

Large Trees (over 40')
Evergreen

Some natives
Map #78

Spruces

(*Picea spp.*)
Family: *Pinaceae*

Norway Spruce



General:

Leaves: individual needles held on small, woody pegs which remain on the stem when needles fall. Arranged on all sides of the stems with variations in arrangement, orientation, length, and white bands of stomates (pores). Quadrangular in cross-section.

Stems: comprised of many ridges which end in woody pegs that hold needles; rough after needles fall since pegs remain.

Flowers: male and female on same plant; females produce cones.

Fruits: pendant cones that drop intact.

Habit: Usually pyramidal trees, stiff in youth and usually more open and graceful with age.

Culture: prefer moderately moist, well-drained soil but adaptable except for hot, dry conditions. Shallow rooted. Pests: *Cytospora* canker and *Rhizosphaera* fungal diseases; spruce gall aphids (eastern and Cooley); and spider mites.

Cultivars: many selected for dwarfness, coloration, and other ornamental traits.

Species best for general landscape use:

Norway S. (*P. abies*) Needles 1", ridged when rolled in fingers, dark green, on upper side of stem, overlapping and pointing forwards, on lower side, spreading left and right exposing stem, needles ending in a blunt point; first year stem orange brown to reddish brown; branchlets pendulous, cones 4 - 6" long, scales undulate.

White S. (*P. glauca*) Native. Needles to 3/4", ridged when rolled in fingers, 2-5 white bands of pores on each surface, apex of needle somewhat sharply pointed, pale green, strong odor when crushed, crowded on the upper surface of the branch; stems dark yellow brown in second year; branchlets not pendulous, branches ascending; cone 1 - 2" long; var. *densata* (Black Hills Spruce) is a slower growing, more compact tree, with bright or bluish green needles (20 - 40' in 40 - 80 years).

Serbian S. (*P. omorika*) Needles up to 1" long, ridged when rolled in fingers, directed forward on upper side of stems, 2 prominent bands of pores; bark thin, coffee brown, scaling off in platelets; male flowers like strawberries, cones oblong to 2", pendant, purple becoming cinnamon-brown, scales with dentations; slender trunk with short ascending or drooping branches.

Colorado S. (*P. pungens*) Native. Needles ridged when rolled in fingers, distinct bands of pores on all surfaces, may be green, bluish or silvery ('*Glauca*' (or forma *glauca*) needles have blue cast, but the intensity of the blue varies from tree to tree), incurved, very sharp pointed, needles all around the stem but crowded on upper surface, acid taste when chewed; stems stout becoming orange brown; buds light brown, rosette-like with tips of scales recurved; branchlets not pendulous; cone 2 - 4" long and narrowing at each end.



Blue Colorado Spruce



Birdsnest Norway Spruce



Black Hills Spruce



Serbian Spruce



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