

Gleditsia triacanthos var. *inermis*: Thornless Honeylocust¹

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Introduction

Honeylocust grows quickly to 70 feet or more with an oval or rounded canopy. The species has undesirable thorns on the trunk and main branches and large seed pods so it is best to plant selections of the variety *inermis* which are both thornless and some nearly seedless. Some leaves on the tree are bipinnately compound, others are pinnately compound. The seed pods look rather unsightly hanging on the tree into the fall and make quite a mess as they litter the ground below the canopy. 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*

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

Common name(s): Thornless Honeylocust

Family: *Leguminosae*

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

Origin: native to North America

Invasive potential: little invasive potential

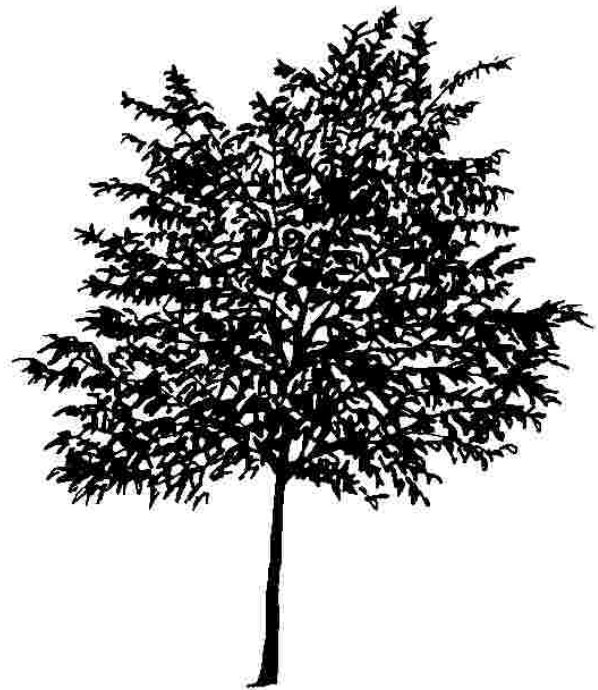


Figure 1. Young *Gleditsia triacanthos* var. *inermis*: Thornless Honeylocust

Uses: street without sidewalk; shade; specimen; parking lot island > 200 sq ft; sidewalk cutout (tree pit); tree lawn > 6 ft wide; urban tolerant; highway median; reclamation

Availability: not native to North America

1. This document is ENH438, one of a series of the Environmental Horticulture, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date November 1993. Revised December 2006. Reviewed May 2011. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

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Figure 2. Range

Description

Height: 50 to 75 feet

Spread: 35 to 50 feet

Crown uniformity: irregular

Crown shape: oval, round

Crown density: open

Growth rate: fast

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: bipinnately compound, odd-pinnately compound

Leaf margin: crenate

Leaf shape: oblong, lanceolate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: less than 2 inches

Leaf color: green

Fall color: yellow, copper

Fall characteristic: showy

Flower

Flower color: yellow

Flower characteristics: not showy

Fruit

Fruit shape: pod or pod-like, elongated

Fruit length: 6 to 12 inches, 12 inches or more

Fruit covering: dry or hard

Fruit color: brown, purple

Fruit characteristics: does not attract wildlife; showy; fruit/leaves a litter problem

Trunk and Branches

Trunk/bark/branches: branches don't droop; showy; typically one trunk; thorns

Pruning requirement: needed for strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thick

Wood specific gravity: unknown

Culture

Light requirement: full sun, partial sun or partial shade

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

Drought tolerance: high

Aerosol salt tolerance: high

Other

Roots: can form large surface roots

Winter interest: yes

Outstanding tree: no

Ozone sensitivity: sensitive

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases

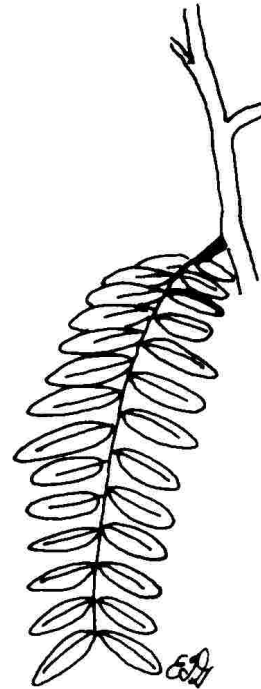


Figure 3. Foliage

Use and Management

Some cultivars, especially 'Skyline' grow a central leader and would require little pruning but others grow many upright codominant trunks. These trees will need to be trained when they are young by 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. Purchase good quality trees with one leader in order to reduce the pruning requirement.

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 in moderation 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 in the South.

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; 'Imperial' - upright-spreading, seedless, and thornless until 10 to 15-years-old when some seeds do develop; '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 with a dominant central leader, 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.

Aphid infestations can be troublesome.

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.

There is a 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.