



Hardlines

Live Goods Sub-Committee

Nursery Stock and Potted Plant Measurement Guidelines

Version 1.0

Last Revised December 1, 2005

Table of Contents

INTRODUCTION	3
PLANT MEASUREMENT	3
CONTAINER WIDTH MEASUREMENT	3
VOLUME MEASUREMENT	3
CONSUMER SIZE SPECIFICATION	3
TRADITIONAL MEASUREMENT & EAN•UCC MEASUREMENT	4
EAN•UCC MEASUREMENT EXAMPLES	5
EXAMPLE 1 – Potted Annual	5
EXAMPLE 2 – Nursery Stock Shrub	5
EXAMPLE 3 – Nursery Stock Tree	5
EXAMPLE 4 – Cut Christmas Tree	6
EAN•UCC TRADE ITEM ELEMENTS	7
ITEM MEASUREMENT SPECIFICATIONS.....	8
DIMENSIONAL SIZE (HEIGHT, WIDTH, DEPTH)	8
DESCRIPTIVE SIZE	8
MEASUREMENT MATRIX.....	8
ADDITIONAL NOTES:	10
APPENDIX.....	11
ANSI Z60.1 1996 & EAN•UCC MEASUREMENT COMPARISON	11
EAN•UCC MEASUREMENT EXAMPLES.....	13
Nursery Grown Trees.....	13
Deciduous Shrubs	13
Broadleaf Evergreens - Spreading	13
Broadleaf Evergreens -Upright	13
Coniferous Evergreens - Cone	14
Coniferous Evergreens – Creeping and Semi-Spreading.....	14
Multi-Pack Measurements	15
NON IDENTIFIABLE LOGISTICAL UNITS.....	16

Introduction

This document presents an EAN.UCC System standards compliant methodology and approach for the measurement of horticulture items to the VICS Hardlines community in order to support the accurate capture and sharing of dimensional trade item attributes.

Plant Measurement

According to the GS1 US interpretation of the General EAN•UCC Specifications, Section 6.8 Package Measurement Rules for Data Alignment, a plant in a pot or a tree in a container or balled & wrapped in burlap (B&B) is considered a packaged Consumer Trade Item. The values for the Trade Item Measurements of Height, Width, and Depth are as presented in figure 1.

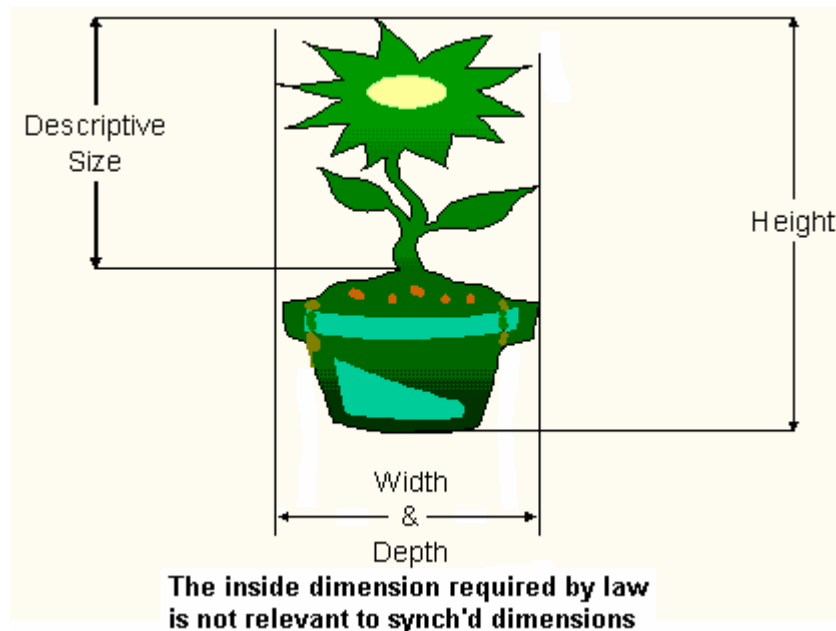


Figure 1 - EAN*UCC Potted Plant Measurements

CONTAINER WIDTH MEASUREMENT

There are several legal requirements within the US that result in the commercial or industry container width measurements being the inside dimension to provide a more consistent representation of the volume. However these inside measurements are not relevant to data synchronization which is used for shelf space management. If the inside dimension needs to be transmitted, A Hardlines industry best practice should be defined to utilize the attribute “additional trade item description”.

