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Standard Specification of Nursery Plant Materials for Guangdong
Hong Kong and Macau

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In order to provide a clear guidance for the quality standard of plant materials for ecological restoration and landscape projects in the Guangdong Province, Hong Kong and Macau, this Specification is prepared with the aim to improving the quality of landscape works and ecological restoration from the supply source, and promote the healthy development of the related nursery production industry in the Greater Bay Area.

In view of the differences in the specifications and quality standards of the landscape planting materials in the Greater Bay Areas, the 'Guangdong Landscape Architecture and Ecological Landscape Association', the 'Hong Kong Institute of Landscape Architects' and the 'Association for the Promotion of Landscaping and Greening in Macau' jointly worked together to explore, review, and unify the different specification system and standards currently used by the three places with inputs from scholars, professional experts in the field, nursery industries, landscape contractors and relevant stakeholders.

By integrating and optimizing the standards of these three places with reference to international standards and practices, we aimed to improve the quality of the production of plant materials for landscape projects and ecological restoration works, enhance their procurement efficiency, ensure the standard of plant materials used in construction process, and facilitate cost control. A standard set of specification enables mutual communications and understanding within various stakeholders in the field of ecological restoration and landscape greening, which is vital to raise the industry's standards and quality of works. The standardization of specifications is part of the coordinated efforts for the improvement of the ecology and landscape quality in these cities of the the Greater Bay Area.

This Specification provides unified terms, definitions, basic quality requirements, key selection guidelines and quality standard of commonly used nursery plant materials for ecological restoration and landscape greening projects in the Guangdong Province, Hong Kong and Macau. It also provides an objective scientific classification and categorization for the production of plant materials in nurseries; and enhances the quality control in a project cycle including landscape design, tender documentation, plant production, costing and site implementation.

The chinese version of this specification can be found in Annex.

The main content of this Specification includes:

1. Scope
2. References
3. Glossary and Definitions
4. Nursery Plant Classification System
5. Nursery Plant Qualitative Requirements and Quantitative Indicators
6. On-site Checking and Inspection Methods
7. Acceptance Criteria
8. Illustrations of Standard Specification and the Relevant Standard Figures
9. Annex





1. Scope

This Specification standardizes the categorization, quality, and production requirement of landscape plant materials in nurseries for the Guangdong Province, Hong Kong and Macau. It covers major categorization of nursery plants including Trees, Conifers, Palms, Bamboos, Shrubs, Climbers, Herbs, Ground Covers and Turfs.

This Specification does not apply to landscape plant materials with project specific quality and form requirements.

2. Standard References

This Specification has no standard reference documents.

3. Glossary and Definitions

The listed glossary and definition below is applicable to this Specification.

3.1 Glossary and Definitions of Plant Materials and Classification

- | | | |
|---------|-------------------------|---|
| 3.1.1 | Seedling Trees: | Trees naturally propagated from seeds in nursery and should not be transplanted within the first two years.
Note: Please see Appendix A Figure 22 for seedling tree specification. |
| 3.1.2 | Whips: | Trees nurtured in nursery for 2-3 years from seedlings with natural height below 200cm.
Note: Types of whips include seedling, grafting and cutting. Please see Appendix A Figure 23 for whip specification. |
| 3.1.3 | Tree: | A woody perennial with distinct single or multi-stems and broad canopy. Mature plant can reach a minimum of 300cm.
Note: Tree forms usually classified as uniaxial layered, uniaxial branched, coaxial branched and multi-stem. Please refer to Appendix A Figures 5-8. Tree sizes are classified as light standard tree (small size tree), standard tree (medium size tree), heavy standard tree (large size tree) and mature tree. Please refer to Appendix A Figures 24-28. |
| 3.1.3.1 | Uniaxial Layered Tree: | Under natural growth, the tree has a prominent main stem and the branches are uniaxial. The distribution of the main stem and secondary side branches formed a clear hierarchy.
Note: Please see Appendix A Figure 5 for tree forms and qualitative indicators of uniaxial layered tree. |
| 3.1.3.2 | Uniaxial Branched Tree: | Tree developed with a prominent central leading stem, but unobvious uniaxial side branches under natural growth.
Note: Please see Appendix A Figure 6 for tree forms and qualitative indicators of uniaxial branched tree. |
| 3.1.3.3 | Coaxial Branched Tree: | Under natural growth, the trees altered their growth patterns and developed multi-stems to form a full tree crown.
Note: Trees with coaxial, false bifurcated and polytomous branches fall into this category. Please see Appendix A Figure 7 for tree forms and qualitative indicators of coaxial branched tree. |



- 3.1.3.4 Multi-stem Tree:** Mature woody plant with more than one stems growing above the ground and reach a minimum height >300cm.
Note: Please see Appendix A Figure 8 for tree forms and qualitative indicators of multi-stem tree.
- 3.1.4 Palm:** An evergreen vascular plant with a straight and cylindrical main stem, and large feathered or fan-shaped leaves.
Note: Common forms are single-stem or multi-stem palms. Please see Appendix A Figures 9-10 for palm tree forms and qualitative indicators. Tree sizes are classified as small size palm, medium size palm, large size palm and mature palm. Please see Appendix A Figures 29-36.
- 3.1.4.1 Multi-stem Palm:** Refers to mature palm with natural height >400cm and more than one main stems growing from the ground.
Note: Please see Appendix A Figure 10 for tree forms and qualitative indicators of multi-stem palm.
- 3.1.5 Bamboo:** An evergreen perennial plant without tree rings. For young bamboos, new shoots grow from the main stem, and for mature bamboos, new shoots grow from side stems with sword-shaped leaves and petioles. Common bamboo forms are single-stem and multi-stem (shoot).
Note: Please see Appendix A Figures 11-12 for tree forms and qualitative indicators of single-stem and multi-stem bamboos.
- 3.1.6 Shrub:** Refers to a woody perennial with multiple stems or side branches growing from the base in a short and bushy habit.
Note: It is used as solitary planting, ground cover and topiary, i.e. ball-shaped, pyramid-shaped and cylinder-shaped. Please see Appendix A Figures 13-17 for plant forms and qualitative indicators. Shrub sizes are classified as small size shrub, medium size shrub and large size shrub. Please refer to Appendix A Figures 39-41.
- 3.1.7 Herb:** Refers to non-woody plants with less developed xylem, soft and juicy stems.
Note: Herbs are categorized as solitary herbs, ground cover herbs, turf and more. Please see Appendix A Figures 18-20 for plant forms and qualitative indicators of herb.
- 3.1.8 Climber:** Refers to a woody perennial with long stems and shoots, which could not grow firmly or straight in its natural growth, and requires a support for climbing or creeping upon.
Note: Climber sizes are classified as small size climber, medium size climber and large size climber. Please see Appendix A Figure 21.
- 3.1.9 Ground cover:** Low, crawling plant with vigorous root system, usually planted in groups capable of covering the ground surface in a dense mass.
Note: Ground cover shrubs and ground cover herbs are included. Please see Appendix A Figures 14 and 19.
- 3.1.10 Turf:** A layer of matted earth formed by perennial grass with a fibrous root system grown in a standard block or roll for laying on prepared ground or field directly.
Note: Please see Appendix A Figure 20 for turf qualitative indicators.



3.2 Glossary and Definitions of Plant Materials Specification

- 3.2.1 **Key Indicator:** Refers to an important indication in measuring a plant's growth quality and sizes which critically relates to the price. This is the major indicator for plant specification in nursery production. For most trees, diameter at breast height (DBH) or meter-height diameter (MHD) is the key indication of plant growth and size; for most palms, bare stem height and base diameter are the key indicators (in particular for single-stem palms); for shrubs and ground covers, container sizes would be the key indicators; and for climbers, length of main stems would be the key indicator.
- 3.2.2 **Secondary Indicator:** Refers to the essential indicators other than the key indicators of nursery plant specification.
- 3.2.3 **Main Stem:** Main stem refers to the part between the first branching point and the ground.
Note: Please see Appendix A Figures 1-4 for main stem illustration.
- 3.2.4 **Central Stem:** The central stem refers to the extension of the main stem above the branches. Central stem obviously extending to the tree top is called "central leading stem".
Note: Please see Appendix A Figures 1-2 for central stem illustration.
- 3.2.5 **Diameter at Breast Height (DBH):** Refers to the average diameter of the stem measured at a height of 130cm above ground level.
Note: Diameter at Breast Height (DBH) is an international standard commonly used at forestry and timber measurements.
- 3.2.6 **Meter-Height Diameter (MHD):** Refers to the average diameter of the stem measured at a height of 100cm above ground level. (This term is commonly used by nurseries in Guangdong.)
Note 1: Meter-height Diameter (MHD) is commonly used in design, construction and trading of landscape nursery plants in Guangdong Province.
Note 2: Multi-stem Plant Breast Height/Meter-Height Diameter Measurement Method: Measure the breast height/meter-height diameter of each branch and record the number of branches and the diameter of each branch. If it is necessary to combine the diameters of each branch into a single value, calculate the sum of the squares of the breast height/meter-height diameter of all branches, and then use the square root to obtain the overall breast height/meter-height diameter of the nursery plant (see example).
Example:
The breast height/meter diameters of a three-stem tree are 12cm, 14cm and 17cm. The calculation of overall breast height/meter diameter is:
$$\sqrt{(12^2 + 14^2 + 17^2)} \text{ cm} = \sqrt{629} \text{ cm} = 25.08\text{cm}$$
- 3.2.7 **Abdominal Height Diameter:** Refers to the average diameter of the most enlarged part of the bulged stem below the main branch of plants.
- 3.2.8 **Base Diameter:** Refers to the diameter of the stem measured 10cm above ground. Measurement of base diameter of a multi-stem tree is the sum of the largest main stem diameter at 10cm aboveground plus half the diameters of the other stems at 10cm aboveground.
- 3.2.9 **Crown Width:** Refers to the average measurement of the maximum and minimum diameters of the tree crown projection.

3.2.10	Natural Height:	Refers to the vertical height of a tree measured from the ground to the highest point in its natural state.
3.2.11	Under-branch Height:	Refers to the vertical height of a tree measured from the ground to the lowest branching point of the crown.
3.2.12	Bare Stem Height:	<p>Refers to the stem height of a palm measured from the ground to the lowest sheath.</p> <p>Note: Please see Appendix A Figure 9 for bare stem illustration.</p>
3.2.13	Branch Levels:	<p>Refers to different branching levels growing at various stages from the main stem, secondary stems, third stems etc.</p> <p>Note: Primary branches grow directly from the main stem are regarded as "first split"; secondary branches growing from primary branches regard as "second split"; tertiary branches growing on secondary branches regard as "third split" etc. The total number of branch levels normally do not exceed seven levels. Please see Appendix A Figure 7 for the illustration.</p>
3.2.14	Number of Layers:	<p>Refers to the number of branch layers developed from the main stem in a layered tree.</p> <p>Note: Please see Appendix A Figure 5 for the number of layers illustration.</p>
3.2.15	Multi-stem:	<p>Refers to plants with separated main stems from 100cm above the ground and cultivated as a multi-stem tree (with 2 or more stems).</p> <p>Note: Please see Appendix A Figure 8 for multi-stem illustration.</p>
3.2.16	Seedling Age:	The age of seedlings propagated from sowing, cutting or grafting (or tissue culture) in the nursery until being exported for use.
3.2.17	Height to Width Ratio:	<p>The natural height to crown spread ratio of a tree.</p> <p>Note: Based on the natural physiological ratio of plants: ratio for shrubs in 3:2 is preferred; ratio for ground cover plants in 2:3 is preferred.</p>
3.2.18	Number of Leaves:	Refers to number of leaves growing on the main stem, usually for palms.
3.2.19	Number of Stems:	Refers to the number of main stems of palm, multi-stem tree and bamboo growing from the ground level.
3.2.20	Height of Turf Remained:	<p>Refers to the height between the tip of the grass and the soil layer after trimming.</p> <p>Note: Please see Appendix A Figure 20 for the height of turf remained illustration.</p>
3.2.21	Turf Coverage:	The density of the grass growth covering a certain lawn area.
3.2.22	Rootball Size:	Refers to the horizontal diameter and vertical depth of a plant's rootball.
3.2.23	Container Size:	Refers to the internal horizontal diameter and vertical depth of a plant container.



4. Classification of Nursery Plants

According to various nursery grown plant types, forms and characteristics, they are further subdivided into the second level classification according to their landscape design requirements, horticultural maintenance, and comprehensive nursery production management. The first level classification is based on their biological characteristics, the second level classification is based on the plant's form, shape, and special landscape effects. The two-level classification system is shown in Table 1 below.

■ Table 1 Nursery Plant Classification System

Order	First Level Classification	Second Level Classification
1	Tree	Uniaxial Layered Tree
2		Uniaxial Branched Tree
3		Coaxial Branched Tree
4		Multi-stem Tree
5	Palm	Single-stem Palm
6		Multi-stem Palm
7	Bamboo	Single-stem Bamboo
8		Multi-stem Bamboo
9	Shrub	Solitary Shrub
10		Ground Cover Shrub
11		Ball-shaped Shrub
12		Pyramid-shaped Shrub
13		Cylinder-shaped Shrub
14	Herb	Solitary Herb
15		Ground Cover Herb
16		Turf
17	Climber	



5. Quality Requirements of Nursery Plants

5.1 General Requirements

- 5.1.1 **Healthy and Safe:** The plant is sturdy and healthy, free from diseases or pests.
- 5.1.2 **Natural and Intact Form:** The plant is fully upright and plump, maintaining its natural form.
- 5.1.3 **Intact Stems and Branches:** For single-stem tree, the central stem should be upright and led by a prominent stem without any bends. For multi-stem tree, the stems should be evenly spread out without structural defects. The branches and stems should not have any obvious structural defects, withering, caves, wounds, rotten or broken parts, cracked, frostbite etc.
- 5.1.4 **Balanced Crown:** Well-proportion and evenly distributed branches in all directions.
- 5.1.5 **Rootball and Root System:** The rootball should be intact and able to protect the root system without any weeds within the container. The soil is well-packed and not loosened; and the root system is well-developed and fully intervened with the soil. The container for the rootball should be properly sealed to prevent soil leakage.
- 5.1.6 **Ecological Considerations:** Well awareness of forest resource protection should be established. Use qualified nurseries to produce and cultivate seedlings. Old and valuable trees or large trees transplanted from forest should not be used. Existing large trees needed to be transplanted should be properly treated with proper horticultural measures such as branch cutting and root pruning under the supervision of competent person. It can only be used as large-size plant material again in landscaping once the planting standards is reached.
- 5.1.7 **Quarantine:** The quarantine of nursery plants should be implemented in accordance with relevant laws and regulations of Guangdong, Hong Kong and Macau.



5.2 First Level Classification Quality Requirement

Please see Table 2 for first level classification quality requirement.

Table 2 First Level Classification Quality Requirement

First Level Classification	Qualitative Requirements
Tree	<ol style="list-style-type: none"> 1. Unless it is specified as a multi-stem tree, each rootball or container tree should have only one main stem. There should not be any co-dominant stem within the same tree canopy; 2. No crossing main branches or stems; 3. The natural form of a tree crown and density of the leaves should be determined by respective species or cultivars. Tree crown formed by the stem and branches should have a balanced symmetry with an optimal crown / height ratio of 2/5; 4. Main branches should be evenly distributed along the leading stem, and the side branches should spread out naturally to form the particular species' tree crown; 5. The main stem of the tree should be growing in the centre of the rootball or container; 6. Trees should have an intact, healthy and strong root system evenly growing towards the inner surface of the container or outside surface of the root ball. There should be no main roots circling inside the containers; 7. Root ridges of the tree should be clearly seen on the soil surface; and 8. No injured roots, or roots entangled around the main stem.
Palm	<ol style="list-style-type: none"> 1. The stem of palm should be healthy, upright, and undamaged; 2. The shape and density of the leaves should be determined according to their species or cultivars; 3. Leaves should be evenly distributed along the upper part of the main stem with a well a balanced canopy in accordance with the particular species or cultivar; 4. The center of the stem should be growing in the middle of the rootball or container; and 5. The petiole of the main leaves should not be broken.
Bamboo	<ol style="list-style-type: none"> 1. The root system is well developed; and 2. The rhizomes must be in good health with new shoots growing.
Shrub	<ol style="list-style-type: none"> 1. Form of shrub is plump, branches and foliage underneath the crown not withered. 2. Main shoots and side shoots evenly distributed; and 3. Number of main shoots meet the standard requirement of contract specifications.
Herb	<ol style="list-style-type: none"> 1. Juicy and soft stems; 2. No weeds, diseases, pests or discoloration; and 3. Vigorous growth.
Climber	<ol style="list-style-type: none"> 1. The main vine should be semi-lignified with vigorous growth and have uniform leaf growth; and 2. The climbing organs of the vine, such as tendrils, suckers, or adsorption roots, should be healthy and intact.
Turf	<ol style="list-style-type: none"> 1. The turf should be solid, intact, and not loose; 2. No weeds, diseases, pests, discoloration or yellow buds found; 3. Do not cut or break the turf before laying; and 4. Keep the turf moist and under robust growing.

5.3 Second Level Classification Cultivation Methods and Key Points of Selection

Please see Table 3 for second level classification cultivation methods and key points of selection.

Table 3 Second Level Classification Cultivation Methods and Key Points of Selection

First Level Classification	Second Level Classification	Cultivation Methods	Key Points of Selection
Tree	Uniaxial Layered Tree	Mainly grown in low brick / PVC barriers, plastic bags or containers. The rootball should be fully enclosed by the brick / PVC barriers, or containers, with no gap or loose soil.	<ol style="list-style-type: none"> 1. Straight main stem; 2. The central growing point of the main stem should be intact; and 3. The layering branches evenly distributed and the branches are balance and intact.
	Uniaxial Branched Tree		<ol style="list-style-type: none"> 1. Upright main stem; 2. Full crown width without defects; and 3. Balanced branch structure, with three or more levels of branches.
	Coaxial Branched Tree		<ol style="list-style-type: none"> 1. Good and balancing tree form; 2. Full crown width without defects; and 3. The main branches have no defects, the skeleton of the first and second levels branches well balanced, and the third level branches are natural growth.
	Multi-stem Tree		<ol style="list-style-type: none"> 1. Full tree form; 2. The stems evenly distributed and spread fully without any wilted branches; and 3. The number of stems meets the specification requirements.
Palm	Single-stem Palm	Mainly adopting root-controlling plants by sand storage methods. The rootball should be fully enclosed by the bricks, PVC barriers, or containers with no gaps or loose soil.	<ol style="list-style-type: none"> 1. Upright main stem without any gullies; 2. The central growing point should be intact and healthy; 3. Maintain a min. of 3-5 new leaves intact; and 4. No pests exist (such as coconut leaf beetle, red palm weevil, etc.).
	Multi-stem Palm		<ol style="list-style-type: none"> 1. The tree form spread naturally; 2. The stems evenly distributed and spread fully without any wilted branches; 3. Maintain a min. of 3-5 new leaves intact; and 4. No pests exist (such as coconut leaf beetle, red palm weevil, etc.).
Bamboo	Single-stem Bamboo		<ol style="list-style-type: none"> 1. The stem is straight and shiny; and 2. Foliage spread naturally.
	Multi-stem Bamboo		<ol style="list-style-type: none"> 1. The stems evenly spread and distributed without any diebacks; and 2. Good multi-stem structure with foliage branched out naturally.
Shrub	Solitary Shrub	Normally grown in plastic containers or PVC bags. The rootball should be fully enclosed and in close contact with the containers leaving no gaps.	<ol style="list-style-type: none"> 1. Dense foliage with bushy branches; and 2. The crown shape is complete and full.
	Ground Cover Shrub		<ol style="list-style-type: none"> 1. Bushy branches and foliage; 2. Individual plant healthy and intact; 3. The branches and foliage fully expanded; and 4. Lush growth, low and balanced branch layers, full in crown spread.
	Ball-shaped Shrub		<ol style="list-style-type: none"> 1. In accordance with different forms and shape of the specified geometry requirement; and 2. The branches and foliage are compact, dense and full.
	Pyramid-shaped Shrub		
	Cylinder-shaped Shrub		



First Level Classification	Second Level Classification	Cultivation Methods	Key Points of Selection
Herb	Solitary Herb	Normally propagated in plastic containers or PVC bags. The rootball should be fully enclosed and in close contact with the containers leaving no gaps.	<ol style="list-style-type: none"> 1. Dense branches and foliage; and 2. The plant form is intact and plump.
	Ground Cover Herb		<ol style="list-style-type: none"> 1. Dense branches and foliage; 2. The plant form is intact and plump; 3. The branches and leaves are fully stretched; and 4. Lush growth, low and balanced branch layers, full in crown spread.
	Turf	Grass propagated by sowing or sprigging, then extracted from the ground as a layer of turf+soil prepared in the form of 'Tile block' or 'Roll' for transport and laying.	<ol style="list-style-type: none"> 1. Turf coverage / density no less than 90% with vigorous growth and weeds free; 2. Healthy green turf colour; 3. Turf should be intact and not loose, and should not contain any diseases, pests, discoloration or yellow buds; and 4. Do not cut or shear the turf before laying; keep turf moist at all time.
Climber		Normally propagated in plastic containers or PVC bags. The rootball should be fully enclosed and in close contact with the containers leaving no gaps.	<ol style="list-style-type: none"> 1. Dense foliage with vigorous growth and shoots in full length; 2. Healthy growth with main shoots already turn into woody stem; and 3. The growth is strong; the foliage are evenly distributed and the vine is intact.

Note:

Please refer key points for selecting acceptable and unacceptable forms of various nursery plants to Appendix A Figures 49-56.

6. Quantitative Indicators of Nursery Plants

6.1 Key Indicators

Please see Table 4 for key indicators of various types of nursery plants.

■ Table 4 Key Indicators for Various Types of Nursery Plants

Order	First Level Classification	Second Level Classification	Key indicators	Notes	
1	Tree	Uniaxial Layered Tree	Meter Height Diameter (MHD) / Diameter at Breast Height (DBH)	1. For trees with under-branch height <100cm, the key indicator is the base diameter. 2. For trees with enlarged abdominal stems, the key indicator is the abdominal height diameter.	
2		Uniaxial Branched Tree	Meter Height Diameter (MHD) / Diameter at Breast Height (DBH)	For trees with under-branch height <100cm, the key indicator is the base diameter.	
3		Coaxial Branched Tree	Meter Height Diameter (MHD) / Diameter at Breast Height (DBH)	For trees with under-branch height <100cm, the key indicator is the base diameter.	
4		Multi-stem Tree	Meter Height Diameter (MHD) / Diameter at Breast Height (DBH)		
5	Palm	Single-stem Palm	Bare Stem Height/ Base Diameter		
6		Multi-stem Palm	Natural Height		
7	Bamboo	Single-stem Bamboo	Base Diameter		
8		Multi-stem Bamboo	Natural Height		
9	Shrub	Solitary Shrub	Diameter and Depth of Container		
10		Ground Cover Shrub	Diameter and Depth of Container		
11		Topiary Shrub	Ball-shaped Shrub	Natural Height	
12			Pyramid-shaped Shrub	Natural Height	
13			Cylindrical Shrub	Natural Height	
14	Herb	Solitary Herb	Diameter and Depth of Container		
15		Ground Cover Herb	Diameter and Depth of Container		
16		Turf	Coverage		
17	Climber		Length of Main Vine		



6.2 Quantitative Indicators of Trees, Palms and Bamboos

6.2.1 Please see Table 5 for quantitative indicators of trees, palms and bamboos.

■ Table 5 Quantitative Indicators Of Trees, Palms and Bamboos

Indicators			Tree				Palm		Bamboo		Notes	
			Uniaxial Layered Tree	Uniaxial Branched Tree	Coaxial Branched Tree	Multi-stem Tree	Single-stem Palm	Multi-stem Palm	Single-stem Bamboo	Multi-stem Bamboo		
Design Measurement Unit			Number	Number	Number	Number	Number	Number	Number			
Market Transaction Measurement Unit			Number	Number	Number	Number	Number	Number	Number			
Quantitative Indicators for Nursery Plants	Root ball	Rootball Diameter	✓	✓	✓	✓	✓	✓			The shape of the root ball should be in apple-shaped or spherical to take shape into cylindrical.	
		Container Diameter							✓	✓		
		Container Depth							✓	✓		
	Stem	Meter Height Diameter (MHD)/Diameter at Breast Height (DBH)	*	*	*	*						
		Base Diameter (Per Stem)			*		*		*			
		Under-branch Height	✓	✓	✓							
		Bare Stem Height					*					
		Number of Stems				✓		✓		✓		
	Height	Natural Height	✓	✓	✓	✓	✓	*	✓	*		
		Crown										
	Crown	Crown Width	✓	✓	✓	✓						
		Number of Layers	✓									
		Number of Leaves					✓	✓			Refers to the number of leaves on each stem for multi-stem palms.	
		Number of Branch Levels	✓	✓	✓	✓						
	Ratio	Height to Width Ratio	✓	✓	✓	✓	✓	✓				
		Rootball Diameter to Meter Diameter Ratio	✓	✓	✓	✓	✓	✓				
		Rootball Diameter to Base Diameter Ratio	✓	✓	✓	✓	✓	✓				
		Rootball Diameter to Rootball Height Ratio	✓	✓	✓	✓	✓	✓				
	Illustrative Figures of Nursery Plant Standards			Fig5	Fig6	Fig7	Fig8	Fig9	Fig10	Fig11	Fig12	
	Illustrative Figures of Nursery Plant Standard Indicator Values			Figs. 24~27			Fig.28	Fig.29~32	Fig.33~36	Fig.37	Fig.38	
Various Standards of Indicator Values			Appendices B and C			Appendices D and E		Appendices F and G				

Note:

* Refers to Key Indicators; ✓ Refers to Secondary Indicators

6.2.2 Please see Appendices B, D and F for Tree, Palm and Bamboo Standards of Indicator Values by categories; Appendices C, E and G by plant species.

6.3 Quantitative Indicators of Shrubs, Herbs and Climbers

6.3.1 Please see Table 6 for quantitative indicators of shrubs, herbs and climbers.

Table 6 Quantitative Indicators of shrubs, herbs and climbers

Indicators		Shrub					Herb			Climber	Notes
		Solitary Shrub	Ground Cover Shrub	Topiary Shrub			Solitary Herb	Ground Cover Herb	Turf		
				Ball-shaped shrub	Pyramid-Shaped Shrub	Cylinder-shaped Shrub					
Design Measurement Unit		Number	M ²	Number	Number	Number	Number	M ²	M ²	Number	
Market Transaction Measurement Unit		Number	Number	Number	Number	Number	Number	Number	M ²	Number	
Quantitative Indicators for Nursery Plants	Root ball	Soil Layer Thickness							✓		
		Container Diameter	*	*	✓	✓	✓	*	*		✓
		Container Depth	*	*	✓	✓	✓	*	*		✓
	Height	Natural Height	✓	✓	*	*	*	✓	✓		
		Height of Turf Remained								✓	
		Length of Main Vine									*
	Crown	Crown Width	✓	✓	✓	✓	✓	✓	✓		
		Number of Branches	✓	✓				✓	✓		
		Number of Vines									✓
	Others	Turf Coverage/Density(%)								*	
		Length of Turf								✓	
		Width of Turf								✓	
	Ratio	Height to Width Ratio	✓	✓	✓	✓	✓	✓	✓		
Illustrative Figures of Nursery Plant Standards		Fig13	Fig14	Fig15	Fig16	Fig17	Fig18	Fig19	Fig20	Fig21	
Illustrative Figures of Nursery Plant Standard Indicator Values		Fig.39~41	Fig.46	Fig.42	Fig.42	Fig.42	Fig.47	Fig.46	Fig.48	Fig.43~45	
Various Standards of Indicator Values		Appendices H and I					Appendices J and K		Appendix L	Appendices M and N	

Note:

* Refers to Key Indicators; ✓ Refers to Secondary Indicators



- 6.2.3 Please see Appendices H, J and M for Shrub, Herb and Climber Standards of Indicator Values by categories; Appendices I, K, L and N by plant species.

7. On-site Checking and Inspection Methods

7.1 Qualitative Requirements

- 7.1.1 Qualitative requirements are conducted by visual inspection.

7.2 Quantitative Indicators

- 7.2.1 Quantitative indicators are conducted by direct measurements.

- 7.2.2 Use a tree gauge instrument to measure the indicative diameters of a tree such as their DBH, MHD, base and abdominal height diameters etc., their reading should be within ± 0.1 cm. When measuring natural height, bare stem height, under-branch height, crown width, main vine length etc., use steel tape or measurement tape, the reading should be within ± 1.0 cm.

- 7.2.3 When measuring the base diameter of a plant with an enlarged or deformed base, measure the areas above the enlarged or deformed zones.

- 7.2.4 When measuring crown width, take the average values of the maximum and minimum measured diameters of the crown vertically projected on the surface. The ratio of maximum and minimum diameter value should be within 1.5 : 1.

8. Acceptance Criteria

- 8.1 The following clauses should be used as reference, and applied in accordance with the contractual agreement between the supplier and purchaser.
- 8.2 The supplier should provide the history/record of the plants produced in the nursery to the purchaser, including their botanical name, age, root pruning record, propagation or production methods, etc.
- 8.3 Exotic plants should be individually inspected by the purchaser.
- 8.4 The same batch of nursery stocks ready for delivery should be checked within one inspection and a 10% random sample checking for their compliance for the contract.
- 8.5 The variance in quality standard within the same batch of inspected plant materials should not exceed 2%, and not to exceed 0.5% in terms of quantity.
- 8.6 Identification tags should be attached to the nursery stocks, the quantity of the tags should be subject to the types of plants and their packaging.
- 8.7 The inspected and accepted nursery plants should be attached with an "Acceptance Certificate" similar to 'Table 7' below.

