Robinia pseudoacacia: Black Locust

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Introduction
A fast-growing native deciduous tree, black locust is capable of reaching 70 to 80 feet in height but is more often seen 30 to 50 feet tall with a spread of 20 to 35 feet. The upright growth and short, irregular branches form an open canopy and cast light shade below the tree, allowing a lawn to thrive. The 6- to 14-inch-long, dull, blue/green leaves, made up of multiple leaflets, are some of the last to appear in spring and often drop early in the autumn, just barely fading to a sickly yellow/green before dropping. For approximately a 10-day period in late spring, the trees are festooned with 4- to 8-inch-long, dense clusters of extremely fragrant, one-inch white blossoms (similar to sweet-peas) which are literally “alive” with the bustling activity of visiting bees. The honey which is produced is quite delicious and sought-after. The 2- to 4-inch-long, dark red to black, leathery seeds pods which follow will persist on the trees throughout the winter.

General Information
Scientific name: Robinia pseudoacacia
Pronunciation: roe-BIN-nee-uh soo-doe-uh-KAY-shuh
Common name(s): Black locust, common locust
Family: Leguminosae
USDA hardiness zones: 4A through 8B (Fig. 2)
Origin: native to North America
Invasive potential: weedy native
Uses: reclamation; shade
Availability: somewhat available, may have to go out of the region to find the tree

Description
Height: 40 to 70 feet
Spread: 25 to 35 feet
Crown uniformity: irregular
Crown shape: upright/erect, oval
Crown density: open
Growth rate: fast
Texture: fine

Figure 1. Middle-aged Robinia pseudoacacia: black locust
Credits: Ed Gilman, UF/IFAS
Robinia pseudoacacia: Black Locust

Foliage
- **Leaf arrangement:** alternate (Fig. 3)
- **Leaf type:** odd-pinnately compound
- **Leaf margin:** entire
- **Leaf shape:** elliptic (oval), oblong, obovate
- **Leaf venation:** pinnate
- **Leaf type and persistence:** deciduous
- **Leaf blade length:** less than 2 inches
- **Leaf color:** blue or blue-green, green
- **Fall color:** yellow
- **Fall characteristic:** not showy

Flower
- **Flower color:** white/cream/gray
- **Flower characteristics:** very showy

Fruit
- **Fruit shape:** pod or pod-like
- **Fruit length:** 1 to 3 inches, 3 to 6 inches
- **Fruit covering:** dry or hard
- **Fruit color:** black, red
- **Fruit characteristics:** attracts birds; not showy; fruit/leaves a litter problem

Trunk and Branches
- **Trunk/bark/branches:** branches don’t droop; showy; typically one trunk; no thorns

**Pruning requirement:** needed for strong structure
**Breakage:** susceptible to breakage
**Current year twig color:** brown
**Current year twig thickness:** thin
**Wood specific gravity:** 0.69

Culture
- **Light requirement:** full sun, partial sun, or partial shade
- **Soil tolerances:** clay; sand; loam; alkaline; acidic; well-drained
- **Drought tolerance:** high
- **Aerosol salt tolerance:** high

Other
- **Roots:** can form large surface roots
- **Winter interest:** yes
- **Outstanding tree:** no
- **Ozone sensitivity:** tolerant
- **Verticillium wilt susceptibility:** susceptible
- **Pest resistance:** sensitive to pests/diseases

Use and Management
These seeds are widely dispersed by birds and other wildlife, and along with the root suckering and invasive root system, black locust can spread into surrounding landscapes. This feature, along with the thorns found along the branches, should be considered when placing black locust in the ornamental garden. It is probably best saved for the reclamation project or roadside planting where trees receive no maintenance. If left to its own devices, it will form dense thickets, even on the poorest soils, a fact which makes it quite useful in reclamation applications.

Although the wood of black locust is reputed to be extremely strong and durable (pioneers used it to fashion nails for building ships and houses), the branches are brittle and subject to damage in high winds. This may be due largely to the tendency for the branches to form a narrow angle with the trunk and to grow aggressively relative to the trunk forming embedded bark. This can be partially corrected by pruning the major branches so they grow to no more than about half the size of the trunk.

Able to tolerate drought, salt, and poor soil, black locust will grow in full sun or partial shade on almost any soil acid or alkaline except that which is permanently wet. A tough tree which should be saved for the toughest sites. Not for general use in urban areas due to borer problems unless located in a moist, well-drained site with plenty of soil space.
Cultivars include: 'Erecta'—upright form; 'Frisia'—yellowish leaves in early summer; and 'Purple Robe'—lavender flowers. 'Purple Robe' is gorgeous in full bloom.

Propagation is by seed or cuttings.

**Pests**
Locust borer is a serious pest although borer-resistant clones are now being developed. It is also bothered by carpenterworm, locust leaf miner, and scales. Leaf miner is a universal problem, and the trees along the highways in the south can be seen in summer riddled with damage from this pest.

**Diseases**
Black locust is susceptible to canker, leaf spot, and powdery mildew.