

Lagerstroemia x 'Muskogee': 'Muskogee' Crapemyrtle¹

Edward F. Gilman and Dennis G. Watson²

Introduction

A long period of striking summer flower color, attractive fall foliage, and good drought-tolerance all combine to make Crape-Myrtle a favorite small tree for either formal or informal landscapes. It is highly recommended for planting in urban and suburban areas.

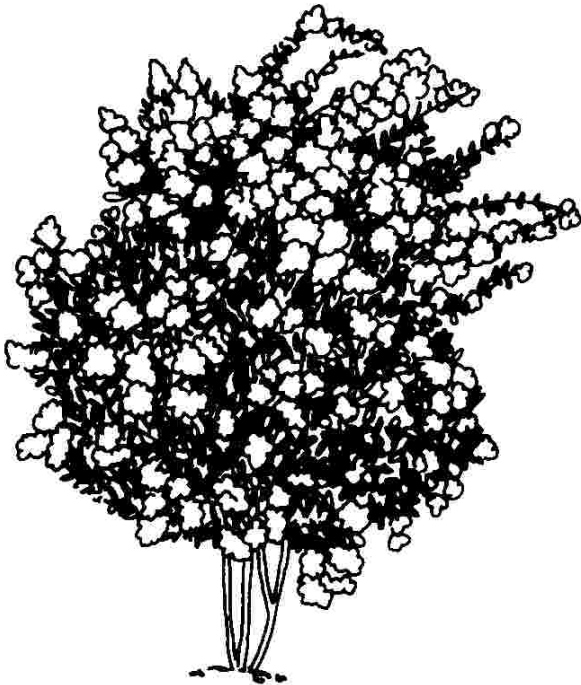


Figure 1. Young *Lagerstroemia x 'Muskogee'*: 'Muskogee' Crapemyrtle

General Information

Scientific name: *Lagerstroemia x*

Pronunciation: lay-ger-STREE-mee-uh

Common name(s): 'Muskogee' Crapemyrtle

Family: *Lythraceae*

USDA hardiness zones: 7A through 10A (Fig. 2)

Origin: not native to North America

Invasive potential: little invasive potential

Uses: urban tolerant; street without sidewalk; specimen; deck or patio; container or planter; trained as a standard; parking lot island < 100 sq ft; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; highway median; shade

Availability: somewhat available, may have to go out of the region to find the tree

Description

Height: 20 to 25 feet

Spread: 15 to 25 feet

Crown uniformity: symmetrical

Crown shape: vase

Crown density: moderate

Growth rate: moderate

Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: oblong, elliptic (oval), obovate

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2. Edward F. Gilman, professor, Environmental Horticulture Department; Dennis G. Watson, former associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Range

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: less than 2 inches, 2 to 4 inches

Leaf color: green

Fall color: orange, red

Fall characteristic: showy

Flower

Flower color: lavender

Flower characteristics: very showy

Fruit

Fruit shape: oval, round

Fruit length: less than .5 inch

Fruit covering: dry or hard

Fruit color: brown

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

Trunk and Branches

Trunk/bark/branches: branches droop; showy; typically multi-trunked; thorns

Pruning requirement: little required

Breakage: resistant

Current year twig color: brown, green

Current year twig thickness: thin

Wood specific gravity: unknown

Culture

Light requirement: full sun

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

Drought tolerance: high

Aerosol salt tolerance: moderate

Other

Roots: not a problem

Winter interest: yes

Outstanding tree: no

Ozone sensitivity: unknown

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases



Figure 3. Foliage



Figure 4. Flower

Use and Management

The 6- to 12-inch-long clustered lavender or pink blooms appear on the tips of branches during late spring and summer in USDA hardiness zones 9 and 10 and summer in other areas. The individual flowers are ruffled and crinkly as to appear made of crepe paper. The smooth, peeling bark and multi-branched, open habit of Crape-Myrtle make it ideal for specimen planting where its bright red to orange-colored fall leaves add further interest. The tree forms an upright to upright-spreading crown, the branches spreading out as they ascend. The tree grows 20 to 25 feet tall and almost as wide with an upright, vase-shaped crown making it well-suited for street tree planting.

Pruning should be done in late winter or early in the spring before growth begins because it is easier to see which branches to prune. New growth can be pinched during the growing season to increase branchiness and flower number. Pruning methods vary from topping to cutting Crape-Myrtle nearly to the ground each spring to the removal of dead wood and old flower stalks only. Topping creates several long, thin branches from each cut which droop down under the weight of the flowers. This practice disfigures the nice trunk and branch structure. Lower branches are often thinned to show off the trunk form and color. You can remove the spent flower heads to encourage a second flush of flowers and to prevent formation of the brown fruits. Since cultivars are now available in a wide range of growth heights, severe pruning should not be necessary to control size. Severe pruning can stimulate basal sprouting which can become a constant nuisance, requiring regular removal. Some trees sprout from the base of the trunk and roots even without severe heading. This can be a maintenance nuisance.

