

Hardwood Lumber and Veneer Series



Black Gum and Tupelo

FNR-298-W

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EXPERT
REVIEWED

Black gum, or black tupelo (*Nyssa sylvatica* Marsh.), a variety called swamp tupelo, or swamp black gum (*Nyssa sylvatica* var *biflora* (Walt.) Song., and water tupelo (*Nyssa aquatica* L.) are a group of closely related and confusing species and varieties. They are usually thought of as southern species because most grade lumber is produced in the south.

Black gum is a medium-sized, wide ranging tree that makes its best development on moist alluvial soils, but it also grows on dry upland sites. It can be associated with numerous hardwood and softwood species. Swamp black gum grows in southern swamps and is probably the source of most black gum lumber produced. Water tupelo (*Nyssa aquatica* L.) is a large tree with a buttressed base and grows in deep water swamps with cypress. The buttressed portion of the tree develops very light-weight wood. The largest reported water tupelo is nearly 9 feet in diameter at 4½ feet above the ground.

Black gum ranges from southern Maine to nearly the tip of Florida to east Texas and north across southern Illinois, nearly all of Indiana to central Michigan and back east, except in the lower Mississippi River bottom. The largest reported black gum is a little over 6.1 feet in diameter at 4½ feet above the ground. By comparison, swamp black gum has a much more restricted range. It may be found in the coastal plain from southeast Virginia southward to Georgia and then across the coastal plains on the Gulf of Mexico to east Texas and up the Mississippi, Ohio, and Wabash River bottom to southern Indiana. It can also be found isolated in areas of Alabama. The largest reported swamp tupelo gum is



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Black gum tree

a little over 6 feet in diameter at 4½ feet above the ground.

Wood Color and Texture

The pores, growth rings, and rays are all indistinct, making black gum a very fine-textured

wood. The grain is usually interlocked so a distinct ribbon figure shows on the quartered surface.

The sapwood is white to grayish white with a somewhat greenish or brownish gray heartwood.

Workability

Black gum is rated intermediate in shaping and boring but relatively low in planing and turning. Woods with an interlocked grain pattern like black gum are difficult to plane.

Strength

At 12 percent moisture content, black gum weighs 34.9 pounds per cubic foot, an intermediate weight. Its strength properties are also on the low end for intermediate weight woods.

Steam Bending

The wood is not rated as particularly good for bending.

Drying

The wood can be dried with a relatively severe kiln schedule.

Shrinkage

Although an intermediate weight wood, black gum has a substantially high shrinkage, close to that of red oak. It also typically has an interlocked grain pattern; and for that reason, special procedures such as a close sticker spacing and top weight of the lumber packs need to be taken to insure flat stock during drying.

Decay Resistance

The wood has no resistance to decay.

Commercial Use, Grading and Value

The wood has had a variety of uses, many of which are more practical than aesthetic. These include concealed parts in furniture, veneer for containers, plywood, pulp, railroad ties, and lumber for boxes, crates, and pallets.

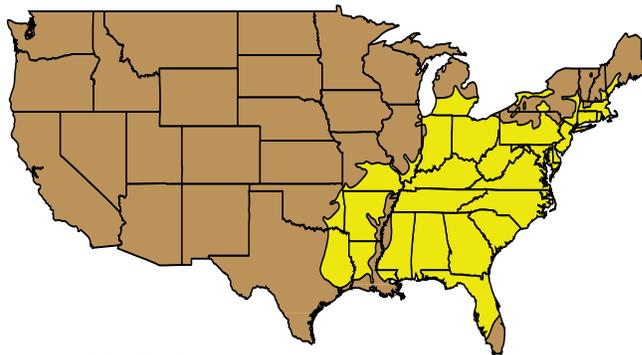
Black gum and sap gum from the sweetgum tree are graded standard except stain is admitted in No. 2B Common and better grades unless otherwise specified. In No. 3A Common, the cuttings are only required to be sound rather than clear. In addition, there are grading rules for quartered black gum and quartered black gum with ribbon stripes. Specific details are given in the NHLA Rules for the Measurement and Inspection of Hardwood and Cypress.

Black gum is one of the lowest priced woods, and in that respect comparable to sap gum.

