

Eastern Red-cedar



Eastern Red-cedar (*Juniperus virginiana*)

General Description

A small tree with a short trunk and irregular, pyramidal crown native to the eastern United States. Dwarf or compact forms of this juniper are used as ornamentals. The largest tree in North Dakota is 51 feet tall with a canopy spread of 30 feet.

Leaves and Buds

Bud Arrangement - Continuous.

Bud Color - Same as leaves, hard to distinguish from leaves.

Bud Size - 1/8 inch.

Leaf Type and Shape - Simple scale and awl-like leaves.

Leaf Margins - Sawtooth serrations

Leaf Surface - Prickly.

Leaf Length - Variable lengths, indeterminate growth, juvenile leaves in pairs 1/5 to 1/4 inch, ending in a spiny point.

Leaf Width - 1/16 inch.

Leaf Color - Concave and glaucous above, green and convex below.

Flowers and Fruits

Flower Type - Unisexual, usually dioecious.

Flower Color - Female, green; male, yellow-brown.

Fruit Type - Cones, globose or ovoid, and deeply pitted, typical juniper "berry", mature in one year; 1 to 3 ovate seeds.

Fruit Color - Shiny brown seeds in dark blue, berry-like cones with heavy glaucous coating.

Form

Growth Habit - Fairly dense pyramidal when young, much more open to slightly pendulous when mature.

Texture - Medium, summer and winter.

Crown Height - 30 to 45 feet.

Crown Width - 15 to 30 feet.

Bark Color - Gray-brown, exfoliating in long strips.

Root System - Deep, penetrating taproot.

Environmental Requirements

Soils

Soil Texture - Moist, deep loam to sand.

Soil pH - 6.0 to 8.0. Will tolerate alkaline and saline conditions.

Windbreak Suitability Group - 1, 1K, 3, 4, 4C, 5, 6D, 6G, 7, 8, 9C, 9L.

Cold Hardiness

USDA Zone 2.

Water

Drought tolerant, but prefers moist soils.

Light

Full sun. Tolerates shade only in youth.

Uses

Conservation/Windbreaks

Small to medium evergreen for farmstead and field windbreaks.

Wildlife

Fruit matures in one season. Provides food for birds and mammals. Nesting and winter cover for a variety of birds. Browse for whitetail deer.

Agroforestry Products

Wood - Used for fence posts, cedar chests, pencils, and medicines. Heartwood is decay resistant.

Food - Berry-like cones used in alcohol products.

Medicinal - Native Americans used for coughs, head colds and dysentery.

Urban/Recreational

Good for ornamental landscaping. The species, as well as most cultivars, turn brown in the winter.

Cultivated Varieties

Canaert Red-cedar (*Juniperus virginiana* 'Canaertii') - Dense, tufty, green colored selection. One of few cultivars to retain summer color in winter.

Taylor Juniper (*J. virginiana* 'Taylor') - A new cultivar from Nebraska with a very narrow, erect growth habit of interest for landscape use.

Related Species

Rocky Mountain juniper (*J. scopulorum*)

Pests

Common diseases include cedar-apple rust (*Gymnosporangium*) and Kabatina tip blight. Common insect pests include spider mites. Red cedars should not be planted near apple, crabapple, junberries, or hawthorns due to increased risk of damage by *Gymnosporangium* rusts. Cedar oil extract of *Juniperus* species has been effective control of clothes moths.

EASTERN REDCEDAR

Juniperus virginiana L.

Plant Symbol = JUVI

Contributed by: USDA NRCS Plant Materials
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Uses

Windbreaks: Plant eastern redcedar in the outer rows of multi-row plantings where it will not be overtopped by taller trees. It can be used in single-row windbreaks when a dense, medium height barrier is desired.

Wildlife: This species provides food and cover for numerous birds and mammals. Winter food and protection is particularly important for pheasant, mule deer and whitetail deer.

Recreation and Beautification: It is suitable for screen plantings. Its year-long coloration and attractiveness to wildlife adds variety to recreational plantings.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Juniperus virginiana L., eastern redcedar, is a small evergreen tree, commonly 10 to 40 feet, of pyramidal shape becoming rounder in age. Fruits pale-blue with whitish bloom, fleshy 'berries' (cones), 1/4 inch diameter, ripening the first season, seeds 1 to 2 in each cone, bony-coated; flowers small, cone-like on end of short twigs, male and female borne on separate plants. Leaves opposite, scalelike, covering older twigs closely in alternating pairs to 1/8 inch long, on new shoots awl shaped, sharp pointed and spreading, 1/4 inch long, dark green. Stem single with upright or spreading branches, bark reddish-brown, thin and shreddy, branchlets very slender; roots deep, widely spreading.

Adaptation and Distribution

It is native to eastern North America, where it occurs strongly on limestone derived soils, and is cultivated in Wyoming and Colorado for shelterbelts and ornamental uses below 6,000 feet. This species has a wide distribution and is found on many types of soil ranging from acid sands to those derived from limestone. It does best on dry soils in full sunlight, and is winter hardy and tolerant of droughty and salty soils. Like most junipers, it is very slow growing and is moderately long lived.

Eastern redcedar is distributed throughout the east, and lower and upper midwest. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

Seedlings should be planted in a firm weed free bed at a spacing of 3 to 6 feet. Seedlings should be placed in a hole or furrow large enough to contain the entire root system without bending.

Management

Weed and other competing vegetation must be controlled the first two years of establishment. This plant will survive in moist, deep loam to sand at pH of 6.0 to 8.0, will tolerate alkaline and saline conditions. This plant is invasive in poorly managed

or extensively grazed pastures and rangelands, especially those with neutral pH soils.

Pests and Potential Problems

It is relatively free of serious insect and disease problems. It is the alternate host for the cedar-apple rust disease which does very little harm to this species but causes serious damage to apples and other pome fruits.

Cultivars, Improved, and Selected Materials (and area of origin)

Eastern redcedar seedlings are available from most commercial nurseries and government nurseries dealing with conservation species. 'Canaert' and 'Taylor' are two cultivars.

Prepared By & Species Coordinator:

USDA NRCS Plant Materials Program

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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Eastern redcedar

Juniperus virginiana

Growth Form: pyramidal to irregular

Crown Density: dense

Size: 15-20 feet high

10-20 foot spread

Drought Resistance: excellent

Cold Hardiness: excellent

Growth Rate: slow

Life Span: long

Elevational Range: to 7,500 feet

Soil Conditions: tolerates alkaline and salts well

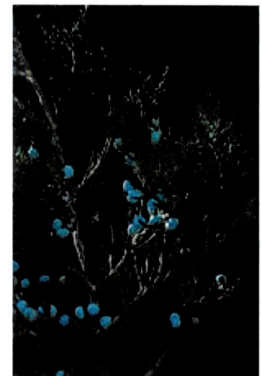
Possible Insect Problems: spider mites

Possible Disease Problems: rust

Wildlife Value: high: song and game birds; hoofed browsers,
good cover

Seasonal Color: rusty red

Miscellany: very adaptable to site conditions



Taken from: Trees for Conservation, a buyer's guide, Colorado State Forest Service