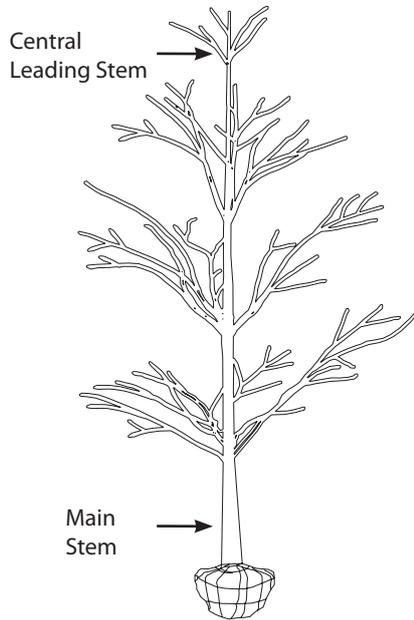
■ Table 7 Nursery Plant Specification Acceptance Certificate

Code		Plant Supplier			
Plant Name		Botanical Name			
Plant Age		Specification		Quantity	
Date of Plant Taken Out as Nursery Stock		Plant Exporting Date			
Root Last Pruned		Plant Quarantine Certificate Number			
Pass or Fail		Remarks		Accepted by	



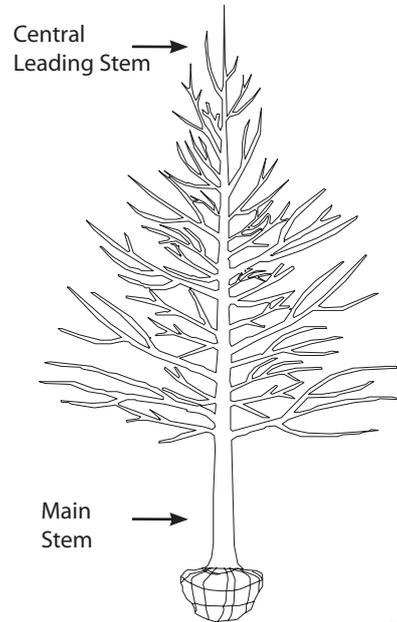
Appendix A (Appendix for Standard Specification)

Appendix A.1 Illustrations of Main Stem and Central Leading Stem



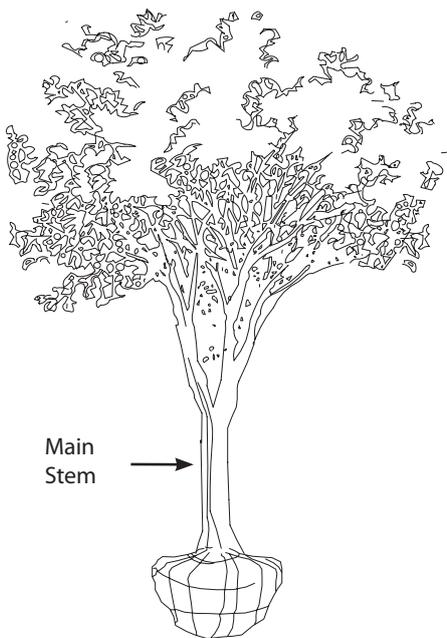
■ Uniaxial Layered Tree

Fig. 1



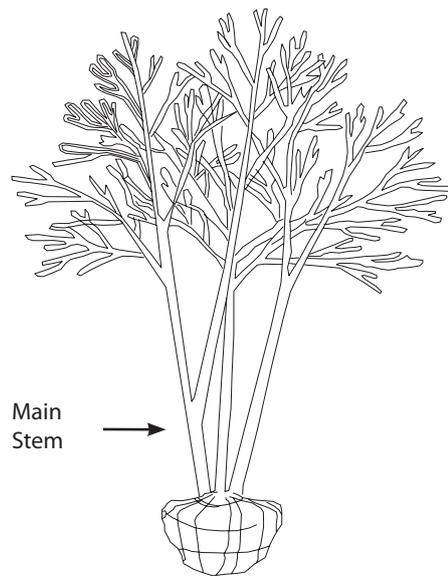
■ Uniaxial Branched Tree

Fig. 2



■ Coaxial Branched Tree

Fig. 3

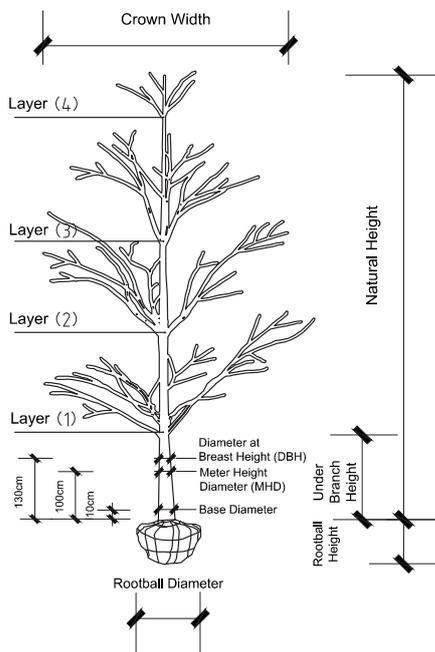


■ Multi-stem Tree

Fig. 4

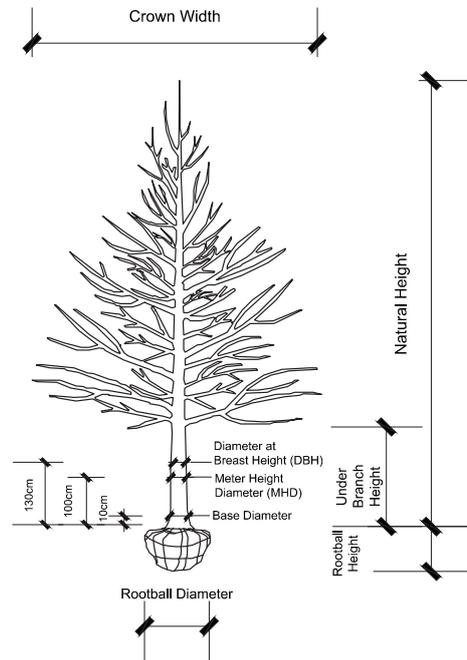


Appendix A.2 Illustration of Glossary and Definitions Related to Various Plant Quality



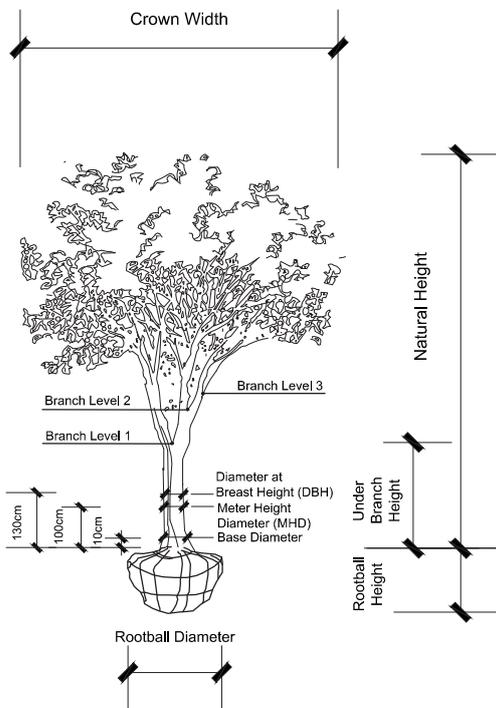
Uniaxial Layered Tree

Fig. 5



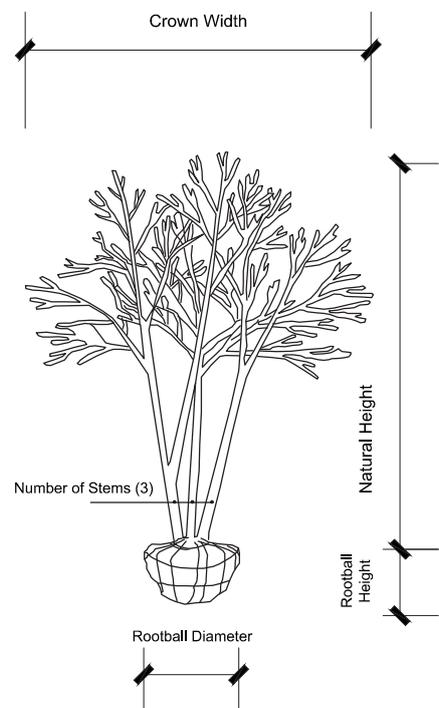
Uniaxial Branched Tree

Fig. 6



Coaxial Branched Tree

Fig. 7

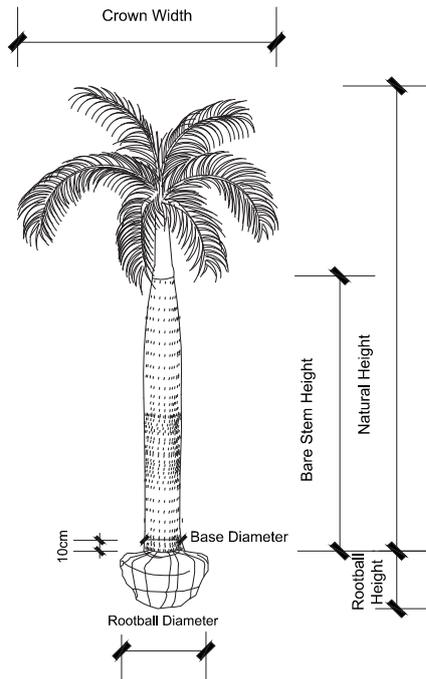


Multi-stem Tree

Fig. 8

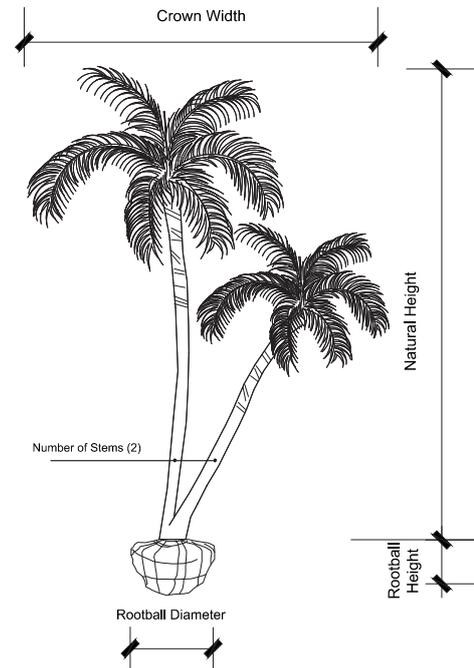


Appendix A.2 Illustration of Glossary and Definitions Related to Various Plant Quality



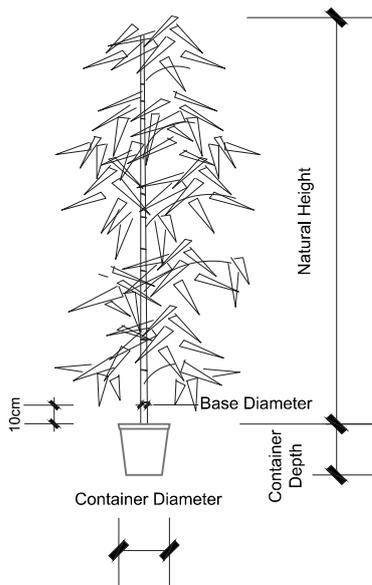
Single-stem Palm

Fig. 9



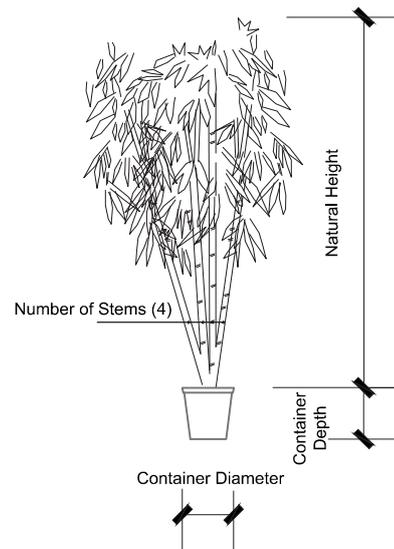
Multi-stem Palm

Fig. 10



Single-stem Bamboo

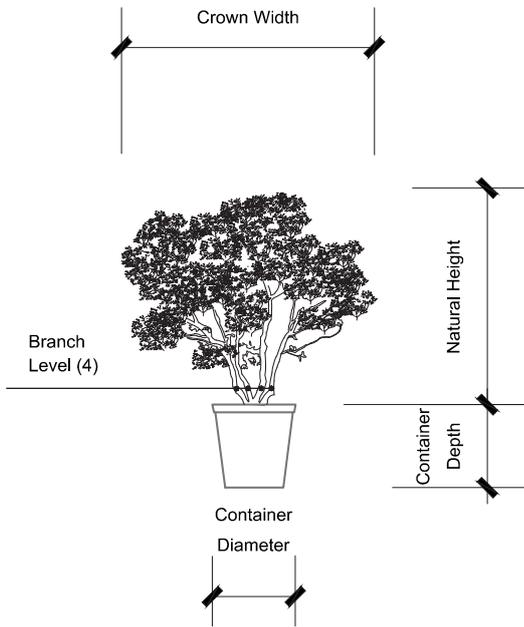
Fig. 11



Multi-stem Bamboo

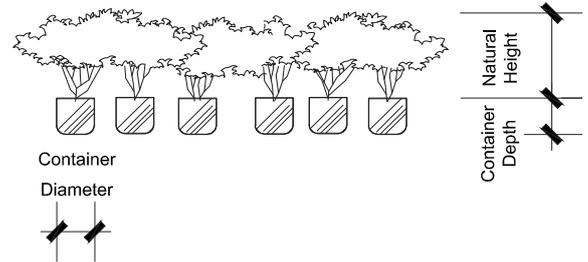
Fig. 12

Appendix A.2 Illustration of Glossary and Definitions Related to Various Plant Quality



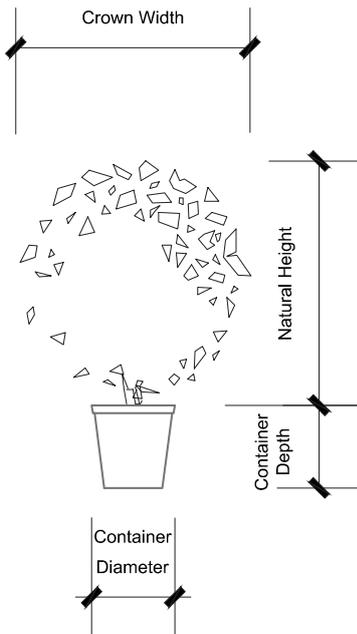
■ Solitary Shrub

Fig. 13



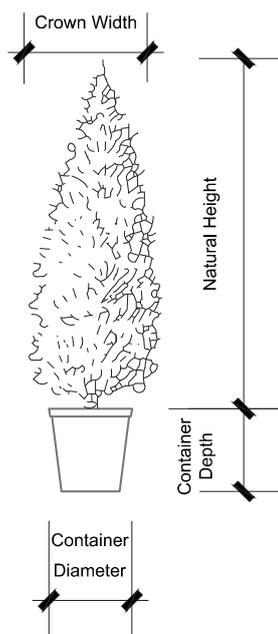
■ Ground Cover Shrub

Fig. 14



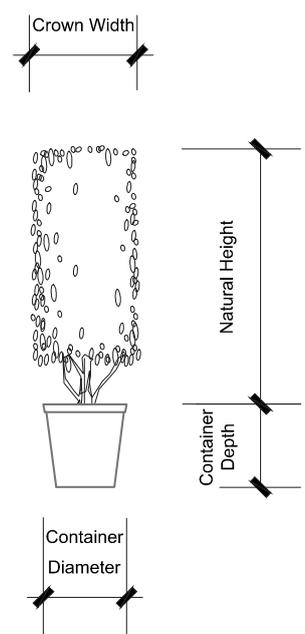
■ Ball-shaped Shrub

Fig. 15



■ Pyramid-shaped Shrub

Fig. 16

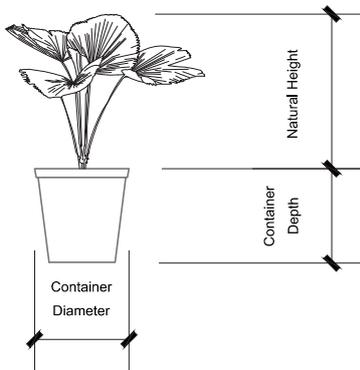


■ Cylinder-shaped Shrub

Fig. 17

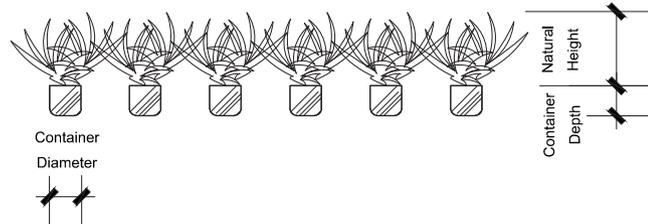


Appendix A.2 Illustration of Glossary and Definitions Related to Various Plant Quality



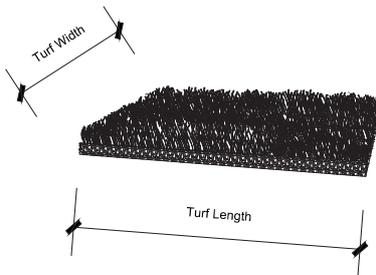
■ Solitary Herb

Fig. 18



■ Ground Cover Herb

Fig. 19



■ Turf

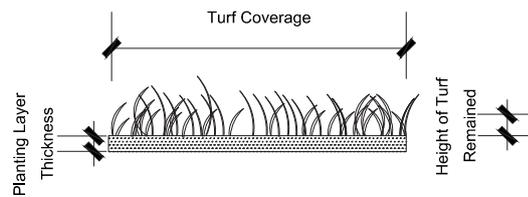
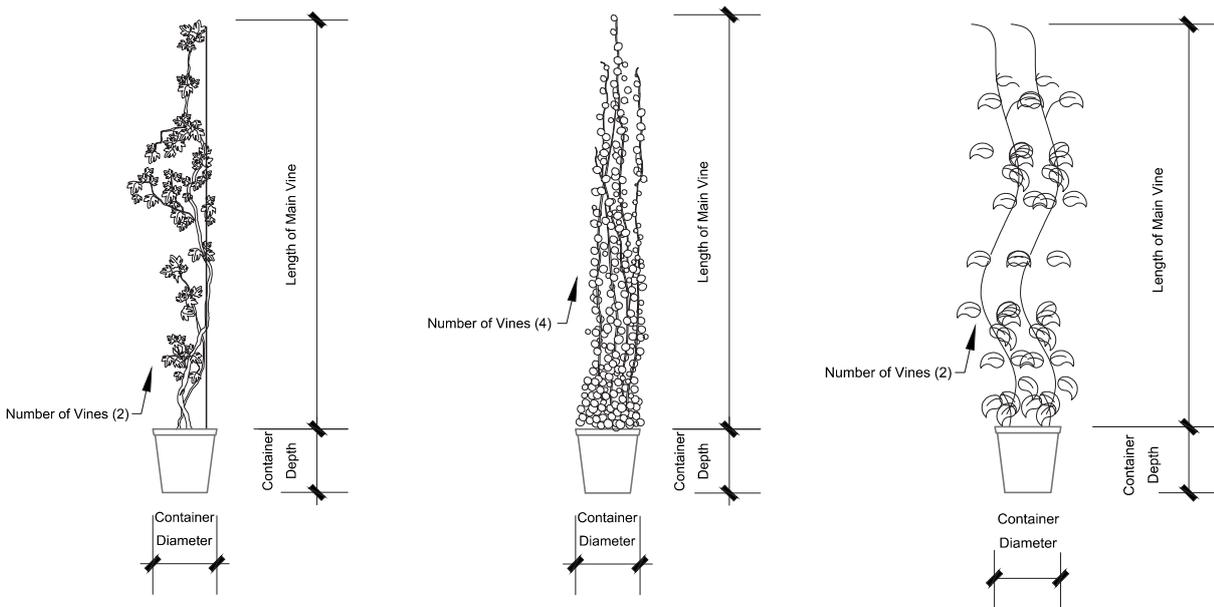


Fig. 20



■ Climber

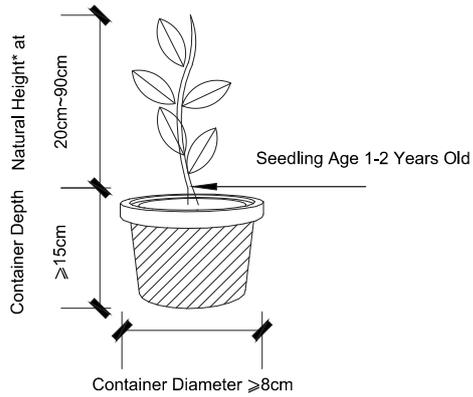
Fig. 21



Appendix A.3 Illustration of Specification and Standards of Various Plants

A.3.1 Trees

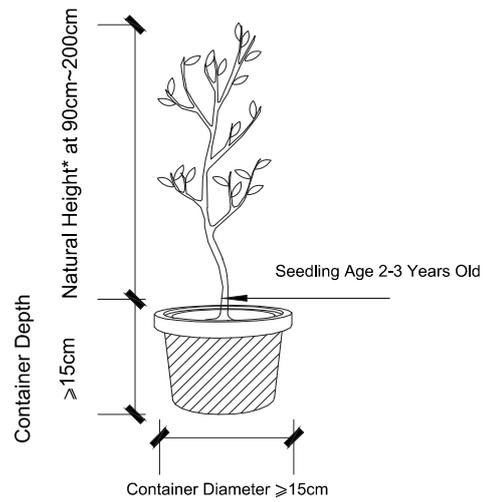
Seedling Trees



Note:
* Refers to Key Indicators.

Fig. 22

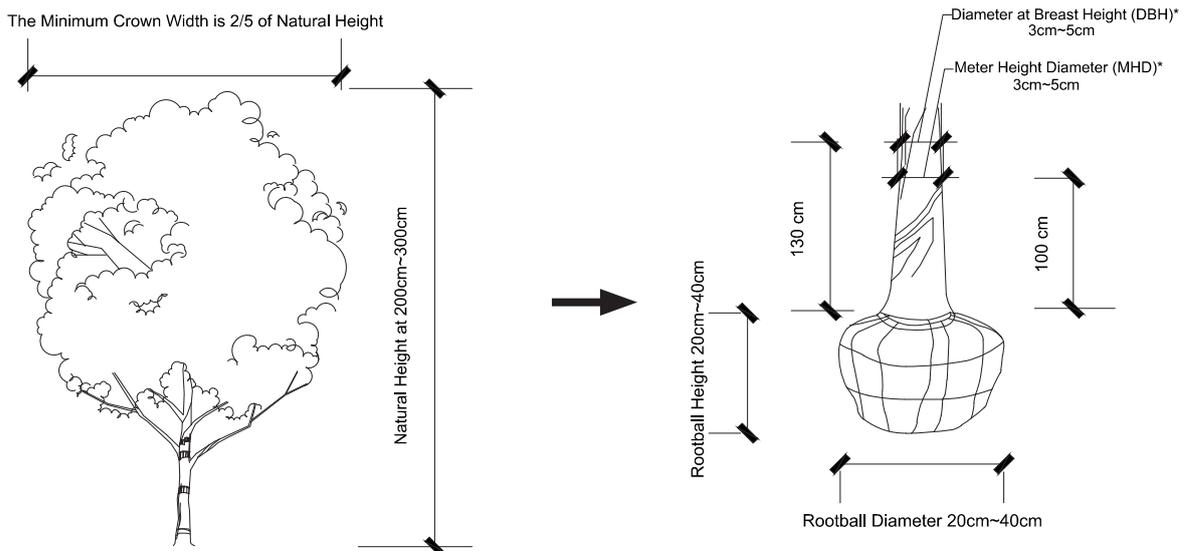
Whips



Note:
* Refers to Key Indicators

Fig. 23

Light Standard Trees (Small Size Trees)



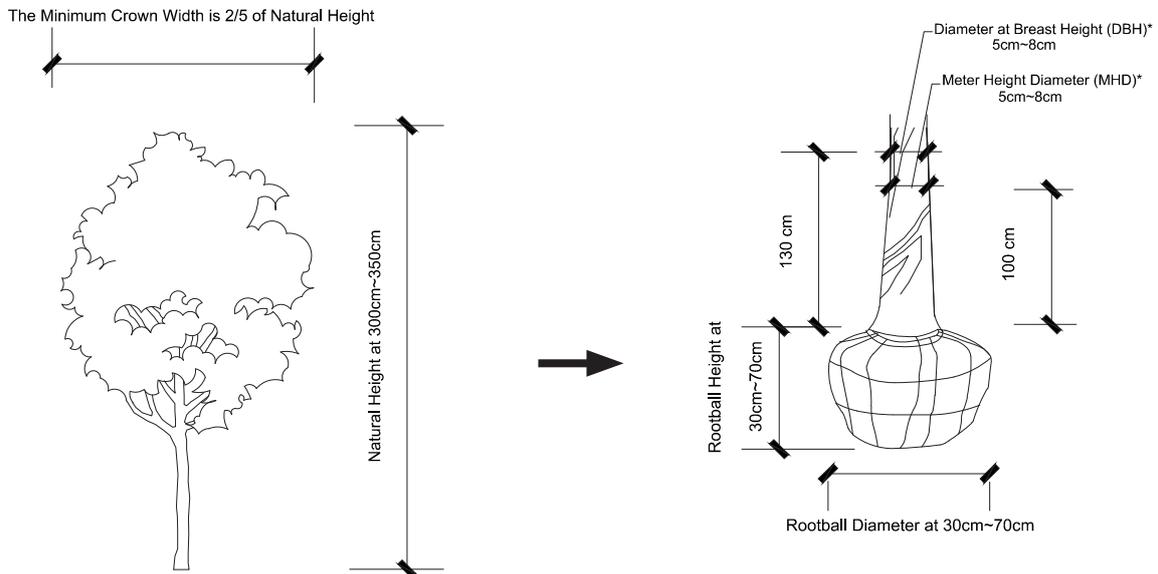
Note:
1. * Refers to Key Indicators.
2. Ratio of rootball diameter to key indicator value should be 6~8. Ratio of rootball diameter to rootball height should be 1:1.
3. Please see Appendix B Table B.

Fig. 24



Appendix A.3 Illustration of Specification and Standards of Various Plants

■ Standard Trees (Medium Size Trees)

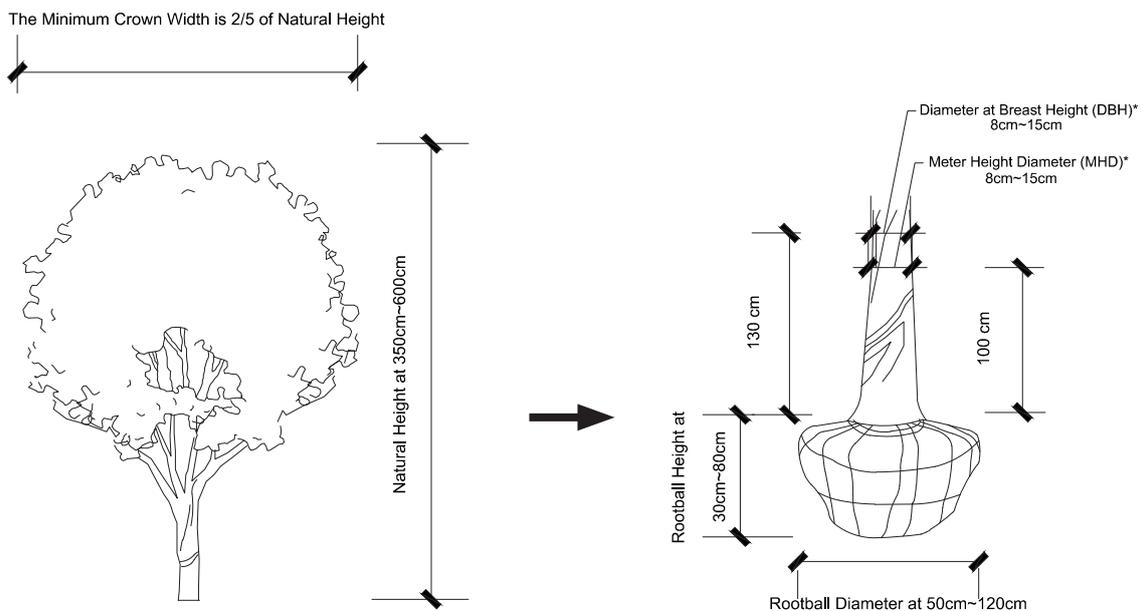


Note:

1. * Refers to Key Indicators.
2. Ratio of rootball diameter to key indicator value should be 6~8. Ratio of rootball diameter to rootball height should be 1:1.
3. Please see Appendix B Table B.

Fig.25

■ Heavy Standard Trees (Large Size Trees)



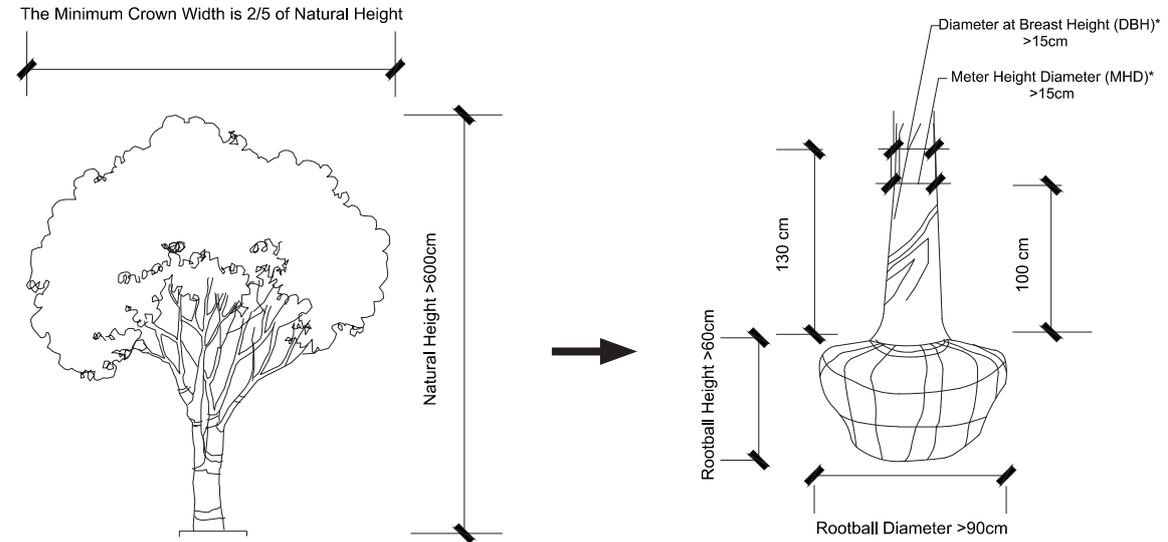
Note:

1. * Refers to Key Indicators.
2. Ratio of rootball diameter to key indicator value should be 6~8. Ratio of rootball diameter to rootball height should be 1.5:1.
3. Please see Appendix B Table B.

Fig.26

Appendix A.3 Illustration of Specification and Standards of Various Plants

Mature Trees

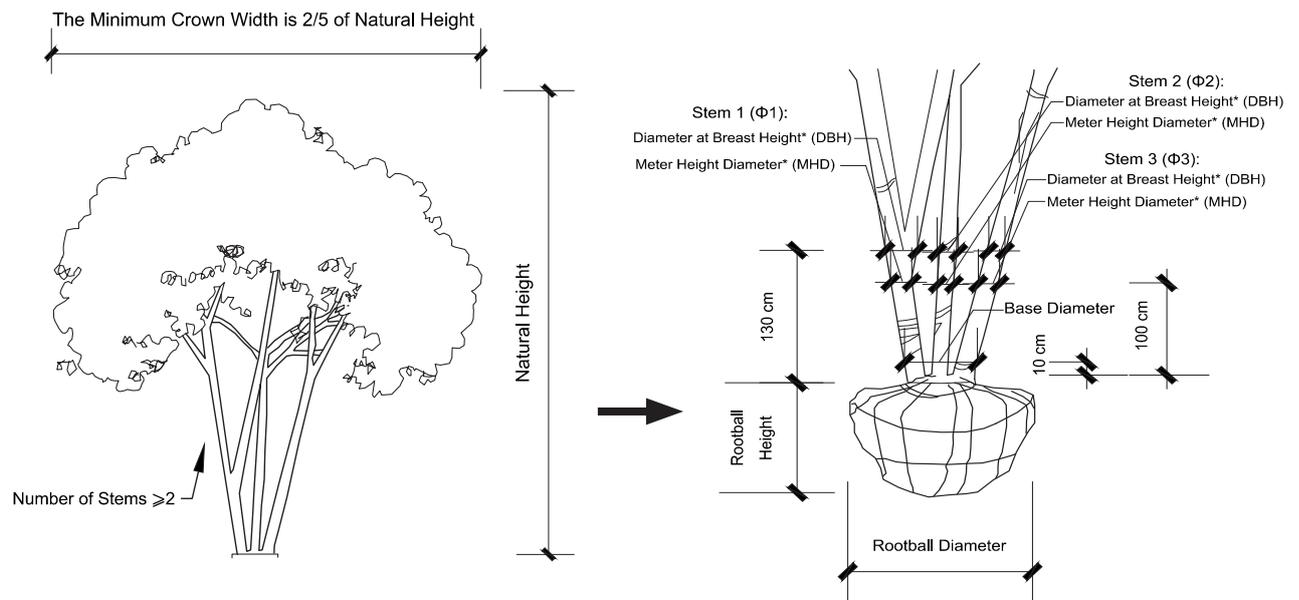


Note:

- * Refers to Key Indicators.
- Ratio of rootball diameter to key indicator value should be 6~8. Ratio of rootball diameter to rootball height should be 1.5:1.
- Please see Appendix B Table B.

Fig 27

Multi-stem Trees



Note:

- * Refers to Key Indicators.
- Overall Meter Height Diameter (MHD) / Diameter at Breast Height (DBH) = $\sqrt{[(\Phi 1)^2 + (\Phi 2)^2 + (\Phi 3)^2]}$
- Ratio of rootball diameter to rootball height should be 1:1~1.5:1.
- Please see Appendix B Table B.

