Plant Data Sheet

Images from www.haabet.dk/users/kalifornien/eng/sequoia-dendron.html

Species (common name, Latin name) - coast redwood, *Sequoia sempervirens*

Range- The natural range of coast redwood extends from Southwest Oregon to the Santa Lucia Mountains of central California

Climate, elevation- Redwood generally grows in mild climates characterized by humid conditions. The presence of significant amounts of summer fog is one of the main determining factors in delineating the natural range of coast redwood. The species is generally found at low elevations but has been documented at up to 3608 feet in California.

Local occurrence- Locally, redwood is found as an ornamental and as one component of the Washington Park Arboretum. Washington is outside the natural range of coast redwood.

Habitat preferences- Prefers flat benches along larger streams, coastal plains, and moderately sloped valleys. The main preference is for significant amounts of summer fog which helps alleviate drought stress.

Plant strategy type/successional stage- Redwood is extremely adapted as a stress tolerator, being one of the few conifers able to spout to regenerate foliage after fire or new root systems after flooding. It is also shade tolerant and its incredible ability to survive for thousands of years suggest it is a climax species.

Associated species- Throughout its range redwood is most commonly associated with *Pseudotsuga menziesii, Abies grandis, Tsuga heterophyla, Picea sitchensis, Lithocarpus deniflorus,* and *Arbutus menziesii*.

Common understory species include *Pteridium aquilinum* var. *lanuginosum, Polystichum munitum, Gaultheria shallon*, and *Ceanothus velutinus*. Where it has been introduced in Russia, *Sequoia* has been reported to hybridize with Japanese cryptomeria (*Cryptomeria japonica*).

May be collected as- seed or cuttings

Collection restrictions or guidelines- Many redwood populations lie within parks or other protected areas with restrictions on collecting activities. Where collecting is allowed, cones should be collected when they mature in the fall. Cones are mature when they change from green to a greenish yellow or cone scales begin to open. Cones should be air dried for 5-8 days and placed in a screen tumbler to remove seeds. Redwoods generally have a low proportion of live sound seeds and seed sorting is essential to acquire viable seeds. A 4-part air separator has been shown to be effective in sorting out live sound seed. Cuttings are also effective and should be taken from younger trees or new shoots.

Seed germination- Seeds do not need dormancy breaking and will readily germinate on moist mineral soil. Germination speed can be increased by soaking for 24 hours in aerated water.

Seed life- Moderate. Reports vary but seeds have been stored for up to 10 years without losses in viability.

Recommended seed storage conditions- Before storing, seeds should be dried to 5 to 9% moisture content and refrigerated at 17.8 degrees C (Lippitt 1996). Others recommend seeds be stored below freezing.

Propagation recommendations- Propagation can either be done with seeds or with seedlings grown from seed/cuttings.

Soil or medium requirements- Seeds germinate best on moist mineral soil but will do well on a range of substrates. If using a sterile planting medium inoculating with endomycorrhizae will improve success. Cutting success is greatly improved by placing the plants under a mister until they develop a root system.

Installation form- Seeds are likely the least expensive method for propagation. If a reliable seed source is found, germination will likely be above 80%. Success producing seedlings from cuttings can be as high as 90% but requires misting.

Recommended planting density- No data found

Care requirements after installed- Post installation, the main requirement it so ensure that the plants have access to moisture

Normal rate of growth or spread; lifespan- Redwoods grow rapidly, sometime growing several meters in the first few years. They are extremely long lived and can persist for over 2000 years. Trees spread readily from root suckers and often form a ring around a large tree.

Sources cited

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