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THE WHITE PINE GROUP

The pines can be classified into two distinct groups according to the leaves, cones, and wood: namely, the white pine group and the yellow pine group. Of the dozen or so species of the white pine group occurring in the United States, three are of outstanding importance in the lumber industry. They are northern white pine (*Pinus strobus*), western white pine (*Pinus monticola*), and sugar pine (*Pinus lambertiana*). Northern white pine occurs in commercial quantities in the northeastern and north central states. Western white pine is found chiefly in northwestern Montana, northern Idaho, and northeastern Washington. Sugar pine grows in commercial quantities in California and southern Oregon. There is no absolutely positive means of identifying the wood of these three species microscopically. One familiar with the pines, however, can usually distinguish these species by the general appearance of the wood. The origin, if known, of a shipment of one of these pines is a highly reliable indication of the species since there is practically no overlapping of their commercial ranges.

Northern white pine (referred to in the lumber trade as northern pine, eastern pine, or simply white pine) is light in weight, soft, even-textured, and easily worked. It does not shrink or swell greatly with changes in moisture content. It is probably the least resinous of all pines. It is used extensively in millwork, boxes and crates, coffins, woodenware, and novelties, and finds special application in foundry patterns, shade rollers, drawing boards, and matches.

Western white pine (often referred to as Idaho white pine) has about the same physical characteristics as northern white pine. The lower grades of western

white pine are often used locally for boxes and crates. A considerable quantity of the wood is used in the production of matches. The higher grades are shipped to eastern markets and are used for about the same purposes as northern white pine. It shrinks and swells a little more with changes in moisture content, but on the whole it is as good for most purposes as its eastern relative. Lumbermen can usually distinguish western white pine by the way it works and by the color of its knots, which ordinarily are darker around the edges than are the knots of northern white pine.

Sugar pine usually is lighter colored, changes color less on exposure, has more conspicuous resin ducts, and is slightly coarser textured than the other two pines. It is the largest of the species of the white pine group and furnishes a much higher percentage of wide, thick planks of the better grades than any other species of the white pine group. A larger percentage of factory and shop material comes from sugar pine than from western white pine and northern white pine together, and less is sold as common lumber. This is probably because of the high percentage of clear cuttings obtained from sugar pine. Otherwise, the wood is quite comparable to western white pine and northern white pine.

Another species of western pine, which has wood similar in some respects to that of the species of the white pine group although botanically belonging to the yellow pine group, is ponderosa pine (*Pinus ponderosa*). This pine is found throughout most of the forested areas of the Pacific Coast and Rocky Mountain States and in the Black Hills. It is one of the lightest colored of the yellow pines, and the most abundant of the western pines. Commercially it has been known under several different names. The lumber trade and the United States Forest Service have now adopted the standard common name of "ponderosa pine". The quality of ponderosa pine differs considerably with the region of growth. In California it grows larger than it does in the Rocky Mountain Region; consequently a greater percentage of

the material from California is sold in Select and Factory grades, and more of it comes in competition with the white pines. Most of the lower-grade lumber of this species produced in New Mexico, Arizona, Colorado, and the Black Hills is used locally for ties and timbers, or as common lumber. The better grades compete with the upper grades of other pines in distant markets. Ponderosa pine can be distinguished from the species of the white pine group by the distinct, although often very narrow, band of summer wood on the outer circumference of each annual ring, especially noticeable in the heartwood.

The Norway pine of the Lake States (*Pinus resinosa*), although also belonging to the yellow pine group, is frequently sold with northern white pine in the common grades under the name "northern pine". It is somewhat coarser in grain and texture, has more strongly marked annual rings, and is somewhat more resinous than northern white pine. Norway pine is also known in the lumber trade as red pine, Canadian red pine, and hard pine.