## Picea engelmannii

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Kingdom: Plantae
Division: Pinophyta
Class: Pinopsida
Order: Pinales
Family: Pinaceae

Genus: Picea

Species: P. engelmannii

*Picea engelmannii* (Engelmann Spruce) is a species of spruce native to western North America, from central British Columbia and southwest Alberta, southwest to northern California and southeast to Arizona and New Mexico; there are also two isolated populations in northern Mexico. It is mostly a high altitude mountain tree, growing at 900-3650 m altitude, rarely lower in the northwest of the range; in many areas it reaches the alpine tree line.



It is a medium-sized to large evergreen tree growing to 25-40 m tall, exceptionally to 65 m tall, and with a trunk diameter of up to 1.5 m. The bark is thin and scaly, flaking off in small circular plates 5-10 cm across. The crown is narrow conic in young trees, becoming cylindric in older trees. The shoots are buff-brown to orange-brown, usually densely pubescent, and with prominent pulvini. The leaves are needle-like, 15-30 mm long, rhombic in cross-section, glaucous blue-

green above with several thin lines of stomata, and blue-white below with two broad bands of stomata.

The cones are pendulous, slender cylindrical, 4-8 cm long and 1.5 cm broad when closed, opening to 3 cm broad. They have thin, flexible scales 15-20 mm long, with a wavy margin. They are reddish to dark purple, maturing pale brown 4–7 months after pollination. The seeds are black, 2-3 mm long, with a slender, 5-8 mm long pale brown wing.

Engelmann Spruce hybridises and intergrades extensively with the closely related White

Spruce found further north and east in the Rocky Mountains, and to a lesser extent with the closely related Sitka Spruce where they meet on the western fringes of the Cascades.

Engelmann Spruce is of economic importance for its wood, harvested for paper-making and general construction. Wood from slow-grown trees at high altitude has a specialised use in making acoustic guitars and harps. It is also used to a small extent as a Christmas tree.