Crape-Myrtle grows best in full sun with rich, moist soil but will tolerate less hospitable positions in the landscape just as well, once it becomes established. It grows well in limited soil spaces in urban areas such as along boulevards, in parking lots, and in small pavement cutouts if provided with some irrigation. They tolerate clay and alkaline soil well. However, the flowers may stain car paint. Aphids are the main insect pest of Crape-Myrtle but 'Muskogee' is resistant to powdery mildew. There are other new cultivars (many developed by the USDA) available which are resistant to powdery mildew and aphids.

Many other cultivars of Crape-Myrtle are available: hybrid 'Acoma', 14 to 16 feet tall, white flowers, purple-red fall foliage, mildew resistant; hybrid 'Biloxi', 25 feet tall, pale pink blooms, orange-red fall foliage, hardy and mildew resistant;

'Cherokee', 10 to 12 feet, bright red flowers; 'Powhatan', 14 to 20 feet, clear yellow fall foliage, medium purple flowers. The hybrid cultivars 'Natchez', 30 feet tall, pure white flowers, 'Tuscarora', 16 feet tall, dark coral pink blooms, are hybrids between *Lagerstroemia indica* and *Lagerstroemia fauriei* and have greater resistance to mildew. The cultivar 'Crape Myrtlettes' have the same color range as the species but only grow to three to four feet high. The National Arboretum releases are generally superior because they have been selected for their disease resistance.

Propagation is by cuttings or seed.

Pests

Aphids often infest the new growth causing an unsightly but harmless sooty mold to grow on the foliage. Heavy aphid infestations cause a heavy black sooty mold which detracts from the tree's appearance.

Diseases

Powdery mildew can severely affect Crape-Myrtle but 'Muskogee' is highly resistant.

Ilex x attenuata 'Fosteri': Fosters Holly¹

Edward F. Gilman and Dennis G. Watson²

Introduction

Foster's Holly #2 is one of the better cultivars of *Ilex x attenuata*, part of a group of hybrids between *Ilex cassine* x *Ilex opaca*. Foster's Holly reaches 15 to 25 feet in height with a spread of 8 to 12 feet, creating a dense, pyramidal silhouette. The trunk usually grows straight up through the crown, unless the tree was topped. The small, glossy, almost black-green, linear leaves have spiny margins, and are joined in spring by showy, small, white flowers. The blooms are followed by the heavy production of brilliant red berries, which persist on female trees from fall through winter.

General Information

Scientific name: *Ilex x attenuata*

Pronunciation: EYE-lecks x uh-ten-yoo-AY-tuh

Common name(s): Fosters Holly

Family: Aquifoliaceae

USDA hardiness zones: 6A through 9B (Fig. 2)

Origin: not native to North America

Invasive potential: little invasive potential

Uses: hedge; parking lot island < 100 sq ft; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; container or planter; screen; specimen; street without sidewalk; sidewalk cutout (tree pit); tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; highway median; Bonsai

Availability: not native to North America

Description

Height: 15 to 25 feet



Figure 1. Middle-aged *Ilex x attenuata* 'Fosteri': Fosters Holly

Spread: 8 to 12 feet

Crown uniformity: symmetrical

Crown shape: pyramidal, columnar

Crown density: dense

Growth rate: slow

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

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Figure 2. Range

Leaf type: simple
Leaf margin: spiny, entire, pectinate
Leaf shape: elliptic (oval), ovate
Leaf venation: pinnate
Leaf type and persistence: evergreen
Leaf blade length: less than 2 inches, 2 to 4 inches
Leaf color: green
Fall color: no color change
Fall characteristic: not showy

Flower

Flower color: white/cream/gray
Flower characteristics: not showy

Fruit

Fruit shape: round
Fruit length: less than .5 inch
Fruit covering: fleshy
Fruit color: red
Fruit characteristics: attracts birds; showy; fruit/leaves not a litter problem

Trunk and Branches

Trunk/bark/branches: branches don't droop; not showy; typically one trunk; thorns
Pruning requirement: little required
Breakage: resistant
Current year twig color: green
Current year twig thickness: medium
Wood specific gravity: unknown

