

Juniperus virginiana: Red Cedar¹

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Introduction

Red cedar is an evergreen growing 25 to 45 feet tall in an oval, columnar, or pyramidal form (very diverse) and spreading 20 to 30 feet when given a sunny location. It develops a brownish tint in winter in the north and is sometimes used in windbreaks or screens. The fruit is a blue berry on female trees and is ornamental when produced in quantity. Birds devour the fruit and 'plant' it along farm fences and in old abandoned fields. Some botanists consider *J. silicicola* (Southern red cedar) as the same species as *J. virginiana*.

General Information

Scientific name: *Juniperus virginiana*

Pronunciation: joo-NIP-er-us ver-jin-ee-AY-nuh

Common name(s): red cedar, eastern red cedar

Family: Cupressaceae

USDA hardiness zones: 2A through 9B (Figure 2)

Origin: native to the eastern United States and southeastern Canada

UF/IFAS Invasive Assessment Status: native

Uses: urban tolerant; screen; street without sidewalk; reclamation; tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; highway median; bonsai; Christmas tree



Figure 1. Full Form - *Juniperus virginiana*: red cedar
Credits: UF/IFAS

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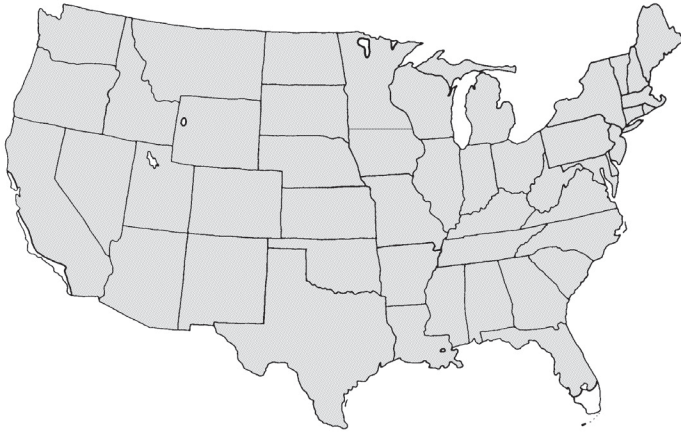


Figure 2. Range

Description

Height: 25 to 45 feet

Spread: 20 to 30 feet

Crown uniformity: symmetrical

Crown shape: oval, columnar, pyramidal

Crown density: moderate

Growth rate: fast

Texture: fine

Foliage

Leaf arrangement: opposite or sub-opposite

Leaf type: simple

Leaf margin: entire, terminal spine

Leaf shape: awl-like, scale-like

Leaf venation: none, or difficult to see

Leaf type and persistence: evergreen

Leaf blade length: < 2 inches

Leaf color: paler green when young, becoming dark green with maturity

Fall color: no color change

Fall characteristic: not showy



Figure 3. Leaf - *Juniperus virginiana*: red cedar
Credits: UF/IFAS

Flower

Flower color: yellow, green

Flower characteristics: not showy



Figure 4. Cone, Young - *Juniperus virginiana*: red cedar
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Fruit

Fruit shape: round, berry-like

Fruit length: ¼ inch

Fruit covering: fleshy

Fruit color: dark blue and glaucous

Fruit characteristics: attracts birds; showy; fruit/leaves not a litter problem; aromatic

Trunk and Branches

Trunk/branches: branches droop; showy; typically one trunk; no thorns

Bark: reddish brown to gray, thin, and peeling

Pruning requirement: little required

Breakage: susceptible to breakage

Current year twig color: brown, green

Current year twig thickness: thin

Wood specific gravity: 0.47



Figure 5. Bark - *Juniperus virginiana*: red cedar
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Culture

Light requirement: full sun to partial shade

Soil tolerances: clay; sand; loam; alkaline; acidic; 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: free of serious pests and diseases

Use and Management

The dense growth and attractive foliage make red cedar a favorite for windbreaks, screens, and wildlife-cover for

large-scale landscapes. Its high salt-tolerance makes it ideal for seaside locations. Red cedar can make a nice Christmas tree, and the fragrant wood is popular for repelling insects. Although not currently used often as a street tree, its wood is strong, the foliage is clean, and the fruit is small making it a suitable candidate. There are some nice examples of street tree use in southern cities. With proper pruning to remove lower branches, it should adapt well to street-scapes.

Planted in full sun or partial shade, red cedar will easily grow on a variety of soils, including clay, but will not do well on soils kept continually moist. Growth may be poor in landscapes which are over-irrigated. Plants are difficult to transplant due to a coarse root system, except when quite small. Water until well-established and then forget about the tree. It performs admirably with no care, even on alkaline soil and along the coast. Usually insects and diseases are not a problem if grown in the full sun. There may be local restrictions on planting this tree near apple orchards because it is the alternate host for cedar-apple rust.

Some nurseries carry a cultivar or two of red cedar.

Cultivars include: 'Burkii'—pyramidal, blue foliage, 15 to 25 feet tall; 'Canaertii'—compact, pyramidal, good fruit production, fairly common in Texas; 'Hillspire'—(cupressifolia), good green color; 'Elegantissima'—Goldtip red cedar with branchlets with yellow tips, less than 20 feet tall; 'Filifera'—pyramidal, branchlets divided, foliage gray green; 'Glauca'—Silver Red cedar, narrow, columnar, 15 to 20 feet tall, silvery blue foliage especially in spring. 'Ketlerii' is commonly available in the mid-west, is more open with spaces between branches at the top of the tree, pyramidal; 'Manhattan Blue'—compact, 20 feet tall, pyramidal, foliage bluish green; 'Pendula'—Weeping Red cedar, branchlets pendulous, to 40 feet tall; 'Pyramidalis Dundee'—pyramidal, purplish green in winter; 'Skyrocket'—silver-blue foliage, narrow columnar form.

Pests

Usually none are serious.

Bagworm caterpillars occasionally web foliage and debris together to make bags up to two inches long. The insects live in the bags and emerge to feed on the foliage. Use sprays of *Bacillus thuringiensis*. The insects can also be picked off the plants by hand.

Juniper scale causes yellowed needles, and infected branches fail to produce new growth. The scale is round and at first white, later turning gray or black.

The Juniper webworm webs twigs and needles together, causing them to brown and die. The larva is 1/2-inch-long and is brown with darker stripes. The larvae are often in the densest part of the plant and can go unnoticed.

Mites cause stippled and bronzed foliage.

Diseases

Twig blights cause death and browning of twigs tips. The diseases may progress down the stem killing the whole branch. Small lesions may be seen at the base of dead tissue. Prune out dead branch tips. Dieback from Kabatina blight appears in early spring, from Phomopsis in summer.

Three rust diseases seen most often are cedar-apple rust, hawthorn rust, and quince rust. The most common is cedar-apple rust. On Juniper the first two diseases form galls and orange jelly-like horns in spring. The horns are most likely to form following periods of rainy, warm weather. Spores formed in the horns infect the alternate host. The diseases are more serious on the alternate host than Juniper. There may be local restrictions on planting this tree near apple orchards because it is the alternate host for cedar-apple rust. A separation of a few hundred yards may help avoid the disease. Prune out the spore horns when seen in the spring. Do not plant near hawthorns, apples, or crabapples.

Junipers are not tolerant of ice coatings. Expect dieback when Junipers are covered with ice for several days. Removing the ice is impractical.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. University of Florida Institute of Food and Agricultural Sciences.