



Celtis occidentalis Common Hackberry¹

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INTRODUCTION

The tree forms a rounded vase reaching a height of 40 to 80 feet, is a rapid grower, and transplants easily (Fig. 1). The mature bark is light gray, rough and corky and the small fruit turns from orange red to purple and is relished by birds. The fruit temporarily stains walks. Leaves are wider than *Celtis laevigata* and more serrated. Hackberry may recover from transplanting from a field nursery slowly due to the extensive, coarsely branched root system, but this can be overcome by planting from containers.

GENERAL INFORMATION

Scientific name: *Celtis occidentalis*

Pronunciation: SELL-tiss ock-sih-den-TAY-liss

Common name(s): Common Hackberry

Family: *Ulmaceae*

USDA hardiness zones: 3 through 9 (Fig. 2)

Origin: native to North America

Uses: Bonsai; wide tree lawns (>6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; reclamation plant; shade tree; residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

Availability: generally available in many areas within its hardiness range

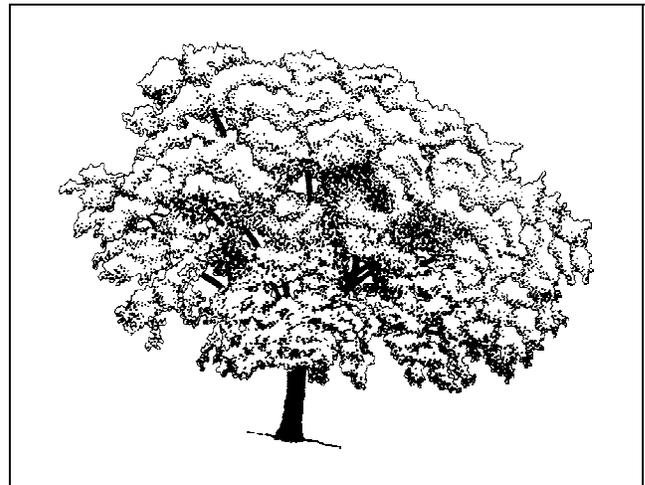


Figure 1. Mature Common Hackberry.

DESCRIPTION

Height: 45 to 80 feet

Spread: 40 to 50 feet

Crown uniformity: irregular outline or silhouette

Crown shape: round; vase shape

Crown density: moderate

Growth rate: fast

Texture: medium

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: serrate

Leaf shape: elliptic (oval); ovate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

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Figure 2. Shaded area represents potential planting range.

Leaf color: green
Fall color: yellow
Fall characteristic: showy

Flower

Flower color: green
Flower characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: round
Fruit length: < .5 inch
Fruit covering: fleshy
Fruit color: black; purple; red
Fruit characteristics: attracts birds; attracts squirrels and other mammals; inconspicuous and not showy; fruit, twigs, or foliage cause significant litter

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; grow mostly upright and will not droop; showy trunk; 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: thin
Wood specific gravity: 0.53

Culture

Light requirement: tree grows in part shade/part sun; tree grows in full sun
Soil tolerances: clay; loam; sand; acidic; alkaline; extended flooding; well-drained
Drought tolerance: high
Aerosol salt tolerance: moderate
Soil salt tolerance: good

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

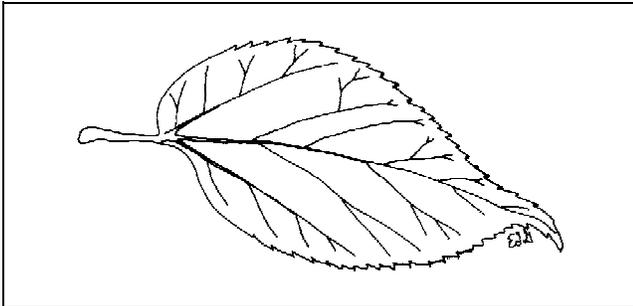


Figure 3. Foliage of Common Hackberry.

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: long-term health usually not affected by pests

USE AND MANAGEMENT

Hackberry grows naturally in moist bottomland soil but will grow rapidly in a variety of soil types from moist, fertile soils to hot, dry, rocky locations in the full sun. Hackberry is tolerant of highly alkaline soil whereas Sugarberry is not. It is wind, drought, salt and pollution tolerant once established and is considered a moderately tough, urban-tolerant tree. Skilled pruning is required several times during the first 15 years of life to prevent formation of weak branch crotches and weak multiple trunks.

It was extensively used in street plantings in parts of Texas and in other cities as it tolerates most soils except extremely alkaline (pH > 8), and grows in sun or partial shade but branches may break out from the trunk if proper pruning and training is not conducted early in the life of the tree. Even slight injury to the trunk and branches can initiate extensive decay inside the tree. If you use this tree, locate it where it will be protected from mechanical injury. Best for low-use areas such as along the edge of woods or in an open lawn, not for along streets. The tree is very susceptible to damage in an ice storm.

One especially nice cultivar is 'Prairie Pride', a quick-growing tree with a uniform, upright, compact crown. Prune and thin the canopy to prevent formation of weak, multi-trunk trees.

Pests

The most common insect on Hackberry causes the Hackberry nipple gall. A pouch or gall forms on the lower leaf surface in response to feeding. There are sprays available if you care to reduce this cosmetic problem.

Scales of various types may be found on Hackberry. These may be partially controlled with horticultural oil sprays.

Diseases

Native and planted trees died slowly from an unknown cause.

Several fungi cause leaf spots on Hackberry. The disease is worse during wet weather but chemical controls are seldom needed.

Witches broom is caused by a mite and powdery mildew. The main symptom is clusters of twigs scattered throughout the tree crown. Prune out the clusters of twigs when practical. It is most common on *Celtis occidentalis*.

Powdery mildew may coat the leaves with white powder. The leaves may be uniformly coated or only in patches.

Mistletoe is an effective colonizer of Hackberry, which can kill a tree over a period of time. It appears as evergreen masses several feet in diameter scattered about the crown.