Culture

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

Other

Roots: not a problem

Winter interest: yes
Outstanding tree: yes
Ozone sensitivity: unknown
Verticillium wilt susceptibility: resistant
Pest resistance: resistant to pests/diseases

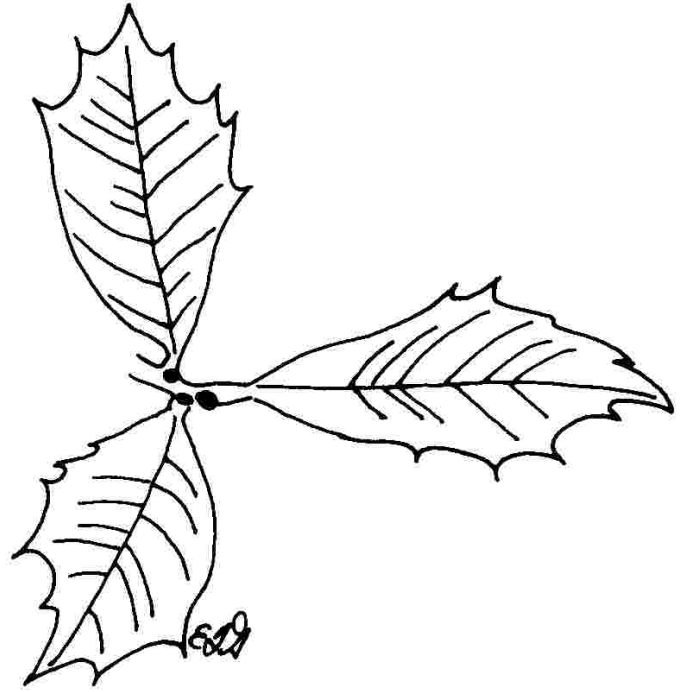


Figure 3. Foliage

Use and Management

With its dense, compact, upright growth and neat habit, Foster's Holly is ideal for use as a tightly clipped screen or hedge, or as a specimen, foundation, or container planting. Can also be planted in a small soil space or in a tall, narrow overhead space. Would probably make a suitable street tree but has not been extensively tried.

Foster's Holly should be grown in full sun or partial shade on well-drained, slightly acid, moist soil. It is very drought-tolerant once established and has no serious pest problems.

There are other Foster's Hollies - #1 and #4 - but these are less available and perhaps not as showy.

Propagation is by cuttings or grafting.

Pests

Scale and leaf miners.

Diseases

No diseases are of major concern.

Quercus phellos: Willow Oak¹

Edward F. Gilman and Dennis G. Watson²

Introduction

Widely used as a shade tree, in parks, and to line streets and boulevards, the fast-growing Willow Oak can reach over 70 feet in height with more than a 40 to 50 foot spread. The pyramidal shape in youth gives way to a rounded canopy in middle and old age, with lower branches drooping toward the ground. The long, light green willow-like leaves create dense shade and a graceful effect turning bright yellow before they fall. The tree is easy to transplant but reportedly transplants poorly in the fall.

General Information

Scientific name: *Quercus phellos*

Pronunciation: KWERK-us FELL-oase

Common name(s): Willow Oak

Family: *Fagaceae*

USDA hardiness zones: 6A through 9B (Fig. 2)

Origin: native to North America

Invasive potential: little invasive potential

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

Availability: not native to North America

Description

Height: 60 to 75 feet

Spread: 40 to 50 feet

Crown uniformity: symmetrical

Crown shape: pyramidal, round

Crown density: dense



Figure 1. Middle-aged *Quercus phellos*: Willow Oak

Growth rate: fast

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: lanceolate, oblong, elliptic (oval)

Leaf venation: pinnate

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Figure 2. Range

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches, 4 to 8 inches

Leaf color: green

Fall color: yellow

Fall characteristic: showy

Flower

Flower color: brown

Flower characteristics: not showy

Fruit

Fruit shape: oval, round

Fruit length: less than .5 inch, .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: attracts squirrels/mammals; not showy; fruit/leaves a litter problem

Trunk and Branches

Trunk/bark/branches: branches droop; not showy; typically one trunk; thorns

Pruning requirement: needed for strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thin

