....	17
 APPENDICES	
A METHODS FOR SAMPLING, SAMPLE HANDLING AND PREPARATION PRIOR TO ANALYSIS	21
B METHOD FOR THE MEASUREMENT OF A VOLUME OF PACKAGED PRODUCT AND OF THE VOLUME AND BULK DENSITY OF BULK PRODUCT	27
C METHOD FOR THE DETERMINATION OF WATER REPELLENCE	30
D ELECTRICAL CONDUCTIVITY.....	33
E METHOD FOR THE EXTRACTION OF MINERAL NITROGEN OR (NITRITE, NITRATE AND AMMONIUM) FROM SOILS	35
F METHOD FOR THE DETERMINATION OF EXTRACTABLE PHOSPHORUS FOR ALL SOIL TYPES OTHER THAN LOW DENSITY SOILS	37
G METHOD FOR THE DETERMINATION OF EXTRACTABLE PHOSPHORUS FOR LOW DENSITY SOILS	40
H METHOD FOR THE DETERMINATION OF NITROGEN DRAWDOWN INDEX	42
I ASSESSMENT BY BIOASSAY—PLANT GROWTH ROOT ELONGATION OR WORM AVOIDANCE.....	45
J TEST FOR DISPERSIBILITY	47
K DETERMINATION OF SOIL TEXTURE	49
L METHOD FOR INDICATING THE LIKELY PRESENCE OF PLANT PROPAGULES.....	51
M GUIDANCE ON THE SELECTION AND USE OF SOILS	53
 BIBLIOGRAPHY.....	 55

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 have a 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 there are 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 conforming with AS 4454, *Compost, soil conditioners and mulches* are required to meet chemical contaminant criteria for unrestricted use. Therefore, the use of composts conforming with AS 4454 as ingredients in landscaping soil blends will ensure that chemical contaminants levels are not undesirably high in soils.

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Australian Standard Soils for landscaping and garden use

1 SCOPE

This Standard sets out requirements and methods of test 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 or fertilizers.
- 2 All materials need to fully comply with the provisions of the current version of the State guidelines (or national guidelines in the absence of State guidelines) for use in application to land.
- 3 Requirements for potting mixes are specified in AS 3743.
- 4 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.
- 5 Guidelines for taking soil samples are given in Appendix A.
- 6 Information on selection and use of soils is given in Appendix M.

2 OBJECTIVE

The objective of this Standard is to provide manufacturers with a set of requirements which will ensure that soils can support plant growth and to give users, such as growers, landscape architects and consumers, assurance of the stability and quality of soils.

3 NORMATIVE REFERENCES

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

AS

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
1141.1	Methods for sampling and testing aggregates
1141.1.1	Method 11.1: Particle size distribution—Sieving method
3743	Potting mixes
4454	Composts, soil conditioners and mulches

AS/NZS

1336	Eye and face protection—Guidelines
1715	Selection, use and maintenance of respiratory protective equipment
1716	Respiratory protective devices
2161	Occupational protective gloves
2161.2	Part 2: General requirements