



Betula populifolia Gray Birch¹

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INTRODUCTION

A small, North American native tree, gray birch reaches 20 to 30 feet in height with a 10 to 20-foot spread, often forming loose, open thickets in the wild but easily trained to a single, slender trunk with an irregular, upright, pyramidal silhouette (Fig. 1). The glossy, dark green leaves on reddish-brown twigs are triangular-shaped, 2.5 to 3.5 inches long, and turn a lovely yellow color in autumn before dropping. Both male and female catkins, or blooms, appear on the same tree, eventually producing a small cylindrical cone, with the male catkins persisting on the trees well into the winter. For the first four or five years, the bark of gray birch is dark brown but later takes on a smooth, chalky-white appearance but does not peel as readily as the bark of white birches.

GENERAL INFORMATION

Scientific name: *Betula populifolia*

Pronunciation: BET-yoo-luh
pop-yoo-lih-FOLE-ee-uh

Common name(s): Gray Birch

Family: *Betulaceae*

USDA hardiness zones: 4 through 6 (Fig. 2)

Origin: native to North America

Uses: container or above-ground planter; reclamation plant; specimen

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

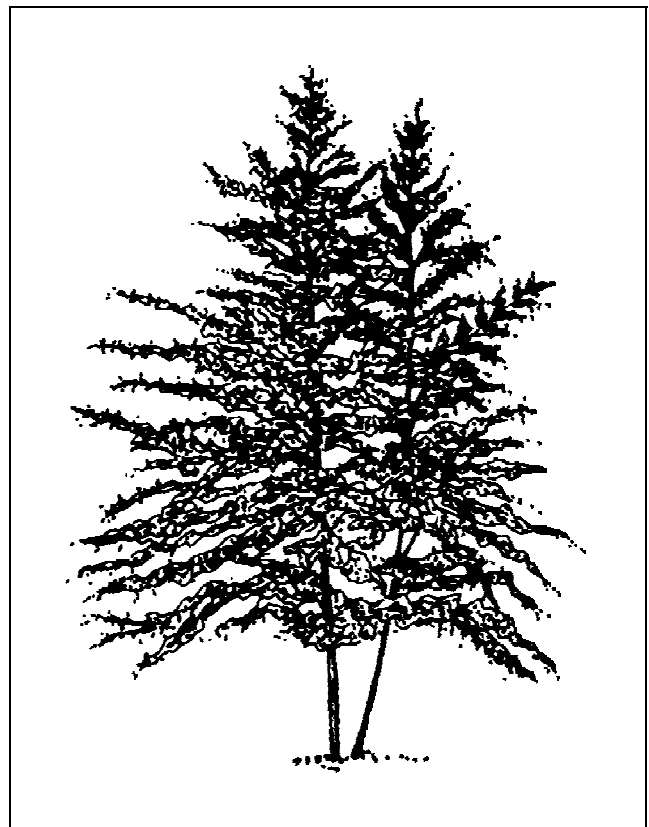


Figure 1. Young Gray Birch.

DESCRIPTION

Height: 20 to 30 feet

Spread: 10 to 20 feet

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

Crown shape: pyramidal; upright

1. This document is adapted from Fact Sheet ST-99, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: November 1993.
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Figure 2. Shaded area represents potential planting range.

Crown density: open

Growth rate: medium

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: double serrate

Leaf shape: ovate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

Leaf color: green

Fall color: yellow

Fall characteristic: showy

Flower

Flower color: brown

Flower characteristics: inconspicuous and not 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; persistent on the tree

Trunk and Branches

Trunk/bark/branches: 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

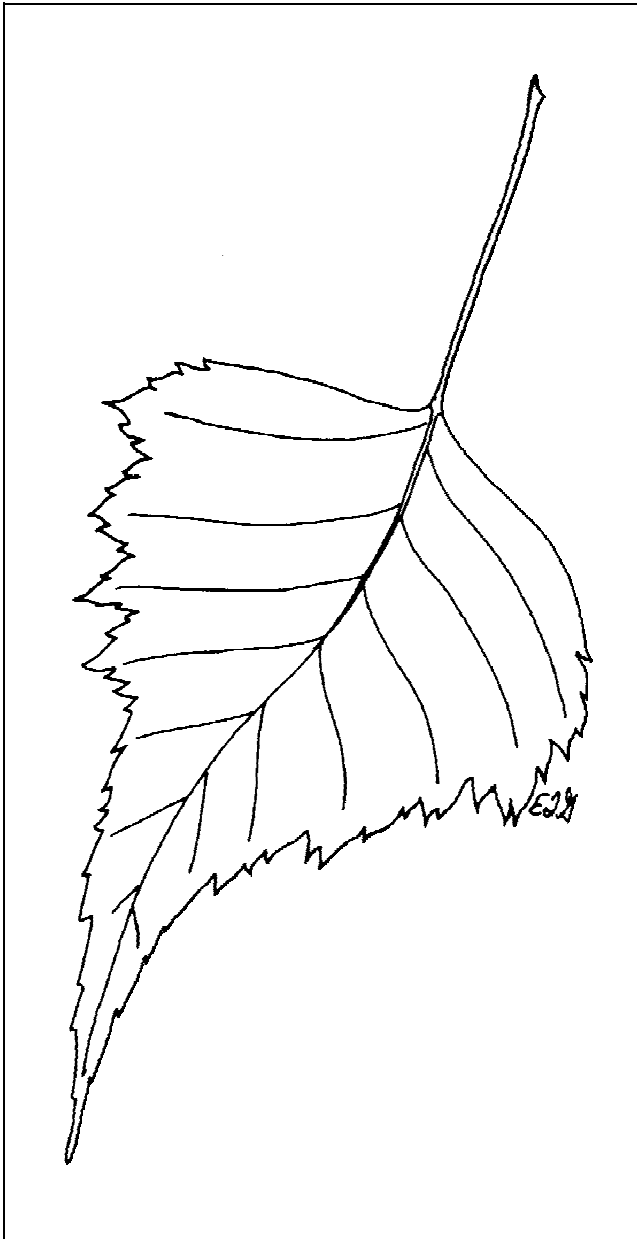


Figure 3. Foliage of Gray Birch.

Culture

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

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

Drought tolerance: moderate

Aerosol salt tolerance: high

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: seeds itself into the landscape

Ozone sensitivity: tolerant

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

With the attractive bark, persistent catkins, and interesting, finely-branched silhouette, gray birch makes a striking winter landscape planting, especially against a backdrop of dark green evergreens. Gray birch exhibits medium to fast growth (two feet per year) and is relatively short-lived, approximately 20 years. It could be used as specimen tree where a small to medium-sized fine-textured, upright plant is needed.

Gray birch will grow easily in full sun or partial shade on almost any soil, tolerating the poorest, driest soils to wet, streamside locations. It is an early colonizer of recently-disturbed sites growing best alone with little competition from other vegetation, and often forms pure stands in nature from seedlings and root suckers. It may suffer if interplanted with other competing shrubs and ground covers. Trees will show symptoms of chlorosis when grown on soil with a high pH. Any necessary pruning should be done in summer or fall since trees pruned in late winter or early spring will bleed excessively.

Cultivars include: 'Laciniata', with pinnately-lobed leaves; 'Pendula', with drooping branches; and 'Purpurea', with purple young leaves.

Propagation is by seeds or cuttings.

Pests and Diseases

None of major concern but occasionally bothered by leaf miners and cankers. Gray birch is quite resistant to bronze birch borer.