VOLUME MEASUREMENT

The volume measurement used within the EAN•UCC trade item is the volume of the plant. It is the product of the nominal (or average) depth, width, and height of the plant including the container. It is not the volume of the container.

CONSUMER SIZE SPECIFICATION

It is also recognized that the ordering size and consumer size may be different than the package size; therefore we are designating the “Descriptive Size” to be the consumer size when required. In the case of potted plants the ordering or consumer size is not the

container size and therefore, the Descriptive Size is required. A B&B tree is generally ordered based on its height from the soil up, however, as implemented; “height” has been defined as the combined measurements of the plant height plus its container. Therefore, for trees the “Descriptive Size” will be used to designate the industry standard plant height (from the soil up to the average nominal uppermost point of growth of the tree).

TRADITIONAL MEASUREMENT & EAN•UCC MEASUREMENT

Traditional industry measurements of width, depth, and length, may not align with the EAN.UCC measurements of Height, Width and Depth.. In the EAN.UCC System, measurements of Consumer Trade Items are made by first determining the “Default Front”. Measurements are made while facing the Default Front. Height is the measurement of the bottom most point to the top most point. Width is the measurement from the leftmost point to the right most point while facing the Default Front. Depth is the measurement from the Default Front to the opposite surface.

The dimensions illustrated in figure 2 are the dimensions to be used within the EAN•UCC trade item for data synchronization.

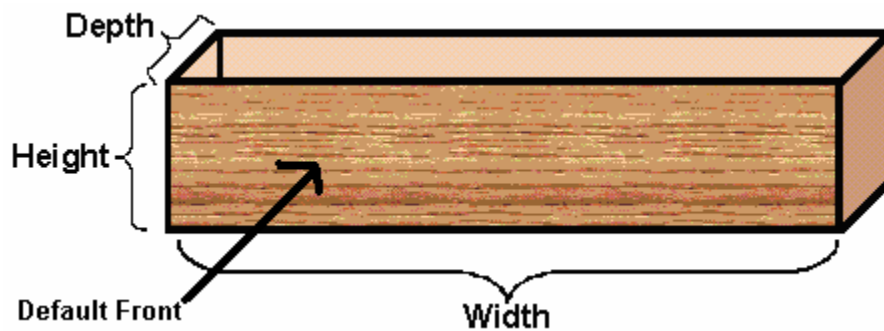


Figure 2 - EAN•UCC Measurements for Data Synchronization

Implementation Note: The height of a plant sold in a container is the average or nominal height of the plant (soil up) plus the height of the container.

EAN•UCC MEASUREMENT EXAMPLES

The following examples show the relationship of traditional dimensions to the EAN•UCC measurement dimensions.

EXAMPLE 1 – Potted Annual A 4” annual with a plant size of 3”. Container is 4” square.		
Height	7 in	(Average plant height + container height).
Width	4 in	(Average width of container as measured at its widest part, generally the top of the container- spread of plant is smaller than the container).
Depth	4 in	(Average depth container as measured at its widest part, generally the top of the container- spread of plant is smaller than the container).
Descriptive Size	4 in potted annual	Optional description of container size by law or industry practice
Diameter	N/A	(Not Required)

EXAMPLE 2 – Nursery Stock Shrub A Two-Gallon Azalea (Shrub). Container = #2, 8” diameter. Average plant is 2.5 feet high and 12” wide.		
Height	42 in	(Average plant height + container height).
Width	12 in	(Average spread of plant)
Depth	12 in	(Average spread of plant)
Descriptive Size	#2 – 2 gallon azalea	Optional description of container size by law or industry practice
Diameter	N/A	(Not Required)

