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UTILIZATION OF BLUE-STAINED LUMBER

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Blue stain in sap lumber is not a stage of decay. Although it is the work of fungi, it leaves the strength of the wood practically unimpaired for ordinary purposes. Nevertheless, it is an object of natural suspicion and a source of large degrade losses. Proper kiln drying is the only completely effective method now known of preventing blue stain. Certain chemical dips have been used which under ordinary conditions give satisfactory control of blue stain but nothing has yet been found that will give consistent results during the warm rainy season. Until a more effective method of prevention is found for cases where kiln drying is not feasible, loss from staining may be best reduced by the proper utilization of blued stock.

The utilization of blue-stained wood must, however, be undertaken intelligently. Whenever practicable, kiln-dried material should be chosen in preference to air-dried because quite frequently decay producing fungi are associated with those causing stain, and kiln drying usually kills both classes of organisms.

Since wood destroyers thrive under conditions that favor the bluing of wood, heavily stained material should be examined carefully for signs of decay. If this is done and specific uses are suggested by the dealer, a greater confidence in decay-free blued stock will result.

Blue stain is freely accepted in rough lumber, lath, scantling, plank, and some of the larger sizes of dimension. More could well be used, where sapwood is not objectionable, in the manufacture of inside doors, trim, finish, millwork, and other products, when the discolored wood is to be painted or otherwise hidden from view.

As blemish in any degree would destroy the beauty of the grain of the wood, bright, stain-free stock is highly desirable for a large variety of uses requiring a natural finish. But for many purposes where the wood is to be covered, stained or painted and where conditions of exposure permit the use of sapwood, there is no reason for discriminating against blued stock if it is free of decay. The following list of present or suggested uses for blue-stained material is to be applied under the restrictions stated above and according to best judgment in each case:

Automobile and vehicle parts	Patterns and flasks
Boxes and crates	Paving blocks
Car construction	Picture frames, moldings
Casings and baseboard	Rafters
Caskets and coffins	Rail and balusters
Ceiling	Sash
Concrete forms	Scaffolding
Core stock	Screens and screen doors
Doors	Sheathing
Falsework	Shelving
Finish	Stairs and stepping
Furniture and casegoods	Structural timbers
Joists	Studding
Lath	Subflooring
Partition	Toys and turnings

Surface Signs of Molds and Wood Destroyers

The recognition of decay associated with sap stains is difficult, particularly when decay is in the early stages or when staining is heavy.

The fungi inhabiting wood and causing blemishes, stains, and decay may be classified as molds and wood-destroyers.

The molds are commonly found on sapwood and are characterized by cottony or downy surface growths of various colors, sometimes powdery. They apparently

affect the strength of wood only slightly if at all. Some molds cause no direct staining of the wood but produce blemishes due to their variously colored surface growths. These blemishes are readily planed off and in some cases can be brushed off. Other molds, such as the blue stain fungi, cause stains deeper in the wood which cannot be surfaced off.

The wood-destroyers are found in both heartwood and sapwood and are the direct cause of decay, rot, or dote. The surface growths of these fungi are usually fluffy and glistening, compacted into strands, fan-shaped patches, or definite surface crusts, and usually lack the powdery masses so common to the molds. The presence of toadstools, conk or bracket growths, or a decided softening of the wood are positive signs of decay. The softening, however, varies with the stage of rot; little or no softening may occur in the early stage of decay although an appreciable decrease in strength may already have taken place.