



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

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INTRODUCTION

This cultivar of Honeylocust is smaller than others, growing to 35 feet with a flat-topped, vase-shaped canopy (Fig. 1). Branches emerge fairly low on the trunk and some training would be needed to force branches to clear tall vehicles along streets. The species has undesirable thorns on the trunk and main branches and large seed pods but this cultivar is thornless and usually fruitless. The tree is strong-wooded and casts light shade. Lawns grow fairly well beneath the tree and there is little to rake up in the fall since the tiny leaflets filter in between the blades of grass or are washed away in the rain. Honeylocust has a yellow or golden fall color in the northern part of its range. Trees often defoliate early in the south and are bare by October.

GENERAL INFORMATION

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

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

Common name(s): 'Imperial' Thornless Honeylocust

Family: *Leguminosae*

USDA hardiness zones: 4 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); medium-sized parking lot islands (100-200 square feet in size); medium-sized tree lawns (4-6 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);

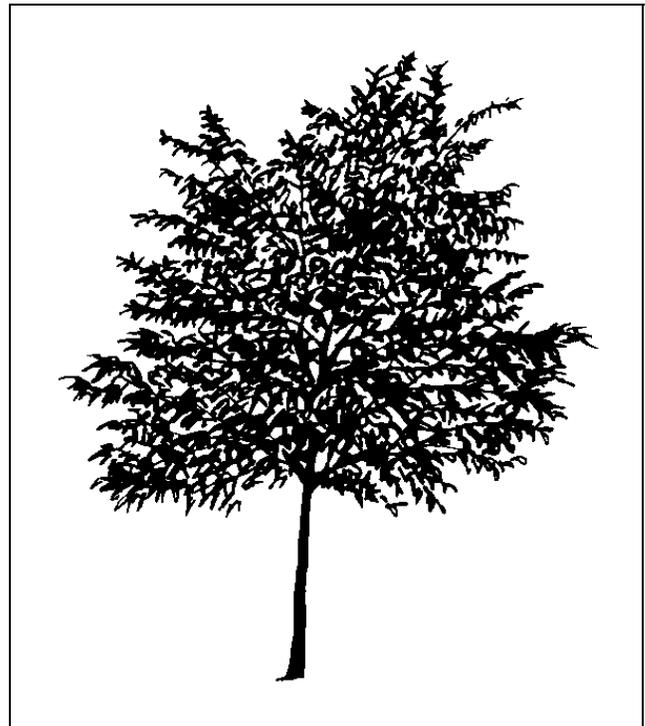


Figure 1. Young 'Imperial' Thornless Honeylocust.

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

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 30 to 35 feet

Spread: 30 to 35 feet

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

Crown shape: 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

Leaf type and persistence: deciduous

Leaflet blade length: less than 2 inches

Leaf color: green

Fall color: copper; yellow

Fall characteristic: showy

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: requires pruning to develop strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thin

