

TECHNICAL NOTES

FOREST PRODUCTS LABORATORY

U. S. FOREST SERVICE

MADISON, WISCONSIN

LG-11
461

No. F-33

COMPARATIVE DURABILITY OF GREEN AND SEASONED TIMBER

Opinions of wood users have always differed as to the comparative durability of untreated green and seasoned timbers when used for poles, posts, or ties. Recent experiments conducted by the Forest Products Laboratory indicate that there is practically no difference in the relative durability of untreated green and seasoned timbers when exposed to the weather and in contact with the ground.

The following service records of ties laid by the laboratory in cooperation with the Northern Pacific Railway bear out this conclusion.

Life of Green and Seasoned Ties

Place	Species	Green or Seasoned	Average life in years
Maywood, Washington	Douglas Fir	green	7.7
	"	seasoned	7.8
Plains, Montana	"	green	7.6
	"	seasoned	7.7
	Western larch	green	7.3
	Western larch	seasoned	7.4

In each of these cases the average life of seasoned ties was only one-tenth of a year longer than that of the green ties. This difference is obviously so slight as to be negligible.

Periodical measurements on poles made by the laboratory in cooperation with the American Telephone and Telegraph Company show that the rate of decay in green poles is a trifle less than in seasoned poles.

The fact that green and seasoned timber have the same durability when used in exposed places is easily explained. Moisture content is the principal

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factor in determining the rate of decay of a stick of timber. As soon as the timber is placed it begins to take up or give off moisture, according to its condition of seasoning and the conditions of exposure. Within a relatively short time in exposed construction both green and seasoned timber reach the same moisture content.

When used in buildings, however, wood does not usually dry out rapidly after being placed. Wood for interior construction must be seasoned before use; otherwise, it is likely not only to shrink to a serious extent but also to decay before it seasons. Very expensive building repairs have been necessitated by the use of green timber.