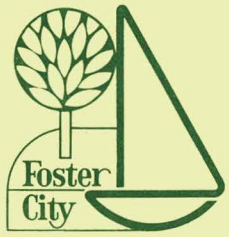
HOME OWNERS' LANDSCAPE PLANTING AND MAINTENANCE GUIDE



Because proper landscape design and planting is so important to the enjoyment and value of your new home---and to the overall beauty of Foster City, we are pleased to present a copy of this Guide to all residents. You'll note that this is a rather unusual gardening book as it has been written with just one area in mind..."the island of blue lagoons".

The preparation of this Guide was undertaken at our request by Royston, Hanamoto, Mayes & Beck of San Francisco. This firm of landscape architects is known and respected throughout the West and its members are recognized authorities in their field.

We believe you'll find the information contained in these pages to be practical and easy-to-understand.

T. Jack Foster & Sons

HOME OWNERS' LANDSCAPE PLANTING AND MAINTENANCE GUIDE

FOSTER CITY, CALIFORNIA

The Foster City Home Owner is very fortunate to live in a new city whose every phase of development has been carefully planned. Now, the Home Owner has the opportunity to plan and create his own garden to suit his individual needs and to enhance the beauty of the entire city.

The development and success of the garden will be influenced by various conditions affecting plant growth. The purpose of this booklet is to inform the Foster City Home Owner of these conditions, to aid him in selecting plant materials suitable to the area, and to guide him in the preparation, planting and maintenance of his garden.

Climatic Conditions

The climate of Foster City is greatly influenced by the flow of marine air which maintains a moderate temperature in the area throughout the year. Maximum temperatures in the summer are in the low 70's with the highs normally not exceeding 80 degrees. Minimum readings average in the low 50's in summer and 40's in winter with an average of only 5 days each year when temperatures fall below 32 degrees.

The average yearly rainfall is 20 inches, 90% of which falls in the six months from November through April.

The summer wind, a strong sea breeze, prevails from the northwest. Winter winds influenced by storm centers bring occasional strong winds from the south.

Soil Conditions

Fifty to 60 years ago prior to the development of Foster City, the area known as Brewer Island was reclaimed with the construction of perimeter levees, and the land made suitable for farming.

In the recent development of Foster City, the land has been covered with sand fill dredged from San Francisco Bay. The fill material is composed mainly of sand and oyster shells and is relatively free from clay and organic matter. Laboratory analysis of the fill material indicates that the soil is moderately to strongly alkaline and has a high content of soluble salts. Available Nitrogen (N), Phosphorus (P), and Potassium (K), the three main elements essential for good plant growth, are found in varying degrees.

Interpretation of Laboratory Analysis

To measure degrees of alkalinity, the symbol pH is used. A pH of 7 indicates a neutral reaction, a pH under 7, an acid reaction, and a pH of over 7, alkaline reaction. The satisfactory range for most ornamental plants is between pH 5 and pH 8.5, but most ornamental plants prefer a nearly neutral reaction. The fill material, with a pH of 7.9 to 8.9, indicating a definite alkaline condition, can be neutralized through applications of sulfur and acid residue fertilizers.

The soluble salts (measured in electrical conductivity) are in many instances desirable plant nutrients, but excess salts will interfere with plant growth. Laboratory tests show that average measurements of the surface layer have a reading of 200; 15 inches below the surface a reading of 268; and 36 inches below the surface a reading of 320. A reading of 50-100 is suitable for most planting; however, plants that are highly tolerant of soluble salts will grow in soils having a maximum reading of 400.

Through periodic and thorough watering, the dredged sand fill, having the advantage of good drainage, will allow leaching or dissolving away of the soluble salts from the root zone of the soil. When leaching has occurred, even salt-sensitive plants may be grown.

Nitrogen (N) in unfertilized soils is made available to the plants through the chemical process of organic matter decomposing in the soil. Since the fill material is relatively free of organic matter (humus), it is advisable to add humus not only to increase available Nitrogen but to improve the soil structure and the water and nutrient holding ability. Nitrogen can also be added with commercial fertilizers.

Humus can be added to the soil with any one or combination of soil conditioners such as manure, leafmold, compost, peat moss, sawdust, ground bark, "Loamite" and "Tillo".