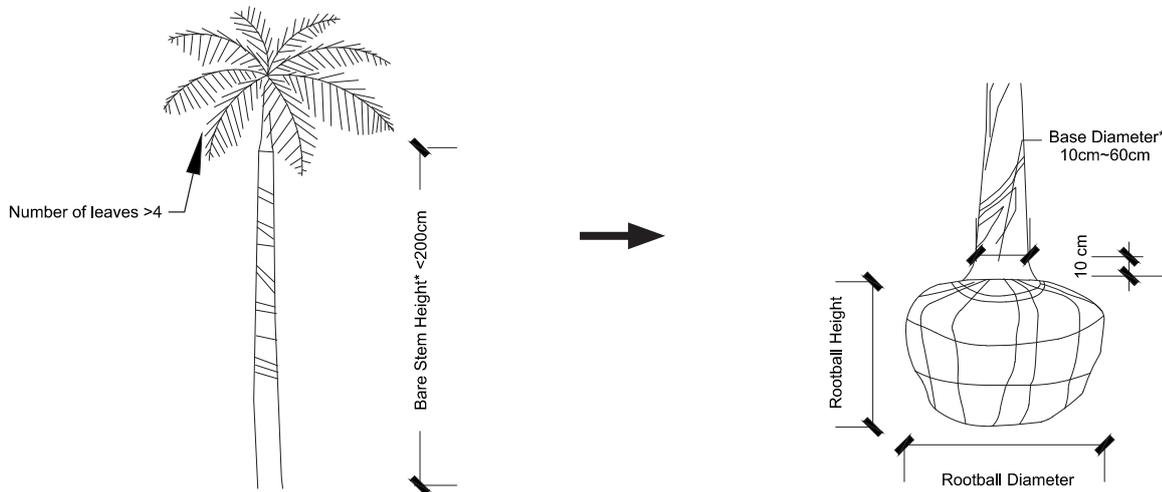
Fig 28



Appendix A.3 Illustration of Specification and Standards of Various Plants

A.3.2 Palms

■ Small Size Palms

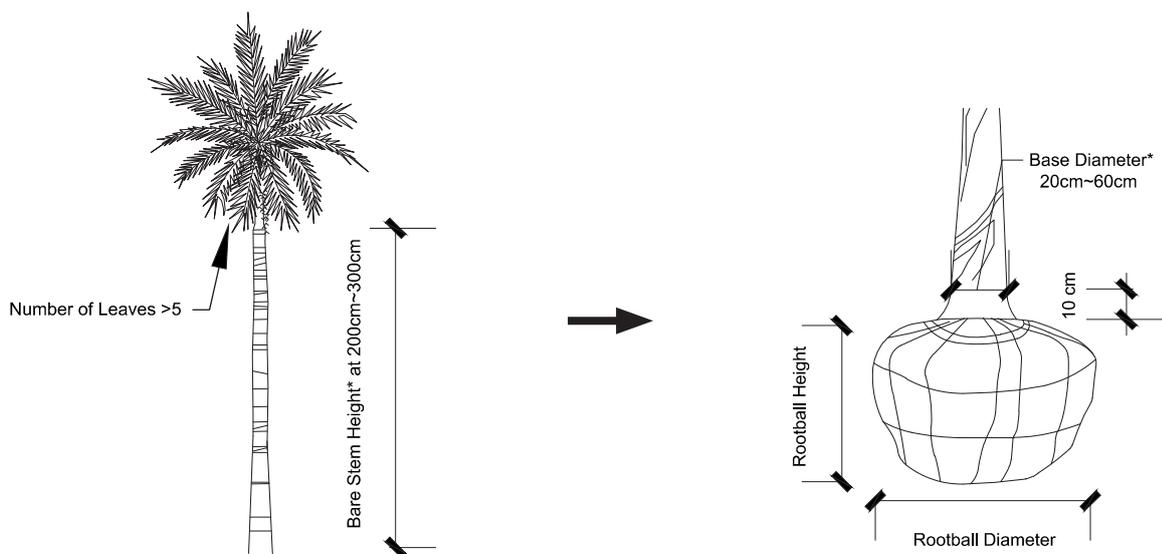


Note:

1. * Refers to Key Indicators.
2. Ratio of rootball diameter to base diameter should be 2~5. Ratio of rootball diameter to rootball height should be 1:1~2:1.
3. Please see Appendix D Table D.

Fig.29

■ Medium Size Palms



Note:

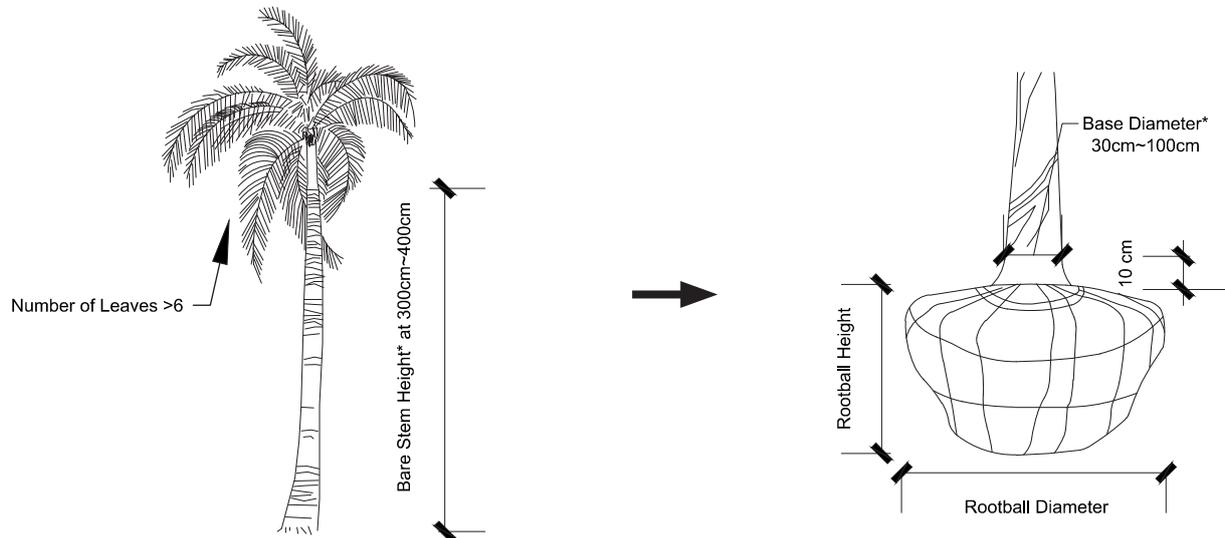
1. * Refers to Key Indicators.
2. Ratio of rootball diameter to base diameter should be 2~5. Ratio of rootball diameter to rootball height should be 2:1.
3. Please see Appendix D Table D.

Fig.30



Appendix A.3 Illustration of Specification and Standards of Various Plants

Large Size Palms

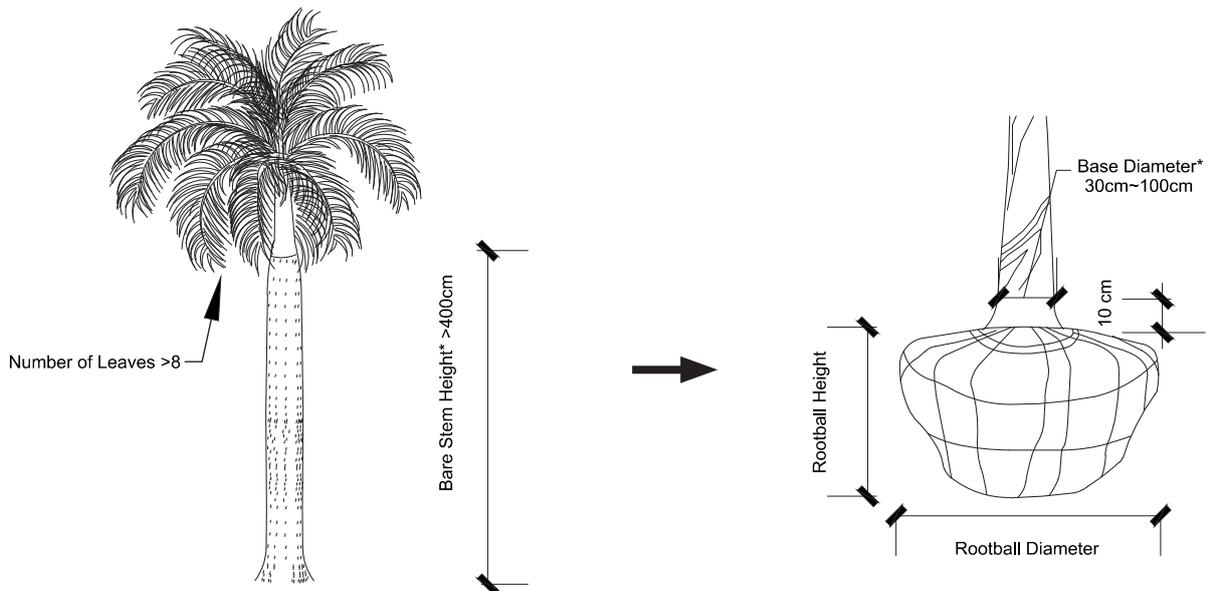


Note:

1. * Refers to Key Indicators.
2. Ratio of rootball diameter to base diameter should be 2~5. Ratio of rootball diameter to rootball height should be 2:1.
3. Please see Appendix D Table D.

Fig.31

Mature Palms



Note:

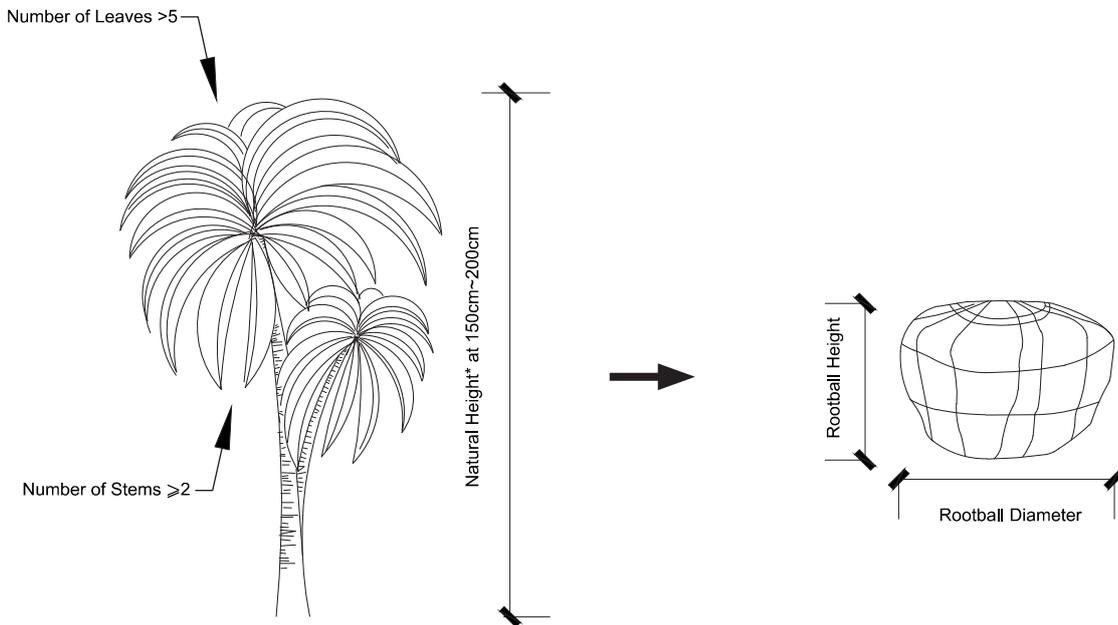
1. * Refers to Key Indicators.
2. Ratio of rootball diameter to base diameter should be 2~5. Ratio of rootball diameter to rootball height should be 2:1.
3. Please see Appendix D Table D.

Fig.32



Appendix A.3 Illustration of Specification and Standards of Various Plants

Small Size Multi-stem Palms

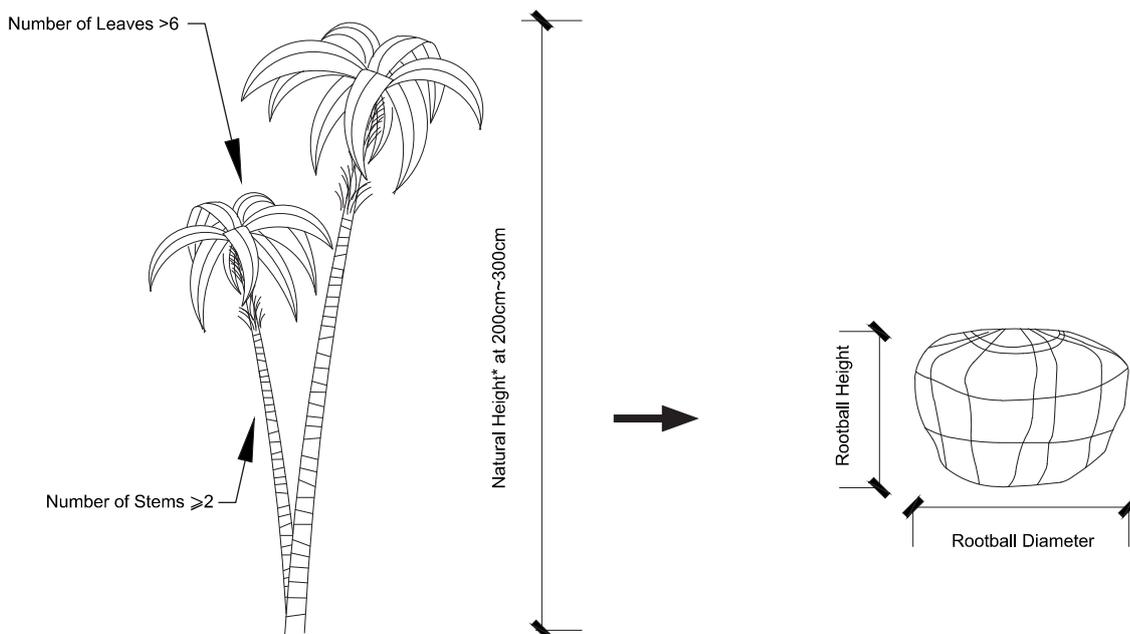


Note:

1. * Refers to Key Indicators.
2. Ratio of rootball diameter to rootball height should be 1:1.
3. Please see Appendix D Table D.

Fig.33

Medium Size Multi-stem Palms



Note:

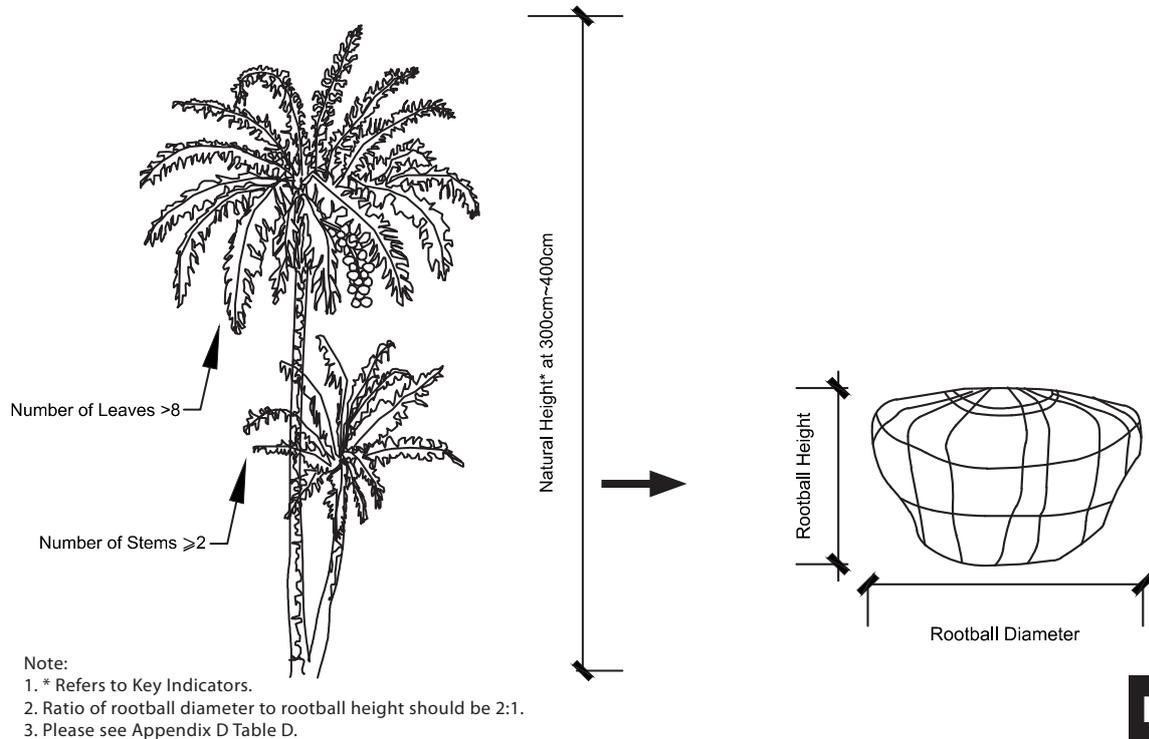
1. * Refers to Key Indicators.
2. Ratio of rootball diameter to rootball height should be 2:1.
3. Please see Appendix D Table D.

Fig.34

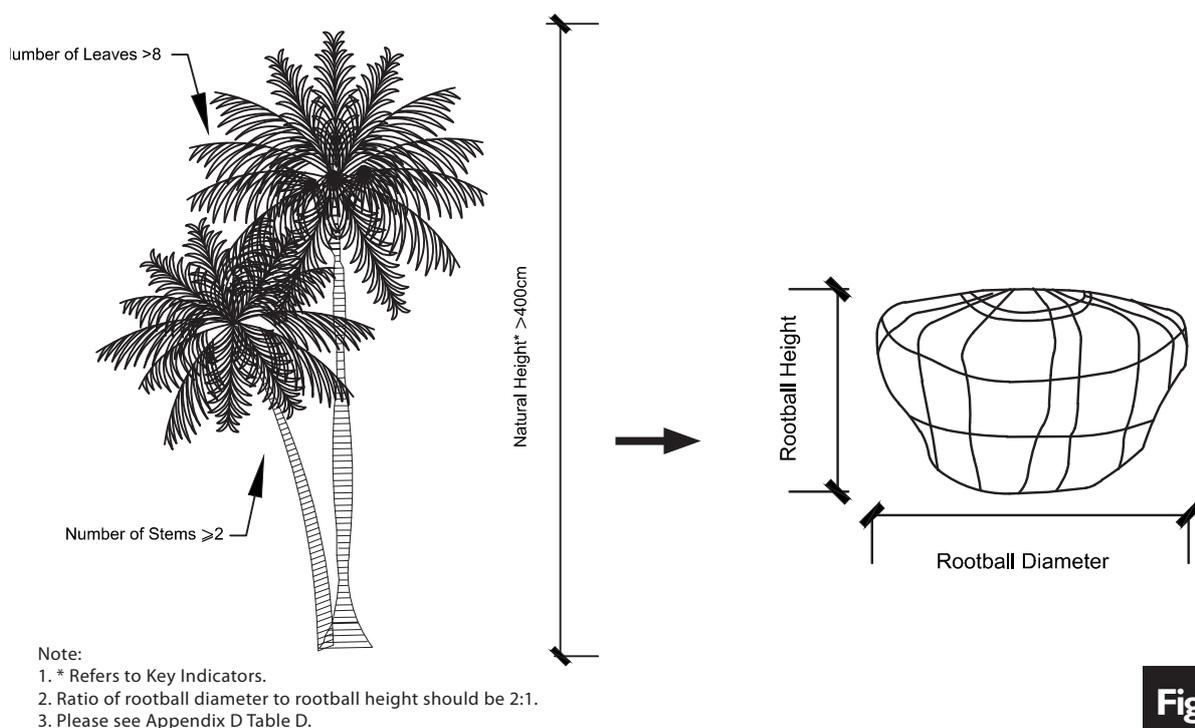


Appendix A.3 Illustration of Specification and Standards of Various Plants

Large Size Multi-stem Palms



Mature Multi-stem Palms

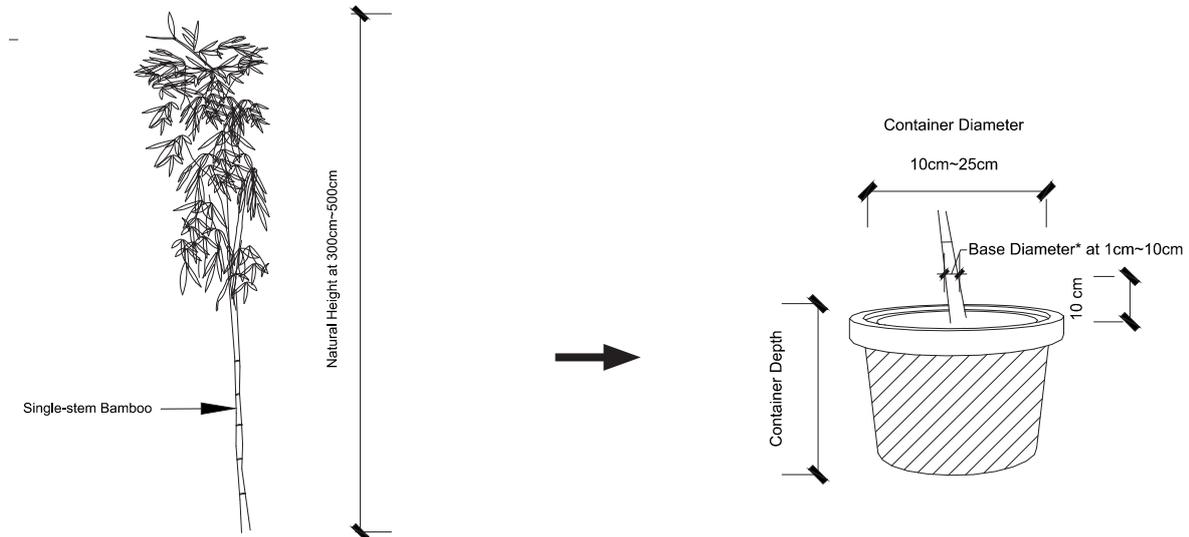




Appendix A.3 Illustration of Specification and Standards of Various Plants

A3.3 Bamboos

■ Single-stem Bamboos



Note:

1. * Refers to Key Indicators.
2. Please see Appendix F Table F.

Fig.37

■ Multi-stem Bamboos



Note:

1. * Refers to Key Indicators.
2. Please see Appendix F Table F.

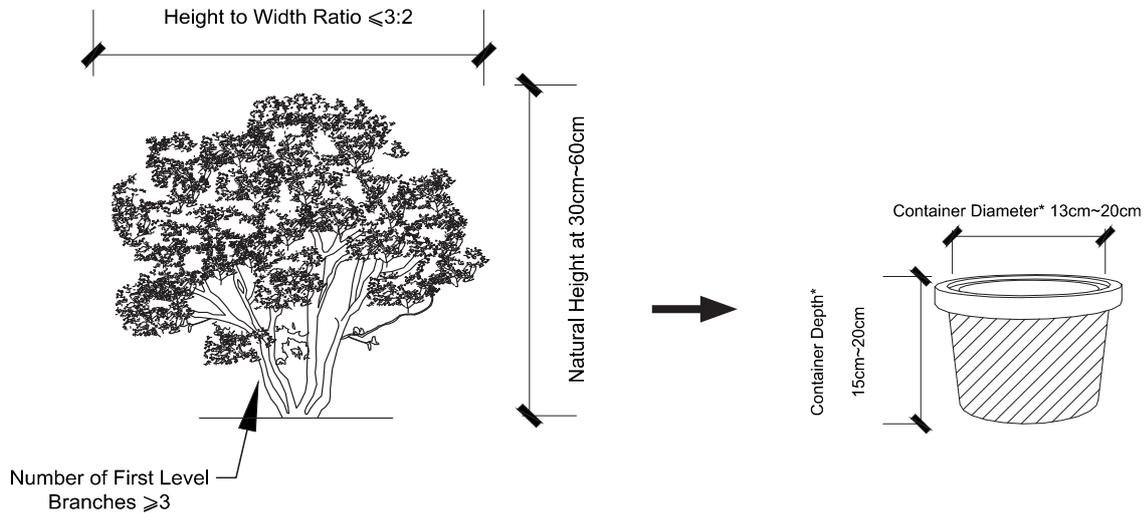
Fig.38



Appendix A.3 Illustration of Specification and Standards of Various Plants

A3.4 Shrubs

Small Size Solitary Shrubs

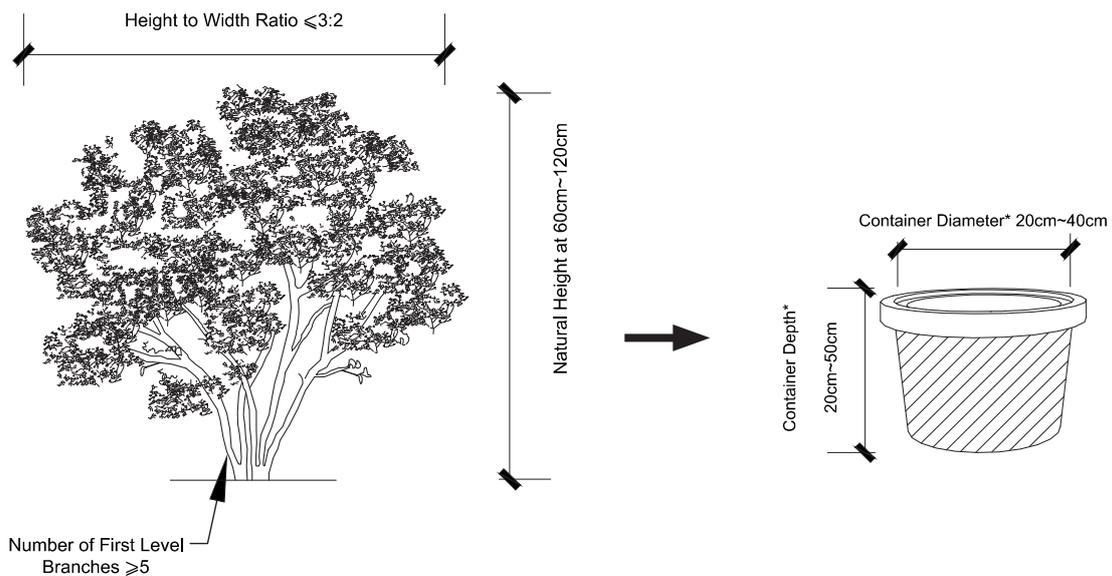


Note:

1. * Refers to Key Indicators.
2. Please see Appendix H Table H.

Fig. 39

Medium Size Solitary Shrubs



Note:

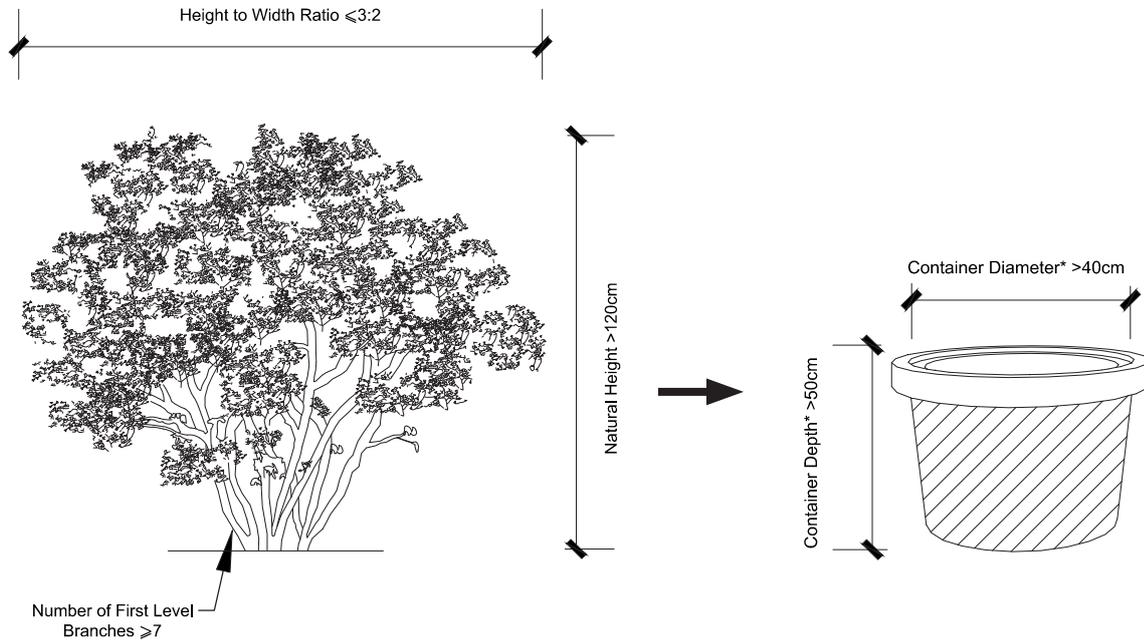
1. * Refers to Key Indicators.
2. Please see Appendix H Table H.

Fig. 40



Appendix A.3 Illustration of Specification and Standards of Various Plants

Large Size Solitary Shrubs

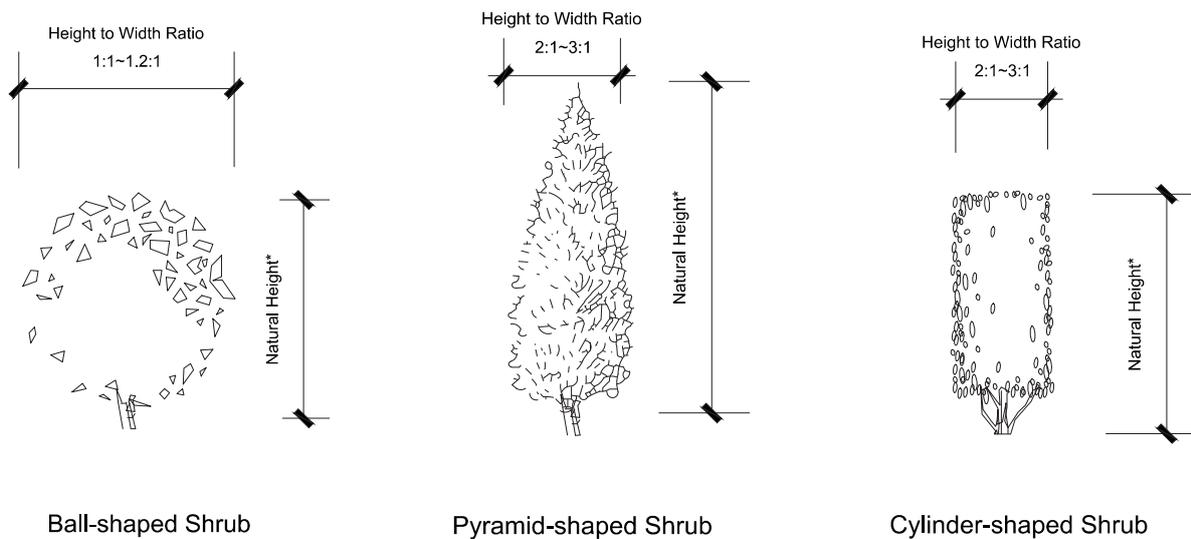


Note:

1. * Refers to Key Indicators.
2. Please see Appendix H Table H.

Fig.41

Topiary Shrubs



Note:

1. * Refers to Key Indicators.
2. Please see Appendix H Table H.

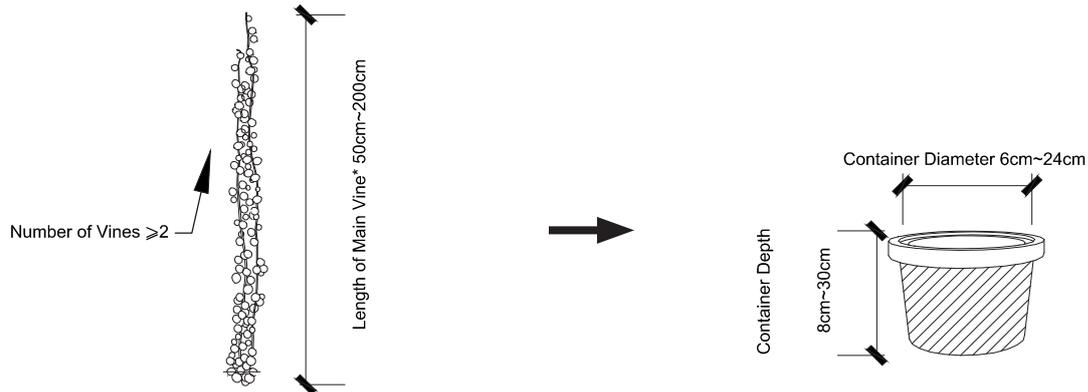
Fig.42



Appendix A.3 Illustration of Specification and Standards of Various Plants

A3.5 Climbers

Small Size Climbers

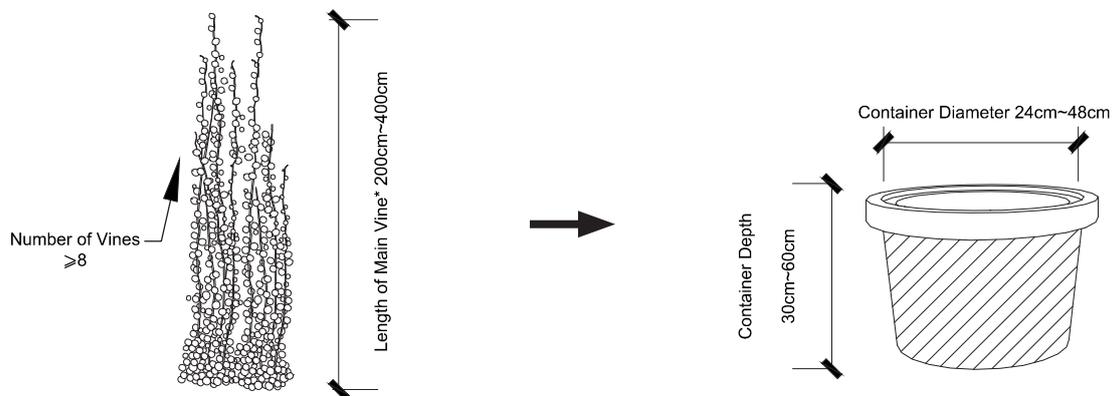


Note:

1. * Refers to Key Indicators.
2. Please see Appendix M Table M.

