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A UTILIZATION GUIDE FOR BLIGHT-KILLED CHESTNUT

The accompanying table, prepared by the U. S. Forest Products Laboratory, lists the main uses for which blight-killed chestnut is suitable, according to the state of the wood when cut. Owners of chestnut timber would do well to consider possible markets in the order in which the products are grouped in the table. Manufacturers or users of these products should give chestnut all possible consideration, for their demands during the next 15 years will determine how much of this valuable wood can be saved from total loss.

The blight which is attacking the entire stand of 35 million acres of chestnut can not be controlled. In ten years the infection will be practically complete and in 15 years there will be little or no sound chestnut left.

For a year or possibly two after death a blight-killed chestnut tree will furnish just as good wood as any cut from a live tree. If the tree is left standing longer than two years the sapwood begins to decay, but the heartwood still remains sound and suitable for a great number of sawed products. In the next stage of deterioration the heartwood begins to dry out and consequently to check. Lastly, if within six years the tree is not cut and taken from the woods the heartwood becomes infected with decay, which destroys its usefulness for practically all purposes except extract wood and fuel.

Only the main classes of outlets for chestnut are shown in the table. A list of 200 specific uses for which chestnut is reported to be satisfactory is available at the Forest Products Laboratory, Madison, Wisconsin.

UTILIZATION GUIDE FOR BLIGHT-KILLED CHESTNUT

Number of years after death of tree	*State of wood when cut*	*Best uses*
0-2	Sapwood and heartwood sound	POLES MINE TIMBERS HIGHWAY AND RAILWAY FENCE POSTS RAILROAD TIES
2-4	Sapwood decayed, but heartwood sound and unchecked	BOXES CRATES CORE STOCK SLACK COOPERAGE YARD LUMBER MILLWORK PLANING-MILL PRODUCTS FURNITURE COFFINS AND CASKETS CABINET WORK WOODENWARE NOVELTIES
4-6	Sapwood decayed; heartwood checked, but sound	ROUGH CONSTRUCTION FARM FENCE POSTS TANNIN WOOD PULPWOOD
6 or more	Heartwood badly checked and infected with decay	FUEL WOOD

Characteristics of chestnut wood. Light to medium weight; moderately soft coarse but even textured; straight grained; dries satisfactorily in air or kiln; moderate shrinkage; easily worked; stays in place well; easily glued; exceptionally durable or resistant to decay.

POLES AND POSTS. Because of its natural durability and good form chestnut is well suited for poles and posts. Over a fifth of the telephone, telegraph, and transmission poles in the United States are chestnut. Trees for poles should be cut while green or as soon after death as possible in order to avoid loss in felling, since dead timber breaks more easily than green. If the timber is dying, it is good practice to cut and store poles even though there be no immediate market. Poles should be peeled and rolled upon skidways, at least a foot and a half above bare ground in a location exposed to the sun and wind. They should not be left close piled, since close piling favors decay. Posts and poles should be given an open-tank treatment with creosote to protect the less durable sapwood in service.

RAILROAD TIES. Chestnut is more resistant to decay than are most tie woods, but not so resistant to mechanical wear. There is usually no advantage in treating chestnut ties with preservatives, as under moderate traffic the untreated ties will resist decay until they wear out and have to be replaced. Chestnut ties wear very rapidly on curves or in roadbeds subject to heavy traffic. They can probably be used to best advantage in branch lines and side tracks, interspersed with better-wearing ties.

BOXES AND CRATES. Chestnut is one of the best woods for boxes and crates. A considerable market can probably be developed for chestnut lumber for use in automobile export. The grade of "wormy chestnut" is nearly as suitable for boxes and crates as the higher grades. **Some foreign countries have quarantine restrictions against lumber showing frequent worm holes.**

CORE STOCK. Because of its ease of gluing, moderate shrinkage, and comparative freedom from warping, chestnut is especially suitable for furniture core stock. Wormy chestnut satisfies the requirements just as well as the higher grades. It is sometimes claimed that the holes permit better adhesion of the glue, but this advantage does not appear in strength tests.

SLACK COOPERAGE. Chestnut is reported to be one of the five leading woods for nail kegs, cement and apple barrels, and other forms of slack cooperage.

FURNITURE AND MILLWORK. Chestnut that is free of worm holes can be used for millwork and planing-mill products, furniture lumber, and cabinet material. Sapwood decay is not a serious drawback in such uses, for the thin outer layer of softened wood is slabbed off in manufacture and the temperatures used in kiln drying will sterilize the stock.

ROUGH CONSTRUCTION. Chestnut that is sap-decayed and quite badly checked may find use locally as farm fence posts and rough construction, for the heartwood, which forms a large proportion of the log, is highly resistant to decay.

TANNIN WOOD. Blight-killed chestnut can be used profitably as a source of tannin. Even dead trees that have stood in the woods until their sapwood has entirely rotted away can be ground up and used for extraction. On a weight basis, the percentage yielded is likely to be even higher in such wood than it is in wholly sound logs, since it is the heartwood that is most productive of tannin.

PULPWOOD. Chestnut has not as yet an established value as a pulpwood. It can be used, however, in the manufacture of paper board, and perhaps in the near future the paper industry will offer a market for chestnut logs, or at least for chestnut chips from which the tannin has been extracted.