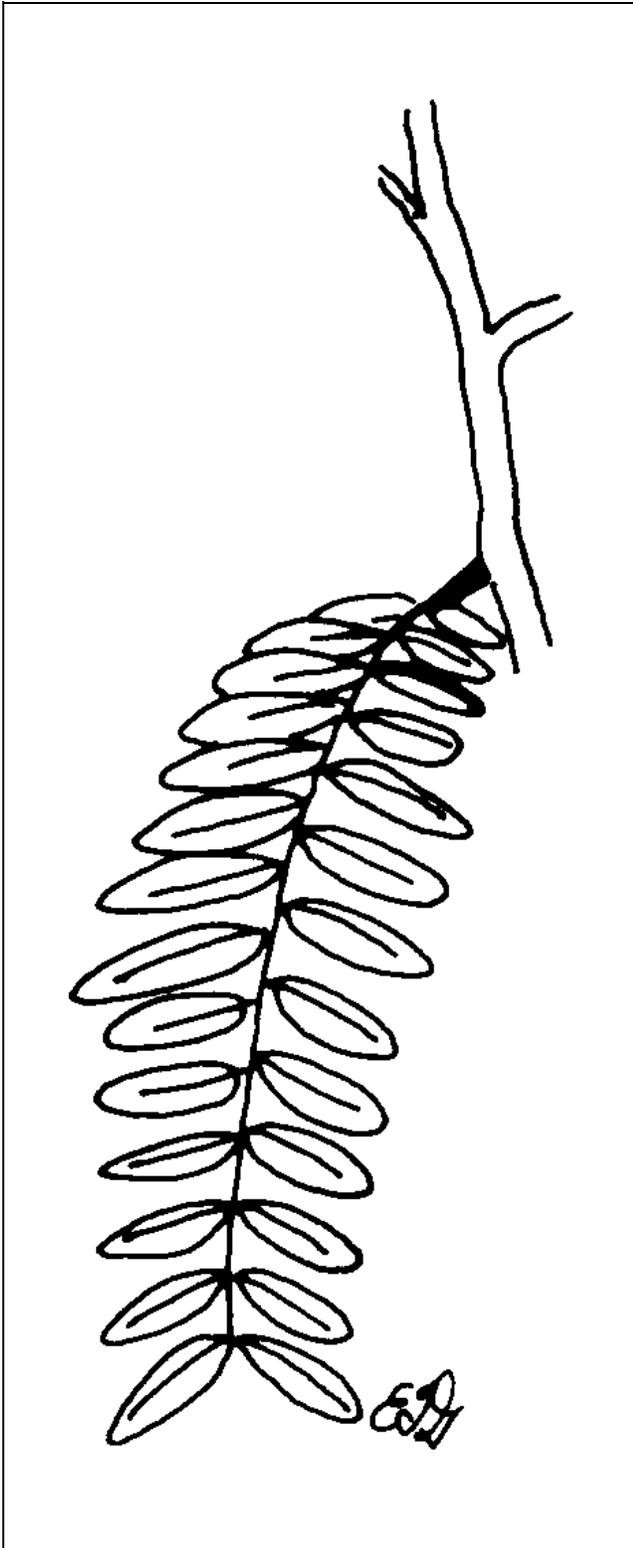


Figure 3. Foliage of 'Imperial' Thornless Honeylocust.

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

The tree has no particular soil preferences and is useful in dry or alkaline areas, although its native habitat is along stream banks. It tolerates compacted, poorly aerated soil and flooding for a period of time and does well in confined soil spaces. Honeylocust adapts well as a city street tree and is tolerant to small planting pits in concrete. It is susceptible to breakage in ice storms.

Unfortunately, it has been overplanted in some areas and insect problems are beginning to catch up with Honeylocust, including the cultivars. Recommend planting only small numbers of this tree to avoid catastrophe if insects or diseases invade. It might be best to plant Pistacia, Zelkova, Taxodium, Quercus or some other proven urban tough tree in place of Honeylocust to avoid potential insect, disease and early defoliation problems.

Most garden centers will have at least one cultivar of Honeylocust in stock. Some of the cultivars may develop thorns and/or seed pods when they get older and they may be best suited for areas north of USDA hardiness zone 8b. The cultivars are: 'Cottage Green' - semi upright, seedless, thornless; 'Majestic' - upright, seedless, thornless; 'Maxwell' - upright, seedless, thornless; 'Moraine' - spreading, usually seedless, thornless; 'Rubylace' - new reddish foliage, seedless, thornless, color not outstanding, may need staking when young; 'Shademaster' - upright, spreading, usually seedless and thornless until 10 to 15-years-old when some seeds do develop - perhaps the best

cultivar; 'Skyline' - pyramidal, generally seedless, thornless; 'Sunburst' - new yellow foliage, seedless, thornless, favored by plant bugs and leafhoppers.

Pests

Mimosa webworm has become a serious pest on Honeylocust in some communities.

Boring insects may be largely prevented by keeping trees healthy with regular fertilization. They usually attack trees under stress from other problems.

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 they will be hard to detect.

Pod gall midge causes unusual reddish galls at the tips of the branches. Leaflets become pod-like. 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.

Leafminers and bagworm can also be a problem.

Diseases

Canker causing fungi or bacteria 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. The *ronectria* canker is especially damaging.

Leaf spot may be a problem. Rake up and dispose of infected leaves.

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