EXAMPLE 3 – Nursery Stock Tree A B&B 8’ Dogwood with a 1” average caliper. Container (root ball B&B) 24” around 18 inches deep and tree averages 36” wide.		
Height	9.5 ft	(Average plant height + container height).
Width	3 ft	(Average spread of plant)
Depth	3 ft	(Average spread of plant)
Descriptive Size	8 ft	(The ‘soil up’ or top of the root ball to the average uppermost point of growth of the tree; Required for trees)
Diameter	1 in	(The average caliper of the tree; Required for trees)

EXAMPLE 4 – Cut Christmas Tree

Height	6 ft	Average Height
Width	4 ft	Average width based on widest section
Depth	4 ft	Same as width.
Descriptive Size	6 ft	Height Consumer would relate to.
Diameter	N/A	

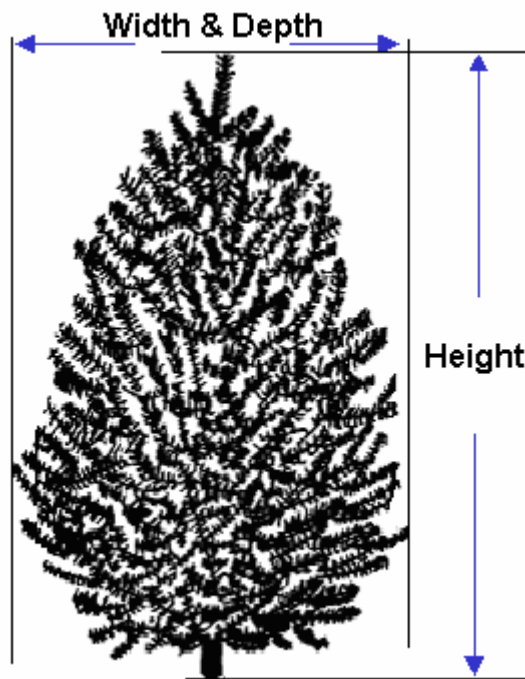


Figure 3 - Cut Christmas Tree Measurements

EAN•UCC Trade Item Elements

Within the EAN•UCC Trade Item, Height, Width, and Depth are mandatory elements contained within the Trade Item Measurement Class.

Descriptive Size is contained in the class Trade Item Size Description. The only issue is both Size Code List Agency and Size Code Value elements are mandatory and Descriptive Size is optional. This is a temporary restriction as the VICS change request addressing all of the Hardlines requirements will request these two attributes become optional. However, until that change is implemented these two fields must be populated even though the values may serve no business purpose.

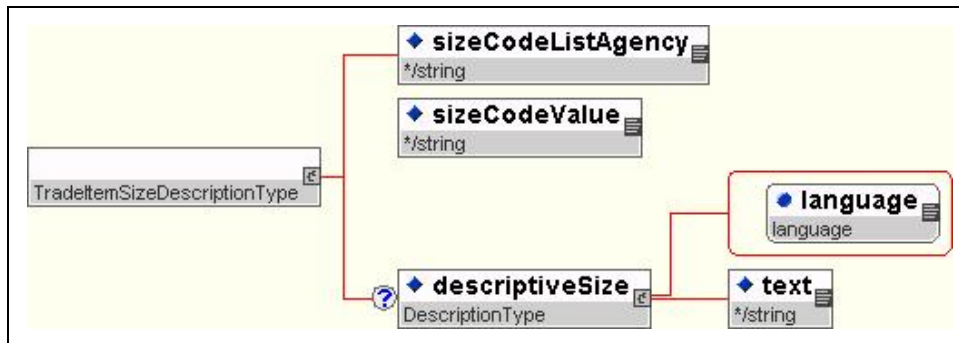


Figure 4 - Data Model for Trade Item Size Description

Descriptive Size is defined as: “An alphanumeric size factor that the brand owner wishes to communicate to the consumer. A descriptive size, other than net content, as labelled on the consumer unit”. Although the label on the plant may not contain the size the intent of the Descriptive Size element is in consonance with the way potted plants are presented to the consumer; either by nominal height or pot size.

Other examples include balled and wrapped trees including Christmas trees where the Height includes the root ball and the Descriptive Size is the nominal height of the tree from the top of the root ball.