The laboratory analysis indicates an average quantity of 6.2 parts per million (ppm) of available Phosphorus (P) in the fill material. Lawns and ornamental plants require a minimum P level of 25 ppm. The quantity of Phosphorus can be increased with applications of single nutrient fertilizers such as single superphosphate or complete commercial fertilizers.

The available Potassium (K) level averages 90 ppm. The K level for adequate plant growth should be in excess of 100 ppm and can be supplied through applications of commercial fertilizers.

Commercial Fertilizers

For general garden use, the application of complete fertilizers is the most satisfactory and convenient method of supplying plant nutrients.

Commercial Fertilizers (cont.)

Complete chemical fertilizers are labeled with a formula indicating the percentage of Nitrogen, Phosphorus and Potash (Potassium) contained in the fertilizer mixture. For example, a fertilizer labeled 11-8-4 contains 11% Nitrogen, 8% Phosphorus and 4% Potassium.

Also available in packages are single nutrient fertilizers such as ammonium sulfate labeled 21-0-0, and single superphosphate labeled 0-20-0.

Organic fertilizers include blood, bone, fish and seed meal and activated sewage sludge.

Plant Materials List

In a garden every plant has a specific use whether to provide shade, a windbreak, privacy, color, texture, form, fruit, fragrance, etc. Every plant has its cultural aspects, whether it will grow in the sun or shade, heat or cold, whether or not it will tolerate wind and varying soil conditions, and whether it is fast or slow growing. In the following list of plant materials, the main considerations are given to ornamental trees and shrubs which are suitable and adaptable to the wind and soil conditions of Foster City. The list is divided into two general categories: (1) Plants for areas exposed to the wind; and (2) plants for areas protected from the wind.

Botanical names are listed first, as the scientific name is the universal means of identifying plant materials.

PLANTS FOR AREAS EXPOSED TO THE WIND

Botanical Name	Common Name
TREES:	
Casuarina equistifolia	Beefwood
Cordyline australis	Dracena Palm
Cupressus macrocarpa	Monterey Cypress
Eucalyptus lehmannii	Lehmann Eucalyptus
Melaleuca leucadendron	Cajeput Tree
Metrosideros excelsa	New Zealand Christmas Tree
Myoporum laetum	Myoporum
Phoenix canariensis	Canary Island Date Palm
Populus alba	White Poplar
Quercus ilex	Holly Oak
Washingtonia robusta	Mexican Fanpalm
SHRUBS:	
Acacia armata	Kangaroo-thorn Acacia
Acacia verticillata	Star Acacia
Aucuba japonica	Japanese Aucuba
Coprosma baueri	Mirror Plant
Echium fastuosum	Pride-of-Madeira
Elaeagnus pungens	Thorny Elaeagnus
Euonymus japonicus	Evergreen Euonymus
Juniperus conferta	Shore Juniper
Lavandula spica	True Lavender
Ligustrum ovalifolium	California Privet
Lonicera nitida	Box Honeysuckle
Melaleuca ericifolia	Heath Melaleuca
Melaleuca nesophila	Pink Melaleuca
Phormium tenax	New Zealand Flax
Pittosporum crassifolium	Karo
Raphiolepis ovata	Yeddo Hawthorn
Senecio cineraria	Silver Groundsel
Statice perezi	Sea Lavender
Tecoma capensis	Cape Honeysuckle

PLANTS FOR AREAS PROTECTED FROM THE WIND

Botanical Name	Common Name
TREES:	
Acacia melanoxylon	Blackwood Acacia
Acer platanoides	Norway Maple
Acer rubrum	Red Maple
Albizzia julibrissin	Silk Tree
Araucaria excelsa	Norfolk Island Pine
Carpinus betulus	European Hornbeam
Casuarina stricta	She Oak
Callistemon viminalis	Bottlebrush
Ceratonia siliqua	Carob
Chamaecyparis lawsoniana	Port Orford Cedar
Eucalyptus ficifolia	Scarlet Eucalyptus
Eucalyptus globulus compacta	Dwarf Eucalyptus
Eucalyptus polyanthemos	Australian Beech
Eucalyptus pulverulenta	Silver Dollar Tree
Eucalyptus rudis	Desert Gum
Eucalyptus sideroxylon rosea	Pink Ironbark
Ficus nitida	Glossyleaf Fig
Ficus rubiginosa	Rusty Leaf Fig
Fraxinus velutina	Arizona Ash
Fraxinus velutina glabra	Modesto Ash
Hakea suaveolens	Sweet Hakea
Lyonothamnus floribundus asplenifolius	Catalina Ironwood
Maytenus boaria	Chile Mayten
Olea europaea	Olive
Phoenix dactylifera	Date Palm
Pinus contorta	Shore Pine
Pinus halepensis	Aleppo Pine
Pinus muricata	Bishop Pine
Pinus pinaster	Cluster Pine
Pinus pinea	Italian Stone Pine
Pinus radiata	Monterey Pine
Populus nigra italica	Lombardy Poplar
Pyrus kawakami	Evergreen Pear
Quercus rubra	Red Oak
Salix babylonica	Golden Willow
Schinus molle	California Pepper
Schinus terebinthefolius	Brazilian Pepper
Thuja orientalis	Arborvitae
Ulmus glabra	Scotch Elm
Ulmus parvifolia	Evergreen Elm
Umbellularia californica	California Bay