Fig.43

Medium Size Climbers



Note:

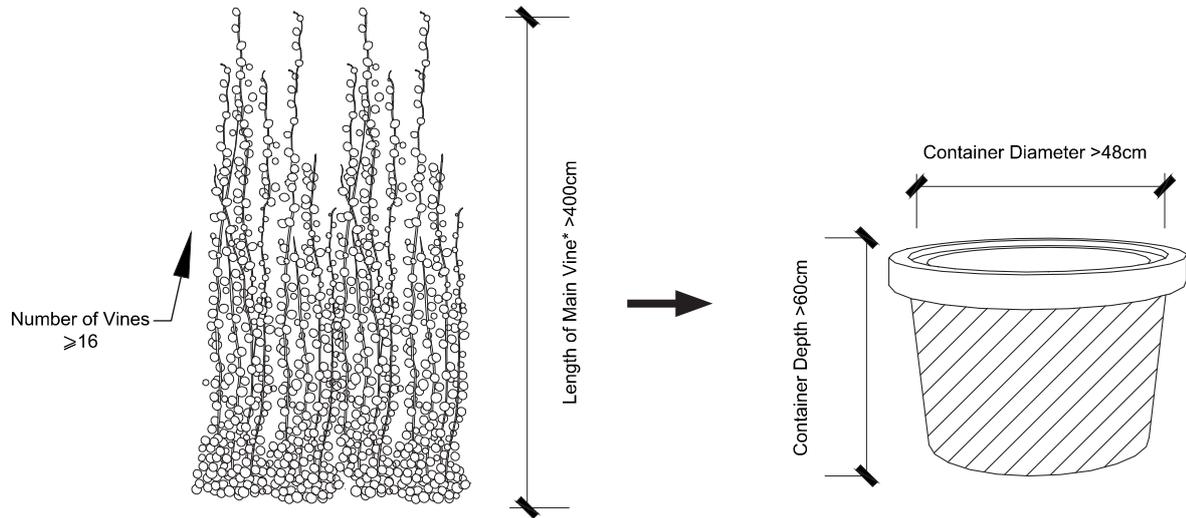
1. * Refers to Key Indicators.
2. Please see Appendix M Table M.

Fig.44



Appendix A.3 Illustration of Specification and Standards of Various Plants

Large Size Climbers

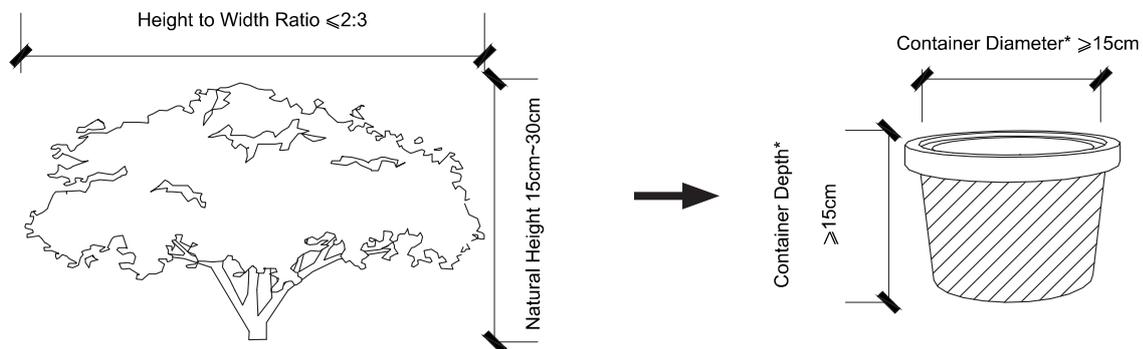


Note:

1. * Refers to Key Indicators.
2. Please see Appendix M Table M.

Fig.45

A3.6 Ground Covers



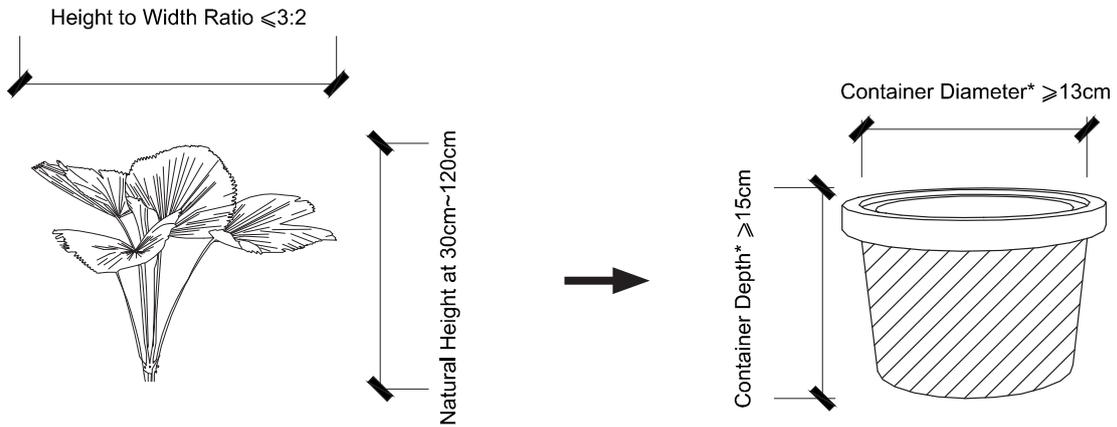
Note:

1. * Refers to Key Indicators
2. Includes groundcover shrubs and groundcover herbs. Please see Appendix H Table H and Appendix J Table J.

Fig.46

Appendix A.3 Illustration of Specification and Standards of Various Plants

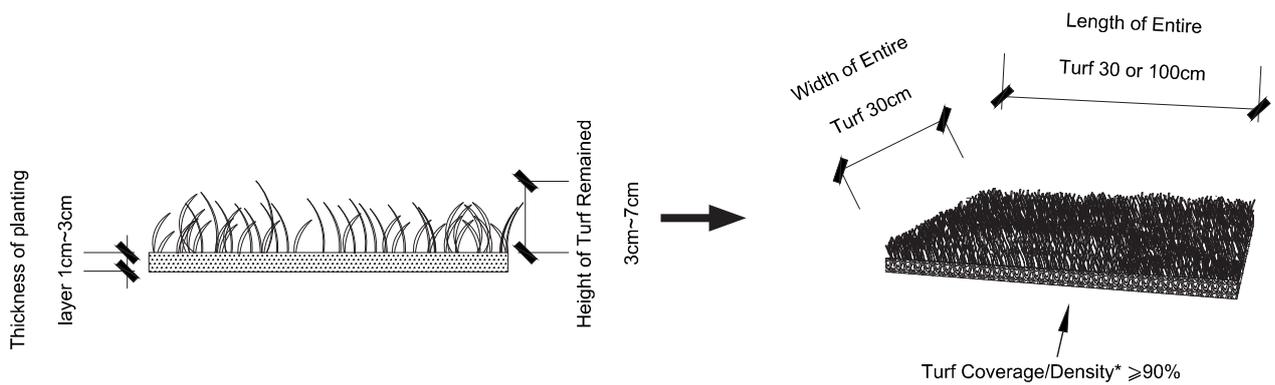
A3.7 Herbs



Note:
1. * Refers to Key Indicators
2. Please see Appendix J Table J

Fig.47

A3.8 Turf



Note:
1. * Refers to Key Indicators
2. Please see Appendix J Table J

Fig.48



Appendix A.4 Key Points for Selecting Acceptable Forms of Various Plants

A.4.1 Trees

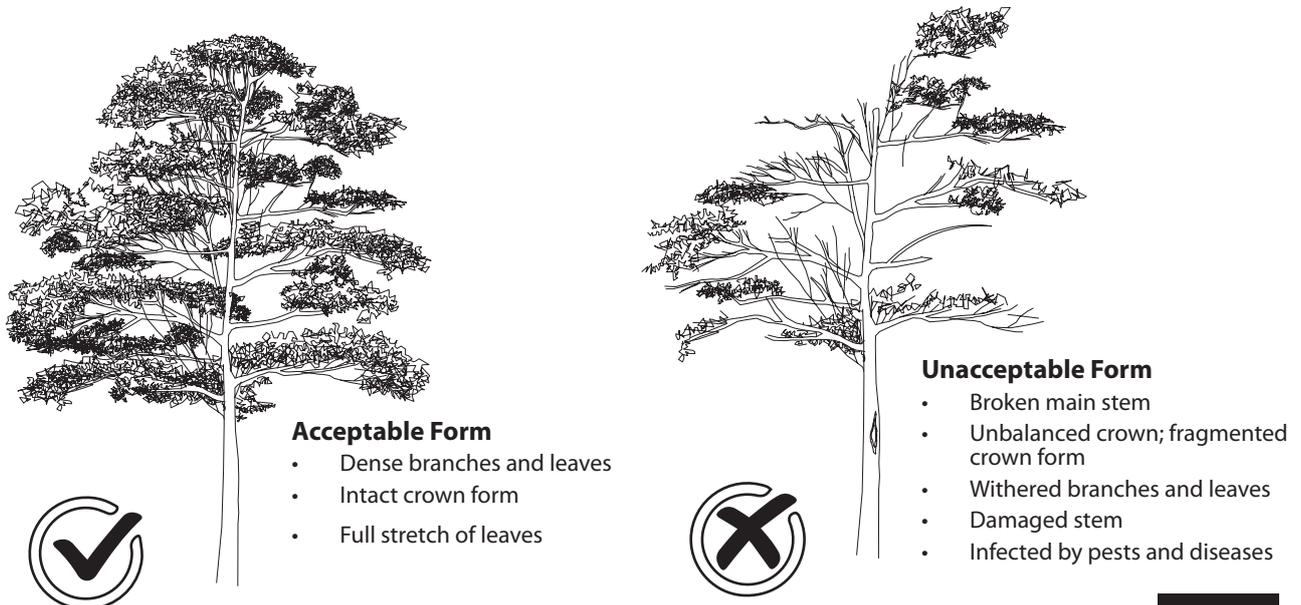


Fig. 49

A4.2 Palms

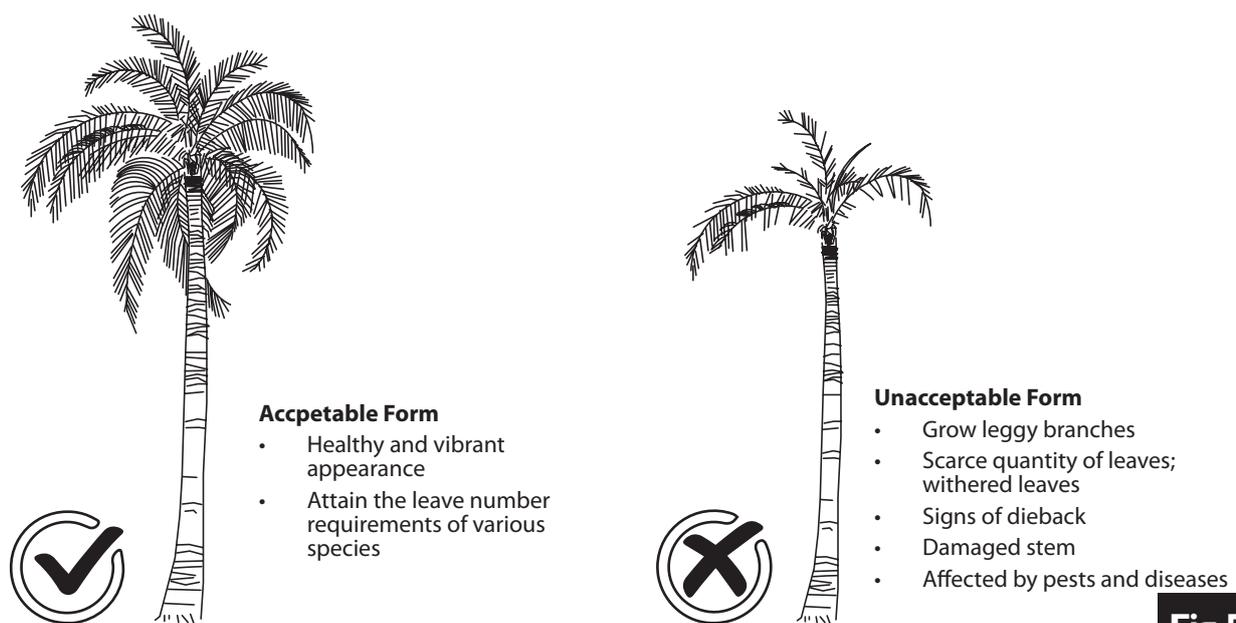
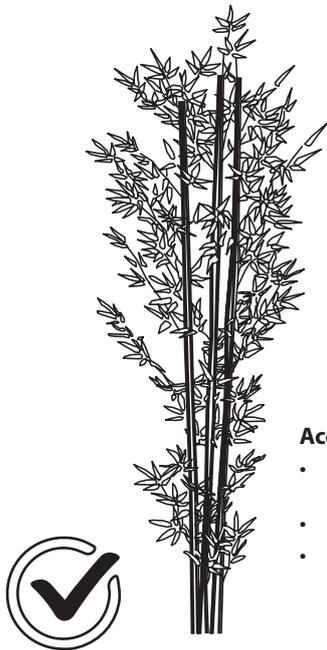


Fig. 50



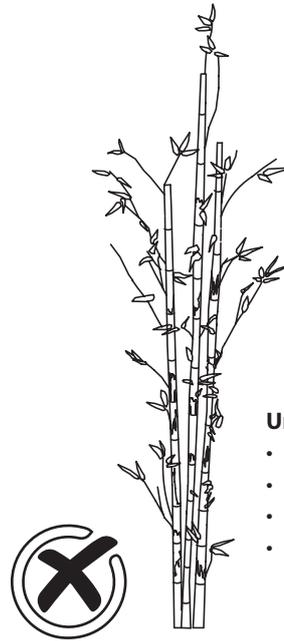
Appendix A.4 Key Points for Selecting Acceptable Forms of Various Plants

A.4.3 Bamboos



Acceptable Form

- Dense leaves; bushy, big and mellow leaves
- Upright
- Shiny

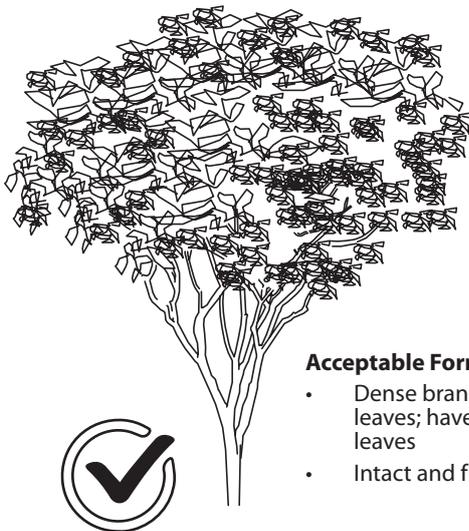


Unacceptable Form

- Withered
- Dull in colour
- Sparse leaves
- Infected by pests and diseases

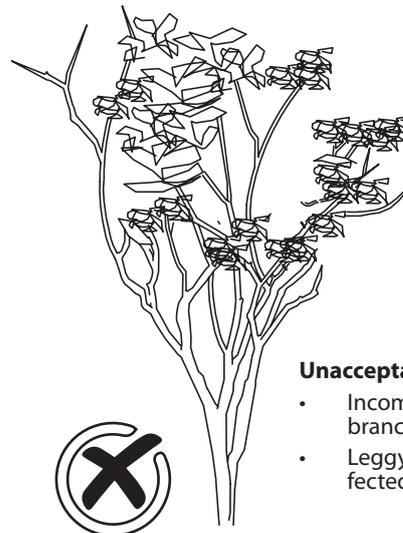
Fig.51

A4.4 Shrubs



Acceptable Form

- Dense branches and leaves; have angular leaves
- Intact and full in shape



Unacceptable Form

- Incomplete stretch of branches and leaves
- Leggy branches; leaves infected by pests and diseases

Fig.52



Appendix A.4 Key Points for Selecting Acceptable Forms of Various Plants

A4.5 Climbers

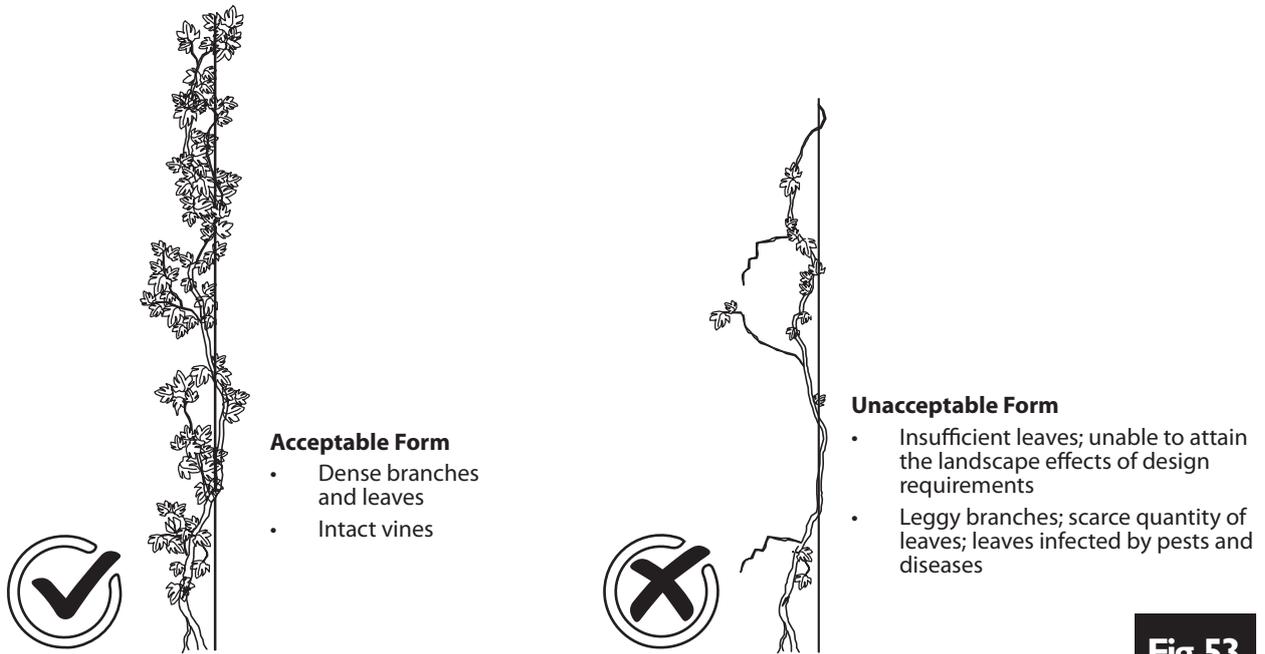


Fig.53

A4.6 Herbs

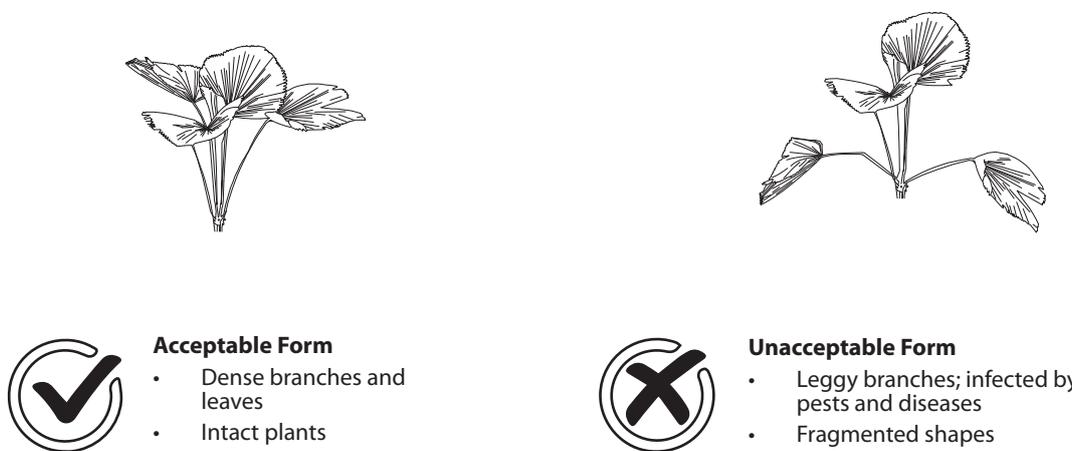
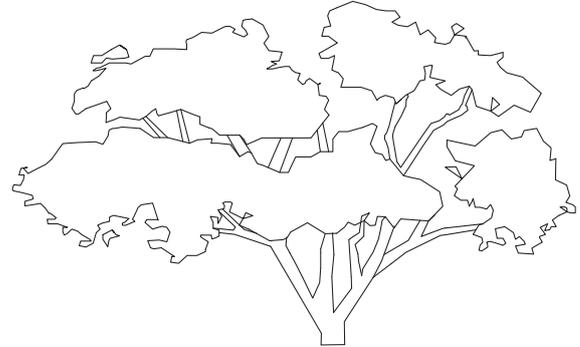
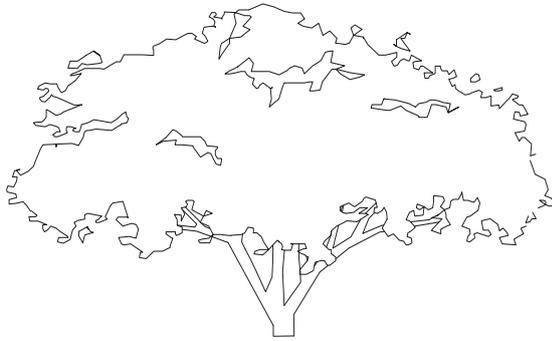


Fig.54

Appendix A.4 Key Points for Selecting Acceptable Forms of Various Plants

A4.7 Ground Covers



Acceptable Form

- Dense branches and leaves
- Intact plants
- Full spread of leaves

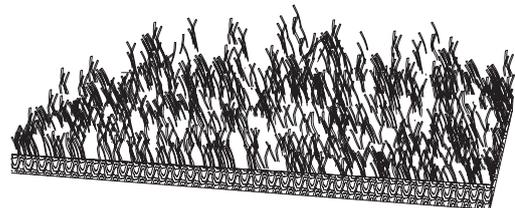
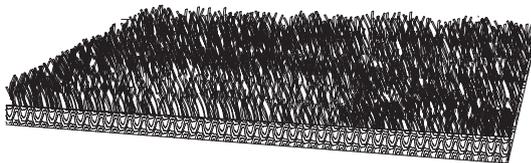


Unacceptable Form

- Unable to attain the landscape effects of design requirements
- Leggy branches; leaves infected by pests and diseases

Fig.55

A4.8 Turf



Acceptable Form

- Turf texture is tough and is intact, not loose
- No weeds, diseases, pests, discoloration or yellow buds



Unacceptable Form

- Unable to attain landscape effects of design requirements
- Incomplete texture of turf; sparse coverage with weeds

Fig.56



Appendix B (Appendix for Standard Specification)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Category

Table B Tree Standard Indicator Values

Category		Key Indicators	Range of Key Indicator Values	Range of Secondary Indicator Values								
				Natural Height	Crown Width	Number of Layers	Under-branch Height	Branch Levels	Number of Stems	Rootball diameter to Key Indicator Value Ratio	Rootball diameter to Rootball Height Ratio	
Tree	Uniaxial Layered Tree	Light Standard Tree (Small Size Tree)	Diameter at Breast Height (DBH)	3~5cm	200~300cm	Refer to Appendix A3 (Fig. 24~28) for Relevant Height to Width Ratio: Minimum Crown Width Value is 2/5 of Natural Height.	≥3		≥3	1	6~8	1
		Standard Tree (Medium Size Tree)	/ Meter Height Diameter (MHD)	5~8cm	300~350cm		≥3		≥3	1	6~8	1
		Heavy Standard Tree (Large Size Tree)		8~15cm	350~600cm		≥4	200-300cm	≥3	1	6~8	1.5
		Mature Tree		>15cm	>600cm		≥5	250-300cm	≥3	1	6~8	1.5
	Uniaxial Branched Tree	Light Standard Tree (Small Size Tree)	Diameter at Breast Height (DBH)	3~5cm	200~300cm				≥3	1	6~8	1
		Standard Tree (Medium Size Tree)	/ Meter Height Diameter (MHD)	5~8cm	300~350cm				≥3	1	6~8	1
		Heavy Standard Tree (Large Size Tree)		8~15cm	350~600cm			200-300cm	≥3	1	6~8	1.5
		Mature Tree		>15cm	>600cm			250-350cm	≥3	1	6~8	1.5
	Coaxial Branched Tree	Light Standard Tree (Small Size Tree)	Diameter at Breast Height (DBH)	3~5cm	200~300cm				≥3	1	6~8	1
		Standard Tree (Medium Size Tree)	/ Meter Height Diameter (MHD)	5~8cm	300~350cm				≥3	1	6~8	1
		Heavy Standard Tree (Large Size Tree)		8~15cm	350~600cm			200-300cm	≥3	1	6~8	1.5
		Mature Tree		>15cm	>600cm			250-350cm	≥3	1	6~8	1.5
	Multi-stem Tree		Diameter at Breast Height (DBH)	10~15cm	200~300cm				≥3	≥2		1
			/ Meter Height Diameter (MHD)	15~20cm	300~350cm				≥3	≥2		1
				20~30cm	350~600cm				≥3	≥2		1.5
				>30cm	>600cm				≥3	≥2		1.5

Note:

1. Acceptable deviation of rootball diameter to rootball height ratio is ±10%.



Appendix D (Appendix for Standard Specification)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Category

Table D Palm Standard Indicator Values

Category	Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values						
			Natural Height	Number of Leaves (Per Stem)	Number of Stem	Rootball Diameter to Base Diameter Ratio	Rootball Diameter to Rootball Height Ratio		
Palms	Single-Stem Palm	Small Size Palm	Base Diameter/ Bare Stem Height	10~20cm/<100cm	250~300cm	>4 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	20~30cm/<100cm	250~300cm	>5 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	30~40cm/<100cm	250~300cm	>6 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	40~50cm/<100cm	250~300cm	>8 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	50~60cm/<100cm	250~300cm	>10 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	10~20cm/<100~200cm	300~400cm	>4 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	20~30cm/<100~200cm	300~400cm	>5 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	30~40cm/<100~200cm	300~400cm	>6 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	40~50cm/<100~200cm	300~400cm	>8 pieces	1 Stem	2~5	1~2
			Base Diameter/ Bare Stem Height	50~60cm/<100~200cm	300~400cm	>10 pieces	1 Stem	2~5	1~2
		Medium Size Palm	Base Diameter/ Bare Stem Height	20~30cm/<200~300cm	400~600cm	>5 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	30~40cm/<200~300cm	400~600cm	>6 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	40~50cm/<200~300cm	400~600cm	>8 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	50~60cm/<200~300cm	400~600cm	>10 pieces	1 Stem	2~5	2
		Large Size Palm	Base Diameter/ Bare Stem Height	30~40cm/<300~400cm	600~800cm	>6 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	40~50cm/<300~400cm	600~800cm	>8 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	50~60cm/<300~400cm	600~800cm	>10 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	60~80cm/<300~400cm	600~800cm	>12 pieces	1 Stem	2~5	2
			Base Diameter/ Bare Stem Height	80~100cm/<300~400cm	600~800cm	>12 pieces	1 Stem	2~5	2
		Mature Palm	Base Diameter/ Bare Stem Height	30~40cm/>400cm	>800cm	>8 pieces	1 Stem	2~5	2
Base Diameter/ Bare Stem Height	40~50cm/>400cm		>800cm	>8 pieces	1 Stem	2~5	2		
Base Diameter/ Bare Stem Height	50~60cm/>400cm		>800cm	>10 pieces	1 Stem	2~5	2		
Base Diameter/ Bare Stem Height	60~80cm/>400cm		>800cm	>12 pieces	1 Stem	2~5	2		
Base Diameter/ Bare Stem Height	80~100cm/>400cm		>800cm	>12 pieces	1 Stem	2~5	2		
Multi-Stem Palm	Small Size Palm	Natural Height	<150cm	>4 pieces	≥2 Stems		1		
		Natural Height	150~200cm	>5 pieces	≥2 Stems		1		
	Medium Size Palm	Natural Height	200~300cm	>6 pieces	≥2 Stems		2		
	Large Size Palm	Natural Height	300~400cm	>8 pieces	≥2 Stems		2		
	Mature Palm	Natural Height	>400cm	>10 pieces	≥2 Stems		2		

Note:

1. Acceptable deviation of rootball diameter to rootball height ratio is ±10%.



Appendix F (Appendix for Standard Specification)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Category

■ Table F Bamboo Standard Indicator Values

Type	Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values			
			Natural Height	Number of Stems	Container Diameter	Container Diameter to Container Depth Ratio
Single-stem Bamboo	Base Diameter	1-2cm	300~400cm	1 Stem	10~15cm	<1.5
	Base Diameter	2-3cm	300~400cm	1 Stem	10~15cm	<1.5
	Base Diameter	3-4cm	300~400cm	1 Stem	15~20cm	<1.5
			400~500cm	1 Stem	15~20cm	<1.5
	Base Diameter	4-5cm	300~400cm	1 Stem	15~20cm	<1.5
			400~500cm	1 Stem	15~20cm	<1.5
	Base Diameter	5-6cm	300~400cm	1 Stem	15~20cm	<1.5
			400~500cm	1 Stem	15~20cm	<1.5
	Base Diameter	6-8cm	300~400cm	1 Stem	20~25cm	>1
			400~500cm	1 Stem	20~25cm	>1
	Base Diameter	8-10cm	300~400cm	1 Stem	20~25cm	>1
			400~500cm	1 Stem	20~25cm	>1

Type	Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values		
			Number of Stems	Container Diameter	Container Diameter to Container Depth Ratio
Multi-stem Bamboo	Natural Height	80~100cm	≥4	25~30cm	>1
	Natural Height	100~200cm	≥4	25~30cm	>1
	Natural Height	200~300cm	≥4	25~30cm	>1



Appendix H (Appendix for Standard Specification)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Category

■ Table H Shrub Standard Indicator Values

Category		Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values		
				Natural Height	Height to Width Ratio	Number of Branches
Solitary Shrub	Small Size Shrub	Container Diameter/Depth	13~20cm/15~20cm	30~60cm	≤ 3:2	>3
	Medium Size Shrub	Container Diameter/Depth	20~40cm/>20~50cm	60~120cm	≤ 3:2	>5
	Large Size Shrub	Container Diameter/Depth	>40cm/>50cm	>120cm	≤ 3:2	>7
	Ground Cover Shrub	Container Diameter/Depth	13~20cm/>15~20cm	15~30cm	≤ 2:3	>3
Category		Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values		
				Height to Width Ratio	Container Diameter/Container Depth	
Shrubs	Ball-shaped Shrub	Natural Height	60~80cm	1:1~1.2:1	15~20cm/>20~25cm	
			80~100cm	1:1~1.2:1	20~25cm/>25~30cm	
			100~120cm	1:1~1.2:1	25~30cm/>30~40cm	
			120~150cm	1:1~1.2:1	30~40cm/>40~50cm	
			>150cm	1:1~1.2:1	>40cm/>50cm	
	Pyramid-shaped Shrub	Natural Height	100~120cm	2:1~3:1	25~30cm/>30~40cm	
			120~150cm	2:1~3:1	30~40cm/>40~50cm	
			150~200cm	2:1~3:1	40~45cm/>50~60cm	
			>200cm	2:1~3:1	>45cm/>60cm	
	Cylinder-shaped Shrub	Natural Height	100~120cm	2:1~3:1	25~30cm/>30~40cm	
			120~150cm	2:1~3:1	30~40cm/>40~50cm	
			150~200cm	2:1~3:1	40~45cm/>50~60cm	
			>200cm	2:1~3:1	>45cm/>60cm	



Appendix J (Appendix for Standard Specification)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Category

Table J Herb Standard Indicator Values

Category		Key Indicator	Range of Key Indicator Values	Range of Secondary Indicator Values		
				Number of Stems	Natural Height	Height to Width Ratio
Herbs	Solitary Herb	Container Diameter/Depth	13~20cm/15~20cm	>3	30~60cm	≤ 3:2
		Container Diameter/Depth	20~40cm/20~50cm	>5	60~120cm	≤ 3:2
		Container Diameter/Depth	≥40cm/≥50cm	>7	>120cm	≤ 3:2
	Ground Cover Herb	Container Diameter/Depth	≥15cm/≥15cm	>3	15~30cm	≤ 2:3
	Turf			Range of Secondary Indicator Values		
Key Indicator		Range of Key Indicator Values	Width of Turf	Length of Turf	Height of Turf Remained	Height of Planting Soil
Turf Grid Coverage		>90%	30cm	30cm	3~7cm	1~3cm
Turf Roll Coverage		>90%	30cm	100cm	3~7cm	1~3cm

Appendix K (Prescriptive Appendix)

Standard Specification of Nursery Plant Materials for Guangdong, Hong Kong and Macau - According to Plant Species

Table K Solitary Herb and Ground Cover Herb Species Standard Indicator Values

Order	Code	Type	Chinese Name	Botanical Name	Key Indicator	Specification				
						Natural Height	Crown Width	Number of Stems	Container Diameter	Cultivation Method

Note: The table should be filled in by relevant stakeholders during design and price quoting stages according to locally applicable plant species.

