

Plant Data Sheet

Sitka spruce, *Picea sitchensis*



Range

Native range shaped a narrow strip along the north Pacific coast from latitude 61° N. in south-central Alaska to 39° N. in northern California.(1)

Climate, Elevation

Maritime climate has abundant moisture throughout the year, relatively mild winters and cool summers. (1)
Grows from sea level to 600m. (2)

Local occurrence (where, how common)

Usually grows in mixed stands, often associated with western hemlock.(1)

Habitat preferences

Deep, moist, well-drained soils and with high in calcium, magnesium and phosphorus. (2)

Plant strategy type/successional stage (stress-tolerator, competitor, weedy/colonizer, seral, late successional)

Woody. And develop epicormic branches along the stem. (1)

Associated species

Western red cedar, red alder, salmonberry, red osier dogwood, red elderberry, lady fern, water parsley, and skunk cabbage. (3)

May be collected as: (seed, layered, divisions, etc.)

Seeds. Stem cuttings. (1)

Collection restrictions or guidelines

Cones ripen from mid-August to mid-September. Collect cones at ripening to avoid seed loss. (2)

Seed germination (needs dormancy breaking?)

Do not require stratification but will germinate more uniformly following a cold, moist stratification period of 30 days. (2)

Seed life (can be stored, short shelf-life, long shelf-life)

Seeds can be stored for several years. (2)

Recommended seed storage conditions

Store 0-2°C in sealed containers. (2) Seed dried to 7-8% moisture content and freezer stored (-17°C to -12°C) will remain viable for many years.(3)

Propagation recommendations (plant seeds, vegetative parts, cuttings, etc.)

Collect cones, separate seeds, plant seeds. And air-layering or rooting of stem cuttings. (1)

Soil or medium requirements (inoculum necessary?)

A thin layer of mulch is recommended. (2)

Installation form (form, potential for successful outcomes, cost)

Seeds, air-layering or rooting of stem cuttings. (1)

Recommended planting density

341,710-881,835 seeds per kilogram. (2)

Care requirements after installed (water weekly, water once, never water, etc.)

Adequate drainage, sufficient nutrients and light shade. (1)

Normal rate of growth or spread; lifespan

Height growth is slow for the first few years but increases rapidly thereafter. Height would be 27m at 50 years, 48m at 100 years. Lifespan up to 700-800 years. (1)

Sources cited

(1) Burns, R. and B. Honkala 1990. Silvics of North America, Volume 2, Hardwoods. Agricultural Handbook 654. U.S. Department of Agriculture, Forest Service, Washington, D. C. 877 p.

(2) Rose, R., C. Chachulski and D. Haase. 1996. Propagation of Pacific Northwest Native Plants: A Manual, Volume Two, First Edition. Nursery Technology Cooperative, Oregon State University, Corvallis, Oregon, 73 p.

(3) Stevens, M. and R. Vanbianchi. 1993. Restoring Wetlands in Washington: A Guidebook for Wetland Restoration, Planning and Implementation. Washington State Department of Ecology Publication 93-17, 110 p and Appendices.

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