## Shade Tolerance

**SHADE TOLERANT:** This refers to a tree species that is able to germinate and grow in the shade of other trees; ones that do not require full sunlight in the early stages of growth. Usually the species that becomes dominant as older trees die.

**IMPORTANCE:** Foresters manage stands based on what research shows is most effective and beneficial over time, what value markets place on timber, what environmental standards are required, and the landowner's objectives. They also manage the most intensive crops on the best lands.

Timber markets place a high value on trees that grow straight, limb-free trunks. Trees fall into three main groups based on how much sunlight they need to survive and grow.

Shade Tolerant Red maple, hornbeam American beech, magnolia mulberry, dogwood	These are inferior trees for timber production because they grow too slowly and have many limbs. Because of their nature, they are almost always found in the forest understory. As older trees are cut or die, the forest would naturally revert to shade tolerant species. They provide good benefits to wildlife.
Intermediate Tolerant White oak, persimmon, blackgum, hickory	Shade intolerant and intermediate tolerant trees are good for timber production because they grow fast (in full sunlight) and produce good quality, clear wood.
Shade Intolerant Southern pine, red oak, black walnut, black cherry, sassafras, ash, yellow poplar, sweetgum, birch	Even-aged management, where all trees are within 1- to 10 years of age, is used for growing these species because all the trees receive full sunlight during most of the growing cycle. The southern pine species are the fastest growing of most southern species, and are used extensively by forest industry.

SOURCE: Southern Hardwood Management, USDA Forest Service Management Bulletin, R8-MB-67, March 1994.



**This information is provided by the Alabama Forestry Commission** For more information please visit: <u>www.forestry.alabama.gov</u>