**Gleditsia triacanthos var. inermis**
Thornless Honeylocust

Edward F. Gilman and Dennis G. Watson

**INTRODUCTION**

Honeylocust grows quickly to 70 feet or more with an oval or rounded canopy (Fig. 1). 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
- **Common name(s):** Thornless Honeylocust
- **Family:** Leguminosae
- **USDA hardiness zones:** 3 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 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

**DESCRIPTION**

- **Height:** 50 to 75 feet
- **Spread:** 35 to 50 feet
- **Crown uniformity:** irregular outline or silhouette

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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
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
Fruit shape: elongated; pod
Fruit length: 12 inches or more; 6 to 12 inches
Fruit covering: dry or hard
Fruit color: brown; purple
Fruit characteristics: does not attract wildlife; fruit, twigs, or foliage cause significant litter; persistent on the tree; showy

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: thick

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

**Ozone sensitivity:** sensitive or moderately tolerant

**Verticillium wilt susceptibility:** not known to be susceptible

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

### 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 hardness zone 8b. The cultivars are: ‘Cottage Green’ - semi upright, seedless, thornless; ‘Imperial’ - upright-spreading, seedless, and thornless until 10 to 15-years-

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**Figure 3.** Foliage of Thornless Honeylocust.
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.