PLANTS FOR AREAS PROTECTED FROM THE WIND (cont.)

Botanical Name	Common Name
SHRUBS:	
Abelia grandiflora	Glossy Abelia
Acacia longifolia	Sydney Golden Wattle
Arbutus unedo	Strawberry Tree
Callistemon citrinus	Lemon Bottlebrush
Camellia japonica	Japanese Camellia
Carissa grandiflora	Natal Plum
Ceanothus arboreus	Catalina Ceanothus
Ceanothus gloriosus	Point Reyes Creeper
Ceanothus thyrsiflorus	Bluebrush
Chamaerops humilis	European Fan Palm
Choisya ternata	Mexican Orange
Cistus ladaniferus var. maculatus	Spotted Rockrose
Cistus purpureus	Purple Rockrose
Cortaderia selloana	Pampas Grass
Cotoneaster (Species)	Cotoneaster
Cytisus canariensis	Canary Broom
Cytisus racemosa	Easter Broom
Daphne odora	Sweet Daphne
Dodonea viscosa	Rock Willow
Escallonia montevidensis	Montevideo Escallonia
Escallonia organensis	Organ Mountain Escallonia
Escallonia rubra	Red Escallonia
Fatsia japonica	Japanese Aralia
Genista monosperma	Bridalveil Broom
Grevillea banksii	Grevillea
Hebe (Species)	Veronica
Heteromeles arbutifolia	Toyon
Hibiscus rosa-sinensis	Rose of China
Hypericum moserianum	Gold Flower
Juniperus (Species)	Juniper
Lantana camara	Lantana
Leptospermum laevigatum	Australian Tea Tree
Ligustrum japonicum	Japanese Privet
Ligustrum lucidum	Glossy Privet
Mahonia nevinii	Mahonia
Myrica californica	Wax Myrtle
Nerium oleander	Oleander
Pittosporum tobira	Tobira
Poinciana gilliesi	Bird of Paradise Flower
Prunus illicifolia	Holly Leaf Cherry
Psidium cattleianum	Yellow Strawberry Guava
Punica granatum	Pomegranate

PLANTS FOR AREAS PROTECTED FROM THE WIND (cont.)

Botanical Name	Common Name
SHRUBS (cont.)	
Pyracantha (Species)	Firethorn
Raphiolepis indica rosea	Pink Indian Hawthorn
Rhus integrifolia	Lemonade Berry
Rhus ovata	Sugar Bush
Romneya coulteri	Matilija Poppy
Rosmarinus officianalis	Rosemary
Spartium junceum	Spanish Broom
Trachelospermum jasminoides	Star Jasmine

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Descriptions and specific garden uses can be found in the following references:

"An Illustrated Manual of Pacific Coast Trees", McMinn and Maino, 1956, University of California Press, Berkeley and Los Angeles, California.

"Check Lists for the Ornamental Plants of Subtropical Regions", Hoyt, 1938, Livingston Press, Los Angeles, California.

"Hortus Second", Bailey and Bailey, 1942, The Macmillian Company, New York.

"Sunset Western Garden Book", 1961, Lane Book Company, Menlo Park, California.

Planting Trees and Shrubs

Successful growth of trees and shrubs will depend on how they are planted. Important considerations are: size of holes, depth of planting, staking, backfill mixture, watering and mulching.