Wood specific gravity: 0.69

Culture

Light requirement: full sun

Soil tolerances: clay; sand; loam; acidic; extended flooding; well-drained

Drought tolerance: high

Aerosol salt tolerance: high

Other

Roots: not a problem

Winter interest: no

Outstanding tree: no

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases

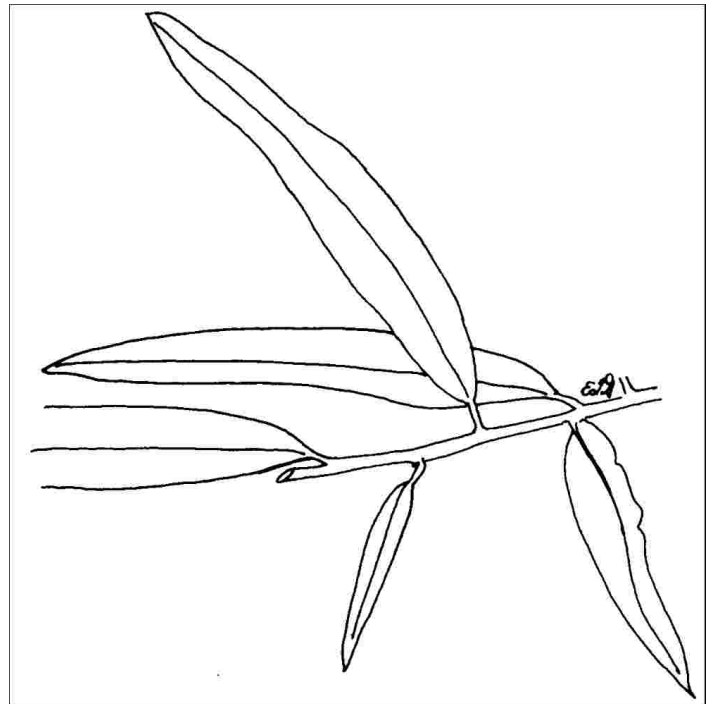


Figure 3. Foliage

Use and Management

The city of Charlotte and other southern cities planted Willow Oak extensively during this century and it has proven to be an excellent street tree. Prune to space large branches along the trunk so they are well-attached to the tree. Willow Oak forms a tight, compact head with most of the foliage on the outside of the crown. Open-grown trees would benefit from some pruning to thin the crown to develop more secondary branches along the major limbs and increase the taper on major limbs. This would improve the already good wind-hardiness of Willow Oak. But pruning is difficult as there are many short, spine-like twigs which are a nuisance to tree climbers. Be sure to prune out double leaders as they form, early in the life of the tree to help create a strong form.

It grows in low, bottomland wet sites of flood plains yet is drought-tolerant. It thrives in constantly wet to moist soil, although it has been known to adapt to seemingly impossible habitats. Willow Oak is a tough tree well adapted to urban conditions, but can develop chlorosis of high pH soils so be sure to plant on only acid or neutral soil. Willow

Oak has no major problems and tolerates clay, salt, poor drainage and compacted soil.

Root rot can be a problem in confined urban areas.

Pests

No pests are serious, but mites or scale can become troublesome.

Galls cause homeowners much concern. There are many types and galls can be on the leaves or twigs. Most galls are harmless so chemical controls are not suggested.

Scales of several types can usually be controlled with sprays of horticultural oil.

Aphids cause distorted growth and deposits of honeydew on lower leaves. On large trees, naturally-occurring predatory insects will often bring the aphid population under control.

Boring insects are most likely to attack weakened or stressed trees. Newly planted young trees may also be attacked. Keep trees as healthy as possible with regular fertilization and water during dry weather.

Many caterpillars feed on Oak. Large trees tolerate some feeding injury without harm. Trees repeatedly attacked, or having some other problem, may need spraying. Tent caterpillars form nests in trees then eat the foliage. The nests can be pruned out when small. Where they occur, gypsy moth caterpillars are extremely destructive on Oaks. Fall cankerworm has been a problem in some years.

Twig pruner causes twigs to drop off in the summer. The larvae ride the twig to the ground. Rake up and destroy fallen twigs.

Spider mite infested leaves first look dusty then yellowed. They can occasionally become serious on selected trees.

Lace bugs suck juices from leaves causing them to look dusty or whitish gray.

Diseases

Usually no diseases are serious.

Anthracnose may be a serious problem in wet weather. Infected leaves have dead areas following the midrib or larger veins. These light brown blotches may run together and, in severe cases, cause leaf drop. Trees of low vigor, repeatedly

defoliated, may die. Trees defoliated several years in a row may need spraying, to allow the tree to recover.

Canker diseases attack the trunk and branches. Keep trees healthy by regular fertilization. Prune out diseased or dead branches.

Leaf blister symptoms are round raised areas on the upper leaf surfaces causing depressions of the same shape and size on lower leaf surfaces. Infected areas are yellowish-white to yellowish-brown. The disease is most serious in wet seasons in the spring but it does not need to be treated.

A large number of fungi cause leaf spots but are usually not serious. Rake up and dispose of infected leaves.

