



American Hardwoods™

www.HardwoodInfo.com

Don't Be Misled by Imitators

AMERICAN HARDWOODS

Maturity is reached in 40–50 years. According to the USDA Forest Service, there were 131% more hardwood trees in 2017 than in 1953, and the growth-to-removals ratio is 2.3 (Forest Resources of the United States, 2017).

Energy usage during manufacturing is limited to running a saw blade.

No emissions for methane, nitrogen oxides, and other particulate matter, and minimal emissions for carbon dioxide (Bergman and Bowe, 2008).

Virtually every part of a log is used as lumber or by-products (including bark, sawdust, and scrap); finished products can be repurposed or used as a combustible fuel.

Standards, established and managed by U.S. associations, regulate the quality of American hardwood products.

American hardwood trees in healthy forests sequester CO₂ from the atmosphere—storing the carbon and releasing oxygen. And through harvesting, manufacturing, and transporting, hardwood remains a carbon-negative material.

American hardwoods can be regionally sourced and shipped.

American hardwoods come in a variety of species and lumber grades, offering various color, pattern, and character marks to satisfy any design scheme.

A solid American hardwood floor can last 125 years or longer with several refinishinges.

Finished American hardwood products can be repurposed or used as a combustible fuel. Even in a landfill, hardwoods will revert back to nature.

BAMBOO

Maturity is reached in 5–7 years. There are over 1,600 known species, but only several are suitable for flooring and panels. Non-suitable species and immature plants yield products that lack appropriate hardness.

Because bamboo is not a hardwood but a grass, its strips must be compressed with chemical-based glue, under extreme pressure, to be bound together. Glue content can range from 3–20%.

Lower grade bamboo products often use formaldehyde resins in the gluing process, which can lead to formaldehyde off-gassing.

High quality manufacturing techniques use only 65% of the raw material; traditional manufacturing utilizes only 35%. The remaining material is wasted, usually burned.

In China, where the majority of bamboo products originate, there are no organizations governing quality.

Bamboo grass stores carbon during the growth cycle, but—due to extensive energy required to process and manufacture its products—bamboo is not a carbon-neutral material.

Most bamboo is grown and manufactured in Southeast Asia. Shipping products half way around the world adds significant hydrocarbons to the atmosphere.

Bamboo products, flooring, and panels come in vertical- and flat-grain patterns and generally are a light, honey or natural color.

According to manufacturers, bamboo flooring should last 30–50 years.

Because of the high glue content, bamboo products will remain intact in a landfill almost indefinitely.

Sustainability

Energy Consumption

Off-Gassing

Material Utilization

Quality

Carbon Sequestration

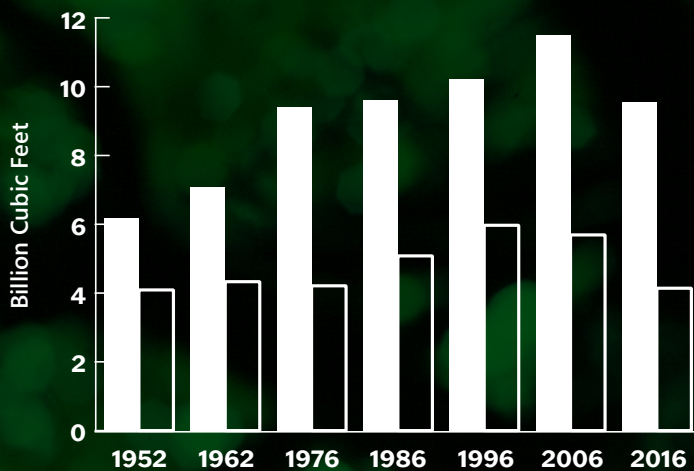
Shipping

Aesthetics

Life Span

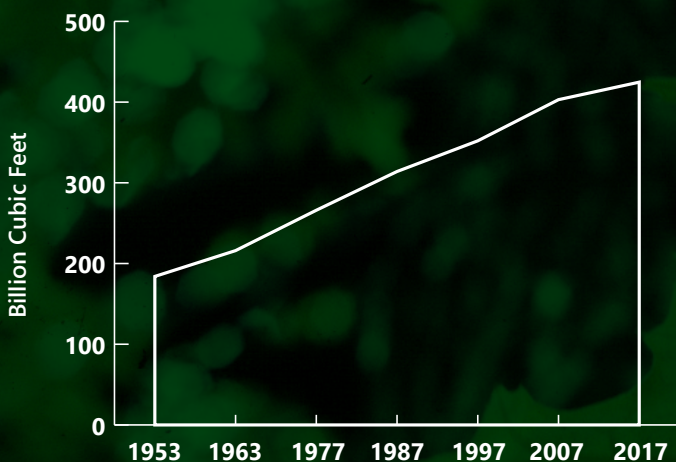
After Useful Life

Hardwood **Growth** Vs. Removal in the U.S.



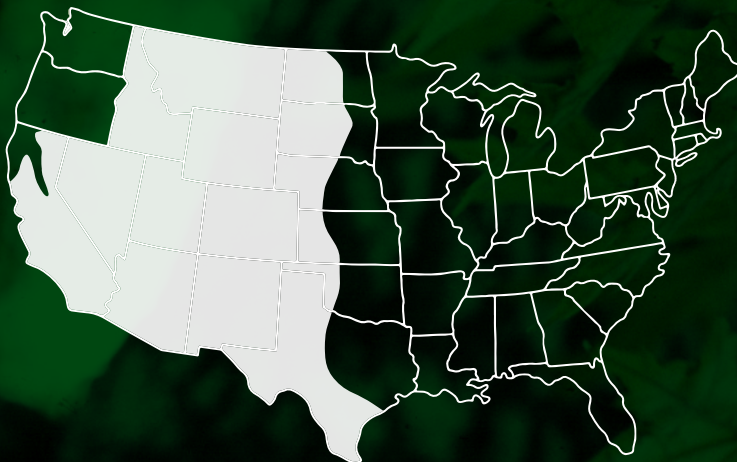
The balance between net growth and removals provides an estimate of timber sustainability. The growth-to-removals ratio ($G:R = \text{net growth} / \text{growing-stock removals}$) quantifies this balance. The G:R for hardwoods in 2016 was 2.3.

Hardwood Forest Volume in the U.S.



In 2017, the volume of hardwood in U.S. forests totaled 425 billion cubic feet, an increase of 131% since 1953.

☐ Where Hardwoods Grow



Of all U.S. hardwood timber volume, 90% is concentrated in the eastern part of the country. All hardwood forests in the continental U.S. are temperate, not tropical. They are home to the oaks, maples, cherry, ash, poplar, and scores of other broad-leafed deciduous species.