Steps in planting:

1. Dig the hole at least twice as wide as the diameter of the root ball.

2. Place backfill mixture, 75% of which should be soil dug from the hole and 25%, soil conditioner, in the bottom of the hole and "foot tamp" to prevent settling of the plant.

3. Set the plant, being careful not to plant it deeper than in the container or ball, and complete backfilling with backfill mixture.

4. Build a basin around the plant to facilitate watering, and mulch (cover the surface of) the entire basin with soil conditioner.

5. Thoroughly water after planting.

If topsoil is used as a backfill mixture, it should be thoroughly mixed with the soil conditioner and with the soil removed from the hole.

Since most trees and shrubs are planted from nursery containers, the time for planting is unlimited throughout the year.

Establishing a New Lawn

The essential factors in establishing a new lawn include method and time of planting, selecting seed mixtures, and watering. However, the total success will depend greatly on the preparation of the soil.

1. With a rototiller or spade, completely loosen the soil to a depth of 8 to 12 inches. Rake the area smooth and establish a subgrade to approximately 2 inches below anticipated finish surface of the lawn.

2. Leach the soil with thorough applications of water. Allow the soil to dry to a workable state.

3. Evenly spread soil conditioner to a depth of 1 to 2 inches over the entire area. Spread sulfur at the rate of 5 pounds per 100 square feet and single superphosphate at 2-1/2 pounds per 100 square feet.

4. Thoroughly cultivate the soil to a depth of 6 to 8 inches. If topsoil is used, it should also be thoroughly mixed with the existing soil to prevent stratification of the two types of soil. If "woody" soil conditioners such as ground bark, sawdust and shavings are used,

Establishing a New Lawn (cont.)

apply 2 pounds of ammonium sulfate per 100 square feet with the soil conditioner to supplement the nitrogen removed from the soil through the decomposing process of the soil conditioner.

5. Rake the area to a smooth even surface and roll with a water-filled hand roller to firm the seed bed.

6. Spread fertilizer such as 11-8-4 at 1-1/2 pounds per 100 square feet, and lightly rake into the soil.

7. Sow seeds at recommended rates, to provide even distribution over the entire area. Divide the quantity of seeds into 2 equal portions, sowing in two directions, covering the area twice. Lightly rake the seed into the soil. Mulch the entire area with a fine layer of peat moss or sawdust and water thoroughly with a fine spray keeping adequate moisture in the soil until the seeds have germinated.

The selection of lawn seeds is an important and many times confusing decision to make. Generally an all-purpose lawn would be one requiring average maintenance, would withstand reasonable amount of wear and provide luxurious all-year color. Mixtures with a higher percentage of Kentucky Bluegrass and its varieties will meet these requirements. Reference materials on lawns can further aid the Home Owner in planting methods and seed selections. Lawns can be planted in Foster City almost any month of the year though the most desirable time is during the spring and early fall.

NOTE: In preparing the soil for ground cover the first 4 steps outlined above for the planting of lawn can be followed. The individual plants then planted at appropriate intervals.

Maintenance Program

Consistency of gardening and a regular program of fertilizing and watering are important factors for good plant growth and success of the garden.

Fertilize trees and shrubs from early spring through summer making three applications. Apply fertilizer (11-8-4) at the rate of 2 pounds per 100 square feet or ammonium sulfate (21-0-0) at the rate of 1 pound per 100 square feet. Fertilize lawn areas with 5 applications each year, starting from early spring and continuing through fall. Apply fertilizer (11-8-4) at the rate of 1-1/2 pounds per 100 square feet or ammonium sulfate (21-0-0) at 1 pound per 100 square feet.

Spread fertilizer evenly over the entire area and thoroughly water into the soil after each application.

Maintenance Program (cont.)

Water requirements will depend on the type and maturity of the planting and the time of the year. The watering program should be keyed toward the development of good root penetration. It is essential to water thoroughly.

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MONTEREY CYPRESS

Cupressus macrocarpa

Evergreen

Height - 20-30 ft.

Spread - 15-25 ft.

Rate of Growth - Rapid

Description: Compact and narrowly conical in youth, with rich green foliage. Tolerates strong winds and seacoast conditions.

MONTEREY PINE

Pinus radiata

Evergreen

Height - 30'-60'

Spread - 20'-40'

Rate of Growth: Rapid

Description: A narrow, compact, round headed tree, pyramidal in youth and assuming a variety of more or less conventional shapes at maturity. The foliage is a rich, bright green; on older trees the color deepens to blue green. Tolerates wind, salt spray and other seacoast conditions.

