



Celtis sinensis Japanese Hackberry¹

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INTRODUCTION

Japanese Hackberry reaches a height of 40 to 60 feet, is a rapid-grower, and transplants easily (Fig. 1). It can be 20 to 25 feet tall and wide 10 years after planting. Trees are very similar to the Common Hackberry, *Celtis occidentalis*, just smaller, and the four-inch-long leaves have wavy, toothed margins. The mature bark is light grey, rough and corky, and the small, dark orange-colored fruits are relished by birds. The seeds are hard and people could slip and fall on them if they drop on a hard surface.

GENERAL INFORMATION

Scientific name: *Celtis sinensis*

Pronunciation: SELL-tiss sye-NEN-sis

Common name(s): Japanese Hackberry, Chinese Hackberry

Family: *Ulmaceae*

USDA hardiness zones: 5 through 9 (Fig. 2)

Origin: not native to North America

Uses: wide tree lawns (>6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; shade tree; residential street tree

Availability: grown in small quantities by a small number of nurseries

DESCRIPTION

Height: 40 to 60 feet

Spread: 35 to 50 feet

Crown uniformity: irregular outline or silhouette

Crown shape: round; spreading

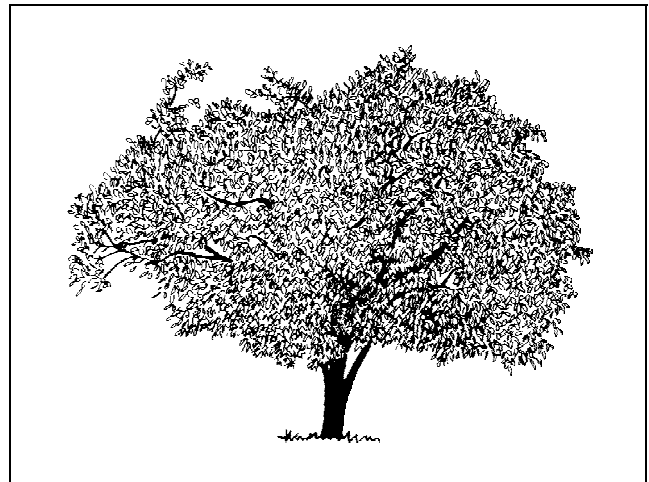


Figure 1. Mature Japanese Hackberry.

Crown density: moderate

Growth rate: fast

Texture: medium

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: serrate

Leaf shape: elliptic (oval)

Leaf venation: bowed; pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

Leaf color: green

Fall color: yellow

Fall characteristic: not showy

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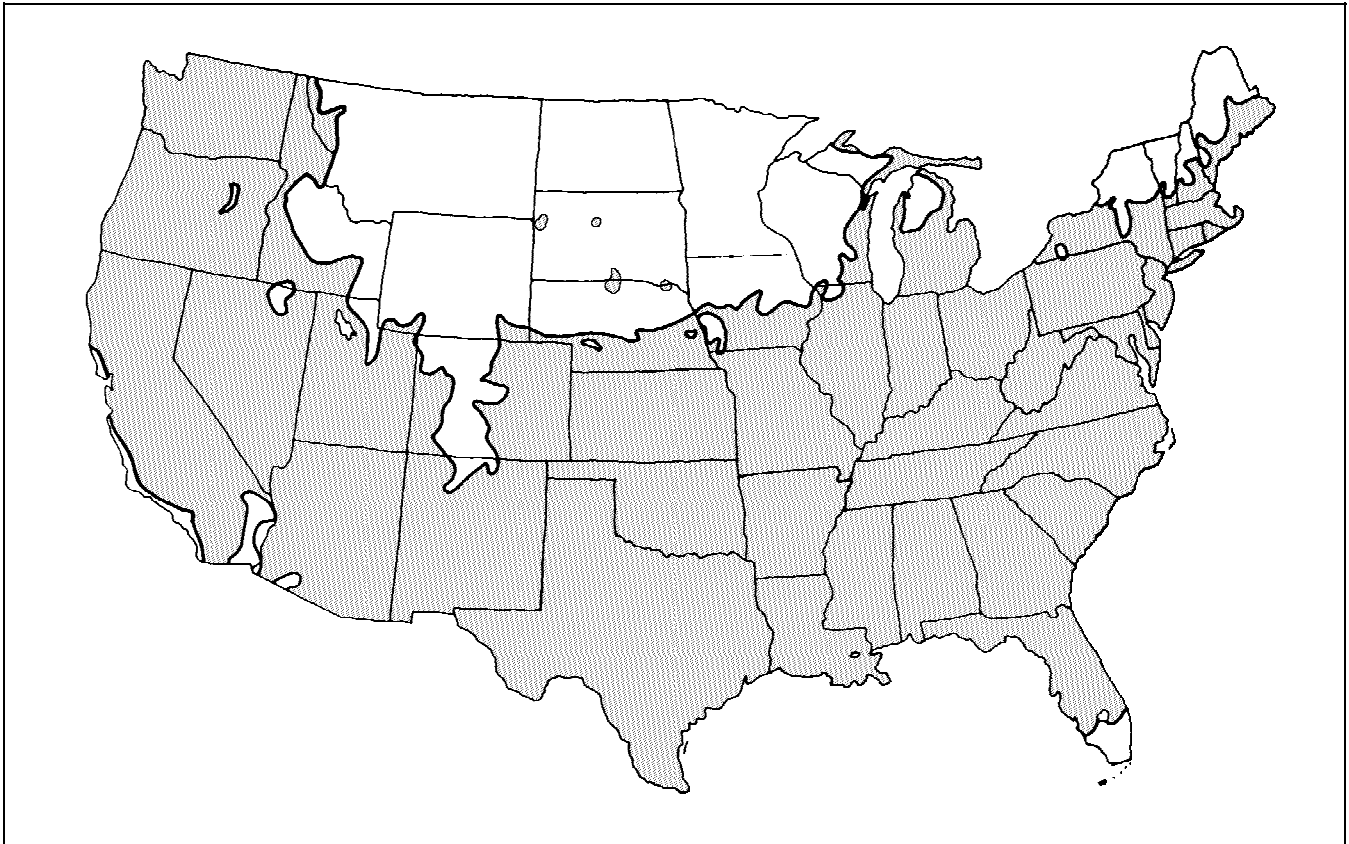


