



Betula papyrifera Paper Birch¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

A native to northern areas that is grown for its beautiful white bark (Fig. 1). An additional ornamental trait is the yellow fall leaf color. The tree is best adapted to wet and moist sites -- watch out for pests if grown in an unsuitable site. The tree will grow to 50 feet or more and spread about half that amount. Paper birch has excellent cold tolerance and will grow in USDA hardiness zone 2. It is rarely successful in zones warmer than USDA hardiness zone six. In landscapes it may be grown as a single stemmed tree or in a multi-stemmed clump.

GENERAL INFORMATION

Scientific name: *Betula papyrifera*

Pronunciation: BET-yoo-luh pap-ih-RIFF-er-uh

Common name(s): Paper Birch, Canoe Birch

Family: *Betulaceae*

USDA hardiness zones: 3 through 6 (Fig. 2)

Origin: native to North America

Uses: specimen

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

DESCRIPTION

Height: 45 to 60 feet

Spread: 20 to 35 feet

Crown uniformity: irregular outline or silhouette

Crown shape: oval

Crown density: moderate

Growth rate: medium

Texture: fine

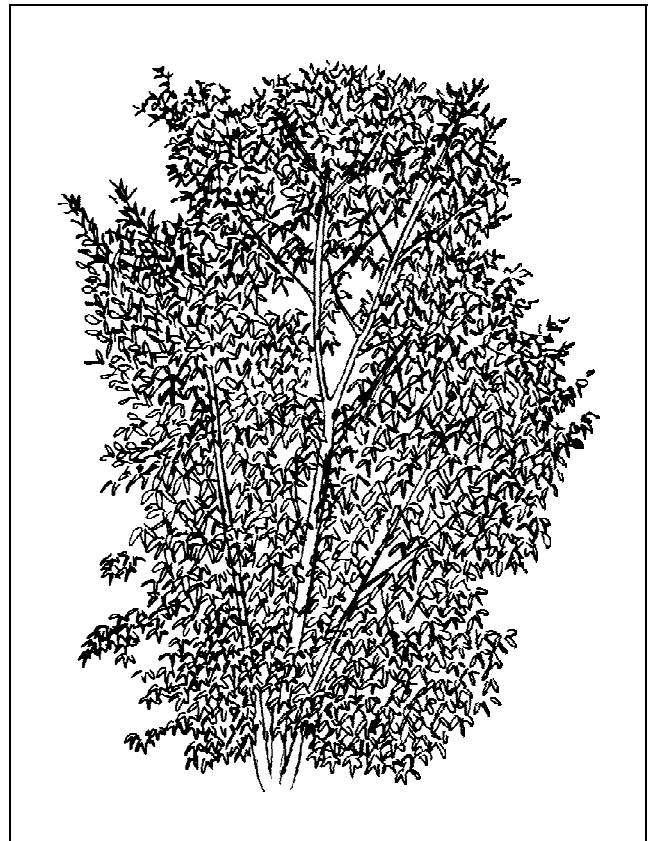


Figure 1. Young Paper Birch.

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: double serrate

Leaf shape: ovate

Leaf venation: pinnate

1. This document is adapted from Fact Sheet ST-96, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: November 1993.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

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; green

Flower characteristics: showy; spring flowering

Fruit

Fruit shape: elongated

Fruit length: 1 to 3 inches

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: grow mostly upright and will not droop; should be grown with a single leader; very showy trunk; no thorns

Pruning requirement: requires pruning to develop strong structure

Breakage: resistant

Current year twig color: brown; reddish

Current year twig thickness: thin

Wood specific gravity: 0.55

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: moderate

Soil salt tolerance: good

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

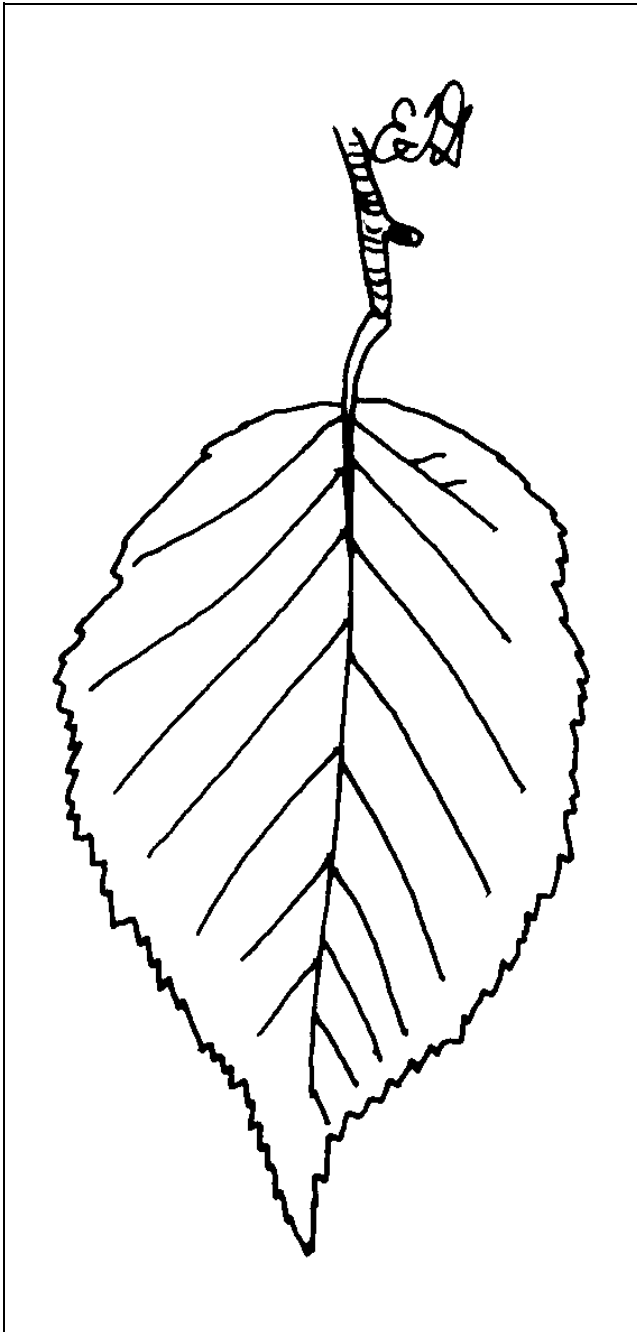


Figure 3. Foliage of Paper Birch.

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

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 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.