Because the current EAN•UCC standard requires Size Code List Agency and Size Code Value to be used whenever Descriptive Size is used, the following values are to be utilized as a Hardlines industry best practice content for Size Code List Agency and Size Code Value; “3” and “X” respectively.

For the example of the 6-inch plant in a 4-inch pot the values for the Trade Item Size Description attributes would be:

Size Code List Agency	=	3	(assigned by seller)
Size Code Value	=	X	(a single X that signifies nothing)
Descriptive Size (text)	=	6 Inch	
Descriptive Size (language)	=	en	(English)

If the seller did have a size code then it could be placed in the Size Code Value. The presence of a single X will notify and alert the retailer that the size code is not relevant.

Item Measurement Specifications

All of these measurements are for consumer items.

Because live goods (horticulture) have no specific size, nominal or average sizes will be used. As an example the width and depth of a specific size of tree (if greater than the container) would be the average of all such trees as a Hardlines industry best practice.

DIMENSIONAL SIZE (HEIGHT, WIDTH, DEPTH)

Dimensional sizes are the physical size of the item, and are primarily used to determine physical placement requirements, such as shelf, floor space, or yard space.

There is no distinction between packaged items and non-packaged items when measuring Height, Width, and Depth.

Packaged items are consumer items that are in a container, this includes plants (trees, shrubs, roses, etc) balled and wrapped and plants in pots or other containers.

Packaged items measurements are as follows:

- Height The height of the container plus the nominal height of the plant.
- Width For potted plants it is the measurement of the container length or diameter if the plant does not spread beyond the width of the container. If the plant spreads beyond the width of the container, use the nominal value for the plant.
- Depth For potted plants it is the measurement of the container width or diameter if the plant does not spread beyond the depth of the container. If the plant spreads beyond the width of the container, use the nominal value for the plant.

DESCRIPTIVE SIZE

Descriptive size is the orderable, consumer, or industry size. Many times plants, trees, shrubs, etc, are differentiated by the typical height from the soil up or by the container size. As an example a nursery may differentiate orange trees by the height; a 3' tree is priced differently than a 6' tree. Another nursery may differentiate orange trees by the container size; 5 Gal is priced differently than a 15 Gal container. Since live goods vary from unit to unit within the same item identification, descriptive sizes are used to differentiate to the consumer, or as a Consumer Declaration.

MEASUREMENT MATRIX

The following is a reference table of measurements for the live goods industry sector it relates to the EAN•UCC System attributes.

Nursery Stock is considered any item grown in the ground, typically B&B. Potted Stock is any item grown in a container. Potted stock includes pots, multi-packs, and a variety of other containers.

UCCnet Attribute	Application	Description
Height	Nursery Stock	Average Height including the container
	Potted Stock	Average Height including the container
Depth	Nursery Stock	Container Depth (front to back)if plants do not extend beyond the container
	Creeping and Spreading Stock	Average Spread
	Potted Stock	Container Depth (front to back) if plants do not extend beyond the container.
Width	Nursery Stock	Container Width if plants do not extend beyond the container.
	Creeping and Spreading Stock	Average Spread
	Potted Stock	Container Width if plants do not extend beyond the container.
Net Weight	Nursery Stock	Averaged based on item.
	Potted Stock	Averaged based on item.
Gross Weight	General	Nominal (must be greater than or equal to Net Weight)
	Nursery Stock	Averaged based on item.
	Potted Stock	Averaged based on item.
Net Content	General	Number of individual plants within the selling unit. The Unit of Measure is COUNT
	Nursery Stock	Count, usually one.
	Potted Stock	Number of individual plants within the selling unit.
Volume	General	Height x Width x Depth
	Nursery Stock	Includes Container
	Potted Stock	Includes Container
Descriptive Size	General	Height, soil up
	Nursery Stock	Height, soil up
	Potted Stock	Container Size

Table 1 - Measurement Matrix

ADDITIONAL NOTES:

:

- If the item is marked as an Orderable Unit, then Gross Weight must be populated.
- If the item is marked as a Consumer Unit, then Net Content must be populated. As of July 9, 2005, net weight is no longer a required attribute for consumer units.
- If both Gross Weight and Net Weight are provided, then Gross Weight must be greater than or equal to Net Weight.
- Gross Weight and Net Weight must use the same unit of measure (UOM).
- Net Weight or Net Content cannot change.
- Gross Weight, Height, Width, and Depth must not vary by more than 20%.
- Height, Width, and Depth must use the same unit of measure (UOM).