Powdery mildew coats leaves with white powdery growth.

Shoestring root rot attacks the roots and once inside moves upward, killing the cambium. The leaves on infected trees are small, pale or yellowed and fall early. There is no practical control. Healthy trees may be more resistant than trees of low vigor.

Chlorosis due to iron-deficiency occurs on high pH soil.

Cryptomeria japonica: Japanese-Cedar¹

Edward F. Gilman and Dennis G. Watson²

Introduction

The tree keeps a billowy pyramidal form on one central trunk until close to maturity when the crown opens up into an irregular, narrow oval. It will reach a height of about 50 feet and spread about 20 feet. Old specimens can develop trunks to three feet in diameter. The reddish brown bark is ornamental, peeling off in long strips, and is the most pronounced characteristic on old trees. The foliage will become bronzed during the winter but greens up again in spring. Branches usually persist on the tree with old specimens branched to the ground.

General Information

Scientific name: *Cryptomeria japonica*

Pronunciation: krip-toe-MEER-ee-uh juh-PAWN-ih-kuh

Common name(s): Japanese-Cedar

Family: *Taxodiaceae*

USDA hardiness zones: 6A through 8B (Fig. 2)

Origin: not native to North America

Invasive potential: little invasive potential

Uses: screen; street without sidewalk; specimen; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; urban tolerant; highway median; Bonsai; parking lot island < 100 sq ft

Availability: not native to North America

Description

Height: 40 to 60 feet

Spread: 15 to 20 feet

Crown uniformity: symmetrical

Crown shape: pyramidal, oval

Crown density: dense

Growth rate: slow

Texture: fine

Foliage

Leaf arrangement: spiral (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: awl-like

Leaf venation: none, or difficult to see

Leaf type and persistence: evergreen

Leaf blade length: less than 2 inches

Leaf color: green

Fall color: copper

Fall characteristic: not showy

Flower

Flower color: unknown

Flower characteristics: not showy

Fruit

Fruit shape: round

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

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

Trunk and Branches

Trunk/bark/branches: branches droop; very showy; typically one trunk; thorns

Pruning requirement: little required

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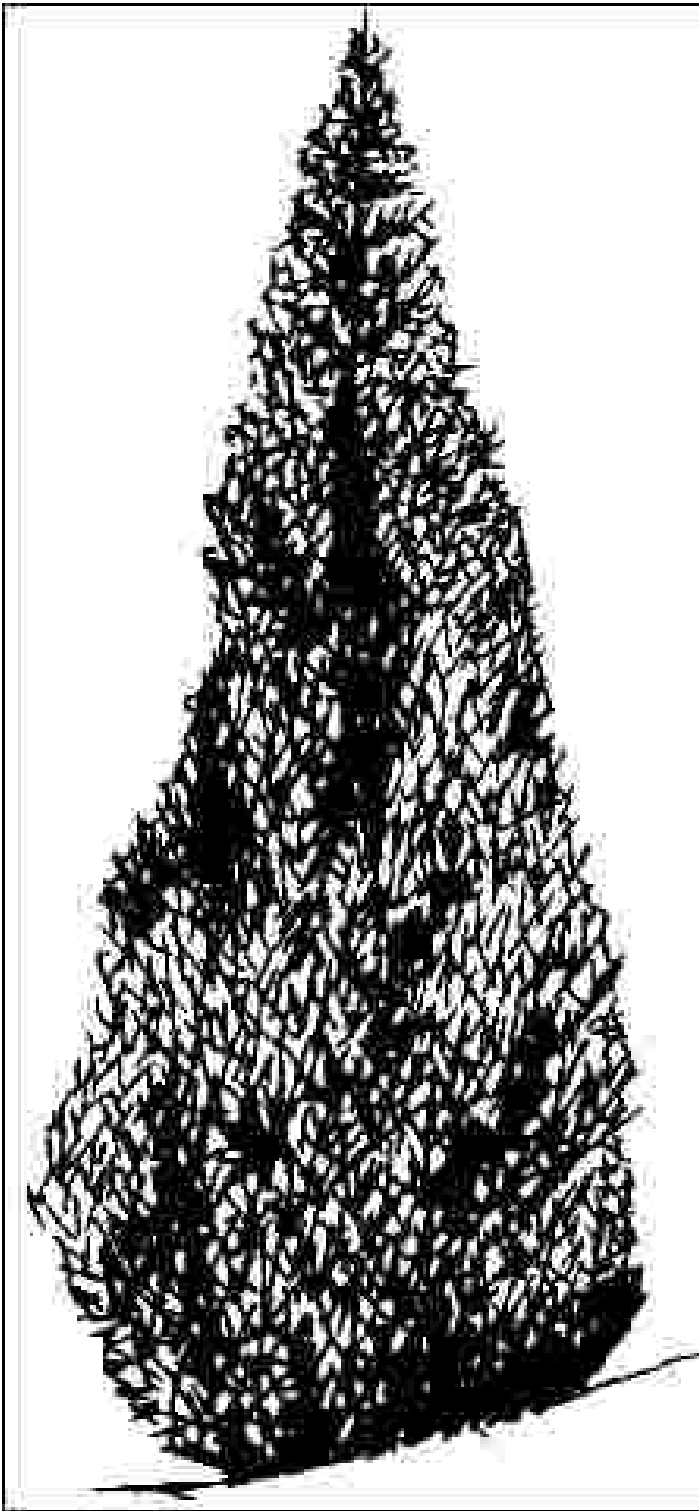


