



Koelreuteria paniculata Goldenraintree¹

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INTRODUCTION

Goldenraintree grows 30 to 40 feet tall with an equal spread, in a broad, somewhat irregular globe-shape (Fig. 1). Some trees appear vase-shaped. Although it has a reputation for being weak wooded, it is rarely attacked by pests and grows in a wide range of soils, including high pH soils. Goldenraintree tolerates dryness and casts little shade because of the open growth habit. It makes a good street or parking lot tree, particularly where overhead or soil space is limited, due to its adaptive abilities. The tree grows moderately and bears large panicles of bright yellow flowers in May (USDA hardiness zone 9) to July (USDA hardiness zone 6) when few other trees bloom. It is not as showy as *Koelreuteria bipinnata* but is much more cold-tolerant. The seed pods look like brown chinese lanterns and are held on the tree well into the fall.

GENERAL INFORMATION

Scientific name: *Koelreuteria paniculata*

Pronunciation: kole-roo-TEER-ee-uh
pan-ick-yoo-LAY-tuh

Common name(s): Goldenraintree, Varnish-Tree

Family: *Sapindaceae*

USDA hardiness zones: 5B through 9 (Fig. 2)

Origin: not native to North America

Uses: container or above-ground planter; 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

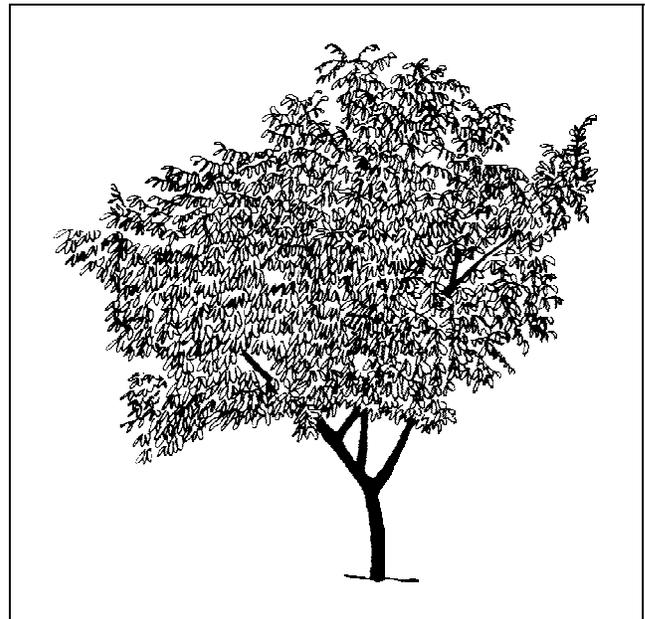


Figure 1. Middle-aged Goldenraintree.

in the highway; reclamation plant; shade tree; small parking lot islands (< 100 square feet in size); narrow tree lawns (3-4 feet wide); 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

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 30 to 40 feet
Spread: 30 to 40 feet
Crown uniformity: irregular outline or silhouette
Crown shape: round; vase shape
Crown density: open
Growth rate: medium
Texture: coarse

Foliage

Leaf arrangement: alternate (Fig. 3)
Leaf type: even pinnately compound; odd pinnately compound
Leaflet margin: lobed; incised; serrate
Leaflet shape: oblong; ovate
Leaflet venation: pinnate
Leaf type and persistence: deciduous
Leaflet blade length: 2 to 4 inches; less than 2 inches
Leaf color: green
Fall color: yellow
Fall characteristic: showy

Flower

Flower color: yellow
Flower characteristics: summer flowering; very showy

Fruit

Fruit shape: elongated; oval
Fruit length: 1 to 3 inches
Fruit covering: dry or hard
Fruit color: brown; green
Fruit characteristics: does not attract wildlife; no significant litter problem; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; should be grown with a single leader; no thorns
Pruning requirement: requires pruning to develop strong structure
Breakage: resistant

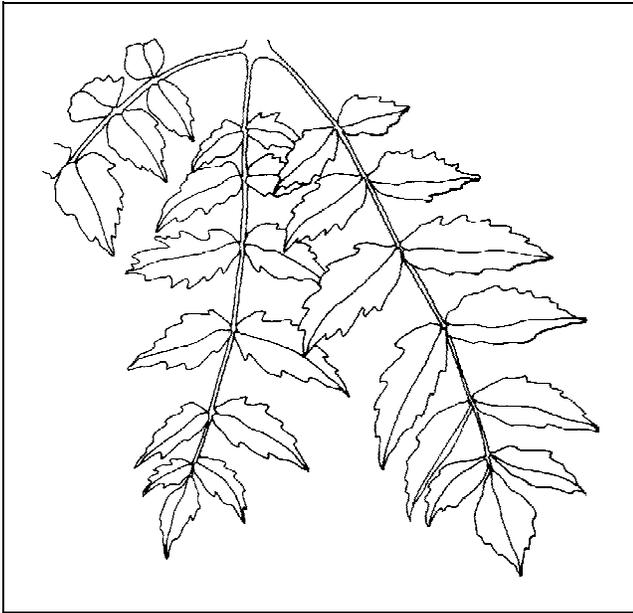


Figure 3. Foliage of Goldenraintree.

Current year twig color: brown
Current year twig thickness: thick

Culture

Light requirement: tree grows in full sun
Soil tolerances: clay; loam; sand; acidic; alkaline; extended flooding; well-drained
Drought tolerance: high
Aerosol salt tolerance: moderate

Other

Roots: surface roots are usually not a problem
Winter interest: no special winter interest
Outstanding tree: tree has outstanding ornamental features and could be planted more
Invasive potential: No entries found.
Ozone sensitivity: sensitive or moderately tolerant
Verticillium wilt susceptibility: susceptible
Pest resistance: long-term health usually not affected by pests

USE AND MANAGEMENT

The root system is coarse with only a few but large roots, so transplant when young or from containers. Do not transplant in the fall as success rate is reportedly limited. Considered a city tolerant tree due to tolerance to air pollution and ability to withstand drought, heat and alkaline soils. It also tolerates some salt spray but requires well-drained soil. It would be hard to find a more adaptive yellow

flowering tree for urban planting. It makes a nice patio tree, creating light shade but its brittle wood can break easily in windy weather.

The tree has only a few branches when it is young and some pruning to increase branchiness helps sell the tree. Prune the tree early to space major branches along the trunk to create a strong branch structure and the tree will be longer-lived and require little maintenance. Dead wood is often present in the canopy and should be removed periodically to maintain a neat appearance. Only single-stemmed trees trained in the nursery with well-spaced branches should be planted along streets and parking lots.

One cultivar is listed; 'Fastigiata' - upright growth habit.

Pests

Occasional attacks by scale may be seen. Sprays of horticultural oil control overwinter stages. Boxelder bug can be a menace.

Diseases

Koelreuteria is subject to few diseases. A canker causes dead and sunken areas on the bark. Coral pink fruiting bodies develop on the diseased bark. Prune out infected branches and fertilize to maintain tree health.

Verticillium wilt attacks *Koelreuteria*. The disease causes wilting and death of leaves on infected branches. Eventually the entire tree may be killed. Fertilize to stimulate growth. There are no chemical controls.