MYOPORUM

Myoporum laetum

Evergreen

Height - 20-25 ft.

Spread - 10-15 ft.

Rate of Growth: Rapid

Description: Compact, round headed tree. Dense, dark green foliage. Tolerates wind and salt spray. Makes one of the quickest oceanside windbreaks.

NEW ZEALAND CHRISTMAS TREE

Metrosideros excelsa

Evergreen

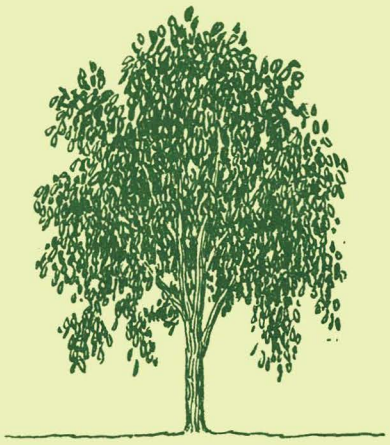
Height - 20-30 ft.

Spread - 30-35 ft.

Rate of Growth - Moderate

Description: A much-branched tree, somewhat resembling the California Live Oak in appearance. The foliage is dark green above, silvery beneath. Flowers are showy dark-red in dense clusters, 4" to 6" in diameter at the ends of the branches. Tolerates seacoast conditions.

DESERT GUM



Eucalyptus rudis

Evergreen

Height - 25-40 ft.

Spread - 25-30 ft.

Rate of Growth - Rapid

Description: Erect, compact and dense, with many pendulous branches, and dark bluish green leaves. Tolerates wind and seacoast conditions.

GOLDEN WILLOW

Salix babylonica

Deciduous

Height - 20'-30'

Spread - 30'-50'

Rate of Growth: Rapid

Description: A round headed, compact, densely branched tree with heavily drooping branchlets. The foliage is a light shiny green above and glaucous beneath. Will grow in wet or boggy soil and tolerates wind.

HOLLY OAK

Quercus ilex

Evergreen

Height - 20'-50'

Spread - 20'-35'

Rate of Growth: Moderate

Description: A wide spreading tree with a rounded crown and branches arching downward at the ends; foliage spiny-edged and dark green. Tolerates wind and stands full exposure to salt spray at high-tide line.

LEHMANN EUCALYPTUS

Eucalyptus lehmannii

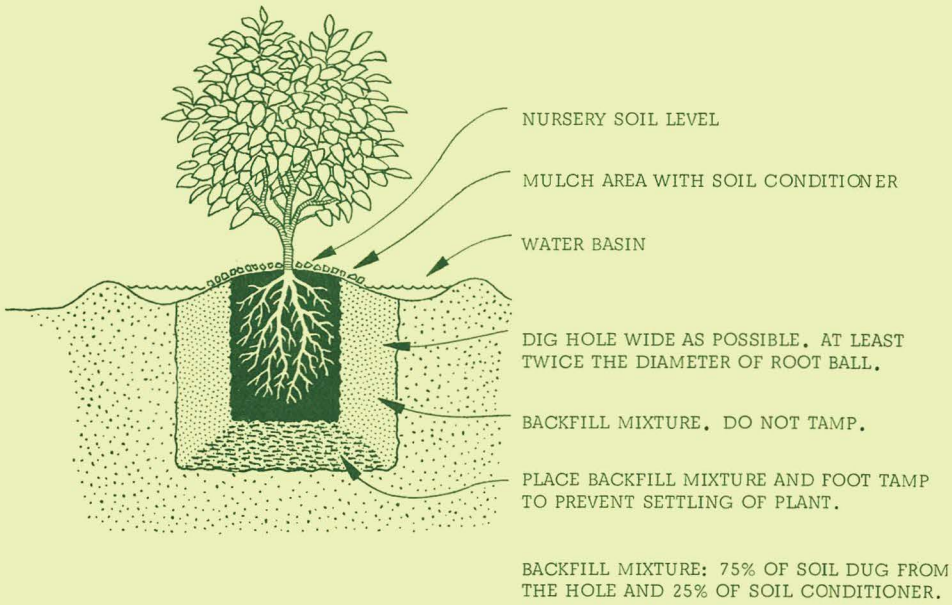
Evergreen

Height - 15-25 ft.

