

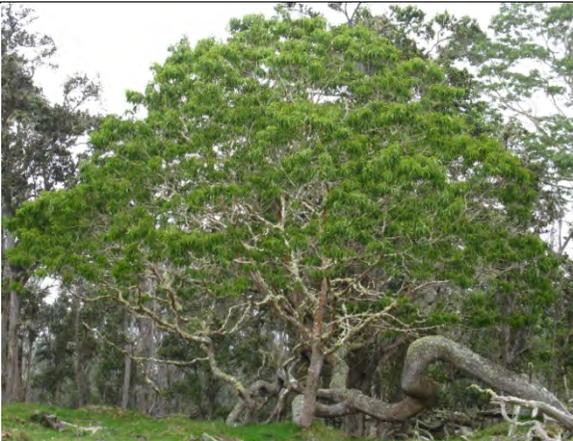


STATE TREE NURSERY
 DEPT. OF LAND & NATURAL RESOURCES
 DIV. OF FORESTRY & WILDLIFE



The following tree seedlings are available to order from the State of Hawaii Division of Forestry and Wildlife, State Tree Nursery:

<u>Scientific Name:</u>	<u>Common Name:</u>	<u>Dibble/ Pot size:</u>
Acacia koa.....	Koa.....	Small
Acacia koaia.....	Koai'a.....	Small
Araucaria columnaris.....	Norfolk-island Pine.....	Small
Cryptomeria japonica.....	Sugi Pine.....	Small
Cupressus lusitanica.....	Mexican Cypress.....	Small
Cupressus macrocarpa.....	Monterey Cypress.....	Small
Cupressus sempervirens.....	Italian Cypress.....	Medium
Eucalyptus deglupta.....	Rainbow Bark.....	Small
Eucalyptus robusta.....	Swamp Mahogany.....	Small
Metrosideros polymorpha.....	Ohia.....	Medium or 3" pot
Pinus elliotii.....	Slash Pine.....	Small
Pinus radiata.....	Monterey Pine.....	Small
Podocarpus sp.....	Podocarpus.....	3" pot
Santalum sp.....	Sandalwood.....	Medium or 3" pot
Tristania conferta.....	Brush Box.....	Small



Acacia koa (Koa): This large hardwood tree is endemic to the Hawaiian Islands. The tree has exceeded 100 ft in height with basal diameter far beyond 50 inches in old growth stands. The wood is prized for furniture and canoe works. This legume has pods with black seeds for reproduction. The wood has similar properties to that of black walnut. The yellow flowers are borne in dense round heads about 2@ in diameter. Tree growth is best above 800 ft; seems to grow best in the 'Koa belt' which is situated at an elevation range between 3,500 - 6,000 ft. It is often found in areas where there is fog in the late afternoons. It should be planted in well-drained fertile soils. Grazing animals relish the Koa foliage, so young seedlings should be protected



Acacia koaia (Koaia): Related to the Koa, Koaia is native to Hawaii. The leaves and flowers are much the same as Koa. A much smaller tree than the Koa, it grows to about 30 ft in height with trunks less than 2 ft in diameter. Pods are narrow and linear. Twigs are slender, light brown and smooth. Bark is rough and corrugated. Wood is harder than the giant Koa. Probably prefers drier climate and open sunlight below 3,000 ft in elevation. Koaia is becoming rare and listed as a Federal Species of Concern.



***Araucaria heterophylla* (Norfolk Island Pine):** A large evergreen tree with a straight trunk, slightly drooping horizontal branches and narrow pyramidal shape. Can reach heights of over 100 ft and trunks can exceed 3 ft in diameter. This species is tolerant of both wind and salt, making it suitable for coastal plantings. While strong and durable the straw colored wood is rarely knot free, and is used mostly for turning and carving



***Cryptomeria japonica* (Sugi Pine):** Large evergreen tree reaching heights of up to 80 ft with a straight trunk and large base. Reddish brown bark, with dull bluish-green needle like leaves, grows best in moist elevations between 2,500 - 6,000 ft. This is the national tree of Japan, where it remains one of the most important timber trees. The wood is durable, lightweight, and aromatic, with whitish yellow sapwood and reddish brown heartwood.



***Cupressus lusitanica* (Mexican Cypress):** These are evergreen coniferous trees introduced as an ornamental, windbreak, or shaped Christmas tree. This aromatic tree reaches heights of over 50 ft, and is a rapid grower under fertile conditions. Grows well at elevations below 3,000 ft, and is not likely to be drought tolerant. Cones are 1" or less in diameter. For windbreak use should be planted 10 to 12 ft apart.