Appendix

ANSI Z60.1 1996 MEASUREMENT TABLE

The following is a description of American National Standards Institute (ANSI) Z60.1 – 1996, American Standard for Nursery Stock* measurement methodology.

There are a few basic differences between how the nursery growers, landscapers, and garden centres (collectively termed the Live Goods Supply Chain) view a “plant” size and how the UCC•EAN System views the “plant” as an item.

The Z60 standard is primarily from the viewpoint of landscapers where as the EAN•UCC standards are from a consumer viewpoint.

Basically within the Live Goods Supply Chain a “Plant” height is measured from the soil up and the width is the spread of the plant, both are an average or nominal dimension. In contrast, the EAN•UCC System measurements are based on the entire physical dimensions of the “plant”, including the container; and are based on the idea of placing the item on a shelf or some other presentation area for the consumer.

The following (Table 2) illustrates the measurement terminology of the ANSI Z60.1 standard.

ATTRIBUTE	ANSI Z60.1
Height	Average Height + (B&B Height or Container Height)
Width	For Creeping and Spreading stock it is Average Spread. For other nursery stock it is Diameter of container, or Length of the Container. For potted plants it is the inside measurement of the container length or diameter.
Depth	For Creeping and Spreading stock it is Average Spread. For other nursery stock it is Diameter of container, or Height of the Container. For potted plants it is the inside measurement of the container width or diameter.
Descriptive Size	Soil up Height for nursery stock. Container size for potted plants.

Table 2 - Z60 Measurement values table

* The American Nursery & Landscape Association (ANLA) is the organization that administers the ANSI Z60.1 1996 standard. The ANLA’s former name was the American Association of Nurserymen.

The dimensions illustrated in figures labelled as EAN•UCC Measurements are the dimensions to be used within the EAN•UCC trade item.

