

WESTERN WA TREE SPECIES TOLERANCES

SPECIES	SHADE	WET SOILS	DROUGHT	FROST	BROWSE	WINDFIRM
Alder (100 yrs.)	1	3*	1	2	2	5
Bigleaf Maple (200-300 years)	4	4	3	5	1	
Black Cottonwood (200 years)	1	5	1	5	1	
Douglas-fir (500+ years; some over 1000 yrs.)	2	2	3	3	2	5
Grand fir (250+ years)	4	3	2	3	4	
Lodgepole Pine (100+ years)	1	4**	3	4	4	2
Noble Fir (300 years)	2	2	2	3	3	3
Oregon Ash (250 years)	3	5	2	5	2	4
Oregon White Oak (250-500 yrs.) <i>Also known as Garry Oak</i>	2	4	5	5	4	
Pacific Silver Fir (500 years)	5	2	1	3***	4	1
Ponderosa Pine (300-600 years)	1	3	5	5	4	
Sitka Spruce (500+ years)	4	5	1	1	5	
Western Hemlock (400-500 yrs.)	5	3	1	1	3	2
Western Red Cedar (1000+ yrs.)	5	4	1	2	1	4 – dry soils 2- wet soils
Western White Pine (300-400 yrs.)	2	4	3	5	4	3

Most Tolerant = 5 Intermediate = 3 Least Tolerant = 1

* Naturally regenerated red alder can tolerate wetter soil conditions but if planting red alder this species requires well-drained soil conditions for optimal reforestation success.

** There are two varieties of Lodgepole pine – *Pinus contorta* var. *contorta* (also known as shore pine) and *Pinus contorta* var. *latifolia*; the *contorta* variety (majority of Westside Lodgepole pine) has a higher tolerance to wetter soils – in this case the rating would be ‘5’

*** Tolerance may vary depending upon elevation; higher tolerance is likely at upper elevations which is the more prevalent range for this species.

Data sources – Silvics of North America, various publications & empirical evidence from field foresters