



***Betula pendula 'Youngii'* 'Youngii' European Birch¹**

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

Youngs Weeping European Birch is graceful, weeping ornamental with wonderful yellow fall color but is susceptible to fatal attacks of bronze birch borer (Fig. 1). The leaves are often browned by birch leaf miner. When grown, plan to provide the necessary insect control and provide the necessary cultural conditions for best growth. It grows moderately with a variable height depending on how it was trained. Some specimens appear sloppy, others more tailored. Lawn grasses grow fairly well in its light shade. A moist soil and a regular fertilization program plus watering in dry weather are suggested. Although popular, the tree requires more care and spraying than other ornamental trees. Not a low maintenance tree. Maintaining a good mulch around the root zone is helpful for best growth.

GENERAL INFORMATION

Scientific name: *Betula pendula 'Youngii'*
Pronunciation: BET-yoo-luh PEND-yoo-luh
Common name(s): 'Youngii' European Birch
Family: Betulaceae
USDA hardiness zones: 3 through 6 (Fig. 2)
Origin: not native to North America
Uses: near a deck or patio; shade tree; specimen
Availability: generally available in many areas within its hardiness range

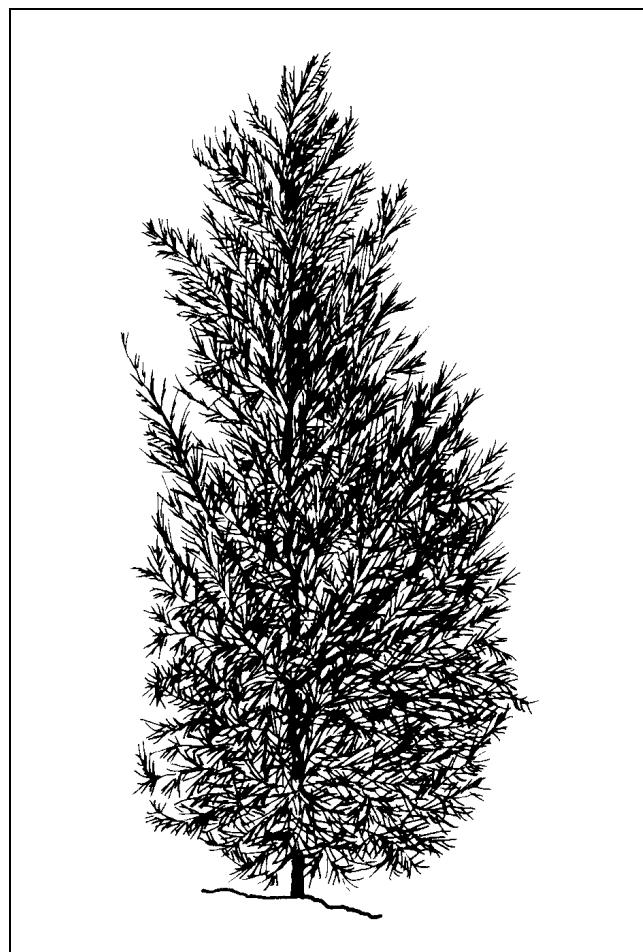


Figure 1. Middle-aged 'Youngii' European Birch.

DESCRIPTION

Height: 12 to 20 feet
Spread: 15 to 25 feet
Crown uniformity: irregular outline or silhouette

