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MISSISSIPPI

SOIL SUITABILITY FOR HARDWOODS IN THE MISSISSIPPI DELTA

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This report shows the suitability of Mississippi Delta soils for growing hardwood timber.

The Mississippi Delta, lying in the flood plains of the Mississippi River, originated in alluvial material washed down from northern lands between the Appalachian and Rocky Mountains. The soils are fertile, and, under proper management, some of the best producers of high-quality hardwood timber.

Table 1 estimates the suitability of the principal Delta soils for growing native, commercially important hardwoods and

baldcypress. Solid black blocks indicate species that occur frequently and that are worth favoring in management of natural stands. Grey blocks indicate common species that should be managed but not favored. Dots show species occurring only occasionally on a particular soil; here

¹Stoneville Research Center, maintained by the Southern Forest Experiment Station, Forest Service USDA, in cooperation with the Delta Branch of the Mississippi Agricultural Experiment Station and the Southern Hardwood Forest Research Group.

again, black means "favor", grey indicates "manage, but do not favor."

The grey blocks or dots are common species that should be managed and harvested at the first profitable opportunity, but in the future they should not be favored as a component of future stands.

The table was compiled from the observations, experience, and limited research of hardwood specialists familiar with Delta soils and trees. The conclusions are somewhat subjective, and may be altered by the results of future research.

See chart on other side

Table 1.--Suitability of Delta soils for southern hardwoods and cypress

Important commercial species ^{1/}	Recent natural levee soils			Old natural levee soils			Slackwater soils		Depressional soils		Bottom land from loess			Bottom land from mixed loess and Coastal Plain soils			Terraces from loess and mixed materials			
	Crevasse	Robinsonville, Commerce	Mhoon	Beulah, Bosket	Dubbs, Dundee	Forest-dale	Bowdre, Tunica	Sharkey, Alligator	Ark	Dowling, Souva	Vicksburg, Collins, Morganfield, Adler	Falaya, Inglefield	Waverly, Caseyville	Shannon, Hymon	Ina	Beechy	Lintonia, Dexter	Freeland, Richland, Pearson	Hatchie, Olivier, Brittain	Carroll, Calhoun, Almo
Ash, green	●	●	■		●	■	●	■			●	■		●	■			●	●	
Baldcypress						●		●			●	■			●	■				
Cottonwood, eastern	■	■	■	●	●	●	■	■	●	●	■	■	●	●	●	●	●	●	●	
Elms, slippery & Am.	■	■	■	●	●	■	■	■	●	■	■	■	●	■	■	■	●	●	●	
Hackberry	●	■	■	●	●	■	■	■	●	●	●	●	●	●	●	●	●	●	●	
Hickories (exc. water)				●	●	●						●	■	■	■	■	■	■	■	
Hickory, water					●	■		●	■		●	■			●	■			■	
Honeylocust	●	●			●	■		●	■	●	■	■		●	■			●	■	
Maple, red					●	■	■	■	●	■	■	■	●	■	■		●	■	■	
Maple, silver		●	■																	
Oak, cherrybark	●	●	●	■	■	■	■	■	●	●	■	■	■	■	■	■	■	■	■	
Oak, laurel						●		●	■	●	●	●	●	●	●	●		●	●	
Oak, Nuttall			●		●	■	■	■	●	●	●	■	■	●	●	●	●	●	●	
Oak, overcup			●		●	■	■	■	●	●	■	■	■	●	●	■	■	■	■	
Oak, Shumard				●	■	■	■	■	●	●	■	■	■	●	●	■	■	■	■	
Oak, swamp chestnut				●	■	■	■	■	●	●	■	■	■	■	■	■	●	■	■	
Oak, water	●	●	■	■	■	■	■	■	●	●	■	■	■	■	■	■	■	■	■	
Oak, white																				
Oak, willow				■	■	■	■	■	●	●	■	■	■	●	●	●	●	●	●	
Pecan	■	■	■	●	●	●	●	●		●	■	■	■	●	●	■	■	■	■	
Persimmon, common		●		●	●	■	■	■	●	●	■	■	■	●	●	■	■	■	■	
Sassafras				■	■	■	■	■		●	■	■	■	●	●	■	■	■	■	
Sweetgum	●	■	■	■	■	■	■	■	●	●	■	■	■	■	■	■	■	■	■	
Sycamore, American	■	■	■	■	■	■	■	■	●	●	■	■	■	■	■	■	■	■	■	
Tupelo, black				■	■	■	■	■		●	■	■	■	●	●	■	■	■	■	
Tupelo, water									■	■	■	■	■	●	●	■	■	■	■	
Walnut, black					●	●				●	■	■	■	●	●	■	■	■	■	
Willow, black	●	●	■			●	■	■	■	■	■	■	■	●	●	■	■	■	■	
Yellow-poplar											●	■	■	■	■	■	■	■	■	

1/ Common names are those found in Agriculture Handbook 41, U.S. Department of Agriculture. 1953.

POST AND SPECIALTY: Black locust, flowering dogwood, and Osage-orange on well-drained soils; mulberry on all soils.

LIMITED COMMERCIALY OR IN OCCURRENCE: Boxelder, cedar elm, winged elm, river birch, American holly, post oak, swamp cottonwood, buckeye, Kentucky coffeetree, bur oak, catalpa, and chinaberry.

WEED SPECIES: Eastern hophornbeam, American hornbeam, swamp-privet, planertree, hawthorn, and roughleaf dogwood.



Occurs frequently; favor for management

Occurs occasionally; favor.



Occurs frequently; manage, but do not favor.

Occurs occasionally; manage, but do not favor.