

MALAYSIAN STANDARD

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Landscape planting materials - Shrubs - Specification

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Tel: 60 3 8318 0002
Fax: 60 3 8319 3131
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SIRIM Berhad
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1, Persiaran Dato' Menteri
Section 2, P. O. Box 7035
40700 Shah Alam
Selangor Darul Ehsan
MALAYSIA
Tel: 60 3 5544 6000
Fax: 60 3 5510 8095
<http://www.sirim.my>
E-mail: msonline@sirim.my

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Committee representation

The Industry Standards Committee on Agriculture (ISC A) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Department of Agriculture Malaysia
Department of Agriculture Sabah
Department of Agriculture Sarawak
Department of Fisheries Malaysia
Department of Standards Malaysia
Department of Veterinary Services
Farmers' Organisation Authority
Federal Agricultural Marketing Authority
Federation of Livestock Farmers' Associations of Malaysia
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Malaysia Fruit Exporters Association
Malaysian Agricultural Research and Development Institute
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Ministry of Health Malaysia
Ministry of Plantation Industries and Commodities
National Farmers Organization
National Seed Association Malaysia
SIRIM Berhad (Secretariat)
The Federation of Vegetables Growers' Associations Malaysia
Universiti Putra Malaysia

The Technical Committee on Planting Materials which supervised the development of this Malaysian Standard consists of representatives from the following organisations:

Crops for the Future Research Center
Department of Agriculture Malaysia
Department of Agriculture Sabah
Department of Agriculture Sarawak
Forest Research Institute Malaysia
Malaysian Agricultural Research and Development Institute
Malaysian Association of Standards Users
Malaysian Society of Plant Physiology
Ministry of Urban Wellbeing, Housing and Local Government
National Landscape Department
National Seed Association Malaysia
SIRIM Berhad (Secretariat)
Universiti Kebangsaan Malaysia
Universiti Putra Malaysia

The Working Group on Planting Material - Landscape which developed this Malaysian Standard consists of representatives from the following organisations:

Bu Seng Chong Nursery Sdn Bhd
Department of Agriculture Malaysia
Dewan Bandaraya Kuala Lumpur
Institute of Landscape Architects Malaysia
Konsep Inovartis Sdn Bhd
Majlis Perbandaran Sepang
Majlis Perbandaran Subang Jaya
Malaysian Agricultural Research and Development Institute
Morphosis Design Sdn Bhd
National Landscape Department
SIRIM Berhad (Secretariat)
Universiti Putra Malaysia
Universiti Teknologi Malaysia
Universiti Teknologi MARA

Foreword

This Malaysian Standard was developed by the Working Group on Planting Material - Landscape under the authority of the Industry Standards Committee on Agriculture.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.

Landscape planting materials - Shrubs - Specification

1 Scope

This Malaysian Standard specifies requirements and methods of preparation for shrub planting materials for landscape works. It is not applicable for bonsai or topiary.

2 Normative references

The following normative references are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the normative reference (including any amendments) applies.

International Standards for Phytosanitary Measures (ISPM)

International Trade in Endangered Species Act 2008

Malaysian Quarantine and Inspection Services Act 2011

Plant Quarantine Act 1976

Plant Quarantine Regulations 1981

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply.

3.1 container

Material to hold plant medium in which plant is grown.

3.2 crown diameter

Width of the overall crown of a shrub. See Annex A.

3.3 deformed

Abnormal condition of any plant parts such as but not limited to stunted, misshapened, tattered, chlorotic or necrotic (discoloured).

3.4 disease

Abnormal growth and/or dysfunction of a plant; may be the result of living and/or non-living causes.

3.5 hardening

Adaptation and conditioning process of planting material prior to transplanting.

3.6 overall height

Measurement of the vertical height of the main stem of a shrubs beginning at the root collar and ending at the top of the shrub. See Annex A.

3.7 pest

Species, strain or biotype of plant, animal or pathogenic agent injurious to plants.

3.8 planting medium

Single or a mixture of materials in which the shrubs is grown.

3.9 qualified person

One who by possession of a recognised degree, certificate, or professional standing or by extensive knowledge training experience has successfully demonstrated his ability to solve or resolve problems related to subject matter, the work or the project.

3.10 root ball

Intact soil or growing medium containing the roots of the plant. See Annex A.

3.11 shrub

Plant with multiple woody stems and growth up to 3 meters.

4 Requirements

4.1 Plant name

Shrubs planting materials shall be referred to their botanical name.