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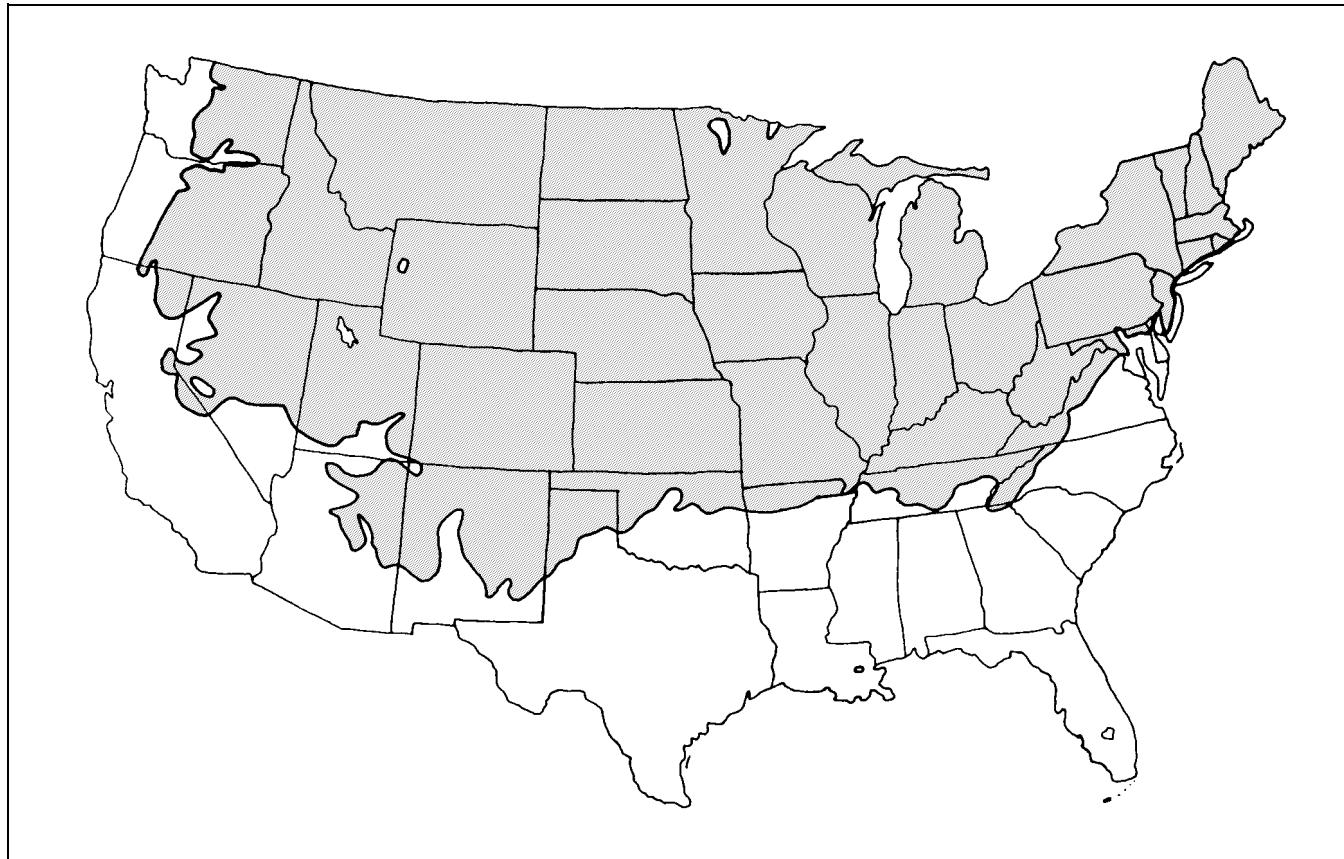


Figure 2. Shaded area represents potential planting range.

Crown shape: weeping

Crown density: moderate

Growth rate: slow

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: double serrate

Leaf shape: ovate; rhomboid

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches; less than 2 inches

Leaf color: green

Fall color: yellow

Fall characteristic: showy

Flower

Flower color: brown

Flower characteristics: showy; spring flowering

Fruit

Fruit shape: elongated

Fruit length: 1 to 3 inches; .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: attracts birds; inconspicuous and not showy; no significant litter problem

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; not particularly showy; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns

Pruning requirement: requires pruning to develop strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thin