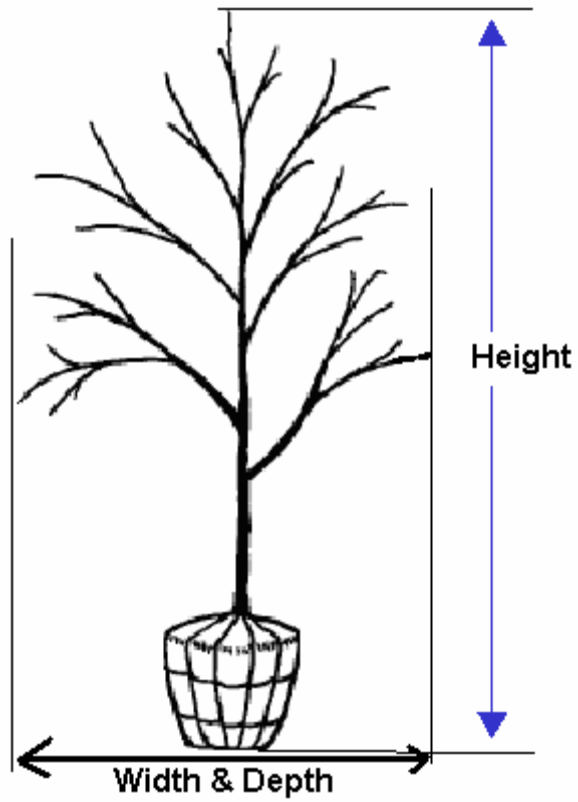
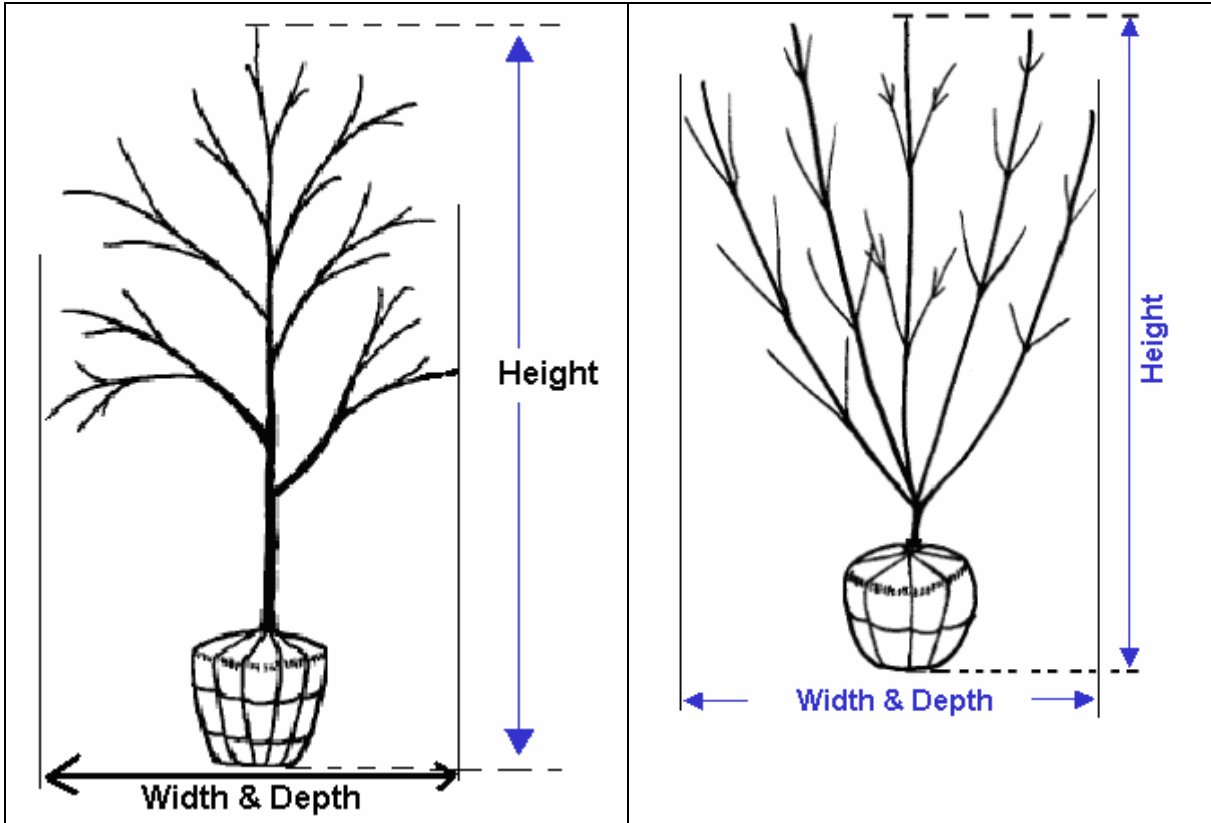


