

Ash replacement trees

Hardwoods:

White oak, *Quercus garryana*

Black oak, *Quercus kelloggii*

Red alder, *Alnus rubra*

White alder, *Alnus rhombifolia*

Bigleaf maple, *Acer macrophyllum*

Madrone, *Arbutus menziesii*

Dogwood, *Cornus nuttallii*

Black cottonwood, *Populus trichocarpa*

Conifers:

Douglas fir, *Pseudotsuga menziesii*

White fir, *Abies concolor*

Grand fir, *Abies grandis*

Yew, *Taxus brevifolia*

Ponderosa pine, *Pinus ponderosa*

Red cedar, *Thuja plicata*

Incense cedar, *Calocedrus decurrens*

Western hemlock, *Tsuga heterophylla*

Southern Oregon possibilities:

Sugar pine, *Pinus lambertiana*

Jeffrey pine, *Pinus jeffreyi*

Chinquapin, *Castanopsis chrysophylla*

Tanoak, *Lithocarpus densiflorus*

Qualities to assess:

resistance to drought and heat

resistance to pests and diseases

adaptability to hydric soils

growth rate

shade potential

depth of root system

shade tolerance

ease of propagation

transplantation success

flammability

Tolerance of moisture stress, from high to low (from Jerry Franklin and C.T. Dyrness, 1973, Natural Vegetation of Oregon and Washington, USDA Forest Service General Technical Report PNW-8.)

white oak (high tolerance of moisture stress)

black oak

ponderosa pine

madrone

incense cedar

Douglas fir

sugar pine

white fir

western hemlock (very low tolerance of moisture stress)

Relative shade tolerance, from high to low:

western hemlock (high tolerance to shade)

white fir

Douglas fir

incense cedar

sugar pine

ponderosa pine

madrone

black oak

white oak (low tolerance to shade)