



Picea pungens 'Iseli Foxtail' 'Iseli Foxtail' Colorado Spruce¹

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INTRODUCTION

Colorado Spruce has a horizontal branching habit and grows taller than 75 feet in its native habitat, but is normally seen at 30 to 50 feet in landscapes (Fig. 1). This cultivar is probably about the same size as the species. The tree grows about 12 inches per year once established but may grow slower for several years following transplanting. Needles emerge as a soft clump, changing to a stiff, pointed needle sharp to the touch. 'Iseli Foxtail' has striking, light-blue needles which are more attractive than the species. The crown is shaped like a pyramid, ranging from 10 to 20 feet in diameter.

GENERAL INFORMATION

Scientific name: *Picea pungens* 'Iseli Foxtail'

Pronunciation: PIE-see-uh PUN-jenz

Common name(s): 'Iseli Foxtail' Colorado Spruce, 'Iseli Foxtail' Colorado Blue Spruce, 'Iseli Foxtail' Blue Spruce

Family: *Pinaceae*

USDA hardiness zones: 4 through 8A (Fig. 2)

Origin: native to North America

Uses: recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; specimen; Christmas tree; no proven urban tolerance

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

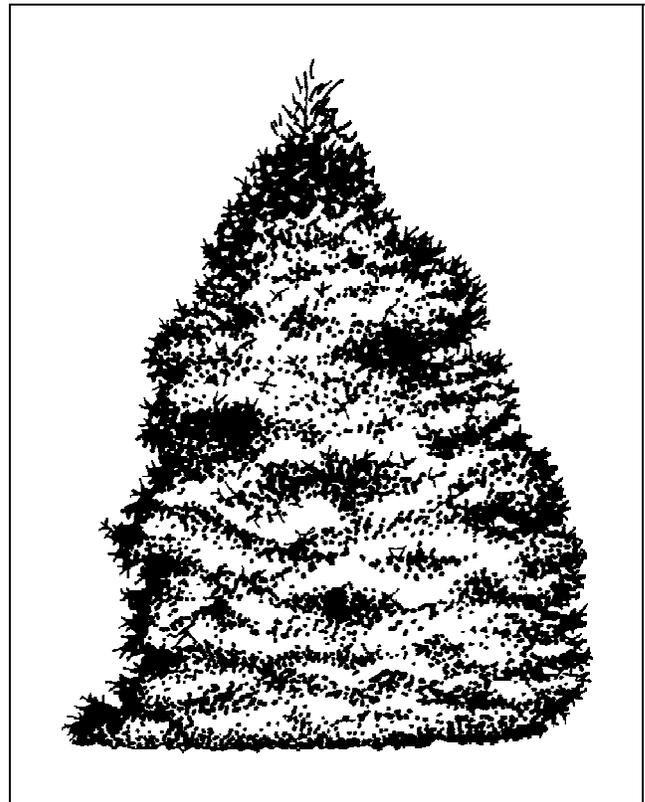


Figure 1. Middle-aged 'Iseli Foxtail' Colorado Spruce.

DESCRIPTION

Height: 30 to 50 feet

Spread: 10 to 20 feet

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

Crown shape: columnar; pyramidal

Crown density: dense

1. This document is adapted from Fact Sheet ST-454, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
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Figure 2. Shaded area represents potential planting range.

Growth rate: medium

Texture: fine

Foliage

Leaf arrangement: spiral (Fig. 3)

Leaf type: simple

Leaf margin: entire; terminal spine

Leaf shape: needle-like (filiform)

Leaf venation: parallel

Leaf type and persistence: evergreen; needle leaf evergreen

Leaf blade length: less than 2 inches

Leaf color: blue or blue-green

Fall color: no fall color change

Fall characteristic: not showy

Flower

Flower color: green; orange; purple

Flower characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: elongated; oval

Fruit length: 3 to 6 inches; 1 to 3 inches

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: does not attract wildlife; inconspicuous and not showy; no significant litter problem

Trunk and Branches

Trunk/bark/branches: 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: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thick

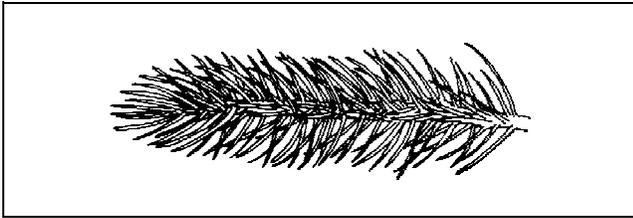


Figure 3. Foliage of 'Iseli Foxtail' Colorado Spruce.

