



Gleditsia triacanthos var. *inermis* 'Shademaster' 'Shademaster' Thornless Honeylocust¹

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INTRODUCTION

Many horticulturists consider this to be one of the best cultivars of Honeylocust (Fig. 1). Thornless Honeylocust is a deciduous native North American tree which grows 50 to 70 feet tall and almost as wide. It forms a graceful, vase-shape to oval outline almost like a smaller version of American Elm. It will grow two to four feet each year during the first 15 years after planting. Branches are upright with lower branches held horizontally on older specimens as the branch tips droop to the horizontal. The trunk is reported to be straight on 'Shademaster', but many specimens appear to have several ascending trunks (codominant branches or trunks) with no dominant leader, maintaining a vase shape. The pinnately compound leaflets are very light and airy, and provide soft, dappled shade below. Since Thornless Honeylocust is also one of the last trees to leaf out in springtime and one of the first to lose its leaves in fall, it is one of the few trees well-suited for growing a lawn beneath it. The tiny leaflets turn golden yellow in fall before dropping and are so small they easily vanish into the grass below, without any raking being necessary. The tree is often bare by the end of September in USDA hardiness zone 8.

GENERAL INFORMATION

Scientific name: *Gleditsia triacanthos* var. *inermis* 'Shademaster'

Pronunciation: gleh-DIT-see-uh try-uh-KANTH-oase variety ih-NER-miss

Common name(s): 'Shademaster' Thornless Honeylocust

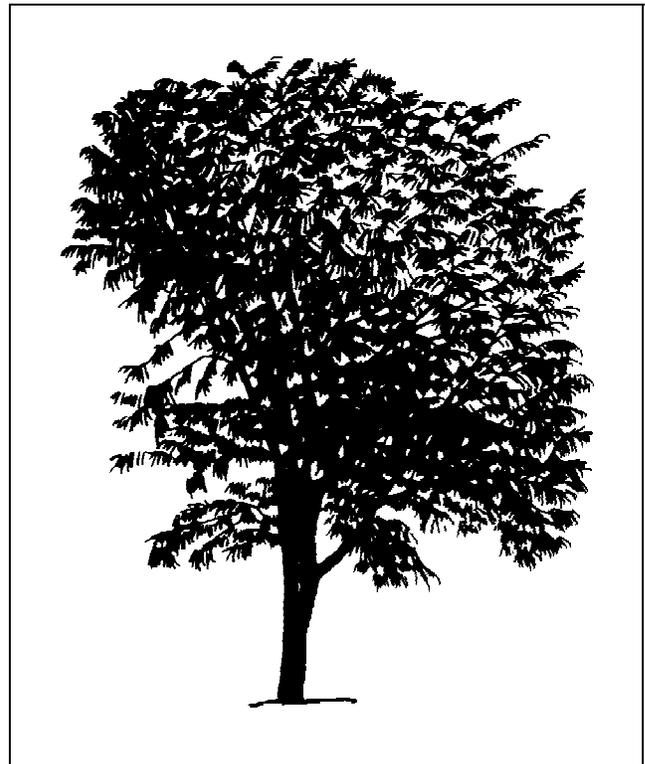


Figure 1. Middle-aged 'Shademaster' Thornless Honeylocust.

Family: *Leguminosae*

USDA hardiness zones: 5 through 8A (Fig. 2)

Origin: native to North America

Uses: large parking lot islands (> 200 square feet in size); 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; specimen; sidewalk cutout (tree pit); residential

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Figure 2. Shaded area represents potential planting range.

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

Leaf type and persistence: deciduous

Leaflet blade length: less than 2 inches

Leaf color: green

Fall color: copper; yellow

Fall characteristic: showy

DESCRIPTION

Height: 50 to 70 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: upright; vase shape

Crown density: moderate

Growth rate: fast

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: bipinnately compound; odd pinnately compound

Leaflet margin: crenate

Leaflet shape: lanceolate; oblong

Leaflet venation: pinnate

Flower

Flower color: yellow

Flower characteristics: pleasant fragrance; inconspicuous and not showy; spring flowering

Fruit

There is no fruit on this tree.

Trunk and Branches

Trunk/bark/branches: grow mostly upright and will not droop; 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