Figure 1. Middle-aged *Cryptomeria japonica*: Japanese-Cedar

Breakage: resistant
Current year twig color: green
Current year twig thickness: medium
Wood specific gravity: unknown

Culture

Light requirement: full sun
Soil tolerances: clay; sand; loam; acidic; well-drained

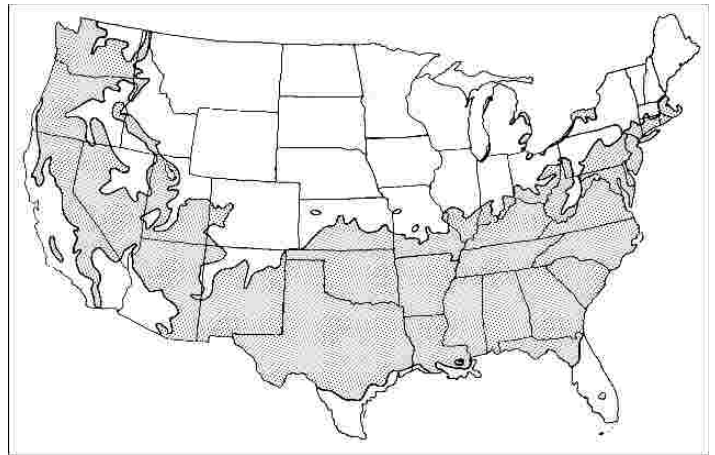


Figure 2. Range

Drought tolerance: high
Aerosol salt tolerance: unknown

Other

Roots: not a problem
Winter interest: no
Outstanding tree: yes
Ozone sensitivity: unknown
Verticillium wilt susceptibility: resistant
Pest resistance: sensitive to pests/diseases

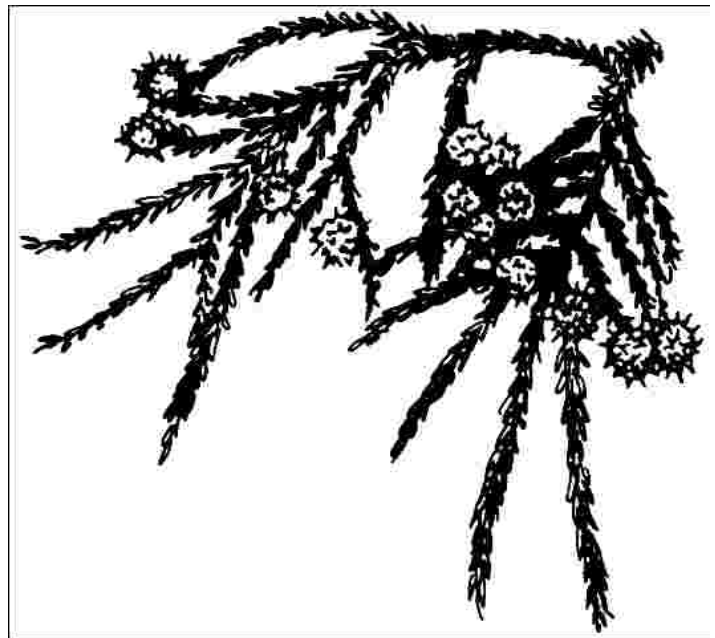


Figure 3. Foliage

Use and Management

Provide an acid soil and protection from winter winds.
Locate the tree so air circulation is good, particularly

during summer to help prevent leaf blight. Best with afternoon shade in southern part of its range. A number of cultivars are available varying in growth habit and ability to hold green foliage color in the winter. Cryptomeria is tolerant of compacted soil and performs well in parking lots and other tough, urban sites with some irrigation in drought. It makes a wonderful accent, screen, or border tree for larger properties. It may grow too large for most residential landscapes. They can be planted as street trees 10 feet back from the street in residential areas to provide an elegant flavor to the neighborhood.

