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Florida-Friendly Landscaping™ PROGRAM

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Fagus sylvatica: European Beech[1]

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Introduction

European Beech grows into a wide oval, 80 to 100 feet tall and spreads 50 to 70 feet. Branches normally sweep the ground in a graceful fashion. The tree grows slowly, is hard to transplant and prefers a sunny location and a moist, light soil. Though not a street tree, the tree makes one of the finest specimens of all those available in North America for large scale landscapes. European Beech is somewhat tolerant of heat and dry soil, but it is best to locate it where it would receive adequate moisture. The cultivars `Pendula' and `Fastigiata' are more available than the species and very attractive.

General Information

Scientific name: *Fagus sylvatica*

Pronunciation: FAY-gus sill-VAT-ih-kuh

Common name(s): European Beech

Family: *Fagaceae*

USDA hardiness zones: 4A through 7B (Fig. 2)

Origin: not native to North America

Invasive potential: little invasive potential

Uses: hedge; specimen; shade

Availability: somewhat available, may have to go out of the region to find the tree



Figure 1. Young *Fagus sylvatica*: European Beech

Description

Height: 50 to 75 feet

Spread: 40 to 60 feet

Crown uniformity: symmetrical

Crown shape: oval

Crown density: dense

Growth rate: moderate

Texture: medium

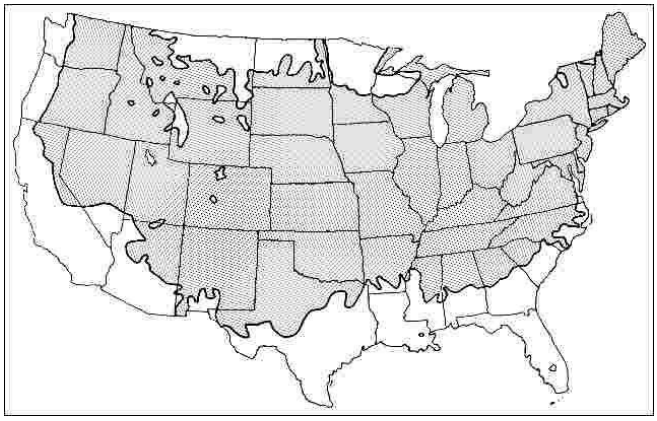


Figure 2. Range

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: undulate, entire

Leaf shape: ovate, elliptic (oval)

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

Leaf color: green

Fall color: copper

Fall characteristic: showy

Flower

Flower color: unknown

Flower characteristics: not showy

Fruit

Fruit shape: oval

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: attracts birds; not showy; fruit/leaves not a litter problem

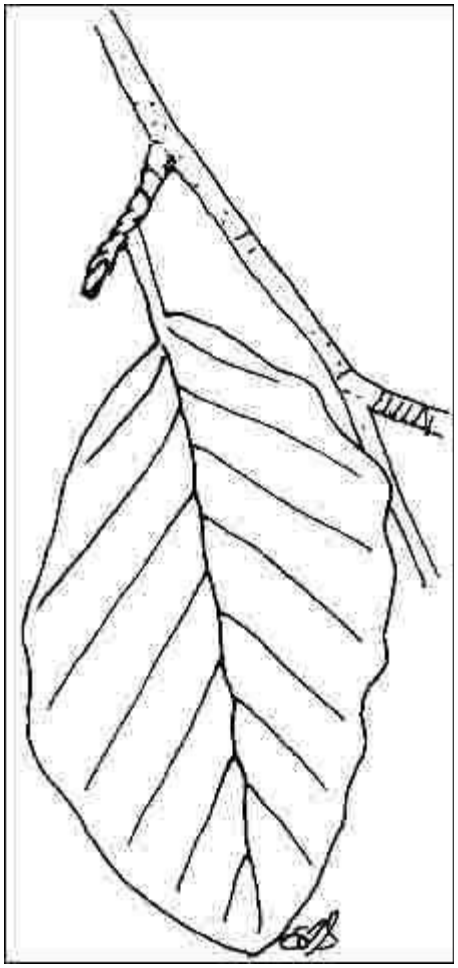


Figure 3. Foliage

Trunk and Branches

Trunk/bark/branches: branches droop; very showy; typically one trunk; thorns

Pruning requirement: little required

Breakage: resistant

Current year twig color: brown, gray

Current year twig thickness: thin

Wood specific gravity: unknown

Culture

Light requirement: full sun, partial sun or partial shade

Soil tolerances: clay; sand; loam; acidic; slightly alkaline; well-drained

Drought tolerance: moderate

Aerosol salt tolerance: low

Other

Roots: can form large surface roots

Winter interest: yes

Outstanding tree: no

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases

Use and Management

European Beech has given rise to many cultivars: `Albo-variegata' - leaves margined white; `Asplenifolia' - cut leaves; `Atropunica' - leaves purple; `Cochleata' - smaller, spoon-shaped leaves; `Cuprea' - leaves copper colored; `Dawycki' - upright growth habit; `Fastigiata' - upright growth habit; `Laciniata' - leaves cut, wider more regularly-shaped than `Asplenifolia'; `Macrophylla' - larger leaves; `Miltonensis' - leader erect, main branches horizontal, side branches pendulous; `Pendula' - weeping habit; `Purpurea Pendula' - weeping with purple leaves; `Quercifolia' - slow growing, leaves oak-like; `Riversii' - young foliage reddish then purple; `Rohanii' - similar to `Laciniata'; `Roseo-marginata' - purple leaves with light pink border, grow in shade to prevent leaf burn, not easily grown; `Rotundifolia' - leaves round; `Spaethiana' - leaves purple; `Tortuosa' - low, spreading, umbrella-like; `Tricolor' - leaves green and white with pink margins; `Zlatia' - leaves golden in spring.

Pests

Usually none are serious. Aphid colonies on the lower branches can be dislodged with a strong stream of water from the garden hose. Colonies are often disposed of by predatory insects.

Borers such as flat-headed appletree borer or two-lined chestnut borer bore into trees weakened by some stress. Prevent the insect infestations by keeping trees healthy with regular fertilization and irrigation in dry weather.

Regular inspections of the trunk and branches are suggested for early detection of scales. Horticultural oil sprays will help control scales.

Certain caterpillars can be controlled with sprays of *Bacillus thuringiensis* .

Diseases

Usually none are serious provided soil is loose and is well-drained.

Several fungi cause leaf spots but are generally not serious to warrant chemical control.

Powdery mildew causes a white coating on the leaves. The disease is most common late in the season.

Bleeding canker forms cankers from which a brownish liquid oozes. Crown symptoms include leaves of smaller size and lighter green color than normal. In severe cases the leaves wilt and the branches die. Avoid feeding with high nitrogen fertilizers as it seems to worsen the condition of infected trees.

Beech bark disease occurs when the feeding site of woolly Beech scale is invaded by a fungus. The fungus kills the bark and in the process, the insects. There are no satisfactory controls for the fungus. Control the disease by controlling the scale with a horticultural oil.

Cankers infect, girdle, and kill branches. Prune out the infected branches.

During periods of high temperatures and low rainfall Beech leaves may scorch. Make sure trees are adequately watered.

[1] This document is ENH403, one of a series of the UF/IFAS Department of Environmental Horticulture. Original publication date November 1993. Revised December 2006. Reviewed February 2014. Visit the Ask IFAS website at https://ask.ifas.ufl.edu for the currently supported version of this publication. © UF/IFAS. This publication is licensed under CC BY-NC-ND 4.0 *To learn more about creating and maintaining attractive landscapes that protect Florida's water and natural resources, visit ffl.ifas.ufl.edu/.*

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