## technology transfer fact sheet



Center for Wood Anatomy Research USDA Forest Service • Forest Products Laboratory • One Gilford Pinchot Drive • Madison, Wisconsin 53705–2398

## Taxodium distichum (L.) Rich. Family: Taxodiaceae Baldcypress

Baldcypress (*Taxodium distichum*) is one of two species in this genus. The other, *Taxodium mucronatum* is native to Mexico, Guatemala and the southern most part of Texas. The word *taxodium* is derived from *Taxus* (yew) and a suffix meaning like, referring to the yewlike leaves. The word *distichum* means two-ranked, referring to the leaves being in two rows.

**Other Common Names:** Amerikanische zypresse, amerikansk cypress, bald cypress, **baldcypress**, black cypress, buck cypress, canoe water pine, Chinese swamp cypress, cipres americano, cipres calvo, cipres de pantano, cipres pond, cipresso calvo, cipresso del sud, cipresso delle paludi, cipresso pond, common bald cypress, common-baldcypress, cow cypress, cupresso delle paludi, cypres chauve, cypres de la Louisiane, cypres de Louisiane, cypres pond, cypress, deciduous cypress, gulf cypress, gulf red cypress, knee cypress, Louisiana black cypress, Louisiana cypress, Louisiana red cypress, moeras-cypres, moerascypres, pecky cypress, pond bald cypress, pond baldcypress, sump-cypress, sumpcypress, sumpfaxodie, sumpf-zypresse, Sumpfzypresse, swamp cypress, taxodier chauve, tidewater red cypress, upland cypress, virginische sumpfzedar, white cypress, yellow cypress, zweizeilige Sumpfzypresse.

**Distribution:** Baldcypress grows in swampy areas along the Atlantic coast from Delaware to southern Florida, west along the Gulf Coast to southeastern Texas and along the Mississippi river valley to southeastern Illinois. About one-half of the cypress lumber comes from the Southern States and one-fourth from the South Atlantic States. It is not as readily available as it was several decades ago.

**The Tree:** Baldcypress trees can reach heights of 150 feet, with diameters of 12 feet and an age of 2000 years. Most commonly, however, it grows to about 100 feet, 5 feet in diameter, and an age of 500 years. When grown in wet conditions, the tree produces "knees"; extensions of the roots which grow above the ground and the surface of the water and allow oxygen to reach the roots.

**General Wood Characteristics:** The sapwood of baldcypress is narrow and nearly white. The color of the heartwood varies widely, ranging from light yellowish brown to dark brownish red, brown, or chocolate. The wood is moderately heavy, moderately strong, and moderately hard. The heartwood of old-growth timber is one of our most decay-resistant woods; but second-growth timber is only moderately decay resistant. Shrinkage is moderately small, but somewhat greater than that of the cedars and less than that of southern pine.

Frequently the wood of certain baldcypress trees contains pockets or localized area that have been attacked by a fungus. Such wood is known as "pecky" cypress. The decay caused by this fungus is arrested when the wood is cut into lumber and dried. Peck cypress, therefore, is durable and useful where water tightness is unnecessary, and appearance is not important or a novel effect is desired. Examples of such usage are as paneling in restaurants, stores, and other buildings.

				Cor	npression			
	Specific gravity	MOE x10 <sup>6</sup> lbf/in <sup>2</sup>	MOR lbf/in <sup>2</sup>	Parallel lbf/in <sup>2</sup>	Perpendicular lbf/in <sup>2</sup>	WML <sup>a</sup> in-lbf/in <sup>3</sup>	Hardness lbf	Shear lbf/in <sup>2</sup>
Green	0.42	1.18	6600	3580	400	6.6	390	810

Mechanical Properties (2-inch standard)

Dry	0.48	1.44	10600	6360	730	8.2	510	1000	
<sup>a</sup> WMI Work to movimum lood									

<sup>a</sup>WML = Work to maximum load. Reference (59).

## Drying and Shrinkage

	Percentage of shrinkage (green to final moisture content)				
Type of shrinkage	0% MC	6% MC	20% MC		
Tangential	6.2	5.0	2.1		
Radial	3.8	3.0	1.3		
Volumetric	10.5	8.4	3.5		
References: (56, 184, 192).					

Kiln Drying Schedules<sup>a</sup>

Conventional temperature/moisture content-controlled schedules<sup>a</sup>

Condition	4/4, 5/4	6/4	8/4	10/4	12/4	British schedule
	stock	stock	stock	stock	stock	4/4 stock
Standard	T12-E3	NA	T11-D2	T8-A4	T8-A4	К

<sup>a</sup>Reference (28, 185).

**Working Properties:** Baldcypress has moderate strength, hardness and pliability. Sharp tools are necessary to prevent raised grain. It nails and glues well and is high in paint holding ability.

Durability: It is rated as resistant to very resistant to heartwood decay (12).

**Preservation:** Moderately resistant to preservative treatment (7).

**Uses:** Baldcypress has been used principally for building construction, especially where resistance to decay is required. It was used for beams, posts, and other members in docks, warehouses, factories, bridges, and heavy construction. It is well suited for siding and porch construction. It is also used for caskets, burial boxes, sash, doors, blinds, and general millwork, including interior trim and paneling. Other uses are in tanks, vats, ship and boat building, refrigerators, railroad-car construction, greenhouse construction, cooling towers, and stadium seats. It is also used for railroad crossties, poles, piles, shingles, cooperage, and fence posts.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

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