Propagation is by cuttings which root slowly or by seed which germinates slowly.

'Yoshino' holds green foliage color in the winter. 'Elegans' grows to 15 feet tall.

Pests

Mites can infest the foliage.

Diseases

Leaf blight and leaf spot are two problems. Leaf blight often causes much of the interior foliage to brown, creating an unsightly specimen. Fungicide sprays help prevent the disease, as does placing the tree so it receives early morning sun to dry the foliage. Keep the foliage as dry as possible.

Platanus x acerifolia 'Bloodgood': 'Bloodgood' London Planetree¹

Edward F. Gilman and Dennis G. Watson²

Introduction

A large tree resulting in a cross between *Platanus orientalis* and *Platanus occidentalis* suitable for use in USDA hardiness zone 4b or warmer. The tree will reach a height of 85 feet and a spread of 70 feet. Pyramidal in youth, it develops a spreading rounded crown with age supported by a few, very large-diameter branches. These branches should be spaced two to four feet apart along the trunk to develop a strong structure. The dominant central leader which typically develops on London Planetree usually assures that the structure of major limbs is desirable with little corrective pruning required other than removing occasionally occurring upright branches with tight crotches. It is also helpful to thin out the many branches which develop early on the central trunk. The bark is patchy and very attractive and may be the plants best ornamental attribute. These patches range from creamy-white to olive-green. Large sections of bark may be shed from the tree as it grows older. This is normal and only needs to be disposed of.

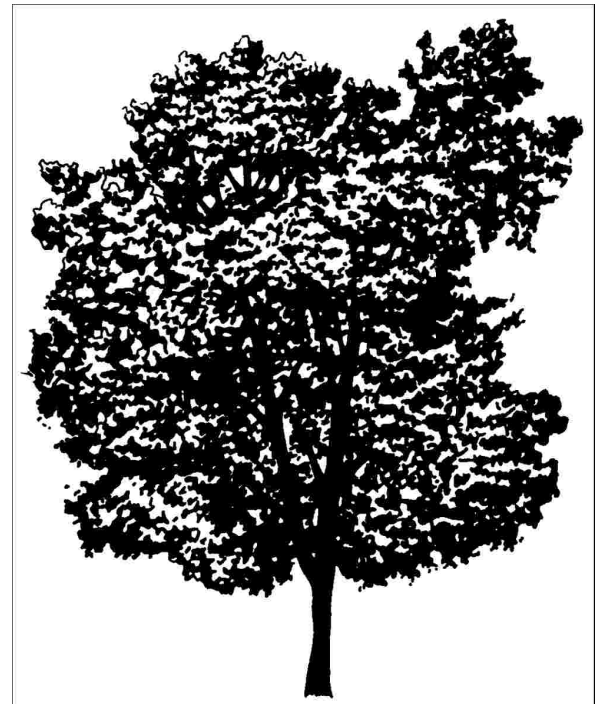


Figure 1. Middle-aged *Platanus x acerifolia* 'Bloodgood': 'Bloodgood' London Planetree

General Information

Scientific name: *Platanus x acerifolia*

Pronunciation: PLAT-uh-nus x ass-er-ih-FOLE-ee-uh

Common name(s): 'Bloodgood' London Planetree

Family: *Platanaceae*

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

Origin: not native to North America

Invasive potential: little invasive potential

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

Availability: not native to North America

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Figure 2. Range

Description

Height: 70 to 85 feet

Spread: 50 to 70 feet

Crown uniformity: symmetrical

Crown shape: pyramidal, round, spreading

Crown density: dense

Growth rate: fast

Texture: coarse

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: lobed, incised

Leaf shape: ovate, star-shaped

Leaf venation: palmate, pinnate

Leaf type and persistence: deciduous

Leaf blade length: 4 to 8 inches, 8 to 12 inches

Leaf color: green

Fall color: yellow

Fall characteristic: not showy

Flower

Flower color: red

Flower characteristics: not showy

Fruit

Fruit shape: round

Fruit length: .5 to 1 inch

Fruit covering: dry or hard

Fruit color: brown

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

Trunk and Branches

Trunk/bark/branches: branches droop; showy; typically one trunk; thorns

Pruning requirement: little required

Breakage: resistant

Current year twig color: brown

Current year twig thickness: medium

Wood specific gravity: unknown

Culture

Light requirement: full sun

Soil tolerances: clay; sand; loam; alkaline; acidic; extended flooding; well-drained