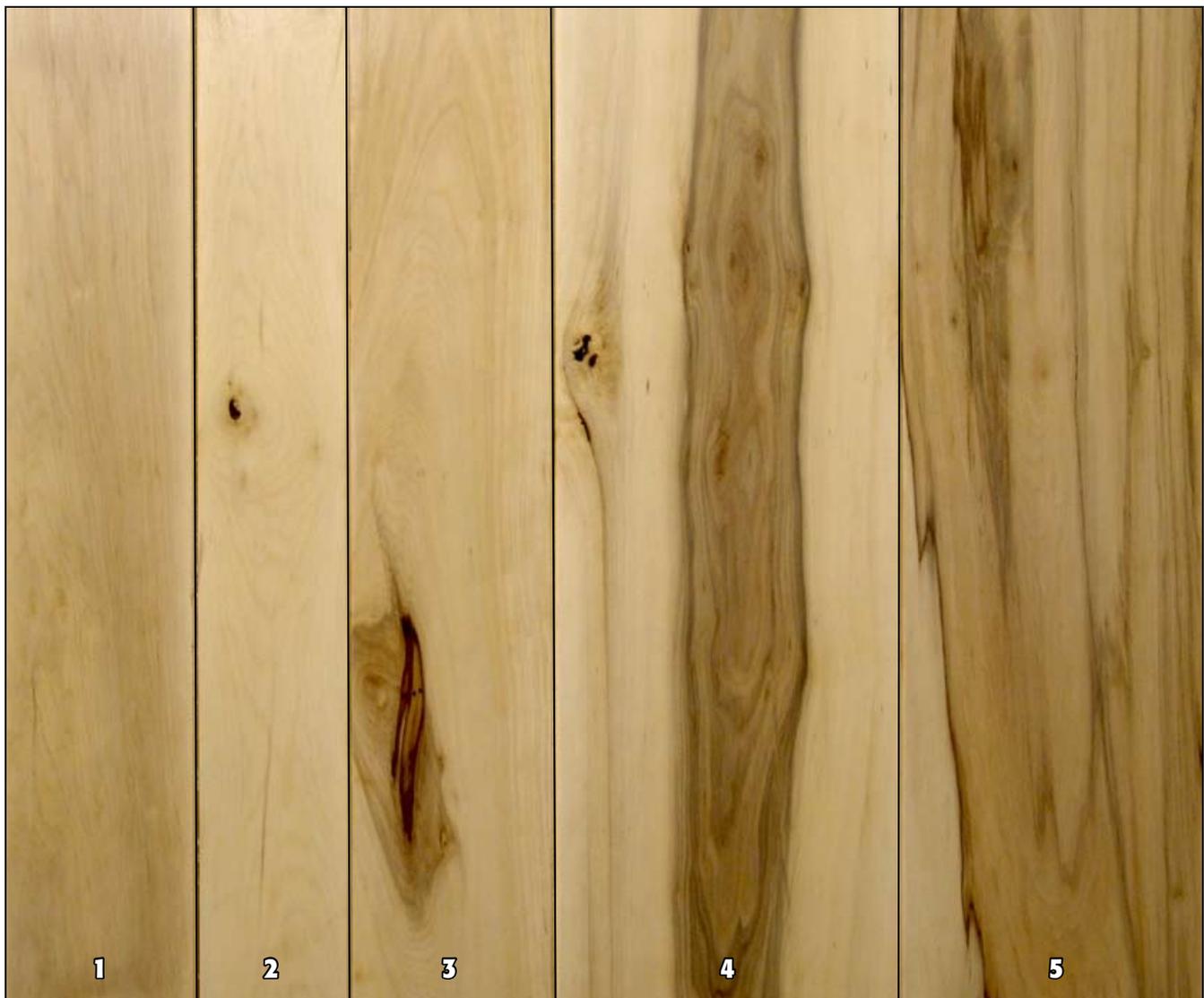
Other Considerations

Although black gum ranges throughout the central Midwest (from southeastern Illinois to central Michigan and east), it is not typically a common species. In the region, most mills process it into pallet cants or other low-valued industrial uses.

As a diffuse porous wood with very small pores, the sapwood appears similar to that of soft maple. The wood is somewhat more yellow and shows virtually no evidence of growth rings as compared to some growth ring pattern for soft maple. Most grade lumber comes from the southern United States.



Range of the black gum



Chip Morrison

Black gum is a relatively heavy uniform wood. The pores and rays are very small. The sapwood is easily stained by both fungal and oxidation stain. When the sapwood is white, it appears somewhat like hard maple. Because the wood warps easily when drying, it is of low economic value and not commonly used.

Board 1 is clear and has a uniform grain pattern. It also has some darkening from oxidation stain. The whiter colored wood can be seen in a small area at the top of the panel and also in a narrow strip along the right edge.

Board 2 is lighter in color; it shows two typical knots and clusters of much smaller grain distortion probably caused by sprouting on the stem.

Board 3 shows holes and stain from the Columbian Timber Beetle, also more common in soft maple.

Board 4 is nearly quartered and shows the darker colored variegated heartwood. Board 5 is mostly heartwood. The heartwood is more of a grey color until finished.

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