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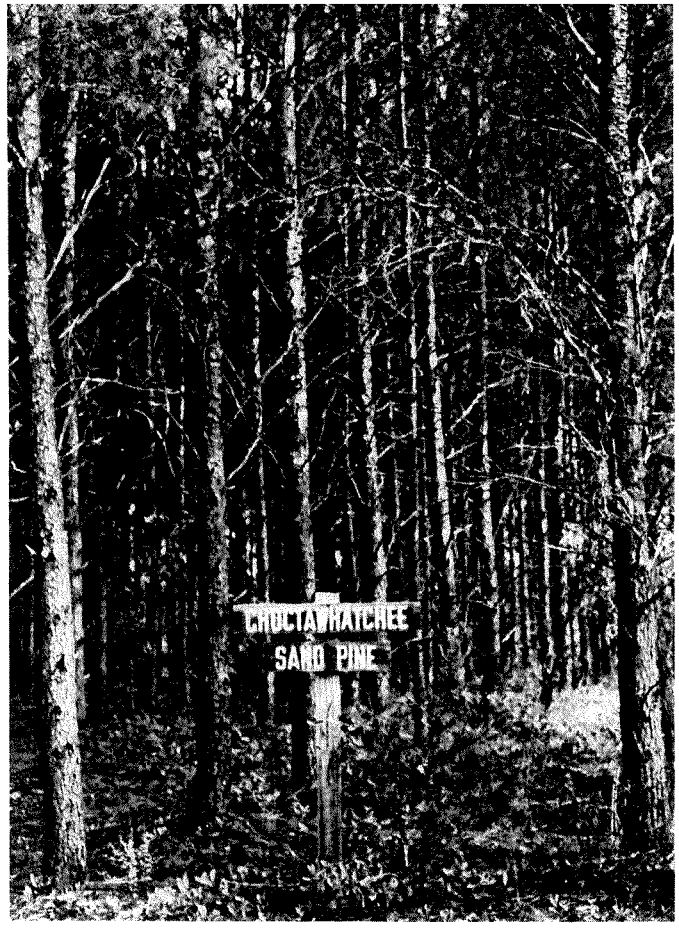
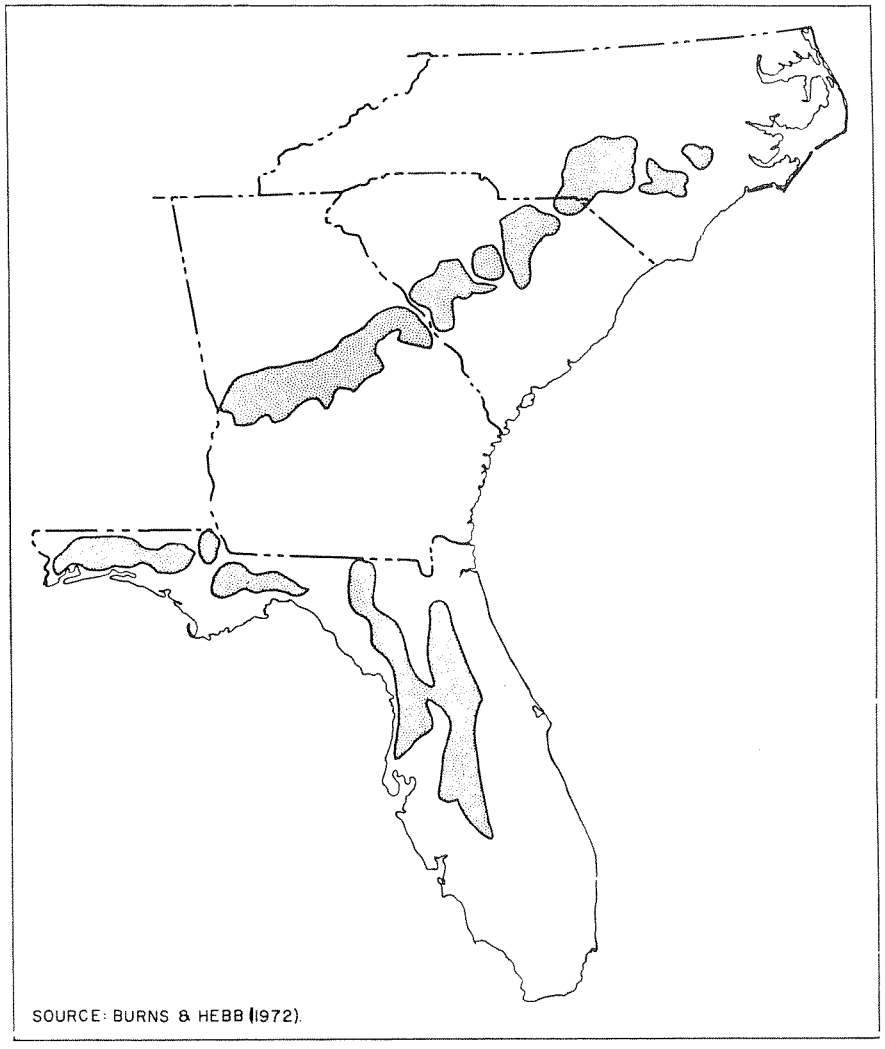


Southeast Sandhills Can be Productive

Management Alternatives For Pines (Slash, Longleaf, and Sand).