Figure 5 - EAN.UCC Measurement Dimensions

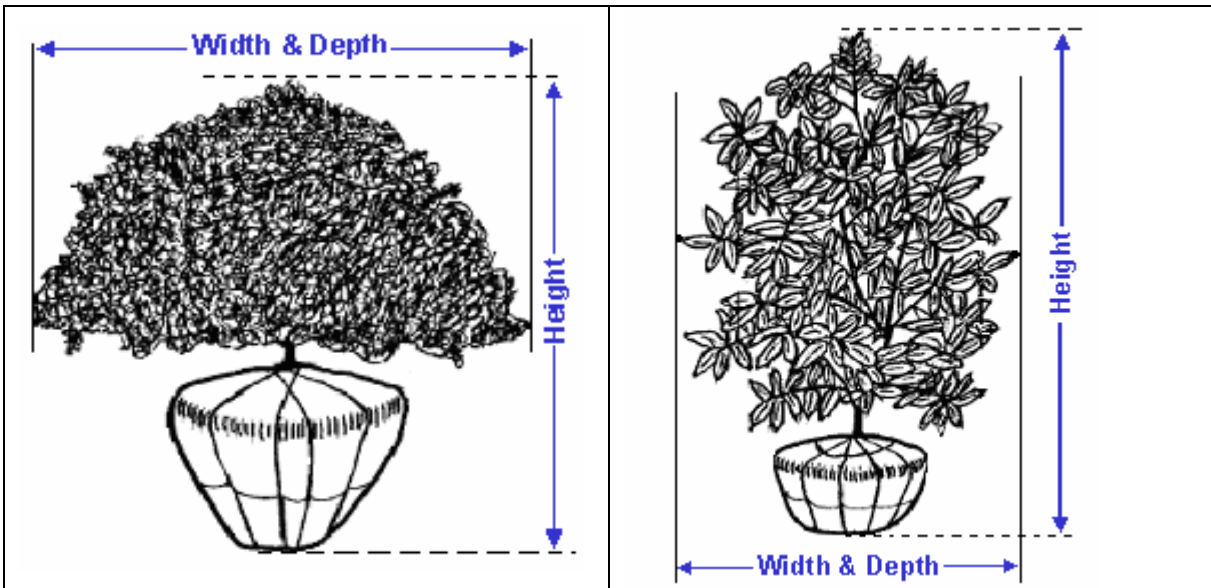
EAN•UCC MEASUREMENT EXAMPLES

The following plant diagrams were graciously provided by American Nursery & Landscape Association