Current year twig thickness: thin

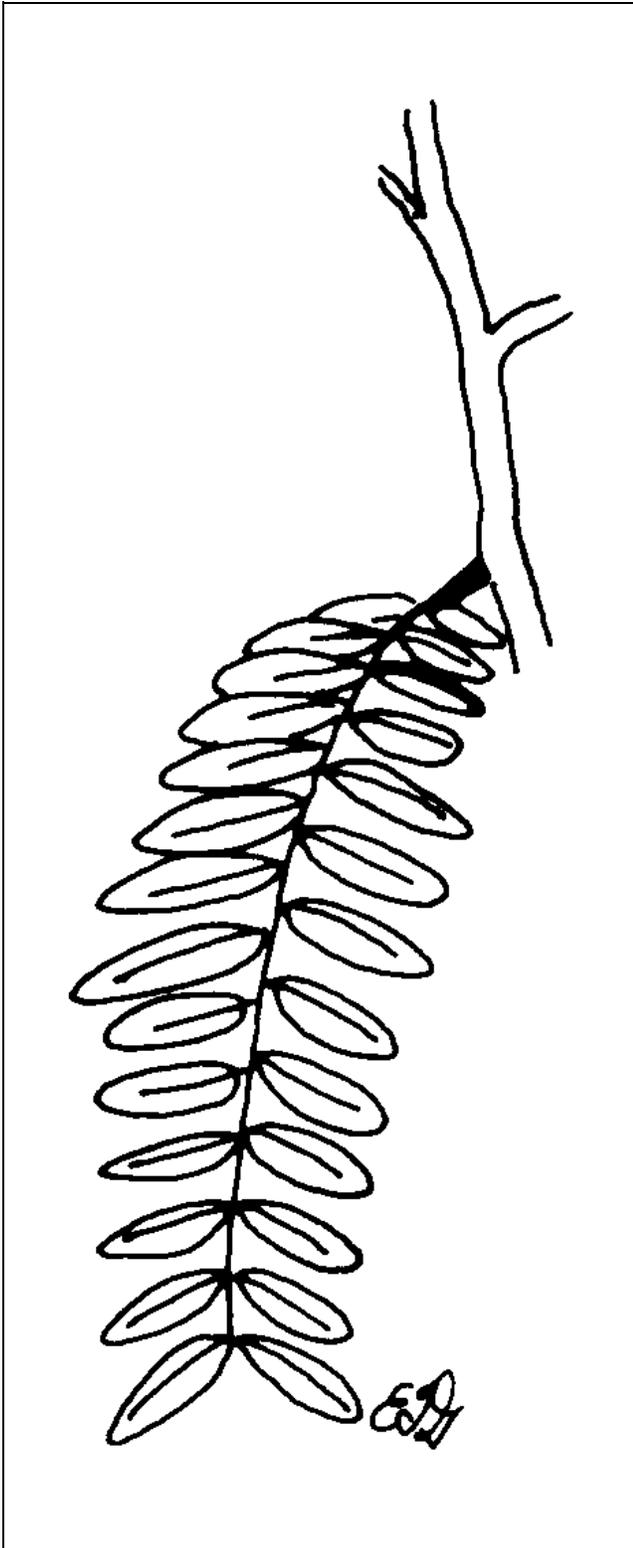


Figure 3. Foliage of 'Shademaster' Thornless Honeylocust.

Culture

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

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

Drought tolerance: high

Aerosol salt tolerance: high

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

Outstanding tree: not particularly outstanding

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

Verticillium wilt susceptibility: not known to be
susceptible

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

USE AND MANAGEMENT

Most trees are mostly seedless making it a much "cleaner" tree than the species but occasionally some trees will flower and produce red/brown, 10-inch-long seed pods. Some pods may begin appearing 10 to 15-years after planting. These pods are delicately twisted giving them better momentum when they finally loosen their hold on the tree and sail smoothly away on a sudden, brisk fall breeze. Although a legume, Honeylocust does not fix nitrogen in the roots. On mature trees, the bark becomes very dark which makes the bare trees in winter especially striking against the glistening white snow or blue sky.

Some trees grow a central leader and would require little pruning but others grow many upright, codominant branches. These trees will need to be trained when they are young with two or three prunings spaced several years apart. Strive to develop one central trunk with upright, spreading branches spaced several feet apart along the trunk. This will form a tree which is highly desirable for street and parking lot planting, but do not plant it as the staple of your city tree canopy as pest problems have caught up with Honeylocust in some areas. Some damage from ice storms have been reported but, as with many other trees, proper pruning can help prevent this. Street trees planted on 25 to 30-foot-centers form a canopy

over a residential street. However, it has been overused in some areas.

The tree needs full sun but has no particular soil preferences and is useful in dry or alkaline areas, although it tolerates flooding in its native habitat along stream banks. Suited for planting as far west as western Oklahoma and Texas, it tolerates compacted, poorly aerated soil and flooding for a period of time and does well in confined soil spaces. It also appears to tolerate saline irrigation which is common in parts of Texas and Oklahoma, and some coastal communities. Thornless Honeylocust adapts well as a city street tree and is tolerant to small planting pits in concrete, and is salt tolerant.

Several other cultivars are available: 'Imperial' grows only 30 to 35 feet tall, casts heavier shade, thornless and seedless until about 15-years-old when some seeds may appear; 'Majestic', 60 to 65 feet tall, upright-spreading, few seeds, and dense, dark green foliage; 'Moraine', one of the best thornless forms, seedless; 'Rubylace' has rich red new foliage, seedless, 50 to 60 feet tall; 'Skyline', narrow upright form, 50 to 60 feet tall, half as wide, very few seeds; 'Sunburst', golden yellow new foliage, seedless, 50 to 60 feet tall, favored by plant bugs and leaf hoppers.

Pests

Insect problems frequently cause early leaf drop, leaving trees bare by early fall. This is a pest-sensitive tree.

Aphid infestations can be troublesome.

Boring insects may be prevented by keeping trees healthy with regular fertilization.

The combination of plant bug and leafhopper feeding causes the leaves to drop. Plant bugs may be more common on the yellow-leaved cultivar 'Sunburst' than on green leaved types. Both insects are green so will be hard to detect.

Pod gall midge causes unusual reddish galls at the tips of the branches. The galls appear in late spring and may be most common on thornless, seedless cultivars. These have become quite a problem in many areas. Control is difficult.

Spider mites cause an autumn-like yellowing of the leaves. Diagnosis of this problem is difficult due to the small size of the insect and leaflets. Look for

the mites and their webbing near the midrib at the base of the leaflets.

Mimosa webworm is becoming a big problem in some areas of the south. It makes the tree look dry and unsightly in the middle of the summer.

Leafminers can also be a problem.

Diseases

Canker causing fungi attack branches and trunks causing dieback of parts or the entire tree. Keep the trees healthy and avoid unnecessary wounding. Infected areas have discolored bark, peeling bark, discolored sapwood, or a crack between the diseased and healthy bark.

Leaf spots caused by fungi and bacteria may be a problem. Rake up and dispose of infected leaves. Southern landscapes may be more affected by leaf spotting fungi.

Powdery mildew may cause a white coating on the leaves but is seldom serious.