***Cupressus macrocarpa* (Monterey Cypress):** Medium to large introduced aromatic evergreen; grows up to 110 ft tall with a conical or spreading crown. Grows well between 1,500 and 5,000 ft elevation mostly on leeward sides. Taller, but not as fast growing as Mexican Cypress, and with more shallow roots. Monterey Cypress is best suited as the middle or inner row of a multiple row windbreak, spaced 10 to 12 ft apart.



Cupressus sempervirens (Italian Cypress): A tall, narrow, columnar evergreen with stiff, symmetrical, erect branches. The quadrangular branchlets spread in all directions and have dark grey-green leaves. The cones are over 1” in diameter. Commonly planted in formal gardens and used for borders. May be planted as hedges with proper trimming. This introduced conifer does best in sunny locations.



Eucalyptus deglupta (Rainbow Bark): The Rainbow Bark tree is typically a rapid growing, large tree (100 -160 ft) that prefers mid to low elevations and deep soils. The smooth bark peels in log strips exposing mottled colors of pink, purple, orange and green. It is not recommended for residential areas because of its enormous size, but is good for open pastures and timber plantings. The wood is pale reddish brown and is used in cabinetry.



Eucalyptus robusta (Swamp Mahogany): A tall, symmetrical tree recognized by the thick soft reddish-brown bark. It is particularly adapted to wet, swampy conditions and will grow under most soil conditions found in Hawaii. Swamp Mahogany is a very fast grower that can be topped and pruned to produce succulent water sprout growth to give more foliage at the base of the tree. Although an excellent center row windbreak tree, the main bole sometimes breaks in a strong wind. However, re-growth at the breakage point provides better coverage and protection. The Swamp Mahogany does well up to 4,000 ft in elevation. Recommended windbreak spacing 10-15 ft.



Metrosideros polymorpha (Ohia): A native plant to Hawaii that grows quite tall, over 80 ft in height in certain locations. This tree has a very broad range of growing tolerance from near sea level to over 6,000 ft elevation. The Ohia is the most abundant tree in vast areas of the Hawaiian forest. Ohia is able to incur heavy pruning and is capable of growing in rocky locations, even in lava fields. The red flowered Ohia is most prevalent, but colors can range from red to salmon to yellow.



Pinus elliotii (Slash Pine): A fast growing southern pine reaching heights over 75 feet, with a long straight trunk and branches in horizontal rings. Tree grows a full, rounded crown with long (7-9"), glossy needles in clusters of two or three, has red-brown cones that can be up to 5" long, and thick plate-like bark that peels off in flat scaly plates. Slash pine prefers humid climates and moist soils, and grows best at elevations above 2,000 ft.



Pinus radiata (Monterey Pine): A large, fast growing pine that tolerates a wide range of soil types and climates. Species grows with a straight trunk and slightly to strongly upward angled branches to heights of up to 150 ft at elevations ranging from 1,500-7,500 ft. Needles are shiny green, bark is a dull gray, and wood is pale brown. Monterey pine is the most common pine used for plantation timber in the southern hemisphere.



Podocarpus sp. (Podocarpus): This is a good size evergreen conifer that attains a height of over 60 ft. The crown is quite dense and it provides shade cover at the base of the tree. This evergreen can grow in various types of soil and does best above sea level but below 5,000 ft. It requires full sunlight and can be used for reforestation and windbreak. New plants can be obtained from cuttings or from seed. Introduced to Hawaii and used for reforestation



Santalum sp. (Sandalwood / Iliahi): Hawaiian sandalwoods include several species. Some are shrubs while others become moderately large trees. The Sandalwood grown here grows in rather dry areas to elevations above 5,000 ft, although it probably could do well at lower elevations, but not near the ocean. Our endemic Sandalwood is a rather small tree up to 20 ft tall and wide spreading with trunk diameters to 12". Leaves are yellowish-green and shiny above, pale green below, thick and pinnately veined. The bark is rough and broken into plates. The wood is tan, hard and fragrant. Sandalwoods are root parasites which make them an oddity among trees. Fruit is 2 inch or more oval in shape turning from green to purple when ripe.

Lophostemon confertus
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Tristania conferta (Brush Box): This tree normally grows to 60 ft in height but trees grown in wet areas in Hawaii have exceeded 80'. Seedlings should be planted in moist well drained soil at elevations from 200 to 2,000 ft. This is a handsome shade tree from Australia and is classed as moderately resistant to decay and termites and is drought tolerant. It is a hardy low-branching, dense tree related to Eucalyptus. The root system is strong and massive. It can tolerate heavy and repeated pruning thus making the foliage denser and well suited for a windbreak or ornamental tree. Because of its re-sprouting and low branches, Brush Box can be used as an outside row tree in a multiple row windbreak, or alone in a multiple row windbreak. Plant 10-15 ft apart, 10-15 ft between rows. (picture by J.B. Friday)