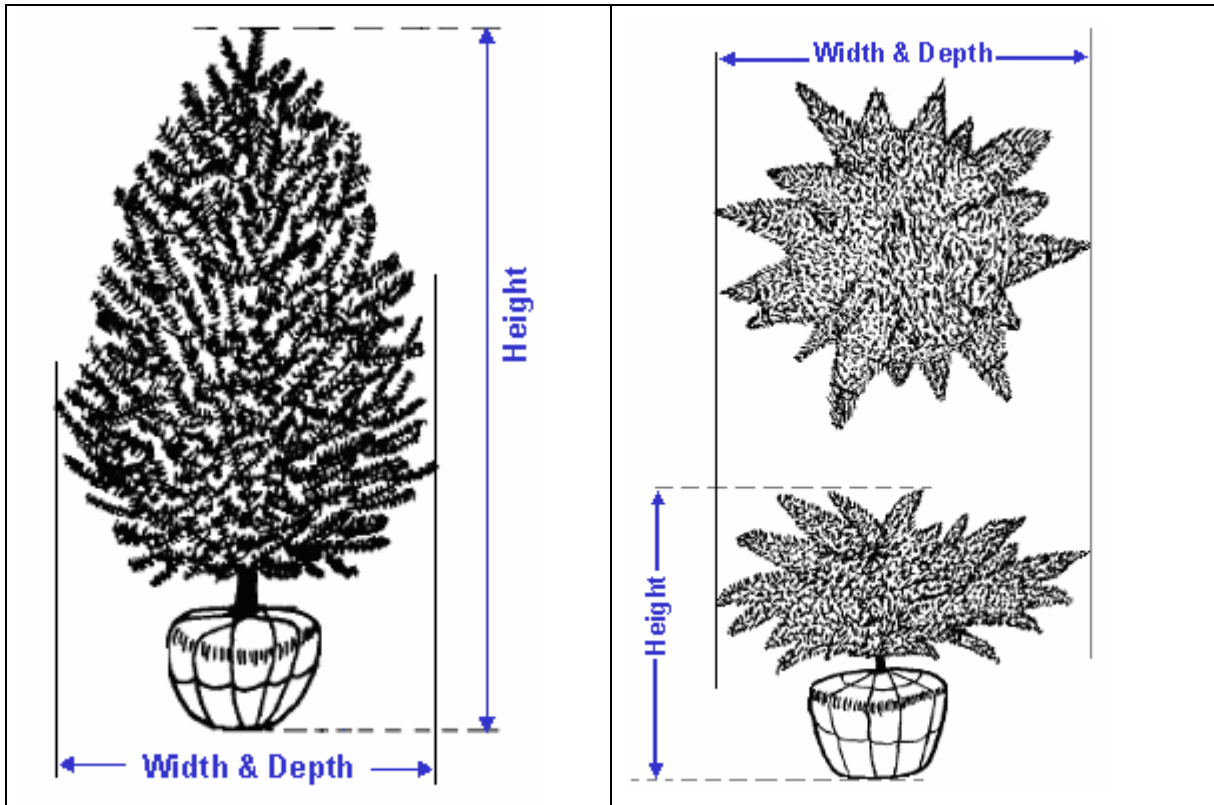
Nursery Grown Trees

Deciduous Shrubs



Broadleaf Evergreens - Spreading

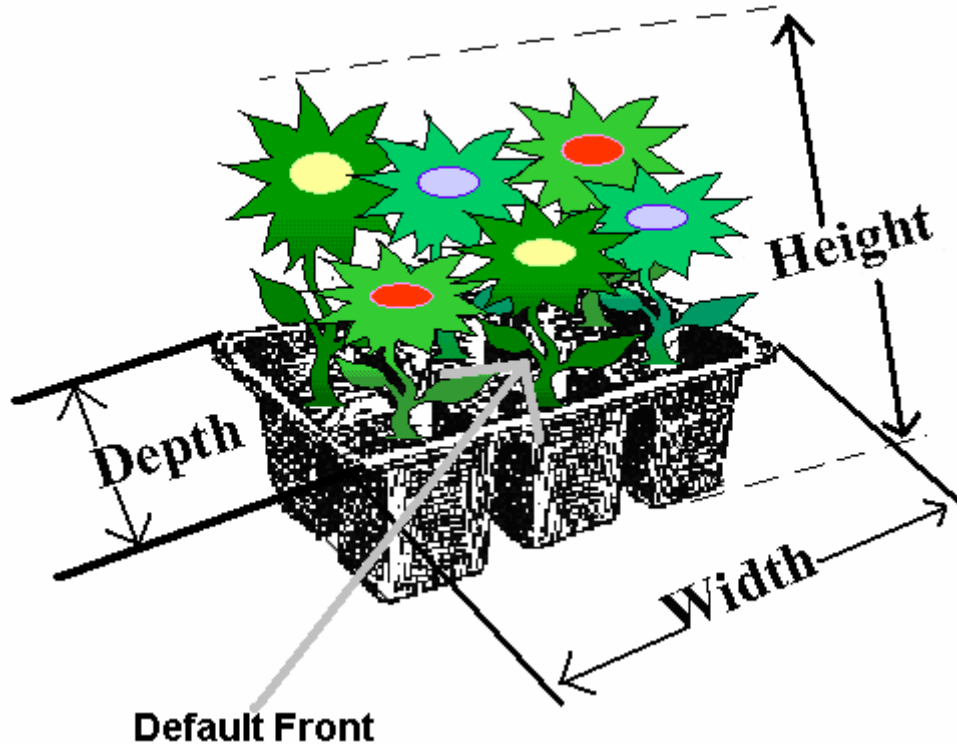
Broadleaf Evergreens - Upright



Coniferous Evergreens - Cone

Coniferous Evergreens – Creeping and Semi-Spreading

Smaller plants sold at retail for color or bedding are typically packaged for the consumer in four, six, or eight pack containers. This is the consumer unit and is marked with a GTIN. The Default Front, as described in Section 6.8 of the General EAN.UCC Specifications, is the largest surface that the manufacturer uses to sell or promote the product. In this case there are no brands or marketing markings, therefore, the largest surface is used as the Default Front and measurements are taken from there.



Multi-Pack Measurements

NON IDENTIFIABLE LOGISTICAL UNITS

Consumer multi-pack units typically are delivered to the retailer in trays. In addition the tray may be delivered in a metal rack holding several trays. Even though a consumer may be purchasing a tray, they are charged for the individual multi-packs contained in the tray.

The tray and racks are typically not assigned a GTIN; they are simply a non-identifiable packaging unit to support the transportation of the plants.