Drought tolerance: high

Aerosol salt tolerance: moderate

Other

Roots: can form large surface roots

Winter interest: yes

Outstanding tree: yes

Ozone sensitivity: sensitive

Verticillium wilt susceptibility: resistant

Pest resistance: sensitive to pests/diseases

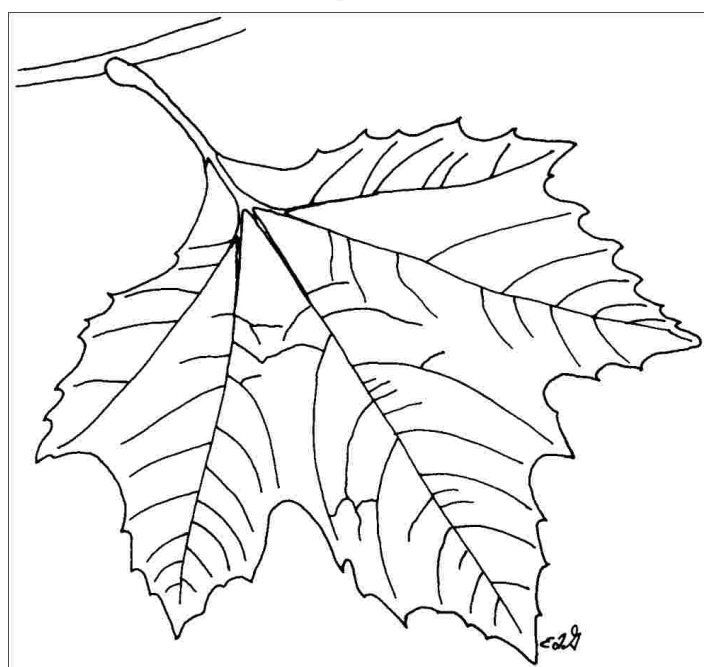


Figure 3. Foliage

Use and Management

The plant tolerates dry soil (but scorches in dry weather) and city conditions well, adapts to most soils including alkaline and is more resistant (not immune) to the anthracnose that afflicts *Platanus occidentalis*. However, it is susceptible to canker stain, a disease which has caused its demise in some areas, and is often seen infested with lace bugs which will not kill the tree but causes premature

defoliation in late summer. It is also reported to be susceptible to ozone pollution injury in laboratory tests at levels often present during the summer, but damage from air pollution in the landscapes appears minimal. Some people object to the large leaves which often begin falling from the tree in late summer.

Some horticulturists consider this a messy tree due to early leaf drop from drought, bark shedding, and lace bugs. Leaves blow around in the wind during the fall and decompose slowly in the landscape creating a distinctive “crunch” underfoot. Leaves make great compost in a compost pile.

Some tree managers limit use as a street tree due to its large size, susceptibility to canker stain, bacterial leaf scorch, and lace bug injury. But it is a good durable tree for many areas where soil is poor and compacted. Also somewhat tolerant of coastal conditions, and well-adapted to areas with poor drainage. But it may be best saved for moist sites with plenty of room for root and crown expansion.

The National Arboretum in 1984 released two *Platanus occidentalis* x *Platanus orientalis* which could prove to be superior to the parents: *Platanus* x *acerifolia* ‘Columbia’ - upright, orange-grey bark, five-lobed leaves; *Platanus* x *acerifolia* ‘Liberty’ - upright pyramid, five-lobed leaves, reportedly more resistant to powdery mildew and anthracnose, though not immune.

Pests

Aphids will suck the sap from Planetree leaves. Heavy infestations deposit honeydew on lower leaves and objects beneath the tree, such as cars and sidewalks.

Sycamore lace bugs feed on the undersides of the leaves causing a stippled appearance and premature defoliation in late summer. The insects leave black flecks on the lower leaf surface. Neither aphids nor lace bugs will kill the tree.

Diseases

Some fungi cause leaf spots.

Anthracnose: ‘Bloodgood’ has been shown to be resistant to anthracnose, but it is not immune. Anthracnose causes early symptoms on young leaves resembling frost injury. When the leaves are almost fully grown light brown areas appear along the veins. Later the infected leaves fall off and trees may be nearly completely defoliated in spring or early summer. The disease can cause twig and branch cankers and a witches-broom appearance at the end of the branches. The trees send out a second crop of leaves but repeated

attacks can lower tree vigor. Use a properly labeled fungicide to help control the disease. Fertilization helps trees withstand repeated defoliation.

Canker stain is very serious on London Planetree and can kill the tree.

Bacterial leaf scorch can devastate London Planetree.