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STICKERING OF WESTERN SOFTWOODS FOR AIR SEASONING

The degrade of western softwood lumber during drying, which now constitutes the largest single item in the cost of air seasoning, can be reduced by proper stickering. This fact was brought out in a recent air-seasoning study conducted by the U. S. Forest Service at mills on the west coast. A summary of the results of the study is given below.

KIND OF STICKERS. Redwood stickers are used in the drying of redwood lumber. Redwood is not subject to fungus stain, and it makes little difference whether the stickers used are green or seasoned. In drying pine or any stock that stains, it is better practice to use seasoned stickers, preferably of some non-staining stock such as white fir, Douglas fir, or heart pine. The upper grades of pine lumber especially should be stickered with bright, seasoned stickers. Fir and heart pine stickers may be used several times, but in general it is best to keep stickers moving through the yard. Rough stickers have several advantages over surfaced stickers. Once dropped in piling the stock, they do not slide out of position. Less sticker stain was found in lumber stickered with rough stickers than was found with smooth stickers. Rough stickers that get weathered or lightly stained can be surfaced without loss of footage and sold as bright stock.

SIZE OF STICKERS. One by four-inch stickers are desirable from the standpoint of decreasing checking. They may be doubled in the lower half of the pile to increase the drying rate and decrease the staining that is likely to occur there. The doubling of stickers is

especially desirable in the parts of piles extending below the level of trams. If stain occurs to a very objectionable degree in the upper half of the pile as well as in the lower half, it is advisable to use 2 by 4-inch stickers throughout the pile. This practice has the further advantage that if so desired the stickers, after becoming weathered during use, may be surfaced and sold as 2 X 4's. Stickers narrower than 4 inches have several disadvantages. They press into the lumber, they slow up piling because of the increased difficulty in placing them so that each sticker is in line with the one below it, and they are not wide enough to overlap the ends of the boards to afford protection against sun and rain. Wide stickers check badly and often cause the stock to check, they are degraded more in drying than are stickers 4 inches wide, and they increase stain in the stock. Wide stock consequently should not be self-stickered.

NUMBER OF STICKERS. The use of many stickers in lumber that sticker stains is poor practice. Three stickers to the course is sufficient in 16-foot stock. In shop lumber, if four or five stickers are used and stain develops, no unstained primary cuttings (7 feet long) can be cut from the board. Boards that are not long enough to reach the end sticker in piles with only three stickers will not bow enough to be degraded.

SPACING OF BOARDS IN THE COURSE. Local climatic conditions determine very largely what is the best spacing of boards in the course. In general very narrow spacing increases staining, and very wide spacing increases checking. If drying conditions are severe, narrow spacing may be desirable. If drying conditions are very mild, staining may be decreased and drying speeded up by increasing the spacing between boards to 5 or 6 inches. Increases in the spacing beyond 5 or 6 inches do not result in appreciable increases in the drying rate, and if it is desirable to dry lumber faster than it will dry

with 6-inch spacing, the pile should be opened up by some other means, such as double stickers or a ventilating chimney in the pile.

DOUBLE DECKING. Some grades of redwood and fir are often piled with two or more layers of boards to each layer of stickers. This practice is designed to slow down drying, speed up piling, and allow the piling of more lumber in each pile. Drying is slowed down by double decking, but the drying is so uneven that considerable degrade results from cupping of the boards. The exposed faces of double-decked boards dry rapidly and the interior faces dry slowly, so that the top board usually cups up and the bottom board cups down. Cupping is a rather serious defect, for cupped lumber run through the planer is very liable to split. If it is necessary to slow up drying by closing up the pile it is better to put more boards in each course or to use thin stickers than to double deck lumber.