4.2 General characteristics

4.2.1 The physical characteristics of shrubs planting materials shall be normal for the species or variety.

4.2.2 Shrubs planting materials shall be free of pests and diseases as well as mechanical injuries.

4.2.3 The overall shape of the shrubs planting materials shall not be deformed.

4.2.4 The stem shall be free of wounds, fungal fruiting bodies, cracks, signs of damage by insect borers, decays and cankers/lesions.

4.2.5 The root system shall be free of injuries. Root distribution shall be uniform throughout the planting medium.

4.3 Specific requirements

4.3.1 Shrubs planting materials shall comply with the specifications in Table 1.

Table 1. Specifications for shrub planting materials

Overall height (m)	Crown diameter, min. (m)	Container size, min. (m)
1 to 2	0.80	0.25 x 0.25
0.5 to 1	0.50	0.20 x 0.20
0.2 to 0.5	0.20	0.15 x 0.15

4.3.2 Planting medium quantity shall reach minimum three quarter of the container height.

5 Methods of preparation

5.1 Planting material preparation

5.1.1 Shrubs planting materials can be sourced from seed (sexual) and vegetative (asexual) propagation.

5.1.2 Shrubs planting materials may be treated with chemical. The type of chemical used and its dosage shall be justified and recorded. The treatment method and chemical used shall be in accordance with legislation currently enforced in the country.

5.2 Planting container

5.2.1 The planting container shall be clean and perforated. Reusable planting containers should be disinfected before use.

5.2.2 The shrubs planting materials shall be repotted accordingly to the stages of the growth. Hardening process shall be done in every stage of repotting.

5.2.3 The shrubs planting material shall show no signs of being pot-bound or waterlogged.

5.3 Planting medium

5.3.1 The planting medium shall be free from pests and diseases and should be able to support shrubs healthy growth.

5.3.2 Usage of fertilisers should be based on science based recommendations or best practices.

5.4 Plant handling

5.4.1 Plant handling shall be carried out properly to reduce transpiration, root disturbances and other injuries.

5.4.2 All planting materials shall be carefully protected and if necessary wrapped with hessian, gunny cloth or any other suitable material during lifting and hoisting, transportation, unloading and storage. Plants shall be handled and stored in such a manner as to prevent deterioration, damages or contamination.

5.5 Inspection

Shrubs planting materials shall be inspected by a qualified person to fulfill the requirements in Clauses 4 and 5.

6 Legal requirements

6.1 Importation and exportation of shrubs planting materials shall comply with, *Plant Quarantine Act 1976, Plant Quarantine Regulations 1981, Malaysian Quarantine and Inspection Services Act 2011, International Trade in Endangered Species Act 2008* and any other relevant legislation related to invasive alien species currently in force in Malaysia.

6.2 Shrub planting materials shall undergo *Pest Risk Analysis (PRA)* in accordance with *International Standards for Phytosanitary Measures (ISPM) No 2 Guidelines for Pest Risk Analysis* and *No 11 Pest Risk Analysis for Quarantine Pests Including Analysis of Environmental Risks and Living Modified Organisms*.

NOTE. Conditions for importation of shrub planting materials depend on their country of origin.

Annex A
(informative)