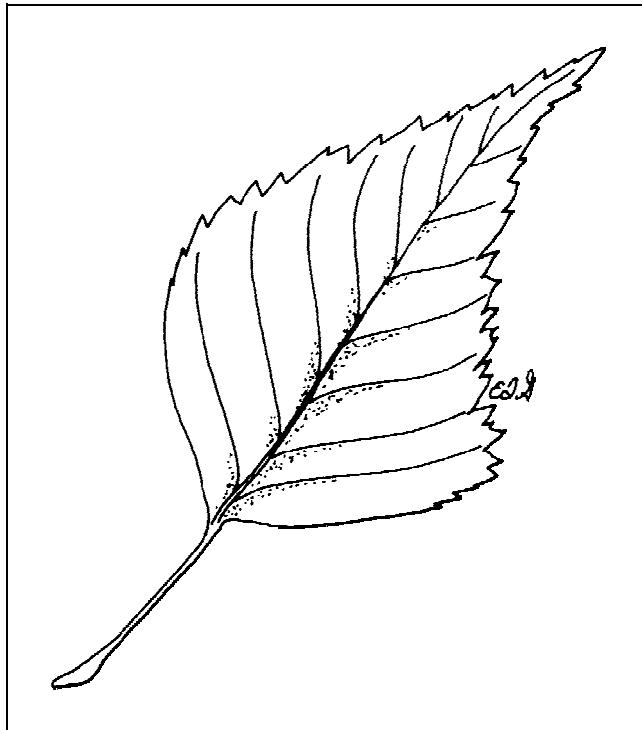


Figure 3. Foliage of 'Youngii' European Birch.

Culture

Light requirement: tree grows in full sun

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

Drought tolerance: moderate

Aerosol salt tolerance: moderate

Soil salt tolerance: moderate

Other

Roots: surface roots are usually not a problem

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: very sensitive to one or more pests or diseases which can affect tree health or aesthetics

USE AND MANAGEMENT

Several cultivars are listed but these too will have pest problems: 'Dalecarlica' - deeply lobed leaves on pendulous branches; 'Laciniata' - cut leaves; 'Fastigiata' - upright growth habit; 'Purple Splendor'(purpurea), 'Scarlet Glory' - purple leaves; 'Tristis' - weeping habit; 'Youngii' - weeping habit.

Pests

A light aphid infestation may not be serious but heavy infestations cause distorted and stunted growth and produce large amounts of honeydew. The honeydew serves as a substrate for sooty mold.

Birch skeletonizer feeding causes leaf browning. The skeletonizer larva is yellowish-green and one quarter-inch-long.

Birch leaf miner is a common insect pest of birch. A small white worm eats out the middle of the leaf which turns brown. Severe attacks of birch leaf miner predispose trees to bronze birch borer infestation. The insect shows up in mid May but timing can vary from one year to the next, and will vary according to your location in the country. The first of two generations per year is the most damaging.

The most serious pest of landscape white birches is bronze birch borer. Stressed trees are most susceptible to borer attacks. The insect bores in the sapwood, beginning in the top third of the tree, causing death of the tree crown. The tunnels are slightly raised and faintly rust colored. Emergence holes in the trunk are shaped like capital D's. Keep the trees healthy by controlling other insects, fertilizing, and watering as needed. Chemical control is applied to the trunk and main branches. Timing of the first spray will vary from year to year depending on weather conditions. A commercial sprayer may be needed to apply the spray adequately.

Diseases

Several fungi cause canker diseases on birch. These diseases infect and kill sapwood causing sunken areas on the trunk and larger branches. There is no chemical control for canker diseases. Preventive measures include keeping the tree healthy and avoiding wounding. Regular fertilization will keep birches vigorous and more resistant to cankers. Water in dry weather to prevent water stress.

Dieback is characterized by a slow death of the branches. The tree crown accumulates dead branches. Injury caused by bronze birch borer is similar but far more prevalent. Prevent dieback by maintaining tree vigor with water and fertilizer. When the disease does occur prune out dead branches and increase tree vigor.

Several fungi also cause leaf spots which, when severe, can cause defoliation.