Culture

Light requirement: tree grows in part shade/part sun; tree grows in full sun

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

Drought tolerance: high

Aerosol salt tolerance: moderate

Soil 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: little, if any, potential at this time

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: very sensitive to one or more pests or diseases which can affect tree health or aesthetics

USE AND MANAGEMENT

Colorado Spruce casts dense shade when branched to the ground, so no grass grows beneath it. It lends a ridged, formal effect to any landscape due to the stiff, horizontal branches, but the blue foliage softens this effect. It is often used as a specimen or as a screen planted 10 feet apart. This may be the best Blue Spruce adapted to the heat in the south, and has grown nicely in Raleigh, N.C. for a number of years.

The tree prefers a rich, moist soil, and benefits from irrigation in dry weather. Trees benefit from a layer of mulch extending beyond the edge of the branches. This keeps roots cool and reduces moisture loss from the soil. Grows in full sun or the shade on the north side of a building. It tolerates clay and poor drainage for a short period.

Susceptibility to canker makes the species a questionable choice for large-scale planting in the eastern states. The susceptibility of this cultivar is not clear at this time. Substitute White Fir (*Abies concolor*) for the

same blue foliage effect without the disease problem. Deodar Cedar also carries this light blue color throughout the year. Also, the wax coating on the needles of Blue Spruce which give the blue color can be washed off by some pesticides. Check the label and test the spray on a small scale before spraying.

A number of other cultivars are listed. The most common cultivar is 'Glauca', the Blue Colorado Spruce. The blue trees are sometimes grown from seeds, so they vary in degree of blue coloration. For reliable blue color, purchase a grafted, named cultivar selected for its blue color. The list of cultivars is not long: 'Argentea' (Silver Colorado Spruce) - silvery foliage color; 'Glauca' (Blue Colorado Spruce) - bluish foliage, the nicest cultivar; 'Glauca Procumbens' - bluish foliage, height about two feet but spread several times the height; 'Globosa' - three feet tall, blue foliage; 'Hoopsii' - bluish foliage; 'Moerhiemii' (Moerhiem Spruce) - compact, dense and very blue; 'Pendens' (Koster's Blue Spruce) - weeping habit, must be staked to get it to take tree form, blue foliage; 'Thompsoni' - bluish foliage.

Pests

Two gall-forming insects commonly attack Spruce. Eastern Spruce gall adelgid forms pineapple like galls at the base of twigs. Galls caused by Cooley's Spruce gall adelgid look like miniature cones at the branch tips. The gall adelgids do not kill trees unless the infestation is heavy. A few galls on a large tree are not serious.

In northern areas, Spruce budworm larvae feed on developing buds and young needles. The yellowish brown caterpillars are difficult to see.

The Spruce needle miner makes a small hole in the base of a needle then mines out the center. Dead needles are webbed together and can be found on infested twigs.

Pine needle scale is a white, elongated scale found feeding on the needles only. Populations would have to be quite high to cause major damage.

Mites can be a serious problem in summer after hot dry weather. The small insects can't be readily seen with the naked eye. The first noticeable symptoms are yellowing of the oldest needles on infested branches. Close inspection with a magnifying glass will confirm the presence of the mites.

Diseases

Cytospora canker infects a branch then eventually kills it. The lower branches are attacked first then progressively higher branches. The needles turn brown to reddish brown and eventually drop off. White resin patches are seen on infected branches. Prune off infected branches. Water Spruces during dry weather but keep the foliage as dry as possible.

Spruce may be attacked by needle casts. One causes needles to turn yellow or brown and drop off. Another needle cast affects the lowest needles first then moves up the tree. Infected needles are a mottled yellow.

Several rust diseases attack Spruce but these are rarely seen. Infected needles turn yellow and drop off.