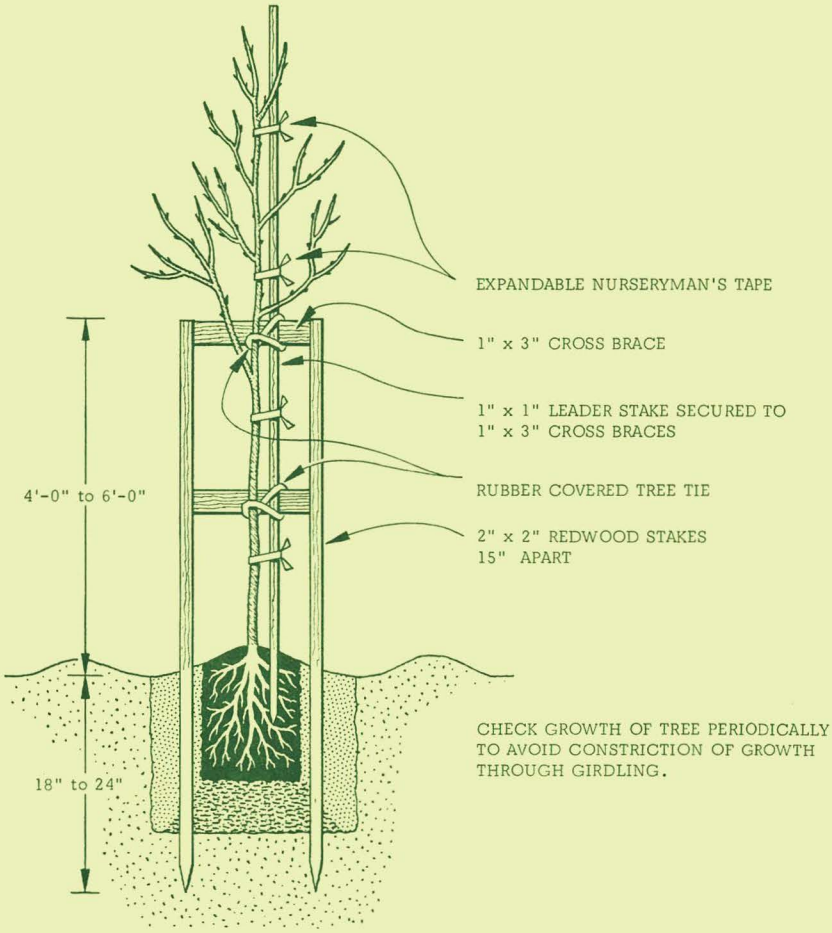
Spread - 15-25 ft.

Rate of Growth - Moderate

Description: A round headed tree, with interesting branching habit. The foliage is green with bronzy tints, with old leaves turning bright red. Will grow in wind and saline soil.



SHRUB AND TREE PLANTING



TREE STAKING

CAJEPUT TREE

Melaleuca leucadendron

Evergreen

Height - 25-30 ft.

Spread - 10-15 ft.

Rate of Growth: Rapid

Description: Tall, slender, upright spreading tree with pendulous branches, and clusters of white flowers in summer. Foliage color pale green. Tolerates alkali, salt or swampy soil, salt air, wind and drought.

CHILE MAYTEN

Maytenus boaria

Evergreen

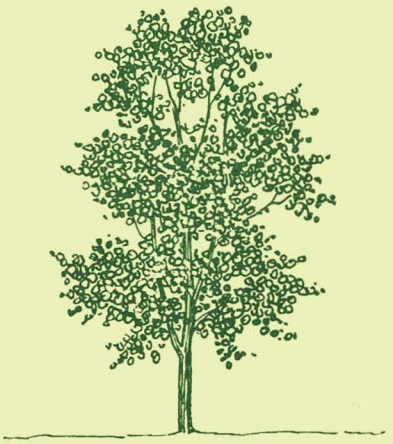
Height - 15-20 ft.

Spread - 10-15 ft.

Rate of Growth - Moderate

Description: Narrow, graceful pendulous tree with dense light green foliage. Tolerates seacoast conditions.

SILVER DOLLAR TREE



Eucalyptus pulverulenta

Evergreen

Height - 15'-20'

Spread - 8'-10'

Rate of Growth: Rapid

Description: Open, rounded crown with silver gray roundish leaves. Tolerates wind and seacoast conditions.