Examples of shrub planting material morphology

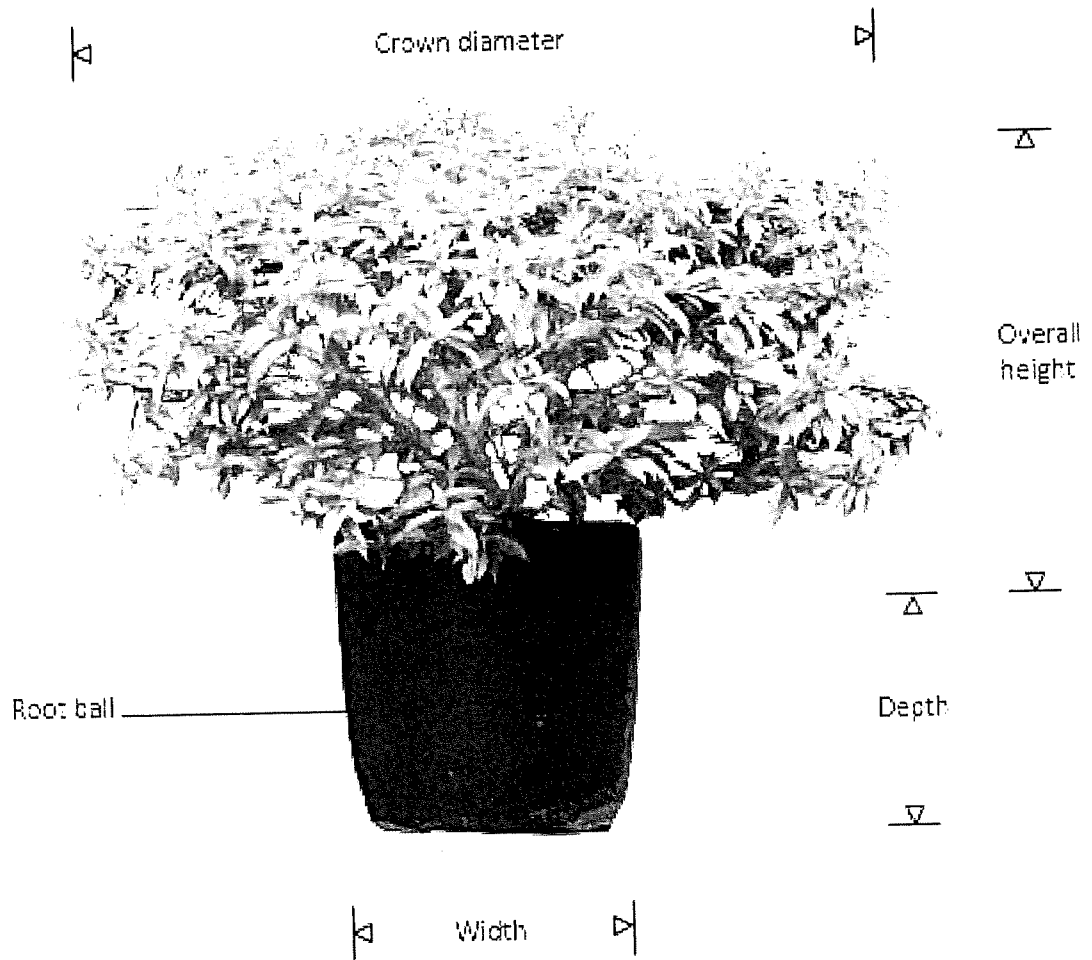


Figure A.1. *Tabernaemontana divaricata* (L.) R. Br. ex Roem. & Schult.

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Acknowledgements

Members of Technical Committee on Planting Materials

Prof Dr Normaĥ Mohd Noor (Chairman)	Universiti Kebangsaan Malaysia
Ms Nor Azian Duriat (Secretary)	SIRIM Berhad
Prof Sayed Azam Ali	Crop for the Future Research Center
Ms Florence C Ginibun	Department of Agriculture Malaysia
Hajjah Julia Haji Lamdin	Department of Agriculture Sabah
Mr Paulus Amin Det	Department of Agriculture Sarawak
Dr Nor Hasnida Hassan	Forest Research Institute Malaysia
Mr Mohd Shaib Jaafar	Malaysian Agricultural Research and Development Institute
Dr Annie Mitin	Malaysian Association of Standards Users
Dr Ahmad Nazarudin Mohd Roseli	Malaysian Society of Plant Physiology
Haji Esa Ahmad	Ministry of Urban Wellbeing, Housing and Local Government
Dr Mohd Shukri Mat Ali	National Seed Association Malaysia
Prof Dr Wickneswari Ratnam	Universiti Kebangsaan Malaysia
Prof Dr Uma Rani Sinniah	Universiti Putra Malaysia

Members of Working Group on Planting Material - Landscape

LAr Meor Saadon Sofian Mior Razali (Chairman)	National Landscape Department
Ms Nor Azian Duriat (Secretary)	SIRIM Berhad
Mr Bu Yow Meng	Bu Seng Chong Nursery Sdn Bhd
Datin Jatih Aliah Timin/	Department of Agriculture Malaysia
Ms Lailatul Jumaiah Saleh Huddin	Dewan Bandaraya Kuala Lumpur
Ms Noor Haida Haji Hashim	Institute of Landscape Architects Malaysia
LAr Dr Jasasikin Ab Sani	Konsep Inovartis Sdn Bhd
LAr Sabarudin Buang	Majlis Perbandaran Sepang
LAr Ruhaila Abdul Rahman/	Morphosis Design Sdn Bhd
Ms Masitah Mohtar	National Landscape Department
LAr Mohd Fadriillah Mohd Taib/	Universiti Putra Malaysia
Mr Farid Soma	Universiti Teknologi Malaysia
Mr Mansor Mohamad	Universiti Teknologi MARA
Dr Mohd Firdaus Ismail	
LAr Dr Hamidah Ahmad	
LAr Abu Hassan Wahab/	
Dr Noriah Othman	

Co-opted member

LAr Zainul Hakim Mohd Zain	Independent
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