

California Avocado Society 1943 Yearbook 28: 25

Characteristics of Avocado Wood

At the Annual Meeting some discussion developed with respect to the characteristics and possible economic uses of the wood of the avocado tree. It was suggested that the subject be investigated.

Accordingly an inquiry was addressed to the U. S. Forest Products Laboratory at Madison, Wisconsin. Mr. Geo. C. Norbeck, Wood Technologist of that institution, replied that very little information about avocado wood was available, but that certain tests would be made and a report rendered provided he be furnished with suitable samples of wood.

Through the courtesy of Messrs. Rounds and Home of the Citrus Experiment Station at Riverside, an avocado tree of the Guatemalan race was cut down and a section of the trunk sent to Madison. In due time the following report was received.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE FOREST PRODUCTS LABORATORY

Madison, Wisconsin

July 24, 1943

Dr. J. Eliot Coit

California Avocado Society

Dear Sir:

Reference is made to our letter of June 22 acknowledging receipt of a section of Guatemalan avocado wood for testing. The tests have been completed.

The specific gravity of the sample submitted is .59, indicating that the wood has about the density (weight) of red maple and American elm, which are classed as medium in that property. Shrinkage of the wood across the annual growth rings (radial shrinkage) is about 3.2 per cent; shrinkage along the growth rings (tangential shrinkage) is about 5.5 per cent; volumetric shrinkage 15.7 per cent. Shrinkage figures indicate that the wood is similar to chestnut, aspen, and bigleaf maple in the above except that the volumetric shrinkage is somewhat greater than that of the species named. The radial-tangential shrinkage ratio (1.7) and high volumetric shrinkage indicate only moderate stability of the wood with fluctuating moisture content in service. However, a low radial-tangential shrinkage ratio is not always an accurate criterion of stability in wood, and cannot be fully relied upon in the absence of more exhaustive tests.

The wood was kiln dried to about 7 per cent moisture content without noticeable seasoning defects, which indicates that when properly handled the wood can probably be dried with little seasoning damage.

The sample sent is fine and even-textured. It surfaces smoothly, and from its appearance should take decorative finishes well. The wood has no particular figure although a perceptible sheen is rather attractive.

Strength properties of the wood, based upon specific gravity which is commonly a fair criterion, should be similar to those of the white birches, red maple, American elm, and the southern gumwoods, all of which may be classed as moderate in those characteristics. There is enclosed a table of comparative strength properties of woods, which will give you an idea of how avocado compares with other woods in properties in which comparisons can be made.

The information presented must be considered as applying strictly to the sample submitted, and, therefore, as very general in character. A sample from another tree or even from another part of the same tree may show somewhat different results.

Very truly yours,

C. V. SWEET,

Chief, Division of Industrial Investigations

By Geo. C. Norbeck, Wood Technologist