

Vine Maple Propagation at Wind River Nursery¹

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Abstract.--Vine maple is a non-commercial species being grown at the Wind River Nursery. It requires special stratification techniques and a fall sowing for successful germination. The seedlings are grown as a 2-0 and spring lifted and planted.

Vine maple (*Acer circinatum*), is a small tree common in the understory of Douglas-fir and other evergreen forests from the Cascade Mountains and west to the coast. The species ranges from Southern British Columbia, to Northern California. It reestablishes itself quickly by sprouting when damaged by harvesting operations and can cause competition problems when conifer seedlings are planted in an area where vine maple is already established. It has no commercial value at the present time except when used for landscaping.

A common practice in Oregon and Washington is to dig the plants from forested sites and move it to a nursery environment where it can be sold as an ornamental. Because of the demand for this species in Western Washington, especially around large urban areas, there is some concern about over-utilization. It does have some value as a source of food and shelter for wildlife, and its growth form and shade tolerance allows the species to be used in soil stabilization projects. Vine maple usually produces some seed each year with a good crop every two or three years. There is an average of 4,600 cleaned seeds per pound.

The Darrington Ranger District located on the Mt. Baker Snoqualmie National Forest, contacted the Wind River Nursery several years ago about propagating vine maple to use in the stabilizing of landslides and avalanche chutes on the district. After investigating propagation techniques, seed was determined as the only way the Nursery could efficiently produce the quantity and quality of seedlings the district needed.

The Nursery found that even with a fall sow, very little seed germinated the next spring, but the second spring saw some germination, but not a lot. Because of the hard pericarp on the seed, some experiments were conducted to get germination the first spring after sowing. The best results were obtained by soaking the seed for five days in water to soften the pericarp, then placing the seed on a hard surface and using a 100 pound lawn roller to crack the pericarp. The seed is fall sown and germination takes place in the spring. Usually 45 to 60 percent of the seed is filled, and with some cleaning, the light seed can be removed after dewinging.

The Nursery sows the seed to produce a density of 15 to 20 per square foot. The seed germinates early, but growth is slow the first year. The seedlings are grown without shade. After one growing season, the seedlings average 4 to 6 inches in height and usually less than 3 millimeters in caliper. The district prefers a larger size than this to plant in the field, so all vine maple stock is grown for two years at the Nursery. The second growing season shows an average size of 10 to 12 inches in height, and 3.5 to 4 millimeters in caliper. The plants should be protected from deer browse in the second growing season, as deer will browse the tops in late summer.

All of the stock at the Wind River Nursery, has been lifted in early spring and planted in the field by late May. The survival and growth has been good in the field.

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