

Tilia americana American Linden¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

Most often seen at 40 to 50 feet in height with a spread of 35 to 40 feet, American Linden or Basswood is capable of reaching 80 to 100 feet or more (Fig. 1). The tree is pyramidal when young but develops into a striking specimen with an upright, oval canopy atop a tall, straight trunk. The lower branches remain on the tree and gently drape toward the ground before sweeping up in a gentle curve. The four to eight-inch-long, heart-shaped leaves are dark green throughout the year fading only to pale green or yellow before dropping in autumn. In June, the trees produce abundant, two to three-inch-wide clusters of very fragrant, light yellow blooms which are extremely attractive to bees, who make a delicious honey from their harvests. The small, grey nut which is later produced will persist on the tree until midwinter. The trunk can grow to six feet or more across on mature specimens.



Figure 1. Mature American Linden.

GENERAL INFORMATION

Scientific name: *Tilia americana*

Pronunciation: TILL-ee-uh uh-mair-ih-KAY-nuh

Common name(s): American Linden, Basswood, American Basswood

Family: *Tiliaceae*

USDA hardiness zones: 3 through 8 (Fig. 2)

Origin: native to North America

Uses: hedge; wide tree lawns (>6 feet wide); shade tree; specimen; residential street tree; no proven urban tolerance

Availability: generally available in many areas within its hardiness range

DESCRIPTION

Height: 50 to 80 feet

Spread: 35 to 50 feet

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

Crown shape: oval; pyramidal

Crown density: dense

Growth rate: medium

Texture: coarse

1. This document is adapted from Fact Sheet ST-634, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
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.

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: serrate

Leaf shape: cordate; ovate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 4 to 8 inches

Leaf color: green

Fall color: yellow

Fall characteristic: not showy

Flower

Flower color: green; yellow

Flower characteristics: pleasant fragrance; showy; summer flowering

Fruit

Fruit shape: oval; round

Fruit length: < .5 inch

Fruit covering: dry or hard

Fruit color: tan

Fruit characteristics: does not attract wildlife; 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; not particularly showy; should be grown with a single leader; no thorns

Pruning requirement: requires pruning to develop strong structure

Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

Current year twig color: brown; green

Current year twig thickness: medium

Wood specific gravity: 0.37

Culture

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

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

Drought tolerance: moderate

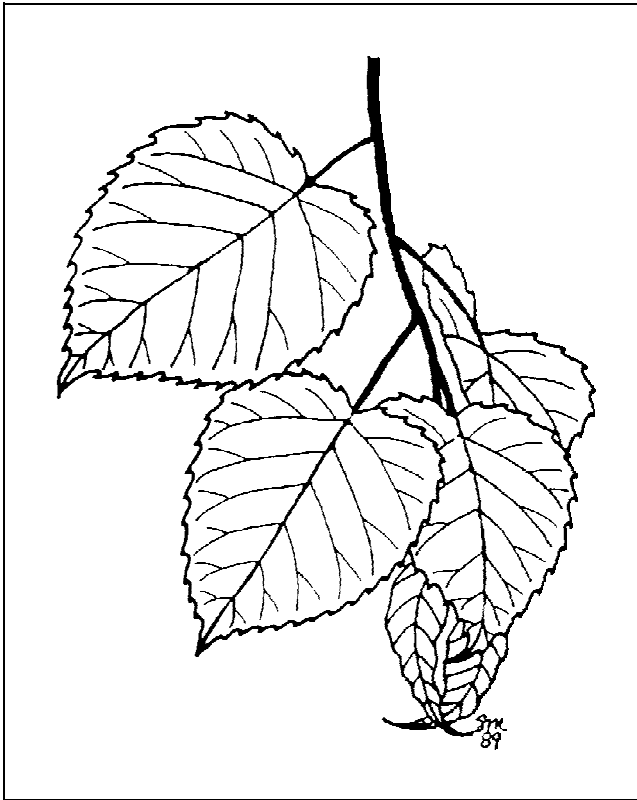


Figure 3. Foliage of American Linden.

Aerosol salt tolerance: low

Soil salt tolerance: poor

Other

Roots: surface roots are usually not a problem

Winter interest: no special winter interest

Outstanding tree: not particularly outstanding

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

Ozone sensitivity: sensitive or moderately tolerant

Verticillium wilt susceptibility: not known to be susceptible

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

USE AND MANAGEMENT

This tree is large and needs plenty of room to develop. Branches should be well-spaced along a central trunk to allow for development of a durable structure. Left unpruned, weak crotches with embedded bark can develop but the wood is flexible so branches usually do not break from the tree. Be sure main branches remain less than about half the diameter of the trunk. Plant it as a specimen or shade tree on a commercial property where there is plenty of soil space available for root expansion. Be prepared to remove sprouts periodically from the base of the trunk.

A North American native tree, American Linden prefers moist, fertile soils, acid or slightly alkaline, in full sun or partial shade. It is more shade-tolerant than many other large trees. The leaves will show appreciable browning and scorching after a particularly dry season, but the tree appears fine the following year. It is often found growing along moist stream banks but tolerates some drought. Best located in moist sites.

The cultivar 'Redmond' grows 65 to 75 feet tall and has a pyramidal shape with upright branches and shiny leaves, drought-tolerant; 'Fastigiata' is narrowly pyramidal with fragrant yellow flowers; 'Legend' is resistant to leaf rust, pyramidal, grows with a single, straight trunk, and upright, well-spaced branches. These can all be used in large tree lawns along streets.

Many taxonomists lump *Tilia carolinana*, *Tilia heterophylla*, *Tilia floridana*, and *Tilia georgiana* together with *Tilia americana*.

Propagation is by seed, cuttings, or grafting.

Pests

Mainly aphids, although Japanese beetle, European Linden bark borer, Linden borer, walnut lace bug, caterpillars, Basswood leaf miner, elm sawfly, scales and Linden mite can all be troublesome problems. The aphids will secrete a honeydew which will result in a dark soot over objects below the tree, such as parked cars or lawn furniture.

Diseases

Anthracnose, leaf blight, canker, leaf spots, powdery mildew, and verticillium wilt are some diseases that can infect American Linden. Leaf rust can cause some defoliation.