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Annex

ICS 65.020.40

CCS B 61

团 体 标 准

T/GDALA 001-2021

粤港澳园林苗木质量规格规范

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香港园境师学会
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前 言

本文件按照 GB/T 1.1—2020《标准化工作导则 第1部分：标准化文件的结构和起草规则》的规定起草。

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本文件由广东省风景园林与生态景观协会、香港园境师学会、澳门园景绿化促进会提出并归口。

本文件主编单位：广东省风景园林与生态景观协会、香港园境师学会、澳门园景绿化促进会、泛亚环境有限公司、深圳市高山水生态园林股份有限公司。

本文件参编单位：粤港澳大湾区生态与景观联盟、香港顾问园境师协会、深圳市风景园林协会、亚洲人居环境协会、香港保护树木协会、绿墙工程（香港）有限公司、德泰园景工程有限公司、泰山环境建设有限公司、东阳绿化有限公司、动力资源有限公司、广州市绿化公司、广州普邦园林股份有限公司、广州华景建设有限公司、深圳文科园林股份有限公司、广东卓越景观设计工程有限公司、佛山市顺德区顺茵绿化设计工程有限公司、深圳市广信建设工程有限公司、深圳市国艺园林建设有限公司、珠海市风景园林集团有限公司、硕泉园林股份有限公司、珠海经济特区园海绿化工程有限公司、珠海经济特区园景绿化工程有限公司、广州市花木公司、深圳市彬绿园林有限公司、铁汉山艺环境建设有限公司、棕榈生态城镇发展股份有限公司、惠州市东方园林工程有限公司、广东艺林绿化工程有限公司、广东苗讯科技有限公司、广州中茂园林建设工程有限公司、深圳市豪科园林有限公司。

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引 言

为明确粤港澳三地生态修复与园林工程苗木用材质量指标，提升三地生态修复及园林绿化工程质量，及推进三地相关行业的健康发展，制定本文件。

鉴于现有三地园林工程苗木质量规格标准的差异情况，广东省风景园林与生态景观协会、香港园境师学会及澳门园景绿化促进会携手合作，通过三地的专业团体、行业协会和有关专家学者的参与，共同探索研究，按符合三地相关标准，透过完善三地标准的融合与优化，并参考国际经验和标准，统一制定合适三地苗木的规格质量体系，以改善生态修复和园林绿化项目的设计应用、采购效率、工程进度、质量、效果、成本控制等实施环节，增强三地园林绿化、生态修复等专业领域深度沟通、互惠合作等。对提升产业水平、促进产业升级均具有重要的作用；同时对粤港澳大湾区各城市的生态环境建设、顺应大湾区发展大趋势起重大意义。

本文件主要制定生态修复及园林绿化工程用苗的统一术语、定义、基本质量要求、选形要点及主要苗木的质量标准值，并对三地常用的园林绿化工程苗木进行了客观、合理及科学化的划分归类，以作为编制相关之工程造价参考文件，也可用作规范苗木生产、工程设计、施工、监理等质量控制管理。

粤港澳园林苗木质量规格规范

1 范围

本文件规定了苗木的分类、各类园林苗木的定性质量要求、各类园林苗木的定量质量指标、检测方法、验收要求等内容。

本文件适用于粤港澳（广东省、香港特别行政区、澳门特别行政区）三地园林绿化、生态修复常用苗木，包括乔木、棕榈类、竹类、灌木、草本、藤本等植物。本文件不适用于对质量及形态上有特殊要求的用苗。

2 规范性引用文件

本文件没有规范性引用文件。

3 术语和定义

下列术语和定义适用于本文件。

3.1 苗木分类

3.1.1

种子苗 seedling tree

用种子繁殖培育出来的苗木。

注：种子苗规格见附录 A 图 A. 22。

3.1.2

幼树苗 whip

培育时间 2～3 年苗龄内、自然高度在 200cm 以下的苗木。

注：幼树苗包括种子苗（实生苗）、嫁接苗、扦插苗等。幼树苗规格见附录 A 图 A. 23。

3.1.3

乔木 tree

具有明显单一主干或多主干、树冠广阔的木本多年生植物。成熟植株高度大于 300cm 的木本植物。

注：在苗木形态上常表现有单轴分层形乔木、单轴分枝形乔木、合轴分枝形乔木、多干乔木，见附录 A 图 A. 5～A. 8。按苗木规格大小上分为轻标乔木（小型乔木）、标准乔木（中型乔木）、重标乔木（大型乔木）、成熟乔木，规格指标值图解见附录 A 图 A. 24～A. 28。

3.1.3.1

单轴分层形乔木 uniaxial layered tree

自然生长状态下，树木主干明显，具中央领导干，单轴分枝，主枝在主干上分的分布或二级侧枝上的分布形成明显层次的乔木。

注：单轴分层形乔木株形及质量指标见附录 A 图 A. 5。

3.1.3.2

单轴分枝形乔木 uniaxial branched tree

自然生长状态下，树木主干明显，具中央领导干，单轴分枝但层状不明显的乔木。

注：单轴分枝形乔木株形及质量指标见附录 A 图 A. 6。

3.1.3.3

合轴分枝形乔木 coaxial branched tree

自然生长状态下，不具中央领导干，主干生长至一定阶段后，停止发育，而由侧枝代替其生长，并形成冠幅饱满的乔木。

注：合轴分枝、假二叉分枝及多歧分枝归入此类。合轴分枝形乔木株形及质量指标见附录 A 图 A. 7。

3.1.3.4

多干乔木 multi-stem tree

成熟植株高度大于 300cm 的具有从地面开始主干数量大于 1 的木本植物。

注：多干乔木株形及质量指标见附录 A 图 A. 8。

3.1.4

棕榈 palm

一般为常绿植物，圆柱形主茎直立，多数不分枝，叶片极大、互生、簇生于树干上部，有宽阔的叶片和发达的维管束植物，是单子叶植物。

注：在苗木形态上表现有单干棕榈和多干棕榈，其株形及质量指标见附录 A 图 A. 9 ~ A. 10。按苗木规格大小上分为小型棕榈、中型棕榈、大型棕榈、成熟棕榈，见附录 A 图 A. 29 ~ A. 36。

3.1.4.1

多干棕榈 multi-stem palm

成熟植株生长达到自然高度大于 400cm，具有从地面开始主干数量大于 1 的棕榈植物。

注：多干棕榈株形及质量指标见附录 A 图 A. 10。

3.1.5

竹 bamboo

竹亚科植物，为多年生植物，但不具备年轮。成熟的竹生出侧枝，叶片为剑形，有叶柄，幼株的叶直接从茎上生出。苗木形状上表现有单干竹与多干（丛）竹。

注：单干竹与多干竹株形及质量指标见附录 A 图 A. 11 ~ A. 12。

3.1.6

灌木 shrub

基部萌发有多干或近基部萌发多侧枝的木本多年生植物，植株一般比较矮小及有丛生特性。

注：可用作点植、地被灌、造型（如球形、塔形、柱形等），其株形及质量指标见附录 A 图 A. 13 ~ A. 17。按苗木规格大小分为小型灌木、中型灌木、大型灌木，其规格指标值图解见附录 A 图 A. 39 ~ A. 41。

3.1.7

草本 herb

植物体木质部较不发达、茎多汁且柔软的植株。

注：分为点植草本、草本地被、草皮等。其株形及质量指标见附录 A 的图 A. 18 ~ A. 20。

3.1.8

藤本 climber

茎干细长，自身不能直立生长，必须依附它物而向上攀缘或匍匐生长的植物。

注：按苗木规格大小分为小型藤本、中型藤本、大型藤本。其株形及质量指标见附录 A 图 A. 21。

3.1.9

地被植物 ground cover

株丛密集、低矮，经简单管理即可用于代替草坪用于覆盖地表的植物。

注：包括地被灌木、地被草本，其株形及质量指标见附录 A 图 A. 14 和附录 A 图 A. 19。

3.1.10

草皮 turf

用多年生矮小草本植株密植，多以块状或卷状为标准、直接于工程场地铺设及拼接。

注：草皮质量指标见附录 A 图 A. 20。

3.2 苗木规格

3.2.1

规格主变量 key indicator

决定苗木生长量及苗龄的重要指标，对苗木价格影响最大，它是苗木规格首先要考虑的指标。对于大部分普通乔木来说，胸径或米径是苗木生长的标志，因此是普通乔木的主变量；裸干高是绝大多数棕榈类苗木的主变量；容器大小是灌木及地被植物的主变量；主蔓长为藤本植物的主变量。

3.2.2

规格从变量 secondary indicator

苗木规格指标中除规格主变量之外的指标。

3.2.3

主干 main stem

第一分枝点至地面的部分，即没有侧枝的树干部分。

注：主干图解见附录 A 图 A. 1 ~ A. 4。

3.2.4

中干 central stem

分枝处以上主干的延伸部分。延伸至树梢的中干，称“中央领导干”。

注：中干图解见附录 A 的图 A. 1 ~ A. 2。

3.2.5

胸径 diameter at breast height

植株主干距离地面 130cm 的平均直径。

注：胸径常用于林业及木材的测量。

3.2.6

米径 meter diameter

植株主干距离地面 100cm 处的平均直径。

注 1：在绿化苗木的设计、施工、交易时应用。

注 2：多干苗木米径（胸径）测量方法：分别量度每条支干的米径（胸径），记录支干的数目和每条支干的直径。如须把各支干的直径合并为单一指数，可计算所有支干米径（胸径）的平方数总和，然后取其平方根，即可得出该苗木的整体米径（胸径）（见示例）。

示例：

一株三干苗木的三根干，米径（胸径）分别是 12cm、14cm、17cm，其整体米径（胸径）计算方法为：

$$\sqrt{12^2+14^2+17^2} \text{ cm} = \sqrt{629} \text{ cm} = 25.08\text{cm}$$

3.2.7

腹径 abdominal height diameter

枝杆膨大的苗木其主干分枝以下最膨大部分的平均直径。

3.2.8

基径 base diameter

苗木主干离地面 10cm 位置的直径。多干乔木基径计算方法为：主干离地面 10cm 位置最大的主干直径加上其他各干离地面 10cm 位置直径一半的总和。

3.2.9

冠幅 grown width

苗木树冠投影最大直径与最小直径之平均值。

3.2.10

自然高 natural height

植株从地面到自然状态下最高点之垂直高度。

3.2.11

枝下高 under-branch height

乔木从地表面到树冠的最下分枝点之垂直高度。

3.2.12

裸干高 bare stem height

棕榈类植株从地面到最低叶鞘以下裸干的高度。

注：裸干高图解见附录 A 图 A.9。

3.2.13

分枝级数 branch levels

树木从主干开始分出不同发育阶段的分枝级数。

注：从主干直接分出来的枝条为一级分枝；从一级分枝抽出的枝条为二级分枝；从二级分抽出的枝条为三级分枝，依次类推（分枝级数一般最大不超过 7 级）。其图解见附录 A 图 A.7。

3.2.14

层数 number of layers

分层形乔木的一级分枝呈层状生长所形成的分层数量。

注：层数图解见附录 A 图 A.5。

3.2.15

多干 multi-stem

自地面 100cm 以下开始分干，培育成具有多主干（含 2 枝或以上）类型的植株。

注：多干干数图解见附录 A 图 A. 8。

3.2.16

苗龄 seedling age

从播种、插条或埋根（或组培分瓶）到出圃，苗木实际生长的年龄，以经历 1 年生长周期作为 1 个苗龄单位。

3.2.17

高阔比例 height to width ratio

自然高与冠幅的比值。

注：按一般苗木自然生态比例考虑：灌木以比例 3:2 为佳；地被植物以 2:3 为佳。

3.2.18

叶片数量 number of leaves

棕榈类苗干上部着生的叶片数量。

3.2.19

干数 number of stems

棕榈类、多干乔木、竹类从地面分长出来干的数量。

3.2.20

草皮留荐高 height of turf remained

草皮修剪草叶后的尖部与土层之间的高度。

注：草皮留荐高图解见附录 A 图 A. 20。

3.2.21

草皮盖度 turf coverage

一定面积上草坪植物垂直投影面积与草坪所占土地面积的比例。

3.2.22

土球大小 rootball size

苗木的土球水平直径及垂直深度。

3.2.23

容器大小 container size

苗木种植容器的内部水平口径及垂直深度。

4 苗木的分类

依据不同类形苗木具有不同的种类、形态及特征，结合设计要求、园艺养护及全过程管理，将苗木进行两级分类。按生物学特性的一级分类依据；在一级分类基础上，根据植物自身形态与特殊景观应用效果及不同的质量指标进行二级分类。苗木分类体系如表 1 所示。

表1 苗木分类体系

序号	一级分类	二级分类
1	乔木	单轴分层形乔木
2		单轴分枝形乔木
3		合轴分枝形乔木
4		多干乔木
5	棕榈类	单干棕榈
6		多干棕榈
7	竹类	单干竹
8		多干竹
9	灌木	点植灌木
10		地被灌木
11		球形灌木
12		塔形灌木
13		柱形灌木
14	草本	点植草本
15		地被草本
16		草皮
17	藤本	

5 各类园林苗木的定性质量要求

5.1 基本要求

5.1.1 植株健康安全：苗木生长健壮，无病虫害。

5.1.2 株形自然完好：树形端正丰满，保持植物的自然形态。

5.1.3 枝干枝条完好：单干树“中央领导干”明显，主干直立不弯曲，无截干痕迹；多干树干形成骨架舒展，枝条枝干没有任何明显的结构缺陷或枯萎、洞穴、伤口、腐烂、破碎、裂开、冻伤。

5.1.4 树冠均匀：匀称茂密，各方向生长枝条分布均匀。

5.1.5 土球和根系：完好无缺，能够保护根系，且土球和容器中无多年生杂草；土球包装紧密，不能松脱，底部要严格密封不能漏土；根系发达，泥土和根系没有分离。

5.1.6 生态用苗：树立保护森林资源意识，使用正规苗圃场生产培育苗木，不应使用古树名木或从森林中移栽的大树。因改造而需迁移的大树应通过截枝、控根等技术措施进行迁地抚育，达到种植标准后，方可作为大规格苗木重新应用于园林绿化中。

5.1.7 检疫：苗木植物之检疫应按粤港澳三地有关规定执行。

5.2 一级分类质量要求

一级分类质量要求见表 2。

表 2 一级分类质量要求

各类园林苗木	质量要求
乔木	<ol style="list-style-type: none"> 1. 除非规定为多干乔木，土球或容器内的乔木应有一个主干，且在同株树冠内不应另出现等势主干。 2. 没有交叉主枝及无交叉主干。 3. 树冠的形状和叶片的密度应根据其物种或栽培品种而定。树冠直径比例从主干生长出来的枝条应具有合理的对称性，参考值为自然高的 2/5。 4. 分枝沿主轴均匀分布，侧枝要平均向外伸展，形成典型的物种树冠形态。 5. 乔木主干应在土球或容器的中间。 6. 乔木应具有完善的根系，到达容器或土球的外侧，不应有主根部在容器内打圈生长。 7. 在土壤表面应清晰见到乔木的根脊。 8. 根脊上没有受伤的根或有根部缠绕主干。
棕榈	<ol style="list-style-type: none"> 1. 棕榈的主干应生长健康、无损伤。 2. 叶片的形状和密度应根据其物种或栽培品种而定。 3. 叶片应沿棕榈主干的上部均匀分布，形成典型的物种或品种的平衡扩展幅度。 4. 棕榈主干中心应在土球或容器的中间。 5. 生长主叶基部没有折断。
竹类	<ol style="list-style-type: none"> 1. 根系发展健全。 2. 根茎必须健康良好，能够长出新芽。
灌木	<ol style="list-style-type: none"> 1. 灌木形态丰满，冠内下部枝叶不光秃。 2. 主侧枝分布均匀。 3. 灌木的主枝数量达到合约规定的标准要求。
草本	<ol style="list-style-type: none"> 1. 茎多汁柔软。 2. 没有杂草、疾病、害虫或变色。 3. 生长茂盛。
藤本	<ol style="list-style-type: none"> 1. 主蔓应半木质化，生长健壮，叶片均匀。 2. 不同攀援特性藤本苗的攀援器官应健全，如卷须、吸盘、吸附根等。

5.3 二级分类栽培方式和选形要求

二级分类栽培方式和选形要求见表 3。

表 3 二级分类栽培方式和选形要求

一级指标	二级指标	栽培方式	选形要点
乔木	单轴分层形乔木	以围砖、围板、容器袋苗为主。土球需与围砖、围板和容器结合密实。	1. 主干通直。 2. 主干中央生长点完整。 3. 分层均匀，每层枝条完整均匀。
	单轴分枝形乔木		1. 主干挺拔端正。 2. 冠幅饱满，没有偏冠。 3. 分枝骨架均衡，有三级以上分枝。
	合轴分枝形乔木		1. 树形端正。 2. 树冠饱满，没有偏冠。 3. 主分枝无创口，一二级分枝骨架均匀，三级以下分枝为原生分枝。
	多干乔木		1. 树形饱满。 2. 多干分布均匀舒展，无枯干。 3. 干数符合设计要求。
棕榈类	单干棕榈	以控根沙藏苗为主。土球需与围砖、围板和容器结合密实。	1. 树干笔直挺拔，无凹陷。 2. 中央生长点完整健康。 3. 保留完整的 3-5 片新叶。 4. 未发现检疫性有害生（如椰心叶甲、红棕象甲等）。
	多干棕榈		1. 树形自然舒展。 2. 多干分布均匀，无枯干。 3. 保留完整的 3-5 片新叶。 4. 未发现检疫性有害生物（如椰心叶甲、红棕象甲等）。
竹类	单干竹	容器袋苗、容器盆苗为主。土球需与容器结合密实。	1. 竹干笔直，有光泽。 2. 枝叶舒展。
	多干竹		1. 多干分布均匀舒展，无枯干。 2. 分枝骨架枝叶舒展。
灌木	点植灌木		1. 枝叶茂密。 2. 冠形完整，饱满。
	地被灌木		1. 枝叶茂密。 2. 植株完整。 3. 枝叶完全展开。 4. 生长茂盛，分枝低且均匀，整冠饱满。
	球形灌木	1. 整形几何形状标准。 2. 枝叶紧凑、密实饱满。	
	塔形灌木		
	柱形灌木		
草本	点植草本	1. 枝叶茂密。 2. 株形完整，饱满。	
	地被草本	1. 枝叶茂密。 2. 株形完整。 3. 枝叶完全展开。 4. 生长茂盛，分枝低且均匀，整冠饱满。	
	草皮	1. 盖 / 密度应不少于 90%，生长旺盛，无杂草。 2. 草色青绿。 3. 草皮质地坚韧及完整，不松散，没有杂草、疾病、害虫、变色或黄芽。 4. 铺设前不得将草皮切割或破碎，保持草皮湿润状态。	
藤本	容器袋苗、容器盆苗为主。土球需与容器结合密实。	1. 枝叶茂密。 2. 主蔓已为半木质化，生长健壮，叶片分布均匀。 3. 藤条完整。	

注：各类苗木选形要点合格形态、不合格形态见附录 A 图 A.49 ~ A.56。

6 各类园林苗木的定量质量指标

6.1 规格主变量

各类园林苗木规格主变量见表4。

表4 各类园林苗木规格主变量

序号	一级分类	二级分类	规格主变量	备注	
1	乔木	单轴分层形乔木	米径（胸径）	1. 枝下高<100cm，规格主变量为基径。 2. 腹部膨大型的乔木，规格主变量为腹径。	
2		单轴分枝形乔木	米径（胸径）	枝下高<100cm，规格主变量为基径。	
3		合轴分枝形乔木	米径（胸径）	枝下高<100cm，规格主变量为基径。	
4		多干乔木	米径（胸径）		
5	棕榈类	单干棕榈	基径 / 裸干高		
6		多干棕榈	自然高		
7	竹类	单干竹	基径		
8		多干竹	自然高		
9	灌木	点植灌木	容器口径 / 容器深度		
10		地被灌木	容器口径 / 容器深度		
11		常规造型灌木	球形灌木	自然高	
12			塔形灌木	自然高	
13			柱形灌木	自然高	
14		草本	点植草本	容器口径 / 容器深度	
15	地被草本		容器口径 / 容器深度		
16	草皮		盖度		
17	藤本		主蔓长		

6.2 乔木、棕榈类、竹类苗木规格定量质量指标

6.2.1 乔木、棕榈类、竹类苗木规格定量质量指标见表5。

表5 乔木、棕榈类、竹类苗木规格定量质量指标

指标		乔木				棕榈类		竹类		备注	
		单轴 分层 形 乔木	单轴 分枝 形 乔木	合轴 分枝 形 乔木	多干 乔木	单干棕 榈	多干棕 榈	单干 竹	多干 竹		
设计计量单位		株	株	株	株	株	株	株	株		
市场交易计量单位		株	株	株	株	株	株	株	株		
苗木出圃 定量 指标	土球	土球直径	√	√	√	√	√			土球形状要求苹果形至球形或圆柱形。	
		容器口径							√	√	
		容器深度							√	√	
	干	米径（胸径）	*	*	*	*					
		基径			*		*		*		
		枝下高	√	√	√						
		裸干高					*				
		干数				√		√		√	
	高	自然高	√	√	√	√	√	*	√	*	
		冠幅	√	√	√	√					
	冠	层数	√								
		叶片数					√	√			其中多干棕榈指每干的叶片数。
		枝条分级数	√	√	√	√					
		高阔比	√	√	√	√	√	√			
	比例 关系	土球直径与米径的比值	√	√	√	√	√	√			
		土球直径与基径的比值	√	√	√	√	√	√			
		土球直径与土球高度的比值	√	√	√	√	√	√			
	各类苗木指标图解		图 A. 5	图 A. 6	图 A. 7	图 A. 8	图 A. 9	图 A. 10	图 A. 11	图 A. 12	
各类苗木指标值图解		图 A. 24 ~ A. 27			图 A. 28	图 A. 29 ~ A. 32	图 A. 33 ~ A. 36	图 A. 37	图 A. 38		
各类标准苗木指标值		附录 B、附录 C				附录 D、附录 E		附录 F、 附录 G			

注：* 表示规格主变量，√ 表示规格从变量

6.2.2 粤港澳园林苗木质量规格标准“乔木标准”、“棕榈类标准”、“竹类标准”规格按类别分别见附录B、附录D、附录F，按植物种分别见附录C、附录E、附录G。

6.3 灌木、草本、藤本苗木规格定量质量指标

6.3.1 灌木、草本、藤本苗木规格定量质量指标见表6。

表6 灌木、草本、藤本苗木规格定量质量指标

指标		灌木					草本			藤本	
		点植灌木	地被灌木	常规造型灌木			点植草本	地被草本	草皮		
				球形灌木	塔形灌木	柱形灌木					
设计计量单位		株	M ²	株	株	株	株	M ²	M ²	株	
市场交易计量单位		株	株	株	株	株	株	株	M ²	株	
苗木出圃定量指标	土球	土层厚度							√		
		容器口径	*	*	√	√	√	*	*		√
		容器深度	*	*	√	√	√	*	*		√
	高	自然高	√	√	*	*	*	√	√		
		留茬高								√	
		主蔓长									*
	冠	冠幅	√	√	√	√	√	√	√		
		分枝数	√	√				√	√		
		蔓藤数									√
	其他	草皮盖度(%)								*	
		草皮长								√	
		草皮宽								√	
	比例关系	高阔比	√	√	√	√	√	√	√		
各类苗木指标图解		图 A. 13	图 A. 14	图 A. 15	图 A. 16	图 A. 17	图 A. 18	图 A. 19	图 A. 20	图 A. 21	
各类苗木指标值图解		图 A. 39 ~ A. 41	图 A. 46	图 A. 42	图 A. 42	图 A. 42	图 A. 47	图 A. 46	图 A. 48	图 A. 43 ~ A. 45	
各类标准苗木指标值		附录H、附录I					附录J、附录K		附录L	附录M、 附录N	

注：*表示规格主变量，√表示规格从变量

6.3.2 粤港澳园林苗木质量规格标准“灌木标准”、“草本标准”、“藤本标准”规格按类别分别见附录H、附录J、附录M，按植物种如附录I、附录K、附录L、附录N。

7 检测方法

7.1 定性指标

定性指标通过目测感观检测。

7.2 定量指标

7.2.1 定量指标通过直接测量检测。

7.2.2 测量米径、胸径、基径、腹径等指标直径时用测树标尺，读数精确以 0.1cm+ 为准。测量自然高、裸干高、枝下高、冠幅、主蔓长等长度时用钢卷尺、皮尺，读数精确到 1.0cm+ 为准。

