



Fagus sylvatica 'Dawyck' 'Dawyck' European Beech¹

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INTRODUCTION

Upright European Beech grows in a columnar form without pruning perhaps to 70 or 80 feet tall (Fig. 1). The crown spreads to about 30 feet. The tree grows slowly, recovers slowly from transplanting and prefers a sunny location and a moist, light soil. European Beech is somewhat tolerant of heat and dry soil, but it is best to locate it where it would receive adequate moisture. A row of these along an entrance road would make a dramatic entry to a commercial or residential complex. Purple Beech and the cultivars 'Pendula' and 'Fastigiata' ('Dawyck') are more available than the species and very attractive.

GENERAL INFORMATION

Scientific name: *Fagus sylvatica* 'Dawyck'
Pronunciation: FAY-gus sill-VAT-ih-kuh
Common name(s): 'Dawyck' European Beech
Family: Fagaceae
USDA hardiness zones: 4 through 7 (Fig. 2)
Origin: not native to North America
Uses: hedge; shade tree; specimen; no proven urban tolerance
Availability: generally available in many areas within its hardiness range

DESCRIPTION

Height: 50 to 75 feet
Spread: 25 to 35 feet
Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

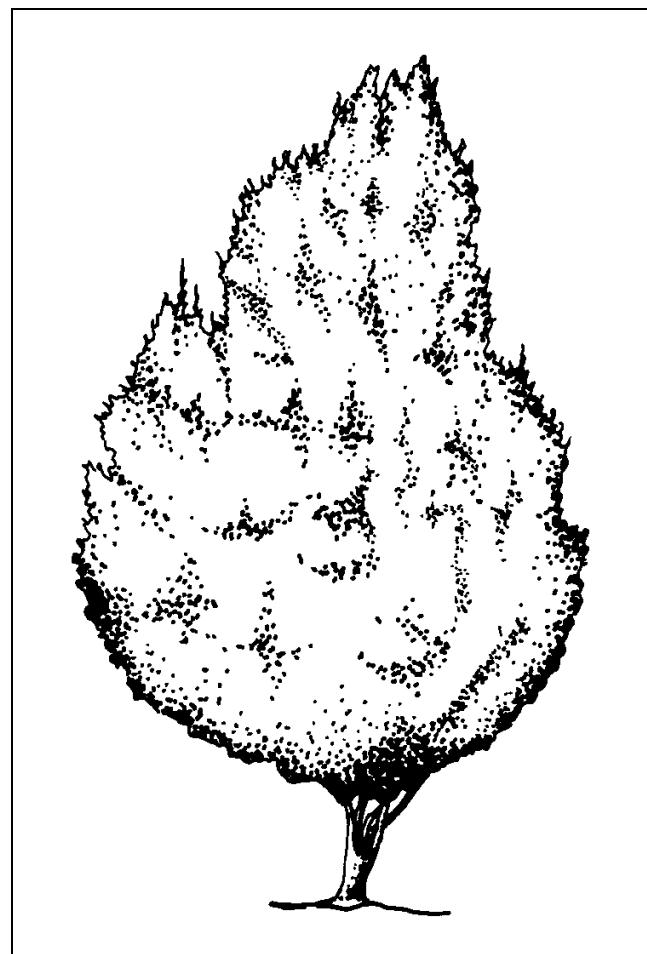


Figure 1. Middle-aged 'Dawyck' European Beech.

Crown shape: columnar; upright
Crown density: dense
Growth rate: slow
Texture: medium

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Figure 2. Shaded area represents potential planting range.

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: entire; undulate

Leaf shape: elliptic (oval); ovate

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 characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: oval

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: attracts birds; suited for human consumption; inconspicuous and not showy; no

significant litter problem

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; showy trunk; should be grown with a single leader; no thorns

Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: brown; gray

Current year twig thickness: thin

Culture

Light requirement: tree grows in part shade/part sun; tree grows in full sun

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

Drought tolerance: moderate

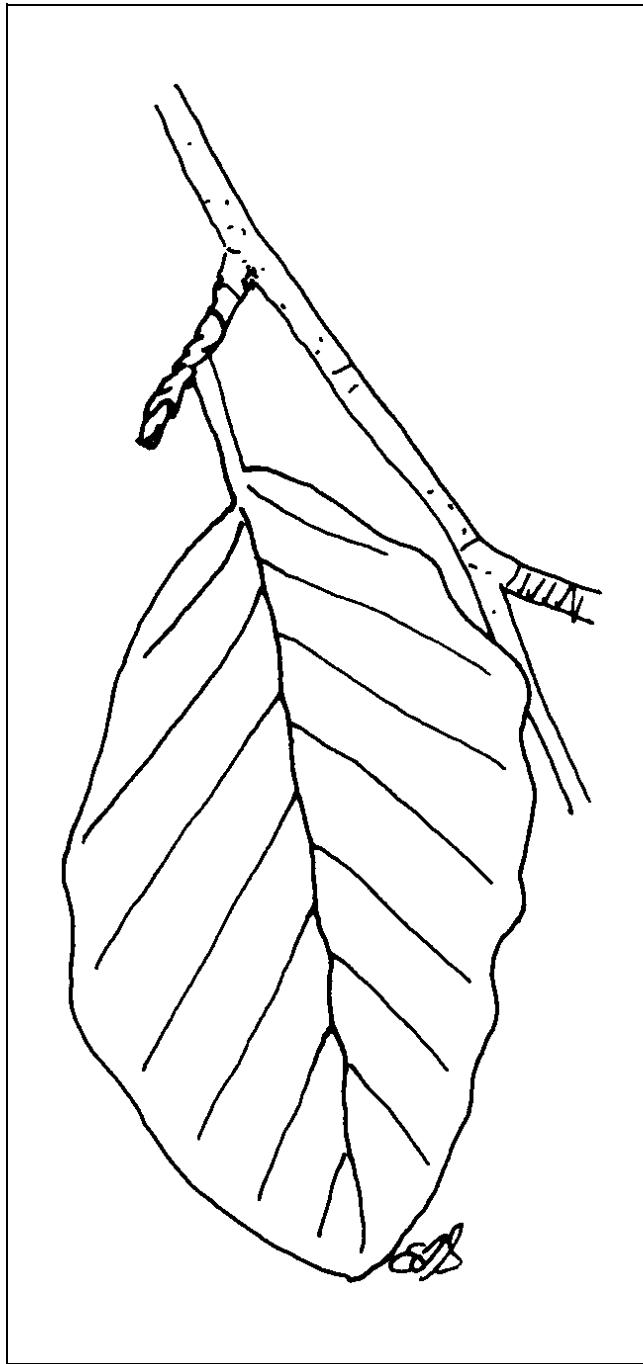


Figure 3. Foliage of 'Dawyck' European Beech.

Other

Roots: surface roots can lift sidewalks or interfere with mowing

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: long-term health usually not affected by pests

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; 'Dawyckii' - 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 occasionally 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.