Figure 2. Shaded area represents potential planting range.

Flower

Flower characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: round
Fruit length: < .5 inch
Fruit covering: fleshy
Fruit color: orange
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; 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: 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

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: high

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
Outstanding tree: not particularly outstanding
Invasive potential: little, if any, potential at this time
Pest resistance: long-term health usually not affected by pests

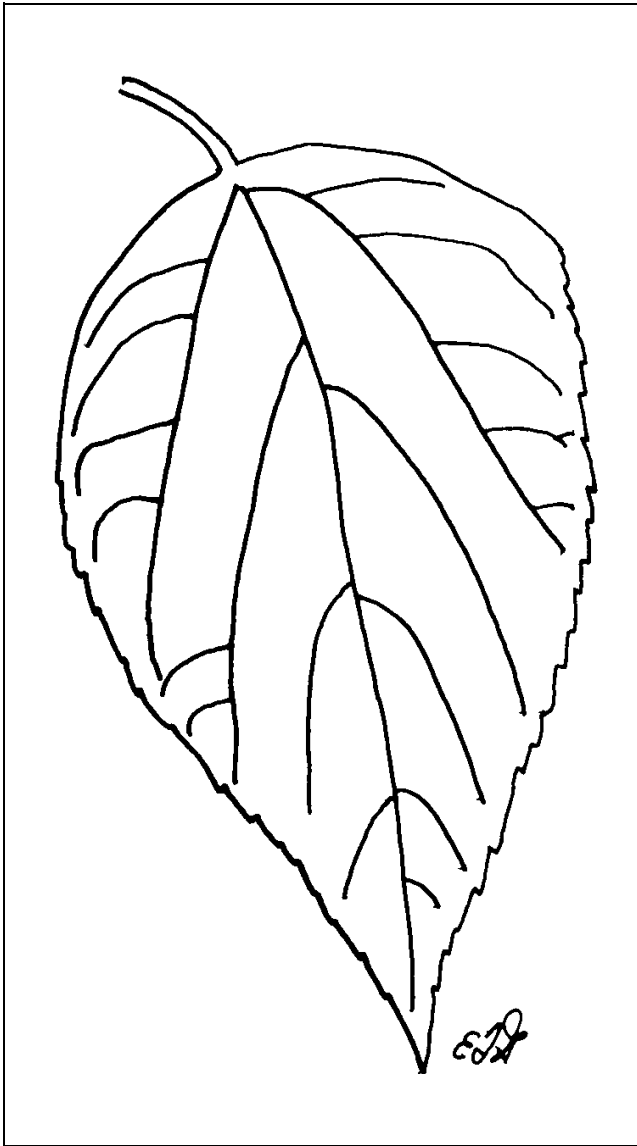


Figure 3. Foliage of Japanese Hackberry.

USE AND MANAGEMENT

Skilled pruning is required several times during the first 15 years of life to prevent formation of weak branch crotches and multiple trunks. It could be used in street plantings where there is plenty of soil space since it tolerates most soils 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.

The trunk is often injured if the tree is planted too close to the street in a restricted soil space. Hackberry has a reputation for internal trunk rot, particularly following mechanical injury to the trunk. Locate the tree so it will not be injured by mowing equipment or

other vehicles, and keep grass away from the base of the trunk so string trimmers will not cause injury.

No leaf galls form on the foliage of this species which is quite unlike other species of Hackberry. But large-diameter surface roots can form (particularly in poorly-drained soil) raising sidewalks and making mowing grass difficult. Locate the tree eight feet or more from a sidewalk or street to help keep them intact.

Japanese Hackberry will grow rapidly in a variety of soil types from moist, fertile soils to hot, dry locations in the full sun. It is wind- and drought-tolerant once established.

Propagation is by seed or cuttings.

Pests and Diseases

No pests or diseases are of major concern. If this tree responds similarly to Common Hackberry, the trunk can rot following mechanical injury. Not seen with leaf gall which is so common on *Celtis occidentalis*.