

Shade Loving Trees?

Chris Schnepf

Idaho is blessed with one of the widest varieties of conifer species in the United States. Tree species have evolved unique strategies to compete with other trees and vegetation according to many different environmental factors. One of those factors is shade from overstory trees. Each tree species differs in its ability to tolerate shade. The graphic below illustrates the relative shade tolerance of common Idaho species (see Figure 1).

Shade Intolerant Tree Species. As the name implies, shade intolerant species grow poorly in shade. They tend to be “pioneer” species, which “sprint ahead” of the competition, by growing rapidly in full sunlight to fully occupy a site after some kind of disturbance (historically, fire). Examples of relatively shade intolerant species include western larch, lodgepole pine, ponderosa pine, and western white pine.

Shade Tolerant Tree Species. Shade tolerant species survive under shade better than other species. Their strategy is to “outlast” the competition. Shade tolerant species tend to grow slower than shade intolerant trees, but they are in it for the long haul and often “release” (grow faster) after shade intolerant trees have died, eventually taking their place in a process called succession.