A13005.107

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

No. 107

DRYING PERIODS OF VARIOUS WOODS

Conservative figures to use in estimating the kiln output possible with various woods are given in the following table prepared by the Forest Products Laboratory. Drying time as here given is not limited by the type of kiln, but by the physical behavior of the wood. Any dry kiln in which the circulation is adequate and the temperature and humidity are properly controlled should produce in the time specified material of high quality, free from visible degrade, if not quite equal in strength properties to air seasoned stock.

Approximate time required to kiln dry, under mild conditions, one-inch plain-sawed green and partially air dry stock to moisture content of six per cent, based on weight of dry wood

Species	Days drying time	
	Green from the saw	Partially air dry (25 per cent moisture content)
Hardwoods		
Swamp oak	45 to 50	20 to 25
Northern oak	30 to 40	17 to 20
Walnut, Cherry	22 to 30	13 to 15
Mahogany, Beech	16 to 22	9 to 12
Tupelo, Gum	20 to 26	10 to 14
Birch, Ash, Sycamore	15 to 21	9 to 12
Poplar, Basswood, Chestnut, Butternut, Elm, Cherry	8 to 10	4 to 6
Maple, Hickory	17 to 23	9 to 13
Conifers		
Western larch	9 to 12	4 to 6
Cypress, Redwood	10 to 18	6 to 8
Douglas fir, Yellow pine, Incense cedar, Spruce	4 to 6	3 to 4

For stock over 1 inch and not more than 3 inches thick the drying time is proportional to the thickness. For example, 3-inch stock requires 3 times as long to dry as 1-inch stock. Quarter sawed stock requires from 25 to 35 per cent more time to dry than plain sawed. Drying to 10 or 14 per cent moisture content takes from one-fourth to one-third less time than drying to 6 per cent.

JUN 1 0 1920