

## WACD PLANT MATERIALS CENTER

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### Grand Fir (*Abies grandis*)

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#### Distribution

Grand Fir occurs throughout the Northwest US, and southern British Columbia. In Washington, it is commonly found at low to mid elevations that range from sea level to 1,500 feet west of the Cascades, and 1,500 to 5,000 feet east of the Cascades.

#### Growth Habit

Grand Fir lives to an average age of 250 years, although trees can be found over 300 years old. During that time they can grow from 140 to 200 feet tall, with a trunk that can reach 60 inches in diameter. Its growth rate is rapid as a sapling and young pole. Growth rates of 31 to 35 inches per year have been noted in Western Washington, which nearly equals that of Douglas Fir.

#### Adaptability

Grand Fir is adapted to a wide range of sites. It often occurs in moist sites such as valleys and stream bottoms. It is also found as an upland species, growing on drier soils, particularly in the inland Northwest.

#### Comments

- Grand Fir is an adaptable restoration species. When planted in moist sites, it can grow vigorously enough to compete with other species. On drier upland sites it often occurs as a shade-tolerant understory species, eventually growing to a dominant climax species when conditions are suitable.
- Grand Fir was first named by the Botanist David Douglas because of its great height, although its height is intermediate for true firs of the region.
- Its needles are perhaps its most distinctive feature. They are exceptionally large, flat, and dark green among true firs, and are strongly flattened along the stem in 2 very distinct ranks of needles, which smell 'catty' when crushed. In fact, this distinctive odor is the reason *Abies grandis* has another lesser used common name; Stinking Fir.

