

Colorado (Blue)
Spruce



Colorado (Blue) Spruce (*Picea pungens*)

General Description

A broad, dense, pyramidal tree with stiff branches horizontal to the ground. Native to intermountain states of the west. Choice specimen tree. The largest tree in North Dakota is 85 feet tall with a canopy spread of 30 feet.

Leaves and Buds

Bud Arrangement - Buds are in whorls.

Bud Color - Yellowish-brown, not resinous.

Bud Size - Broadly conical, tips are blunt, about ¼ inch long.

Leaf Type and Shape - Sharply pointed needles are attached individually on peglike projections called sterigmata.

Leaf Margins - Needles are 4-sided.

Leaf Surface - Variably glaucous, 4 to 5 stomatal lines on both sides.

Leaf Length - Needles ¾ to 1¼ inches.

Leaf Width - 1/16 inch needles.

Leaf Color - Variable from dull green, blue-green, to silvery-blue, glaucous.

Flowers and Fruits

Flower Type - Monoecious, separate male and female strobili.

Flower Color - Female strobili are green to purple; male are orange.

Fruit Type - Cones 2½ to 4 inches long, with papery cone scales that have a truncated edge; small, winged seeds, chestnut brown.

Fruit Color - Light yellow-brown or tannish cones, chestnut-brown seeds.

Form

Growth Habit - Branching is broad and dense, with branches extending to the ground.

Texture - Medium, summer and winter.

Crown Height - 30 to 65 feet.

Crown Width - 15 to 25 feet.

Bark Color - Bark is scaly or flaky and ash-brown.

Root System - Shallow and wide spreading.

Environmental Requirements

Soils

Soil Texture - Performs best on moist, well-drained loams.

Soil pH - 6.0 to 7.5.

Windbreak Suitability Group - 1, 3, 4 and 5.

Cold Hardiness

USDA Zone 2.

Water

Does not tolerate flooding. Prefers moist areas, but is the most drought tolerant of the spruces.

Light

Full sun. Does not tolerate shade.

Uses

Conservation/Windbreaks

Medium to tall evergreen for farmstead and field windbreaks.

Wildlife

Nesting sites for birds.

Agroforestry Products

Wood - Used for firewood but burns fast. Good for kindling. Used for Christmas trees.

Urban/Recreational

Popular specimen or ornamental landscape tree. Used singly or in group plantings.

Cultivated Varieties

Blue Globe Spruce (*Picea pungens* 'Glauca Globosa') - Excellent blue-needled dwarf bush.

Hoops Blue Spruce (*P. pungens* 'Hoopsii') - Striking steel-blue, beautiful.

Iseli Foxtail Spruce (*P. pungens* 'Iseli Foxtail') - Blue, bushy-needled form.

Mission Blue Spruce (*P. pungens* 'Mission Blue') - Blue needle color.

Moerheim Blue Spruce (*P. pungens* 'Moerheimii') - A dense, compact form with blue color.

Montgomery Spruce (*P. pungens* 'Montgomery') - Dwarf, blue-needled selection. Excellent, dense habit, but sometimes reverts to taller form.

Thompson Blue Spruce (*P. pungens* 'Thompsonii') - Silvery-blue needles, similar color to 'Hoopsii'.

Related Species

Black Hills Spruce (*Picea glauca* var. *densata*)

Norway Spruce (*P. abies*)

Pests

Common diseases include Rhizosphaera needle cast, Cytospora canker, and Lirula needle blight. Common insect pests include spider mites, spruce needle miner, pine needle scale, yellow-headed spruce sawfly, and aphid.