7.2.3 测量苗木基径，如基部膨胀或变形，从其近上方正常处测量。

7.2.4 测量冠幅，取树冠垂直投影面上最大值和最小值直径的平均值，最大值与最小值的比值应小于 1.5。

8 验收要求

8.1 根据双方约定，结合实际情况参考使用本条款。

8.2 供应方向需求方提供苗木历史档案记录，包括苗木名称、苗龄、控根期、栽培方式等。

8.3 珍贵苗木应逐株进行检验。

8.4 同一批出圃苗木应进行一次检验，并按 10% 随机抽样进行规格达标验收。

8.5 同一批苗木规格达标验收的允许误差范围应不大于 2%，数量检验的允许误差范围应不大于 0.5%。

8.6 苗木应附带标志牌，挂设数量以苗木品类或包装件数为准。

8.7 验收后的苗木附《苗木规格验收证书》，其格式如表 7 所示。

表 7 苗木规格验收证书

编号		供苗单位			
苗木名称		拉丁名			
苗龄		规格		数量	
起苗日期		发苗日期			
控根时间		植物检疫证号			
是否合格		备注		验收人	

附录 A
(规范性)
苗木质量指标相关术语及定义图解

A.1 主干、中央领导干图解

单轴分层形乔木主干及中央领导干见附录 A 图 A.1。

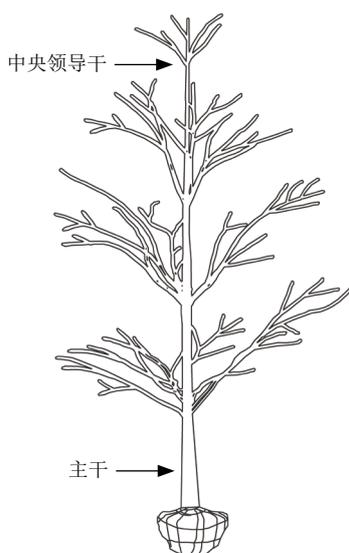


图 A.1 单轴分层形乔木主干及中央领导干

单轴分枝形乔木主干及中央领导干见附录 A 图 A.2。

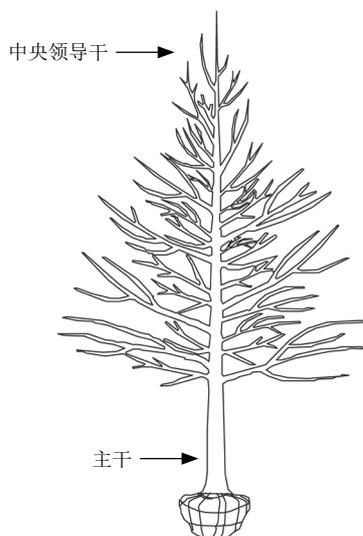


图 A.2 单轴分枝形乔木主干及中央领导干

合轴分枝形乔木主干见附录 A 图 A. 3。

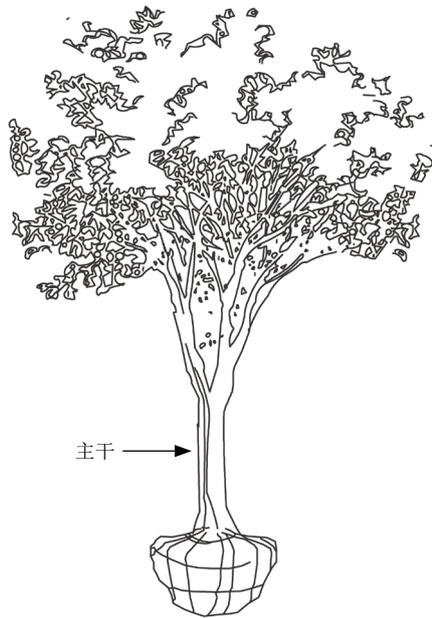


图 A. 3 合轴分枝形乔木主干

多干乔木主干见附录 A 图 A. 4。

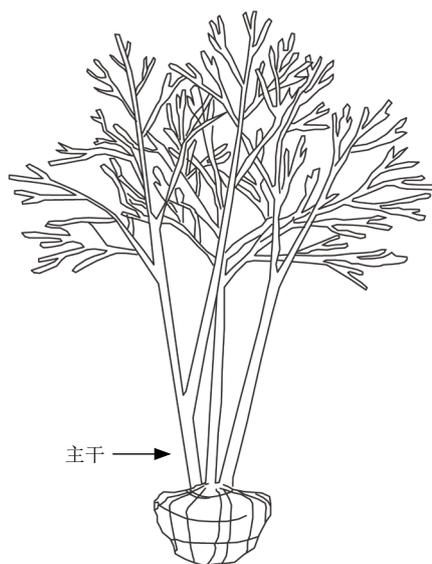


图 A. 4 多干乔木主干

A.2 各类苗木株形及质量指标图解

单轴分层形乔木株形及质量指标见附录 A 图 A.5。

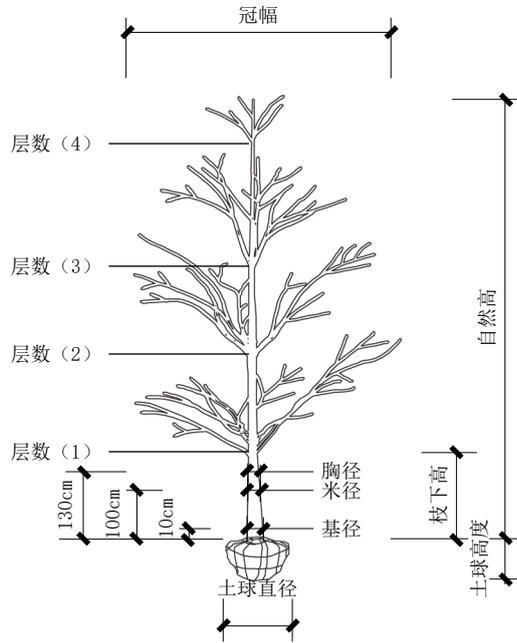


图 A.5 单轴分层形乔木

单轴分枝形乔木株形及质量指标见附录 A 图 A.6。

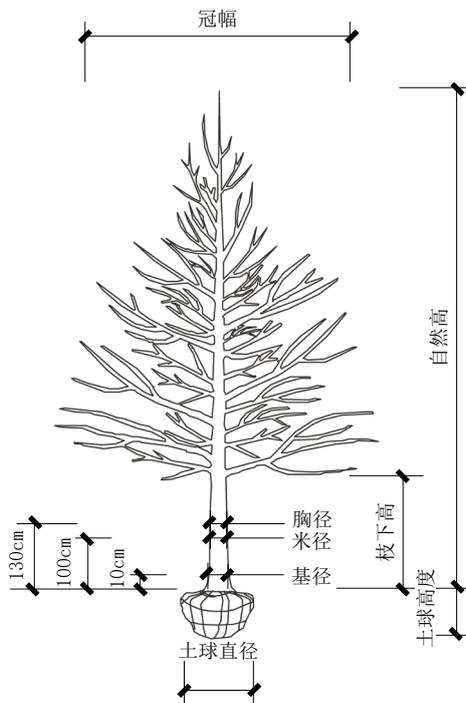


图 A.6 单轴分枝形乔木

合轴分枝形乔木株形及质量指标见附录 A 图 A.7。

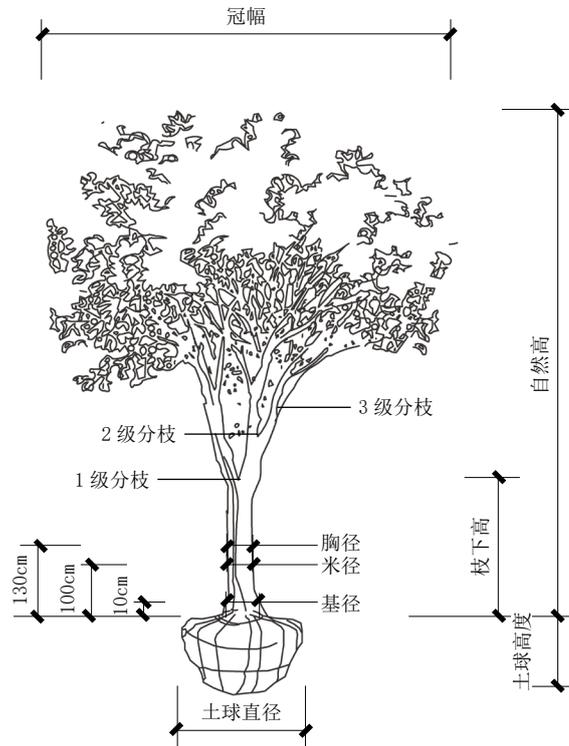


图 A.7 合轴分枝形乔木

多干乔木株形及质量指标见附录 A 图 A.8。

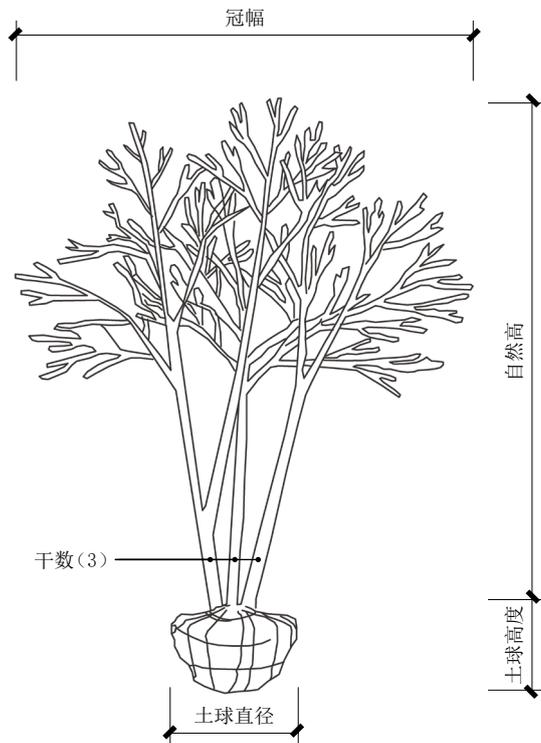


图 A.8 多干乔木

单干棕榈株形及质量指标见附录 A 图 A. 9。

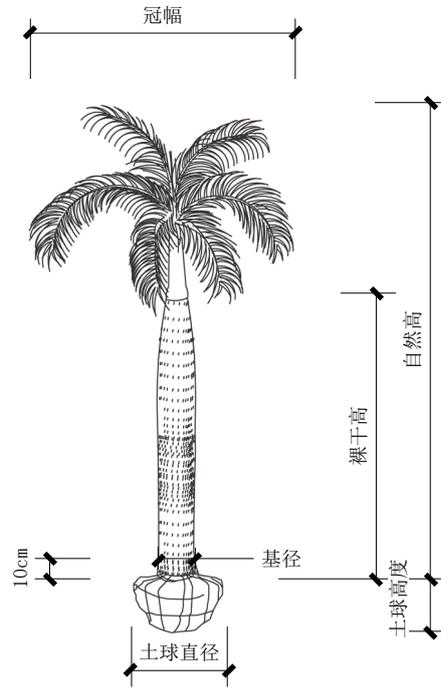


图 A. 9 单干棕榈

多干棕榈株形及质量指标见附录 A 图 A. 10。

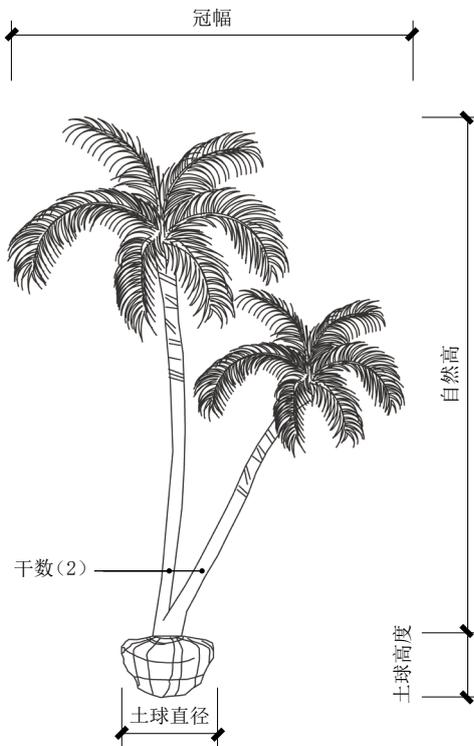


图 A. 10 多干棕榈

单干竹株形及质量指标见附录 A 图 A. 11。

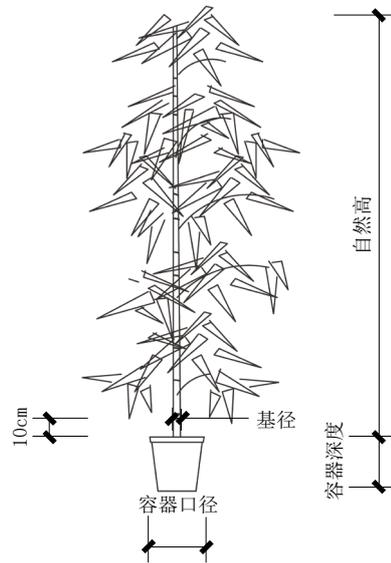


图 A. 11 单干竹

多干竹株形及质量指标见附录 A 图 A. 12。

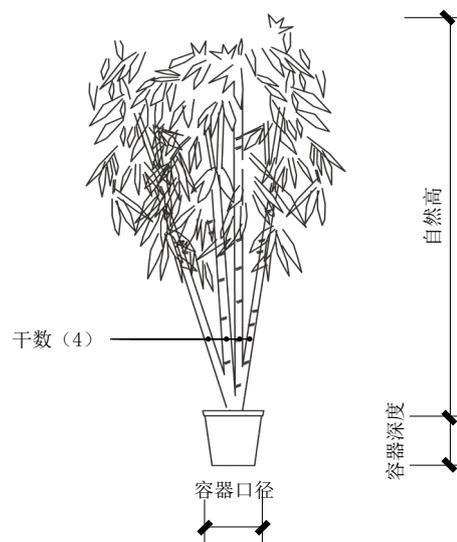


图 A. 12 多干竹

点植灌木株形及质量指标见附录 A 图 A. 13。

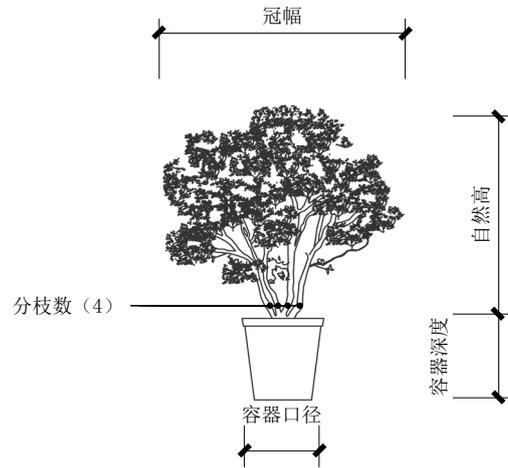


图 A. 13 点植灌木

地被灌木株形及质量指标见附录 A 图 A. 14。

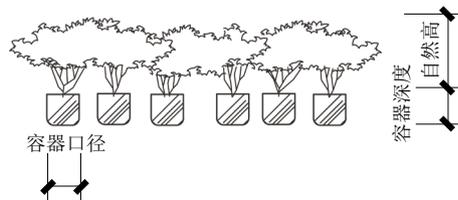


图 A. 14 地被灌木

球形灌木株形及质量指标见附录 A 图 A. 15。

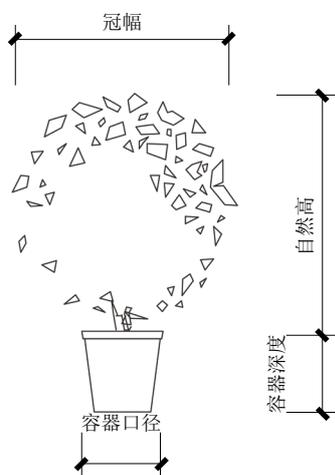


图 A. 15 球形灌木

塔形灌木株形及质量指标见附录 A 图 A. 16。

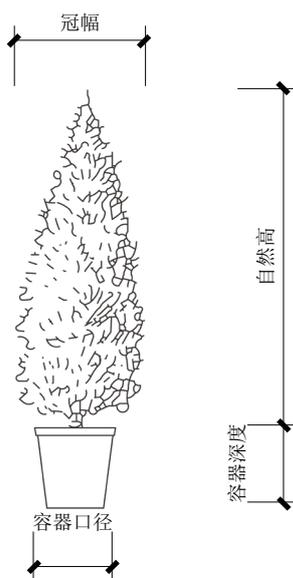


图 A. 16 塔形灌木

柱形灌木株形及质量指标见附录 A 图 A. 17。

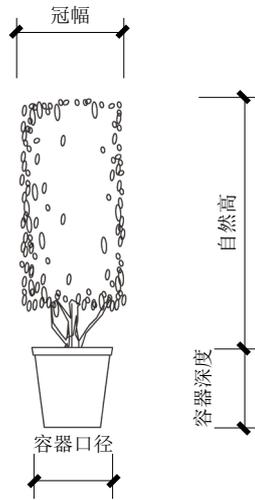


图 A. 17 柱形灌木

点植草本株形及质量指标见附录 A 图 A. 18。

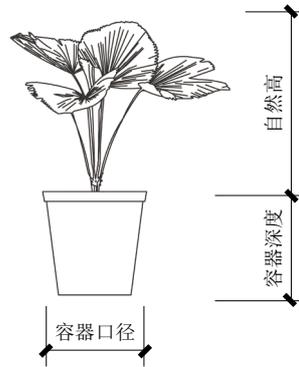


图 A. 18 点植草本

地被草本株形及质量指标见附录 A 图 A. 19。

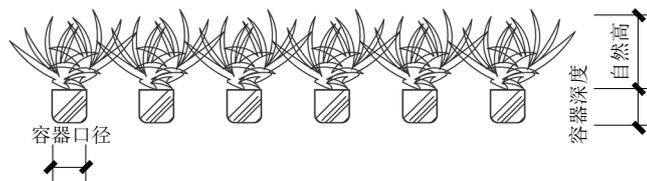


图 A. 19 地被草本

草皮质量指标见附录 A 图 A. 20。

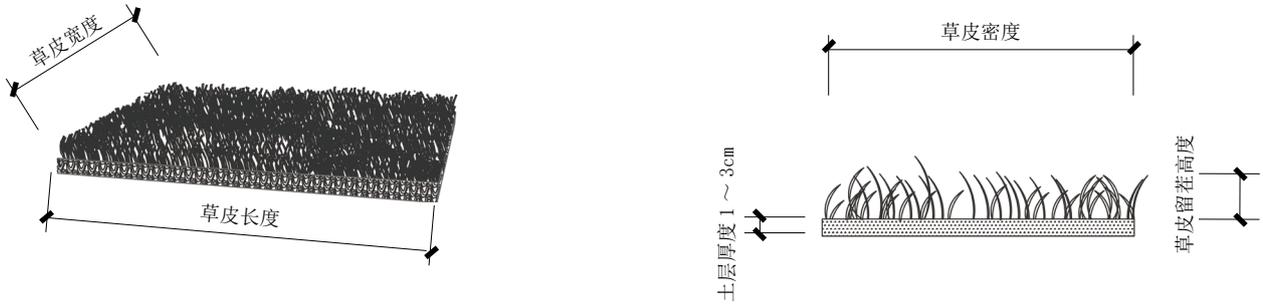


图 A. 20 草皮

藤本株形及质量指标见附录 A 图 A. 21。

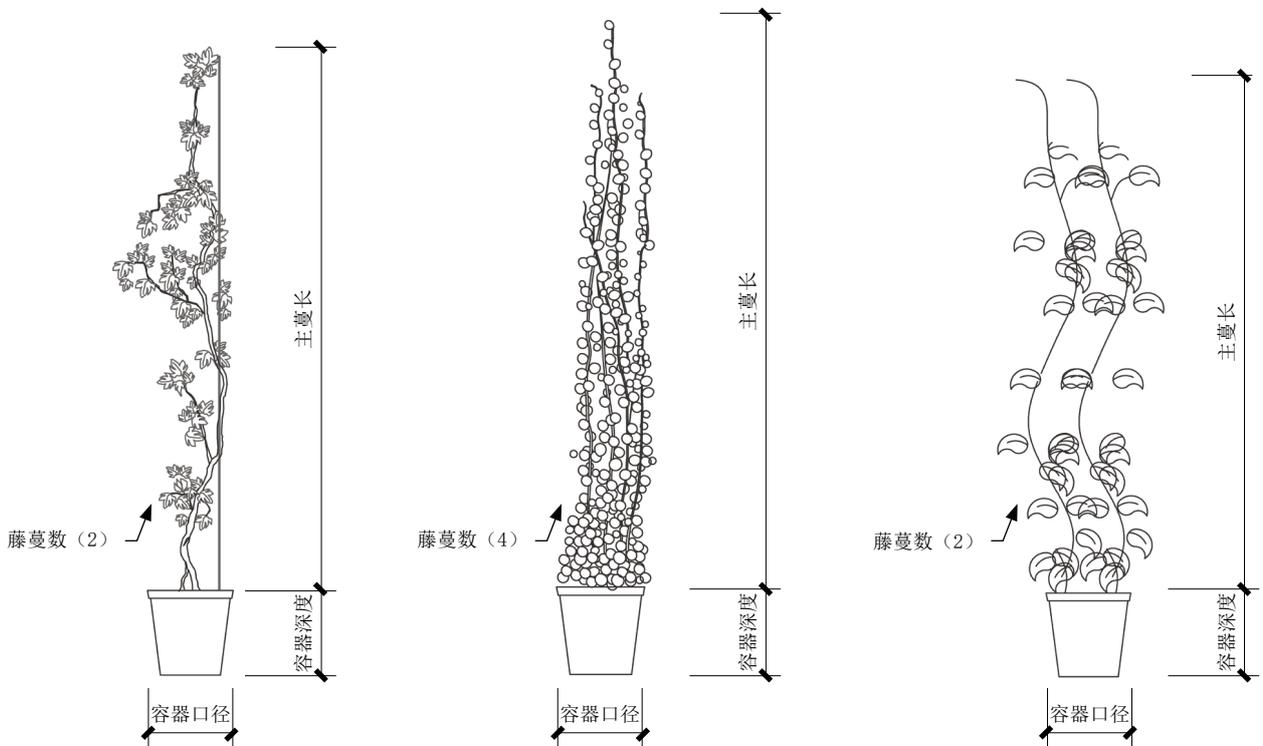
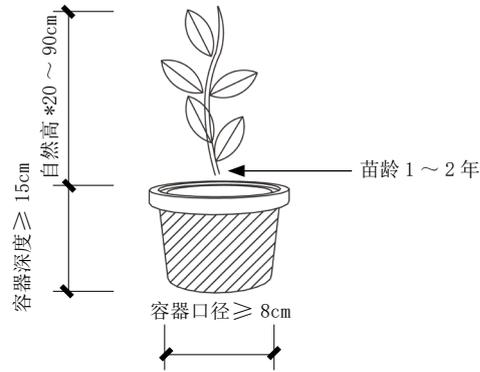


图 A. 21 藤本

A.3 各类苗木规格指标值图解

A.3.1 乔木

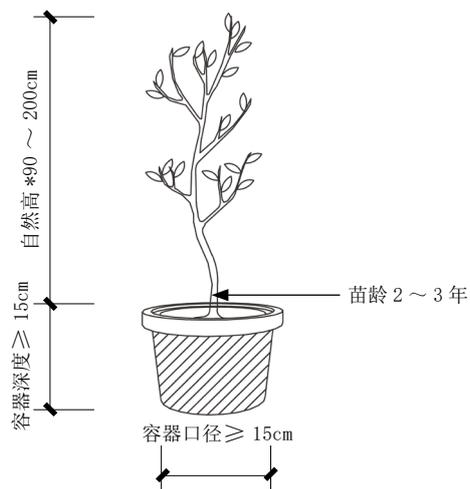
种子苗规格指标值图解见附录 A 图 A.22。



注：* 表示规格主变量。

图 A.22 种子苗

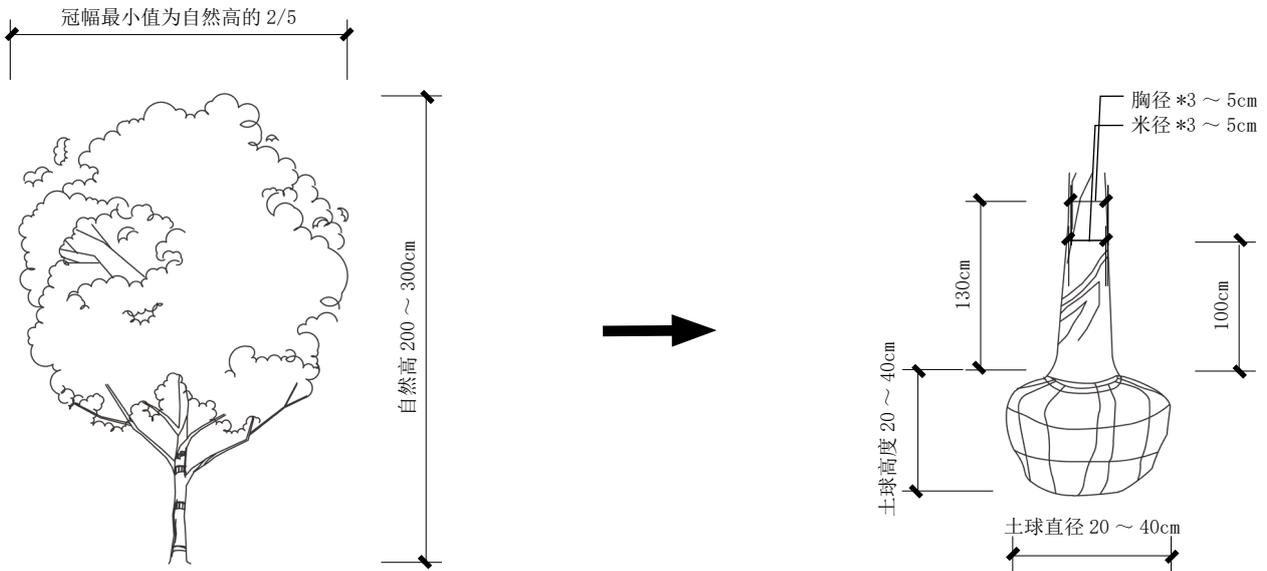
幼树苗规格指标值图解见附录 A 图 A.23。



注：* 表示规格主变量。

图 A.23 幼树苗

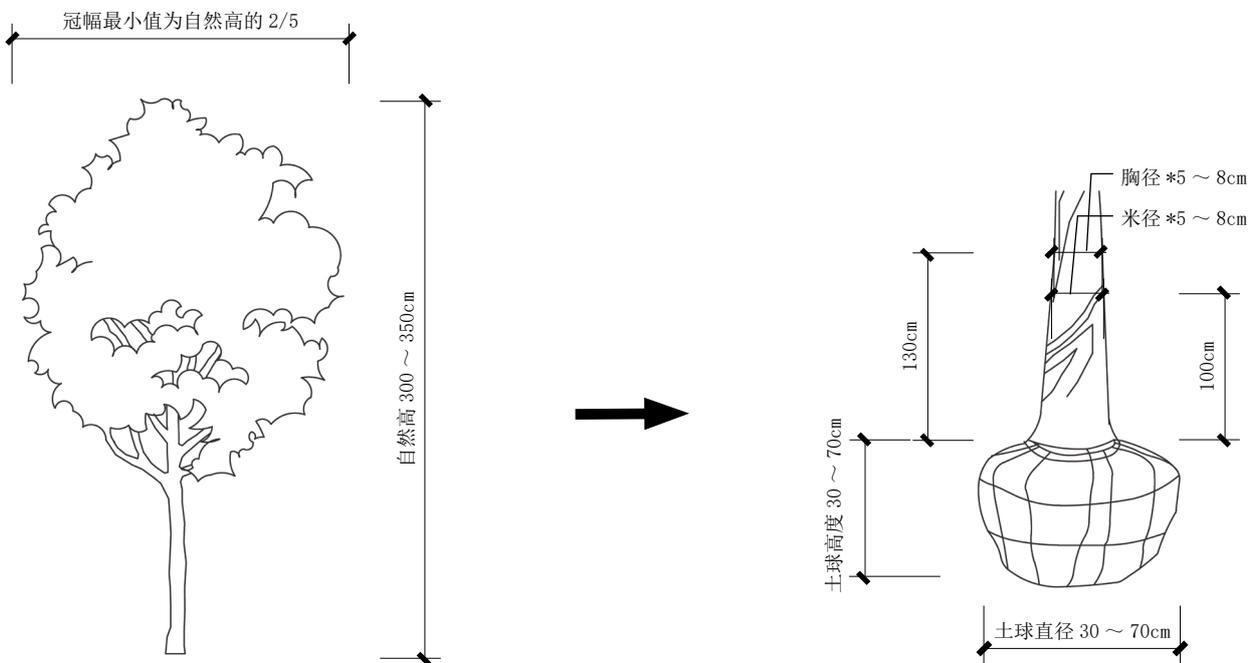
轻标乔木（小型乔木）规格指标值图解见附录 A 图 A. 24。



- 注 1: * 表示规格主变量。
 注 2: 土球直径与规格主变量比值为 6 ~ 8, 土球直径与土球高度的比值为 1。
 注 3: 详见附录 B 表 B. 1。

图 A. 24 轻标乔木（小型乔木）

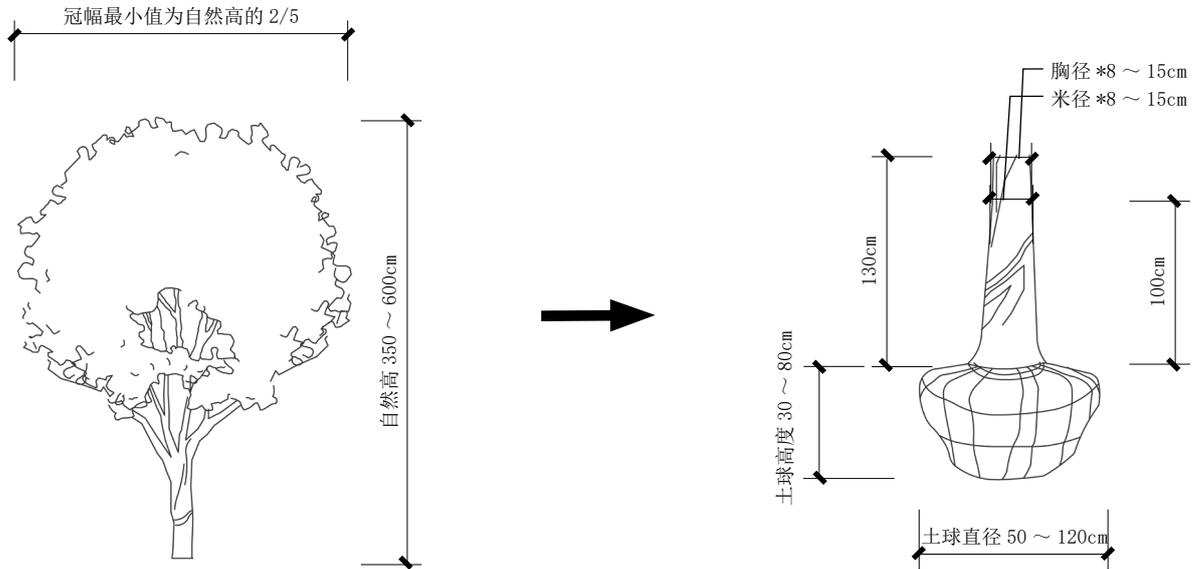
标准乔木（中型乔木）规格指标值图解见附录 A 图 A. 25。



- 注 1: * 表示规格主变量。
 注 2: 土球直径与规格主变量比值为 6 ~ 8, 土球直径与土球高度的比值为 1。
 注 3: 详见附录 B 表 B. 1。

