technology transfer *fact sheet*

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Nyssa spp.
Family: Nyssaceae

Tupelo

Tupelo contains about 5 species native to the United States [3] and eastern Asia [2].

Nyssa aquatica-Bay-poplar, Bastard Cottonwood, Big Tupelo, Bowl Gum, Chickasawatchie Whitewood, Cotton-gum, Gray Gum, Gum Cottonwood, Hickory Poplar, Ladle Gum, Large Tupelo, Olivetree, Pawpaw Gum, Rootwood Tupelo, Sap Gum, Sour Gum, Swamp Gum, Swamp Poplar, Swamp Tupelo, Trade Tupelo, Tupelo Gum, Water Gum, Water Tupelo, White Gum, Wild Olivetree, YellowGum

Nyssa ogeche-Gopher Plum, Limetree, Ogeechee Lime, Lone Tupelo, Ogeechee Plum, Ogeechee Tupelo, Sour Tupelo, Sour Tupelo Gum, White Tupelo, Wild Limetree

Nyssa sylvatica-Blackgum, Black Tupelo, Bowl Gum, Gum, Pepperidge, Plain Black Gum, Quartered Black Gum, Sour Gum, Stinkwood, Swamp Blackgum, Swamp Tupelo, Tupelo Gum, Yellow Gum, Yellow Gumtree, Wild Pear-tree

Nyssa sylvatica var. *biflora*-Blackgum, Swamp Blackgum, Bouw Gum, Lowland Black Gum, Lowland Gum, Sour Gum, Southern Gum, Swamp Black Gum, Swamp Tupelo, Tupelo Gum, Water Gum,

Distribution

The eastern to southeastern United States.

The Tree

Tupelo trees reach heights of 100 feet, with a diameter of over 3 feet.

The Wood

General

The sapwood of Tupelo is a light gray brown, while the heartwood is darker. It has interlocked grain, with a natural tendency to warp when dries, especially when flat sawn. It shows a characteristic figure when quartersawn. It has no characteristic odor or taste. It is moderately strong, but difficult to glue.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE GPa	MOR MPa	Compression Parallel MPa	Compression Perpendicular MPa	WML[a] kJ/m^3	Hardness N	Shear MPa
				Nyssa aquatica (water tupelo)				
Green	0.46	7.2	50.3	23.2	3.31	57	3,158	8.20
Dry	0.50	8.7	66.2	40.8	6.00	48	3,914	10.96
				Nyssa sylvatica (black tupelo)				
Green	0.46	7.1	48.3	21.0	3.31	55	2,847	7.58
Dry	0.65	8.3	66.2	38.1	6.41	43	3,603	9.24

[a]WML = Work to maximum load.
[b]Reference (98).
[c]Reference (59).

Drying and Shrinkage

	Percentage of shrinkage (green to final moisture content)		
Type of shrinkage	0% MC	6% MC	20% MC
	Nyssa aquatica (water tupelo)		
Tangential	7.6	6.1	2.5
Radial	4.2	3.4	1.4
Volumetric	12.5	10.0	4.2
	Nyssa sylvatica (black tupelo)		
Tangential	8.7	6.2	2.6
Radial	5.1	3.5	1.5
Volumetric	14.4	11.1	4.6

References: 0% MC (98),
6% and 20% MC (90).

Kiln Drying Schedules[a]

	Stock				
Condition	4/4, 5/4, 6/4	8/4	10/4	12/4	16/4
	Nyssa sylvatica (water tupelo)				
Standard	T12-E5	T11-D3	T11-D3	T9-C2	T7-C2
	Nyssa sylvatica var *biflora* (black gum)				
Standard	T10-E3	T8-D2	–	–	–

[a]References (6, 86).

Working Properties: It is moderately strong, but difficult to glue.

Durability: It lacks any natural durability.

Preservation: It is easily penetrated with preservatives.

Uses: Furniture, shipping containers, millwork, veneer, plywood, cross ties, bridge ties and crossing planks.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

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