图 A. 25 标准乔木（中型乔木）

重标乔木（大型乔木）规格指标值图解见附录 A 图 A. 26。



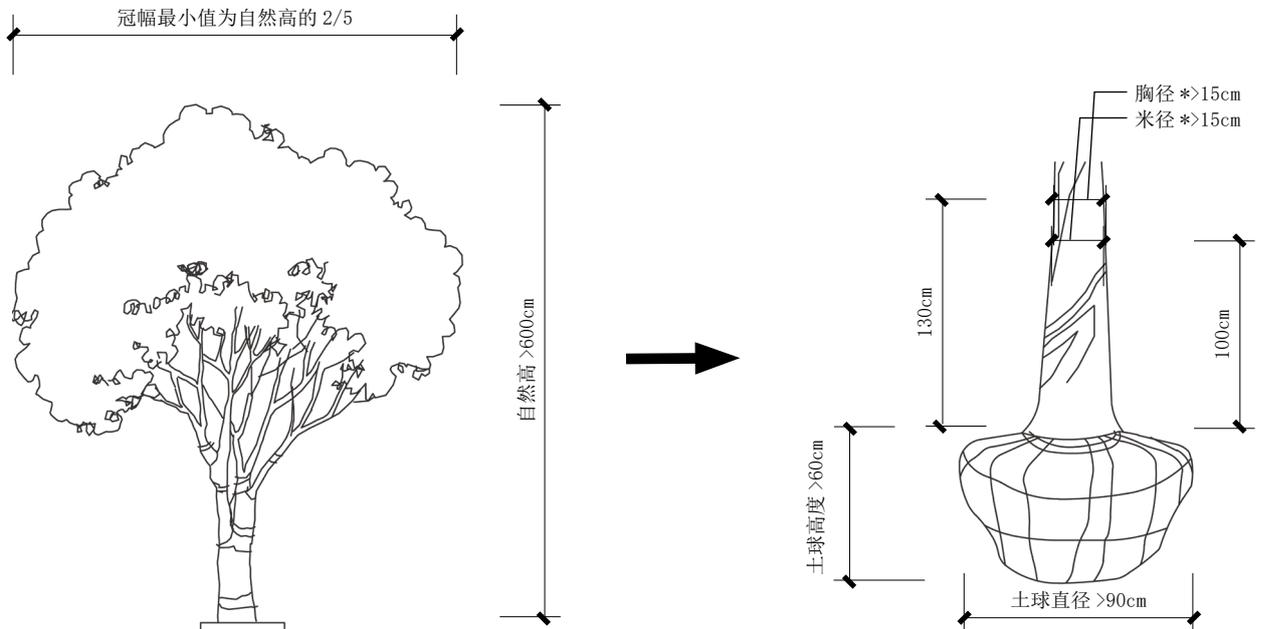
注 1: * 表示规格主变量。

注 2: 土球直径与规格主变量比值为 6 ~ 8, 土球直径与土球高度的比值为 1.5。

注 3: 详见附录 B 表 B. 1。

图 A. 26 重标乔木（大型乔木）

成熟乔木规格指标值图解见附录 A 图 A. 27。



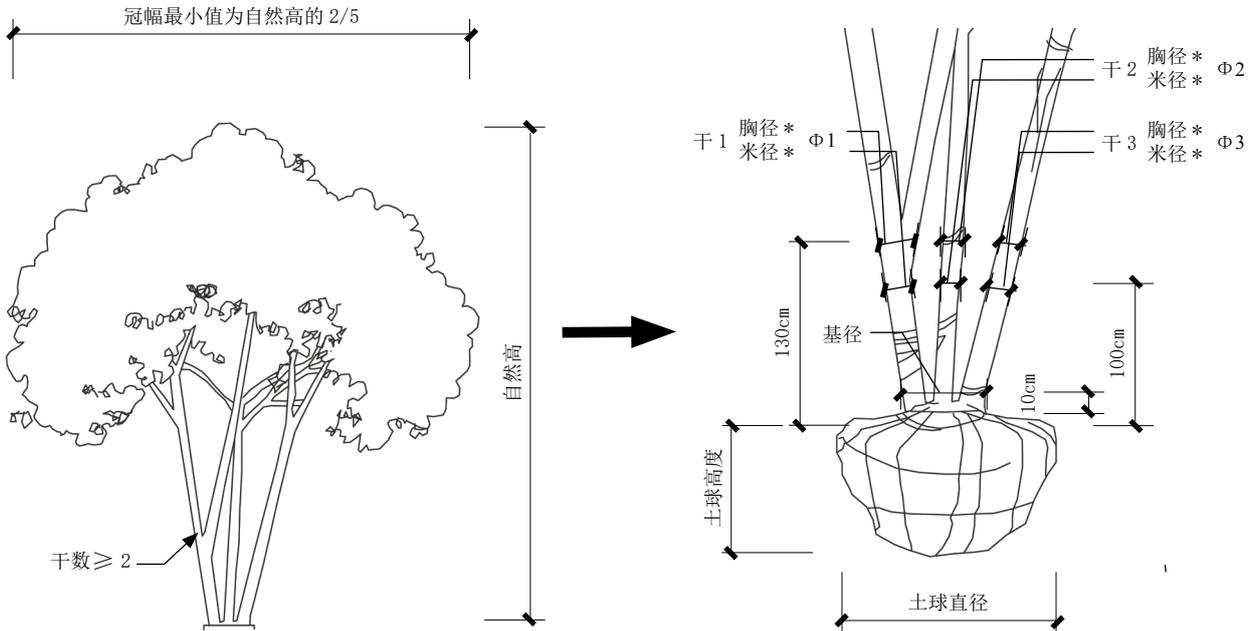
注 1: * 表示规格主变量。

注 2: 土球直径与规格主变量比值为 6 ~ 8, 土球直径与土球高度的比值为 1.5。

注 3: 详见附录 B 表 B. 1。

图 A. 27 成熟乔木

多干乔木规格指标值图解见附录 A 图 A. 28。



注 1: * 表示规格主变量。

注 2: 整体米 / 胸径 = $\sqrt{(\Phi 1)^2 + (\Phi 2)^2 + (\Phi 3)^2}$

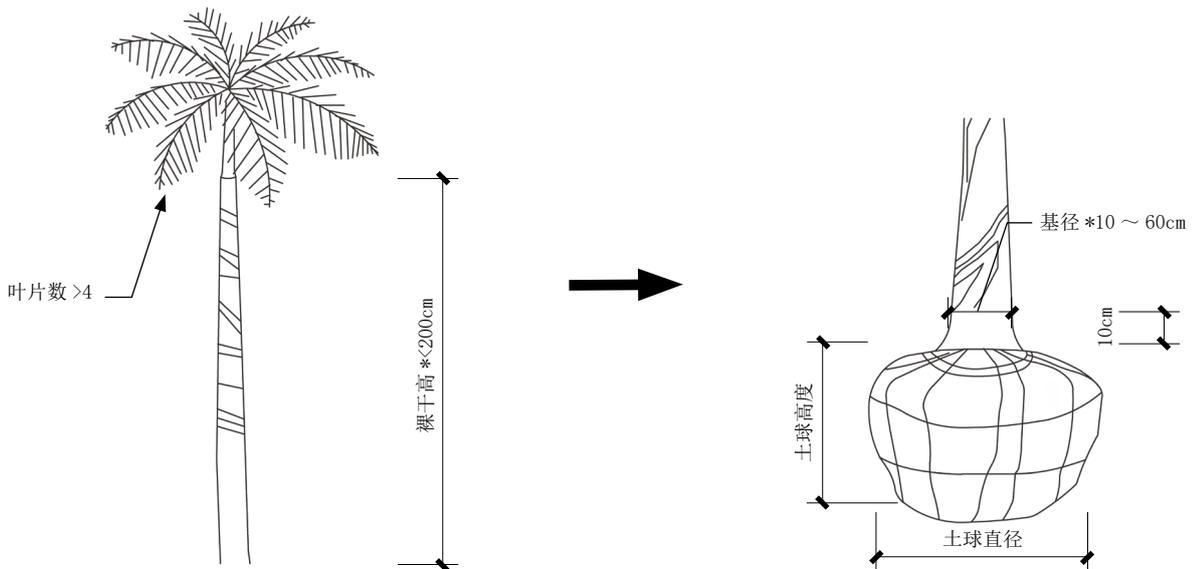
注 3: 土球直径与土球高度的比值为 1 ~ 1.5。

注 4: 详见附录 B 表 B. 1。

图 A. 28 多干乔木

A. 3. 2 棕榈类

单干小型棕榈规格指标值图解见附录 A 图 A. 29。



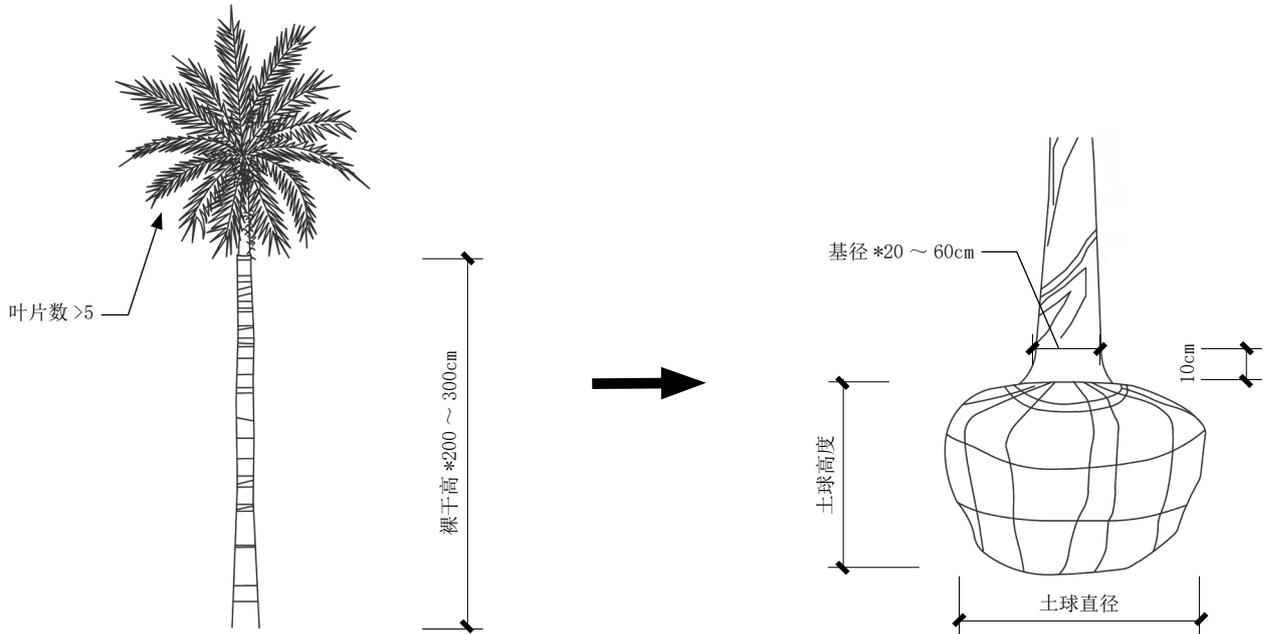
注 1: * 表示规格主变量。

注 2: 土球直径与基径比值为 2 ~ 5, 土球直径与土球高度的比值为 1 ~ 2。

注 3: 详见附录 D 表 D. 1。

图 A. 29 单干小型棕榈

单干中型棕榈规格指标值图解见附录 A 图 A. 30。



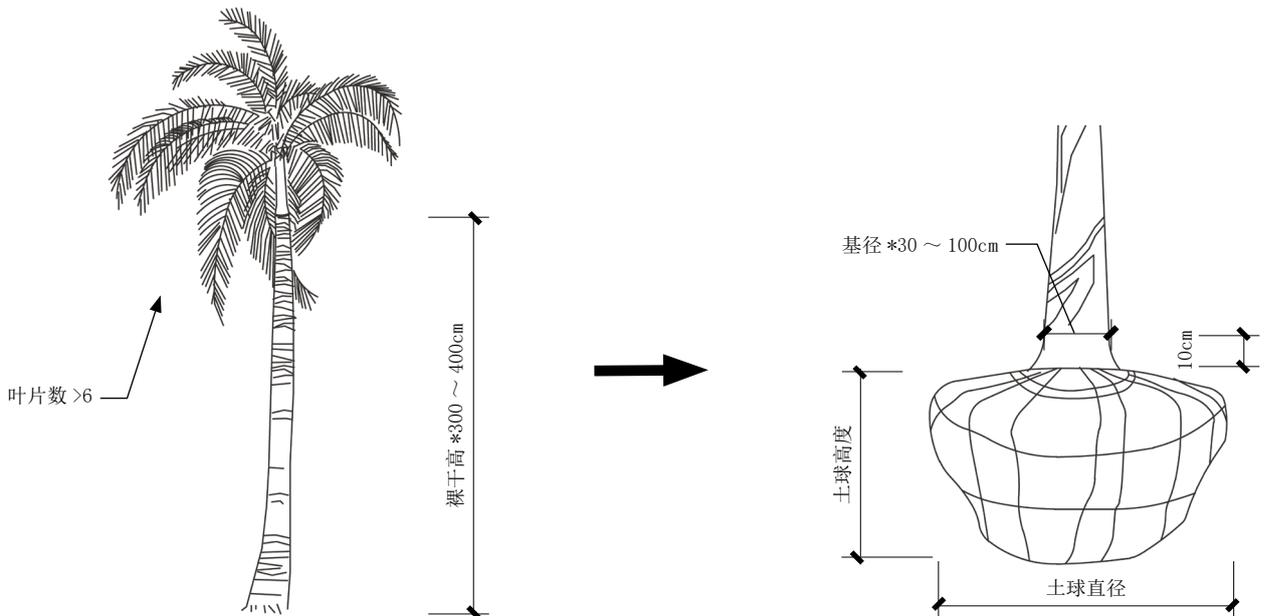
注 1: * 表示规格主变量。

注 2: 土球直径与基径比值为 2 ~ 5, 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 30 单干中型棕榈

单干大型棕榈规格指标值图解见附录 A 图 A. 31。



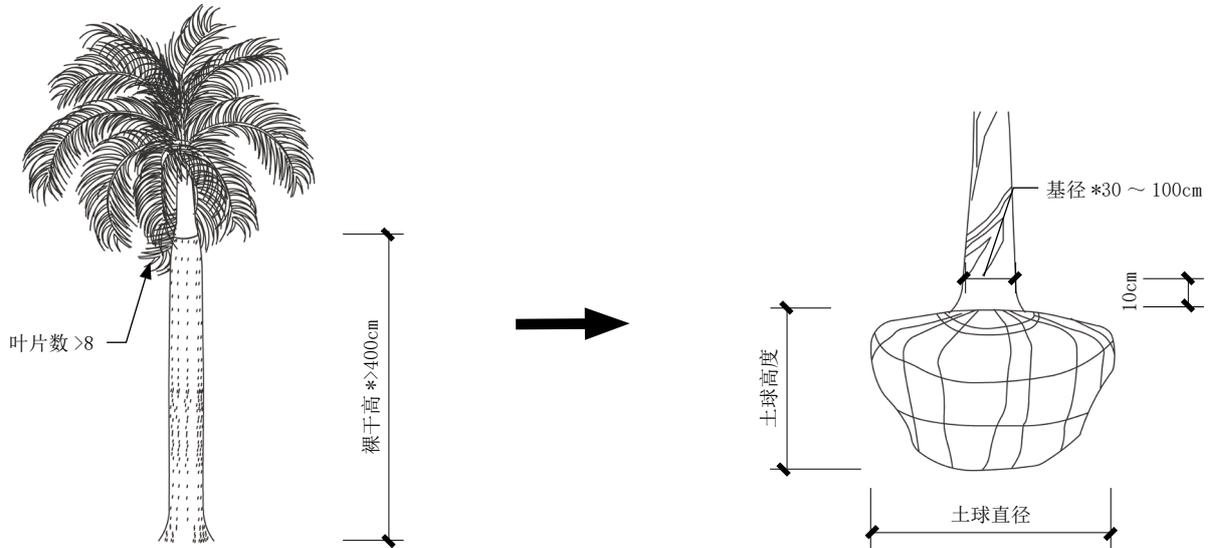
注 1: * 表示规格主变量。

注 2: 土球直径与基径比值为 2 ~ 5, 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 31 单干大型棕榈

单干成熟棕榈规格指标值图解见附录 A 图 A. 32。



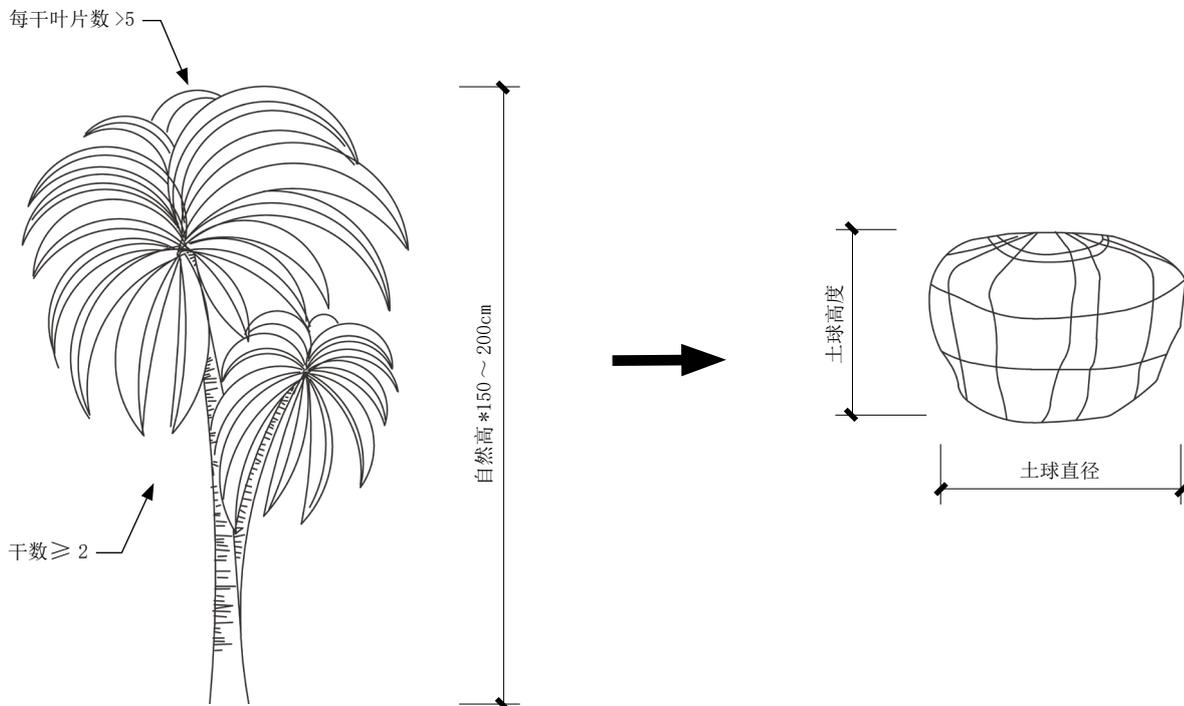
注 1: * 表示规格主变量。

注 2: 土球直径与基径比值为 2 ~ 5, 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 32 单干成熟棕榈

多干小型棕榈规格指标值图解见附录 A 图 A. 33。



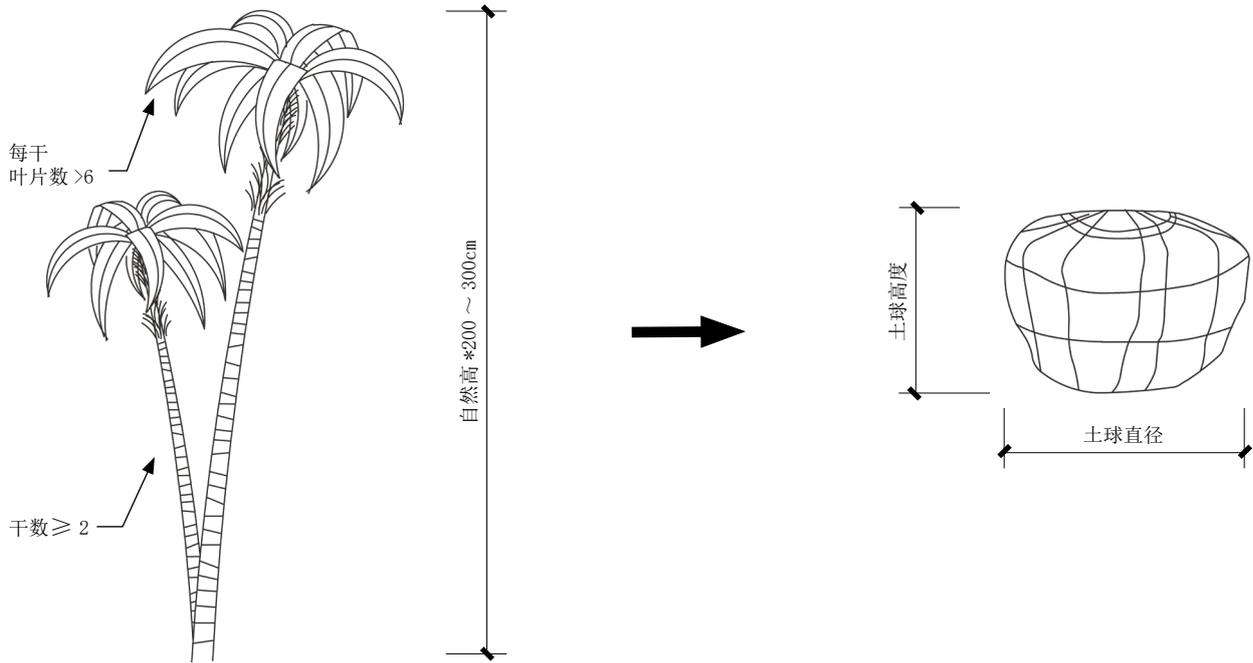
注 1: * 表示规格主变量。

注 2: 土球直径与土球高度的比值为 1。

注 3: 详见附录 D 表 D. 1。

图 A. 33 多干小型棕榈

多干中型棕榈规格指标值图解见附录 A 图 A. 34。



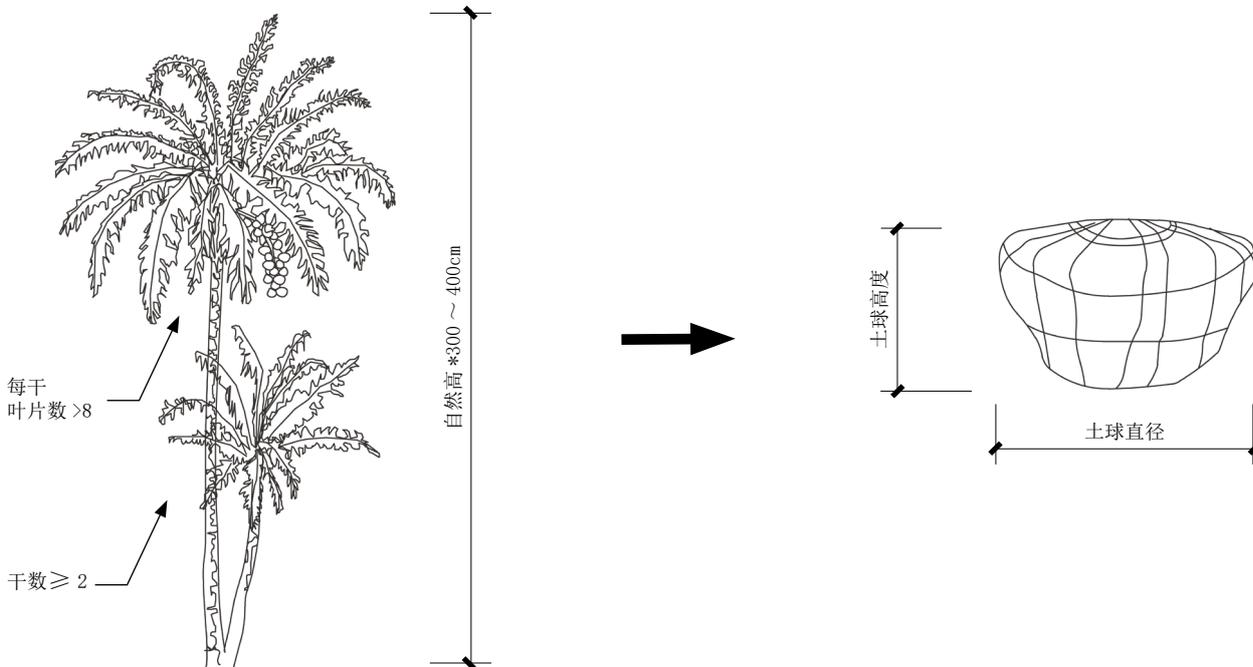
注 1: * 表示规格主变量。

注 2: 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 34 多干中型棕榈

多干大型棕榈规格指标值图解见附录 A 图 A. 35。



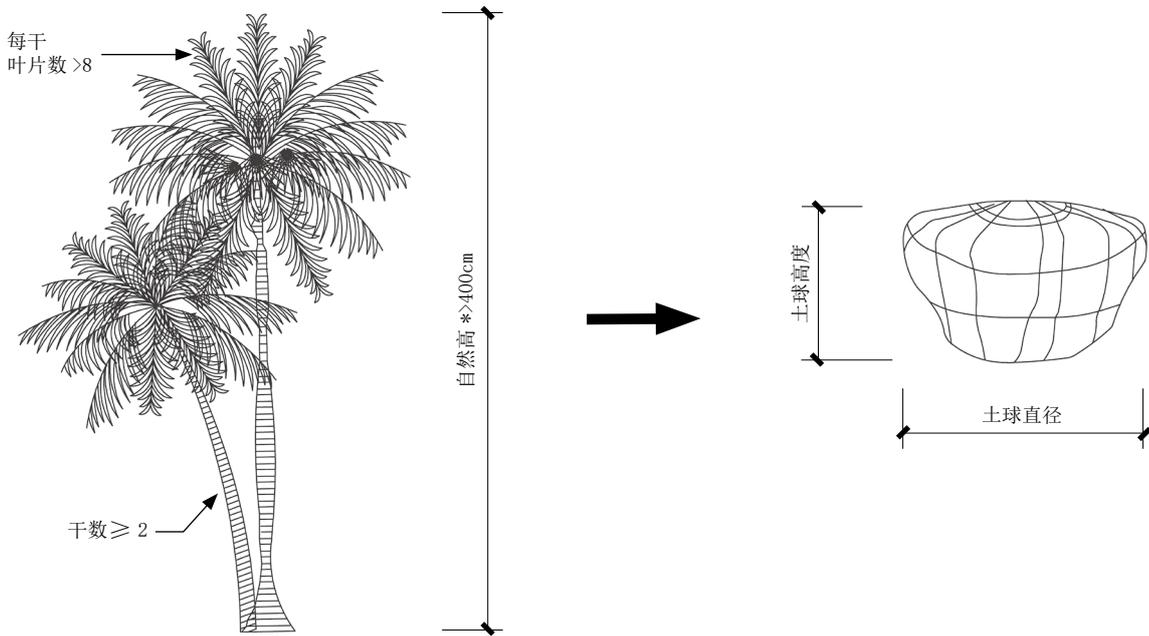
注 1: * 表示规格主变量。

注 2: 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 35 多干大型棕榈

多干成熟棕榈规格指标值图解见附录 A 图 A. 36。



注 1: * 表示规格主变量。

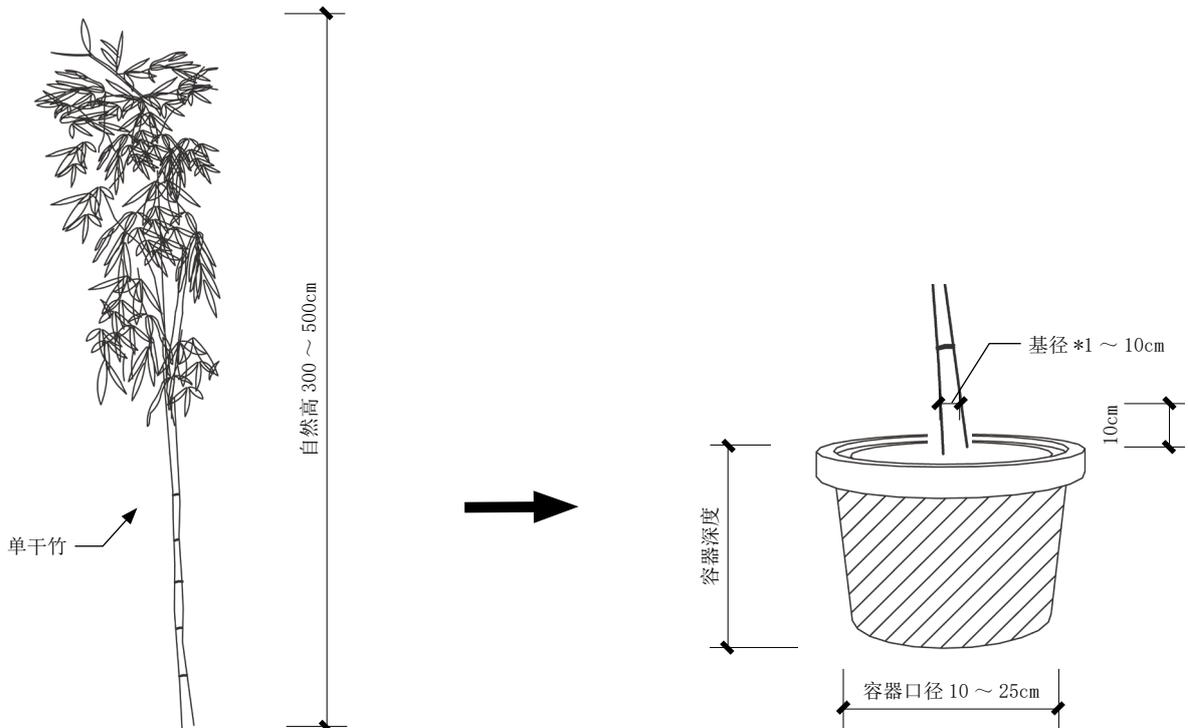
注 2: 土球直径与规格主变量比值为 2 ~ 5, 土球直径与土球高度的比值为 2。

注 3: 详见附录 D 表 D. 1。

图 A. 36 多干成熟棕榈

A. 3. 3 竹类

单干竹规格指标值图解见附录 A 图 A. 37。

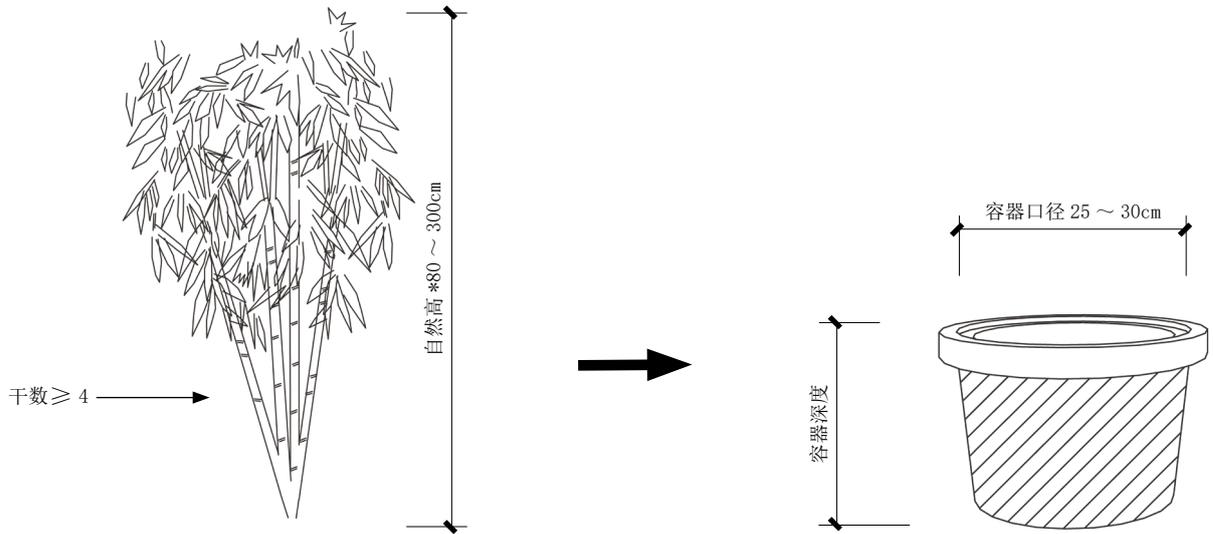


注 1: * 表示规格主变量。

注 2: 详见附录 F 表 F. 1。

图 A. 37 单干竹

多干竹规格指标值图解见附录 A 图 A. 38。



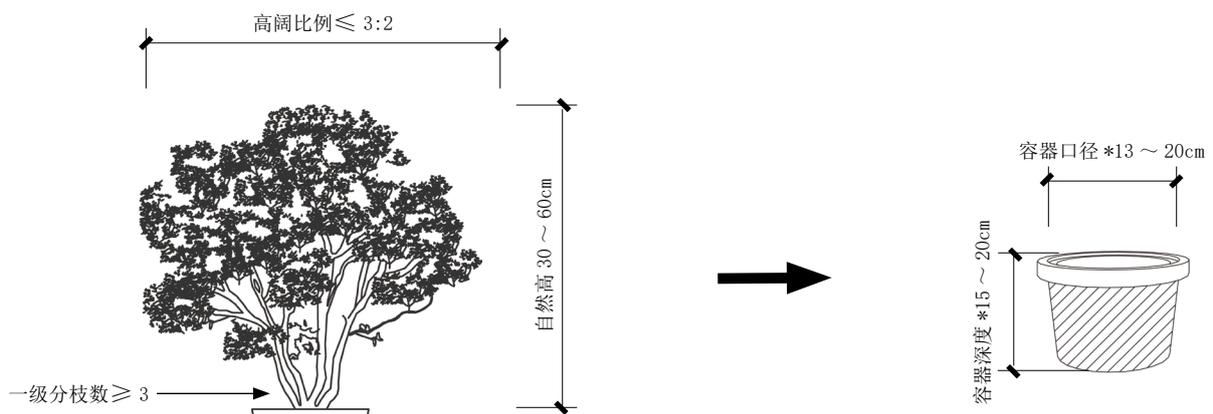
注 1：* 表示规格主变量。

注 2：详见附录 F 表 F. 1。

图 A. 38 多干竹

A. 3.4 灌木

小型点植灌木规格指标值图解见附录 A 图 A. 39。

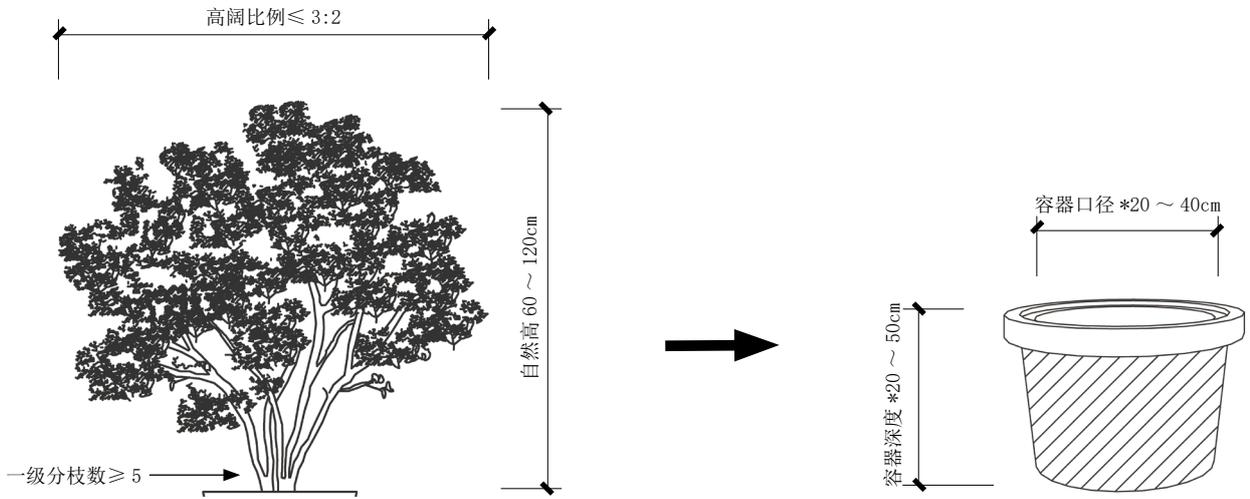


注 1：* 表示规格主变量。

注 2：详见附录 H 表 H. 1。

图 A. 39 小型点植灌木

中型点植灌木规格指标值图解见附录 A 图 A. 40。

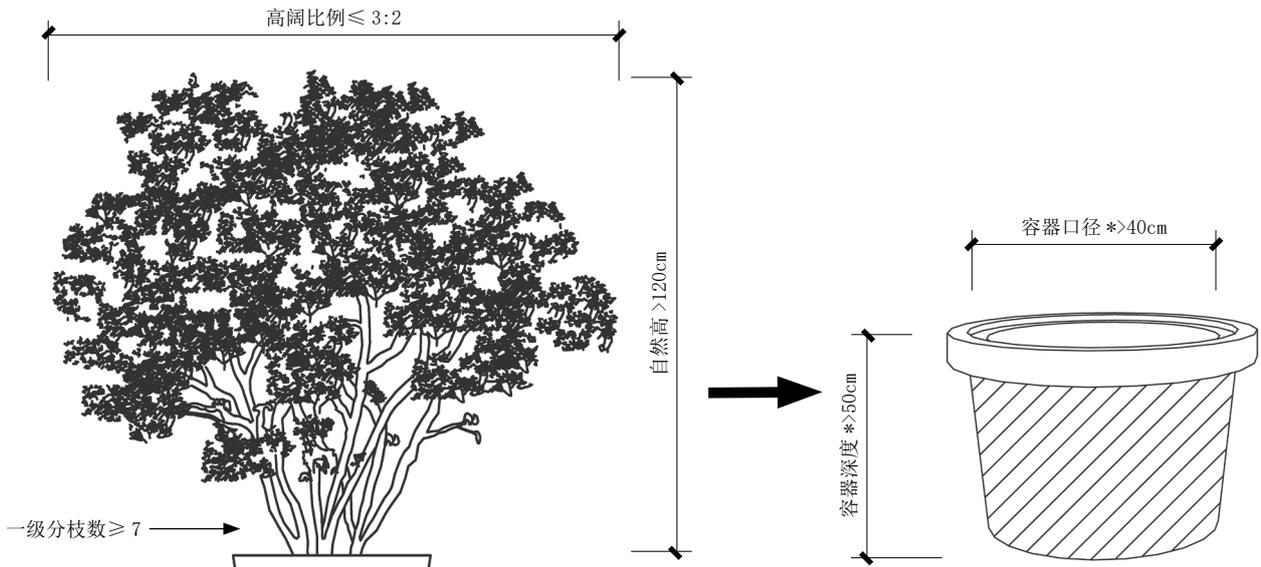


注 1: * 表示规格主变量。

注 2: 详见附录 H 表 H. 1。

图 A. 40 中型点植灌木

大型点植灌木规格指标值图解见附录 A 图 A. 41。

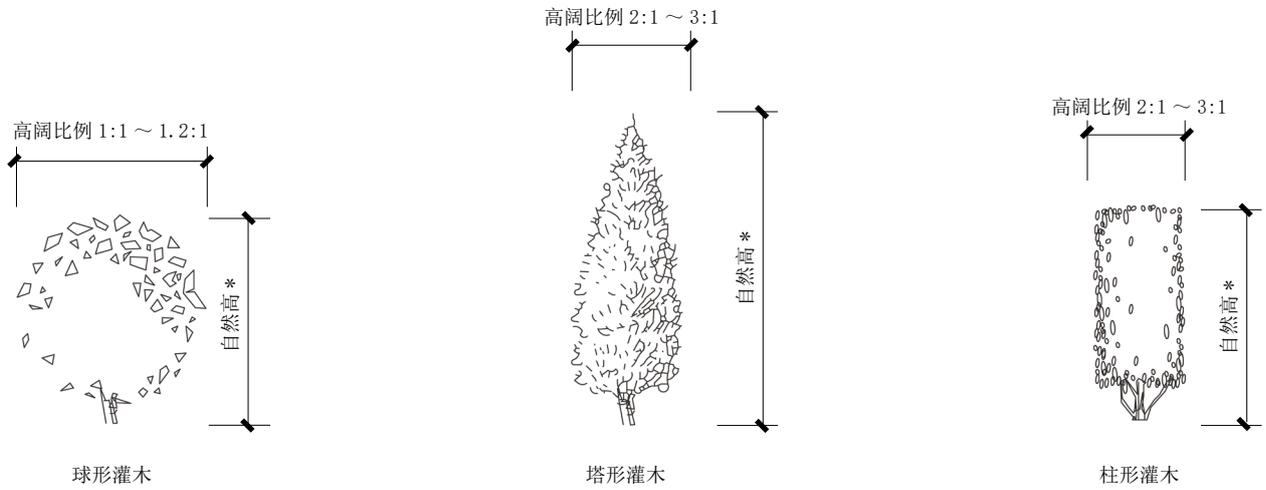


注 1: * 表示规格主变量。

注 2: 详见附录 H 表 H. 1。

图 A. 41 大型点植灌木

造型灌木规格指标值图解见附录 A 图 A. 42。



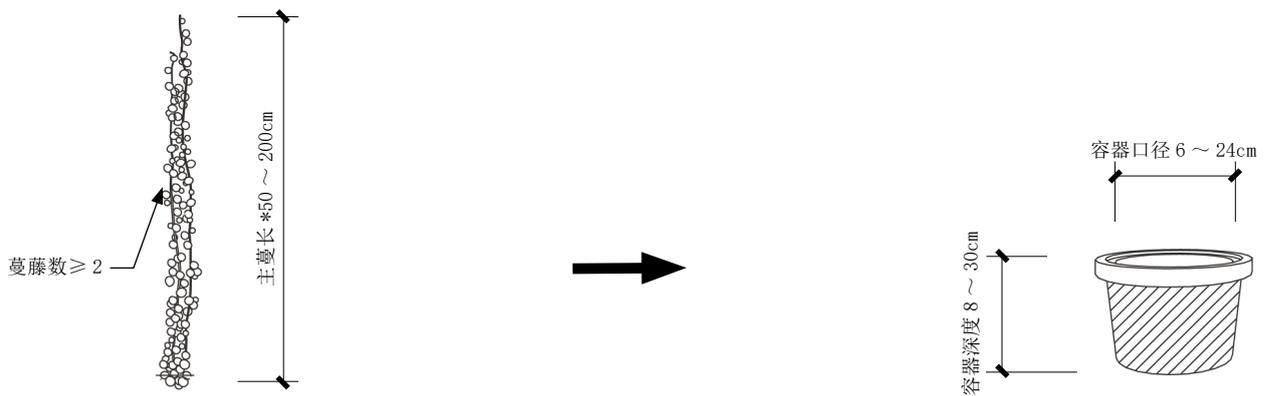
注 1: * 表示规格主变量。

注 2: 详见附录 H 表 H. 1。

图 A. 42 造型灌木

A. 3.5 藤本

小型藤木规格指标值图解见附录 A 图 A. 43。

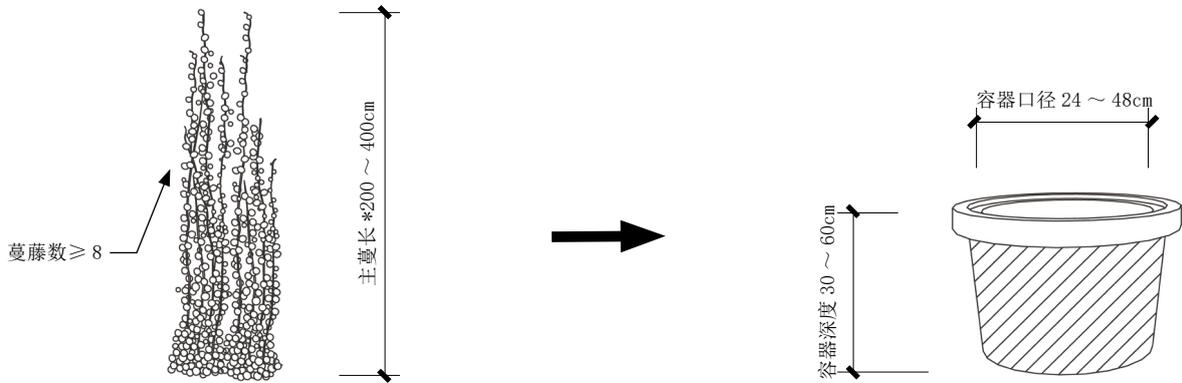


注 1: * 表示规格主变量。

注 2: 详见附录 M 表 M. 1。

图 A. 43 小型藤木

中型藤本规格指标值图解见附录 A 图 A. 44。

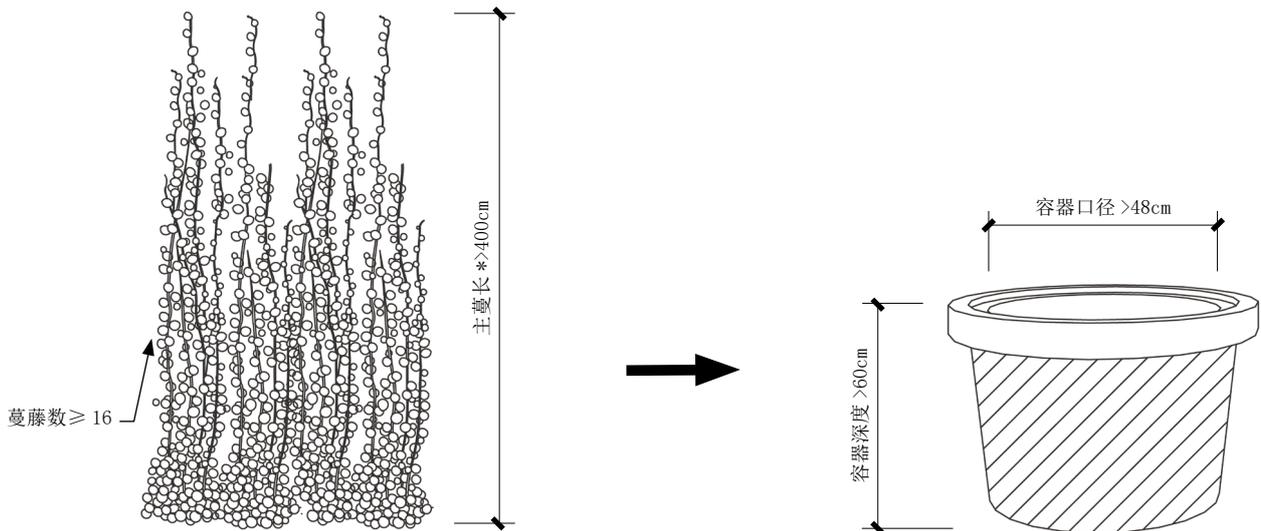


注 1: * 表示规格主变量。

注 2: 详见附录 M 表 M. 1。

图 A. 44 中型藤本

大型藤本规格指标值图解见附录 A 图 A. 45。



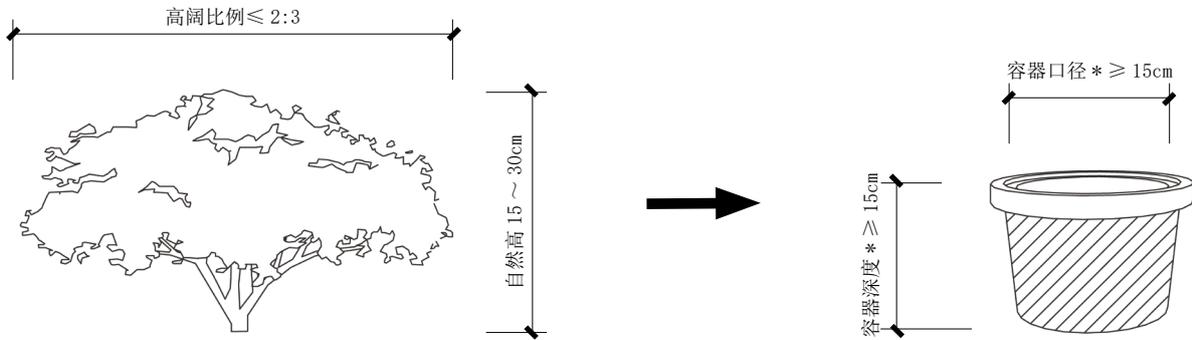
注 1: * 表示规格主变量。

注 2: 详见附录 M 表 M. 1。

图 A. 45 大型藤本

A.3.6 地被植物

地被植物规格指标值图解见附录 A 图 A.46。



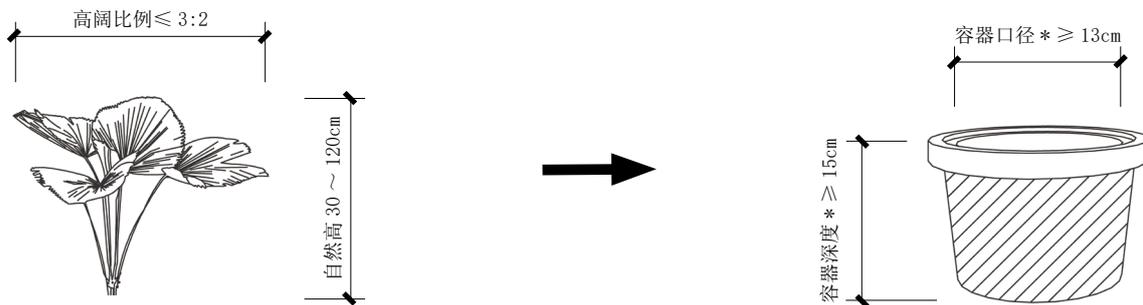
注 1: * 表示规格主变量。

注 2: 包括地被灌木、地被草本。详见附录 H 表 H.1 及附录 J 表 J.1。

图 A.46 地被植物

A.3.7 草本

点植草本规格指标值图解见附录 A 图 A.47。

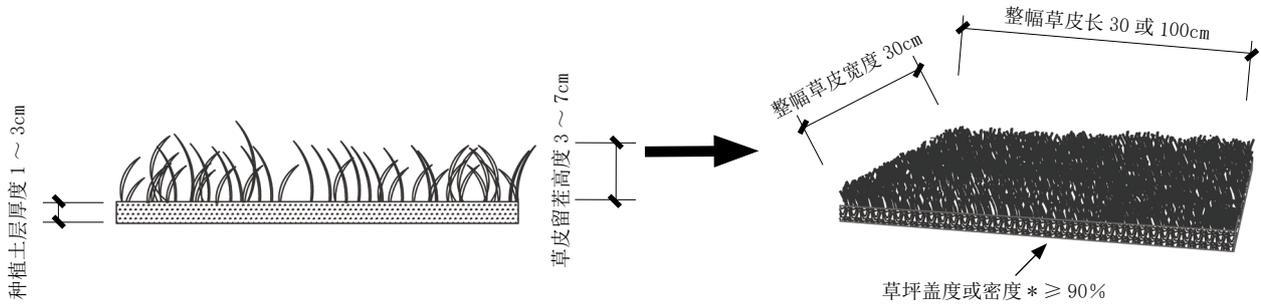


注 1: * 表示规格主变量。

注 2: 详见附录 J 表 J.1。

图 A.47 点植草本

草皮规格指标值图解见附录 A 图 A. 48。



注 1: * 表示规格主变量。

注 2: 详见附录 J 表 J. 1。

图 A. 48 草皮

A. 4 各类苗木选形要点

A. 4.1 乔木

乔木选形要点见附录 A 图 A. 49。



图 A. 49 乔木

A.4.2 棕榈

棕榈选形要点见附录 A 图 A.50。



图 A.50 棕榈

A.4.3 竹类

竹类选形要点见附录 A 图 A.51。

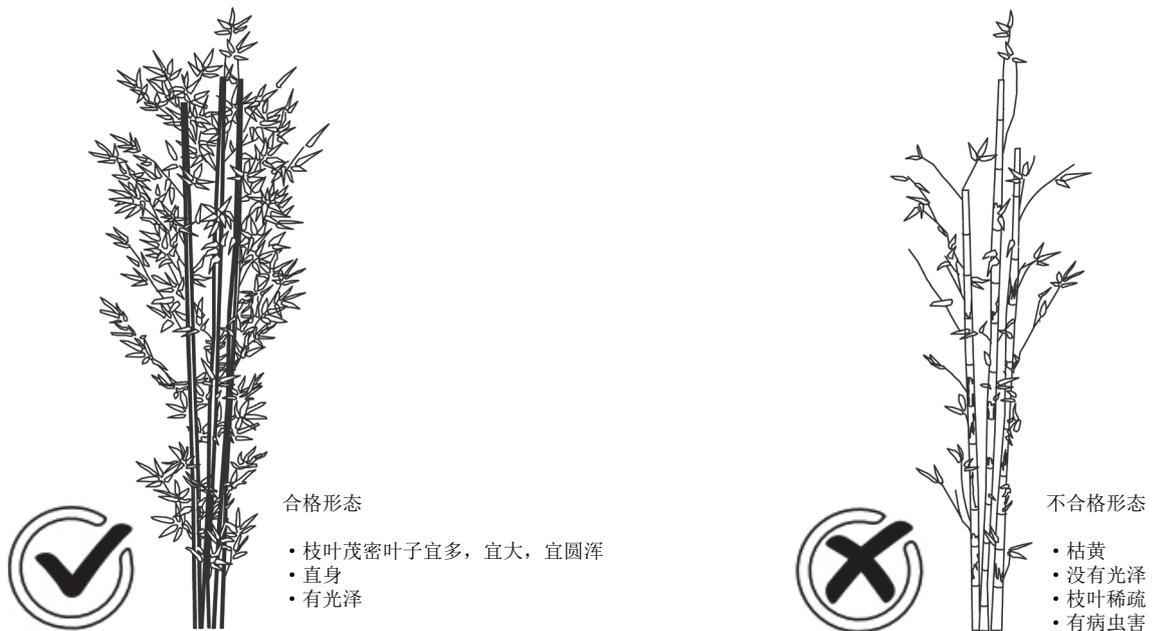


图 A.51 竹类

A. 4. 4 灌木

灌木选形要点见附录 A 图 A. 52。

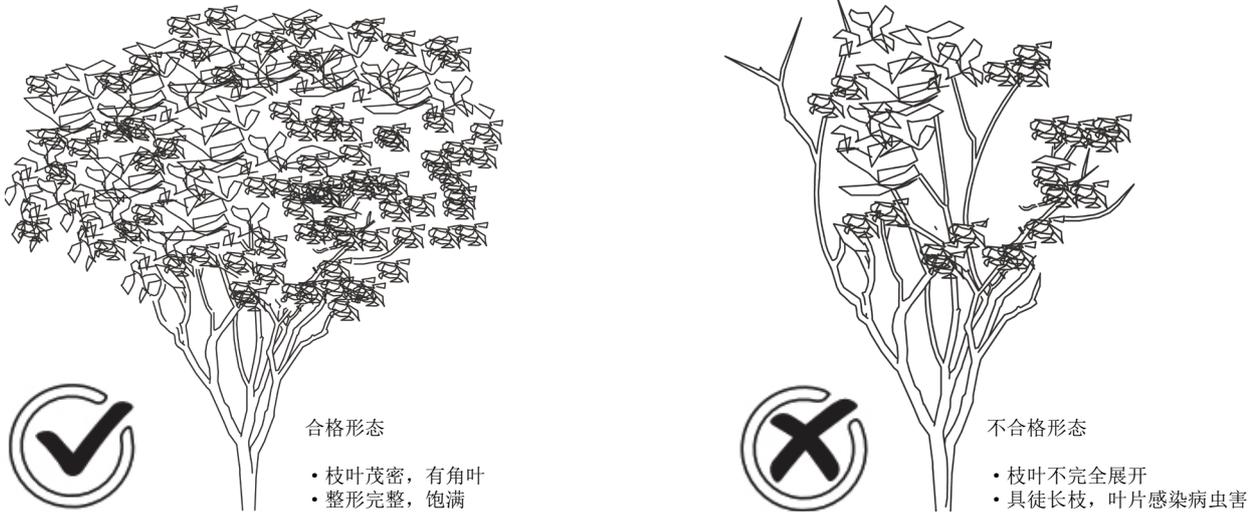


图 A. 52 灌木

A. 4. 5 藤本

藤本选形要点见附录 A 图 A. 53。



图 A. 53 藤本

A.4.6 草本

草本选形要点见附录 A 图 A.54。



图 A.54 草本

A.4.7 地被

地被选形要点见附录 A 图 A.55。



注：包括地被灌木、地被草本

图 A.55 地被

A.4.8 草皮

草皮选形要点见附录 A 图 A.56。

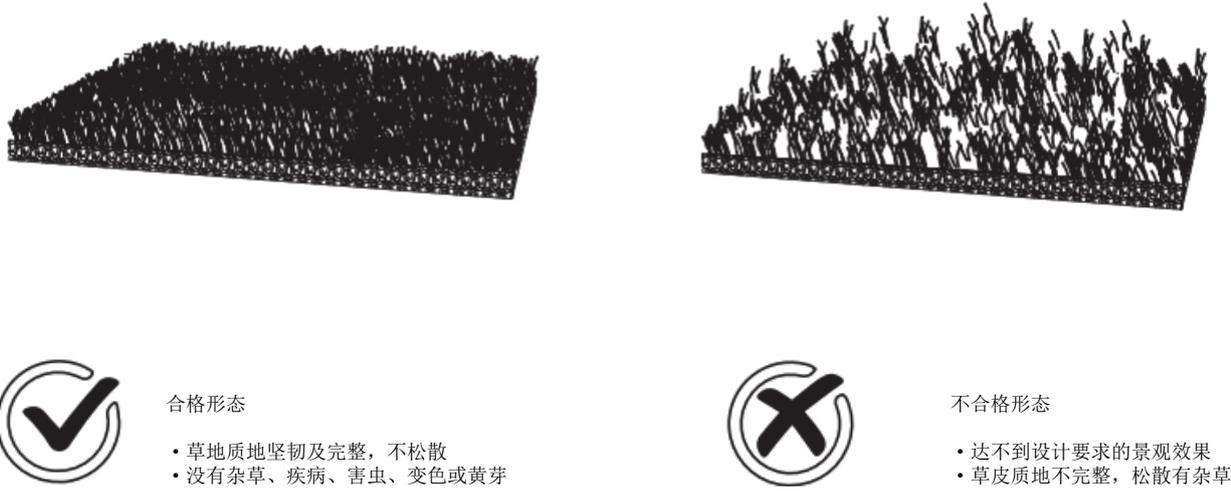


图 A.56 草皮

附录 B
(规范性)

粤港澳园林苗木质量标准规格 - 乔木按类别

标准乔木指标值见附录 B 表 B.1。

表 B.1 标准乔木指标值

苗木分类		规格主变量	规格主变量范围值	规格从变量范围值							
				自然高	冠幅	层数	枝下高	枝条分级数	分干数	土球直径与规格主变量值的比值	土球直径与土球高度的比值
乔木	单轴分层形乔木	轻标乔木 (小型乔木)	3 ~ 5cm	200 ~ 300cm	参照附录 A 图 A.24 ~ A.28 冠幅最小值为自然高的 2/5	≥ 3		≥ 3	1	6 ~ 8	1
		标准乔木 (中型乔木)	5 ~ 8cm	300 ~ 350cm		≥ 3		≥ 3	1	6 ~ 8	1
		重标乔木 (大型乔木)	8 ~ 15cm	350 ~ 600cm		≥ 4	200 ~ 300cm	≥ 3	1	6 ~ 8	1.5
		成熟乔木	>15cm	>600cm		≥ 5	250 ~ 300cm	≥ 3	1	6 ~ 8	1.5
	单轴分枝形乔木	轻标乔木 (小型乔木)	3 ~ 5cm	200 ~ 300cm				≥ 3	1	6 ~ 8	1
		标准乔木 (中型乔木)	5 ~ 8cm	300 ~ 350cm				≥ 3	1	6 ~ 8	1
		重标乔木 (大型乔木)	8 ~ 15cm	350 ~ 600cm			200 ~ 300cm	≥ 3	1	6 ~ 8	1.5
		成熟乔木	>15cm	>600cm			250 ~ 350cm	≥ 3	1	6 ~ 8	1.5
	合轴分枝形乔木	轻标乔木 (小型乔木)	3 ~ 5cm	200 ~ 300cm				≥ 3	1	6 ~ 8	1
		标准乔木 (中型乔木)	5 ~ 8cm	300 ~ 350cm				≥ 3	1	6 ~ 8	1
		重标乔木 (大型乔木)	8 ~ 15cm	350 ~ 600cm			200 ~ 300cm	≥ 3	1	6 ~ 8	1.5
		成熟乔木	>15cm	>600cm			250 ~ 350cm	≥ 3	1	6 ~ 8	1.5
	多干乔木		10 ~ 15cm	200 ~ 300cm				≥ 3	≥ 2		1
			15 ~ 20cm	300 ~ 350cm				≥ 3	≥ 2		1
			20 ~ 30cm	350 ~ 600cm				≥ 3	≥ 2		1.5
			>30cm	>600cm				≥ 3	≥ 2		1.5

注 1：“米径（胸径）”表示米径或胸径。

注 2：土球直径与土球高度的比值，允许误差 ±10%。

注 3：空白栏为相应类别苗木规格不作主要参考指标。

附 录 D
(规范性)

粤港澳园林苗木质量标准规格 - 棕榈类按类别

标准棕榈类指标值见附录 D 表 D.1。

表 D.1 标准棕榈类指标值

分类	规格主变量	规格主变量范围值	规格从变量范围值						
			自然高	每干叶片数	干数	土球直径与基径的比值	土球直径与土球高度的比值		
棕 榈	单 干 棕 榈	小型棕榈	基径 / 裸干高	10 ~ 20cm/<100cm	250 ~ 300cm	>4	1	2 ~ 5	1 ~ 2
			基径 / 裸干高	20 ~ 30cm/<100cm	250 ~ 300cm	>5	1	2 ~ 5	1 ~ 2
			基径 / 裸干高	30 ~ 40cm/<100cm	250 ~ 300cm	>6	1	2 ~ 5	1 ~ 2
			基径 / 裸干高	40 ~ 50cm/<100cm	250 ~ 300cm	>8	1	2 ~ 5	1 ~ 2
			基径 / 裸干高	50 ~ 60cm/<100cm	250 ~ 300cm	>10	1	2 ~ 5	1 ~ 2
		基径 / 裸干高	10 ~ 20cm/<100 ~ 200cm	300 ~ 400cm	>4	1	2 ~ 5	1 ~ 2	
		基径 / 裸干高	20 ~ 30cm/<100 ~ 200cm	300 ~ 400cm	>5	1	2 ~ 5	1 ~ 2	
		基径 / 裸干高	30 ~ 40cm/<100 ~ 200cm	300 ~ 400cm	>6	1	2 ~ 5	1 ~ 2	
		基径 / 裸干高	40 ~ 50cm/<100 ~ 200cm	300 ~ 400cm	>8	1	2 ~ 5	1 ~ 2	
		基径 / 裸干高	50 ~ 60cm/<100 ~ 200cm	300 ~ 400cm	>10	1	2 ~ 5	1 ~ 2	
	基径 / 裸干高	20 ~ 30cm/<200 ~ 300cm	400 ~ 600cm	>5	1	2 ~ 5	2		
	中型棕榈	基径 / 裸干高	30 ~ 40cm/<200 ~ 300cm	400 ~ 600cm	>6	1	2 ~ 5	2	
		基径 / 裸干高	40 ~ 50cm/<200 ~ 300cm	400 ~ 600cm	>8	1	2 ~ 5	2	
		基径 / 裸干高	50 ~ 60cm/<200 ~ 300cm	400 ~ 600cm	>10	1	2 ~ 5	2	
		基径 / 裸干高	30 ~ 40cm/<300 ~ 400cm	600 ~ 800cm	>6	1	2 ~ 5	2	
	大型棕榈	基径 / 裸干高	40 ~ 50cm/<300 ~ 400cm	600 ~ 800cm	>8	1	2 ~ 5	2	
		基径 / 裸干高	50 ~ 60cm/<300 ~ 400cm	600 ~ 800cm	>10	1	2 ~ 5	2	
		基径 / 裸干高	60 ~ 80cm/<300 ~ 400cm	600 ~ 800cm	>12	1	2 ~ 5	2	
		基径 / 裸干高	80 ~ 100cm/<300 ~ 400cm	600 ~ 800cm	>12	1	2 ~ 5	2	
	成熟棕榈	基径 / 裸干高	30 ~ 40cm/>400cm	>800cm	>8	1	2 ~ 5	2	
基径 / 裸干高		40 ~ 50cm/>400cm	>800cm	>8	1	2 ~ 5	2		
基径 / 裸干高		50 ~ 60cm/>400cm	>800cm	>10	1	2 ~ 5	2		
基径 / 裸干高		60 ~ 80cm/>400cm	>800cm	>12	1	2 ~ 5	2		
基径 / 裸干高		80 ~ 100cm/>400cm	>800cm	>12	1	2 ~ 5	2		
多 干 棕 榈	小型棕榈	自然高	<150cm	>4	≥ 2		1		
		自然高	150 ~ 200cm	>5	≥ 2		1		
	中型棕榈	自然高	200 ~ 300cm	>6	≥ 2		2		
	大型棕榈	自然高	300 ~ 400cm	>8	≥ 2		2		
	成熟棕榈	自然高	>400cm	>10	≥ 2		2		

注 1：“基径 / 裸干高”表示基径与裸干高。

注 2：土球直径与土球高度的比值，允许误差 ±10%。

附 录 F
(规范性)
粤港澳园林苗木质量标准规格 - 竹类按类别

标准竹类指标值见附录 F 表 F.1。

表 F.1 标准竹类指标值

类型	规格主变量	规格主变量范围值	规格从变量范围值				
			自然高	干数	容器口径	容器口径与容器深度的比值	
单干竹	基径	1 ~ 2cm	300 ~ 400cm	1	10 ~ 15cm	<1.5	
	基径	2 ~ 3cm	300 ~ 400cm	1	10 ~ 15cm	<1.5	
	基径	3 ~ 4cm	300 ~ 400cm	1	15 ~ 20cm	<1.5	
			400 ~ 500cm	1	15 ~ 20cm	<1.5	
	基径	4 ~ 5cm	300 ~ 400cm	1	15 ~ 20cm	<1.5	
			400 ~ 500cm	1	15 ~ 20cm	<1.5	
	基径	5 ~ 6cm	300 ~ 400cm	1	15 ~ 20cm	<1.5	
			400 ~ 500cm	1	15 ~ 20cm	<1.5	
	基径	6 ~ 8cm	300 ~ 400cm	1	20 ~ 25cm	>1	
			400 ~ 500cm	1	20 ~ 25cm	>1	
	基径	8 ~ 10cm	300 ~ 400cm	1	20 ~ 25cm	>1	
			400 ~ 500cm	1	20 ~ 25cm	>1	
	类型	规格主变量	规格主变量范围值	规格从变量范围值			
干数				容器口径	容器口径与容器深度的比值		
多干竹	自然高	80 ~ 100cm	≥ 4	25 ~ 30cm	>1		
	自然高	100 ~ 200cm	≥ 4	25 ~ 30cm	>1		
	自然高	200 ~ 300cm	≥ 4	25 ~ 30cm	>1		

附录 H
(规范性)

粤港澳园林苗木质量标准规格 - 灌木按类别

标准灌木指标值见附录 H 表 H.1。

表 H.1 标准灌木指标值

分类		规格主变量	规格主变量范围值	规格从变量范围值			
				自然高	高阔比	一级分枝数	
灌木	点植灌木	小型灌木	容器口径 / 容器深度	13 ~ 20cm/15 ~ 20cm	30 ~ 60cm	≤ 3:2	>3
		中型灌木	容器口径 / 容器深度	20 ~ 40cm/>20 ~ 50cm	60 ~ 120cm	≤ 3:2	>5
		大型灌木	容器口径 / 容器深度	>40cm/>50cm	>120cm	≤ 3:2	>7
	地被灌木	容器口径 / 容器深度	13 ~ 20cm/>15 ~ 20cm	15 ~ 30cm	≤ 2:3	>3	
分类		规格主变量	规格主变量范围值	规格从变量范围值			
				高阔比	容器口径 / 容器深度		
灌木	球形灌木	自然高	60 ~ 80cm	1:1 ~ 1.2:1	15 ~ 20cm/>20 ~ 25cm		
			80 ~ 100cm	1:1 ~ 1.2:1	20 ~ 25cm/>25 ~ 30cm		
			100 ~ 120cm	1:1 ~ 1.2:1	25 ~ 30cm/>30 ~ 40cm		
			120 ~ 150cm	1:1 ~ 1.2:1	30 ~ 40cm/>40 ~ 50cm		
			>150cm	1:1 ~ 1.2:1	>40cm/>50cm		
	塔形灌木	自然高	100 ~ 120cm	2:1 ~ 3:1	25 ~ 30cm/>30 ~ 40cm		
			120 ~ 150cm	2:1 ~ 3:1	30 ~ 40cm/>40 ~ 50cm		
			150 ~ 200cm	2:1 ~ 3:1	40 ~ 45cm/>50 ~ 60cm		
			>200cm	2:1 ~ 3:1	>45cm/>60cm		
	柱形灌木	自然高	100 ~ 120cm	2:1 ~ 3:1	25 ~ 30cm/>30 ~ 40cm		
			120 ~ 150cm	2:1 ~ 3:1	30 ~ 40cm/>40 ~ 50cm		
			150 ~ 200cm	2:1 ~ 3:1	40 ~ 45cm/>50 ~ 60cm		
			>200cm	2:1 ~ 3:1	>45cm/>60cm		

注：“容器口径 / 容器深度”表示容器口径与容器深度。

附 录 J
(规范性)
粤港澳园林苗木质量标准规格 - 草本按类别

标准草本指标值见附录 J 表 J.1。

表 J.1 标准草本指标值

分类	规格主变量	规格主变量范围值	规格从变量范围值				
			分枝数	自然高	高阔比		
草 本	点植草本	容器口径 / 容器深度	13 ~ 20cm/15 ~ 20cm	>3	30 ~ 60cm	≤ 3:2	
		容器口径 / 容器深度	20 ~ 40cm/20 ~ 50cm	>5	60 ~ 120cm	≤ 3:2	
		容器口径 / 容器深度	≥ 40cm/ ≥ 50cm	>7	>120cm	≤ 3:2	
	地被草本	容器口径 / 容器深度	≥ 15cm/ ≥ 15cm	>3	15 ~ 30cm	≤ 2:3	
	草皮			规格从变量范围值			
		规格主变量	规格主变量范围值	草皮宽	草皮长	留茬高	种植土层厚度
芳草块盖度		>90%	30cm	30cm	3 ~ 7cm	1 ~ 3cm	
	长草卷盖度	>90%	30cm	100cm	3 ~ 7cm	1 ~ 3cm	

注：“容器口径 / 容器深度”表示容器口径与容器深度。

附 录 M
(规范性)
粤港澳园林苗木质量标准规格 - 藤本按类别

标准藤本指标值见附录 M 表 M.1。

表 M.1 标准藤本指标值

分类		规格主变量	规格主变量范围值	规格从变量范围值	
				蔓藤数	容器口径 / 容器深度
藤本	小型藤本	主蔓长	50 ~ 200cm	≥ 2	6 ~ 24cm / 8 ~ 30cm
	中型藤本	主蔓长	200 ~ 400cm	≥ 8	24 ~ 48cm / 30 ~ 60cm
	大型藤本	主蔓长	>400cm	≥ 16	>48cm / >60cm

注：“容器口径 / 容器深度”表示容器口径与容器深度。

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