U.S. Department of Agriculture
Forest Service



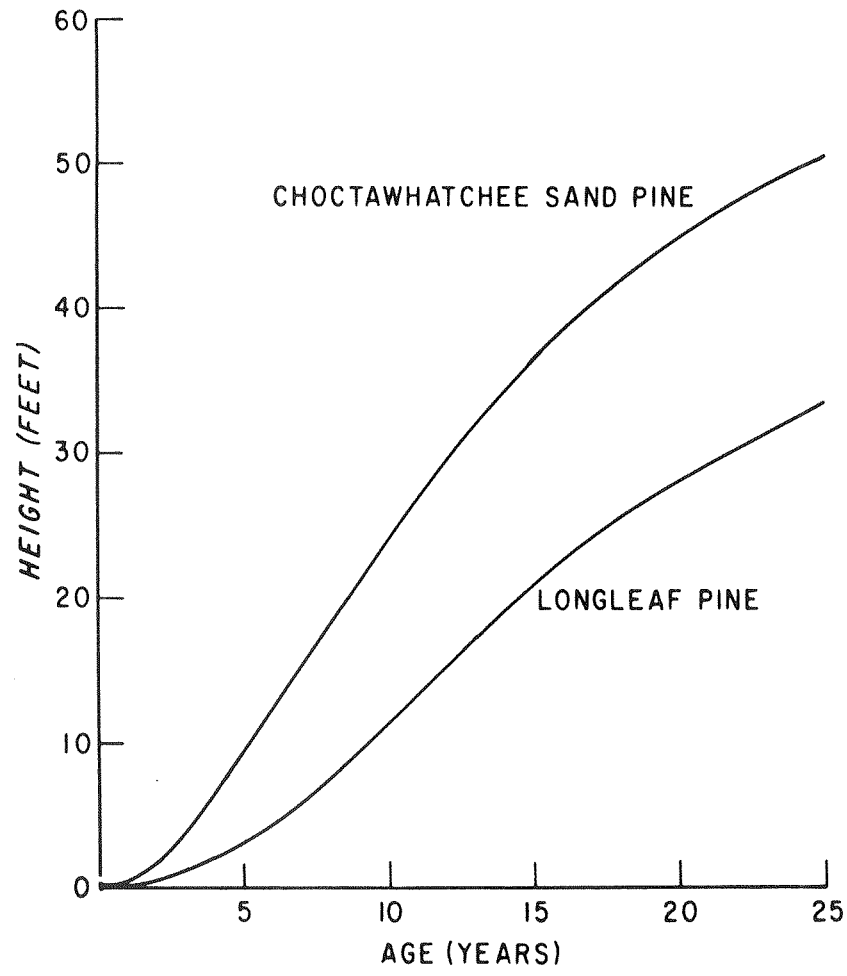
Location of sandhill soils from North Carolina to Florida.

Cover Photo:

Choctawhatchee sand pine in species comparison test at Chipola Experimental Forest, 4 miles west of Clarksville, Florida. At age 21, 94 percent (659 trees per acre) survived with an average height of 48.5 feet and an average diameter of 5.7 inches.

SOUTHEAST SANDHILLS CAN BE PRODUCTIVE

Scattered over much of north Florida and throughout the fall-line region of Georgia and the Carolinas are 8 million acres referred to as the Sandhills--infertile, droughty land generally stocked with low-value stands of scrub oak. Much of this land once supported longleaf pine. Now, with the exception of the citrus belt and the Ocala National Forest of central Florida, these sandhills are dominated by stands of turkey oak, bluejack oak, and sand post oak that have little value. Wood products of greater value could be obtained from this land if it were producing pine.



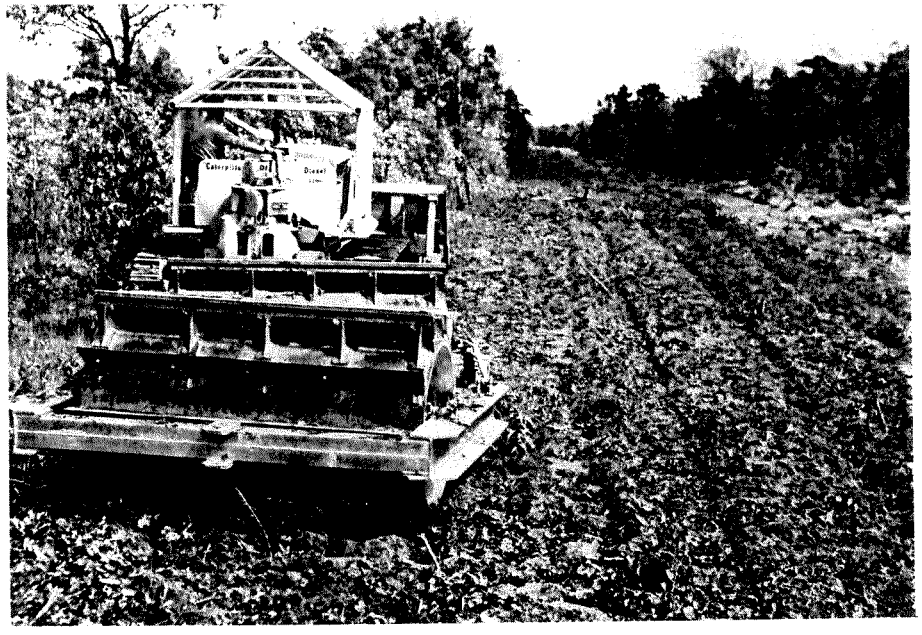
Average heights of longleaf and Choctawhatchee sand pines growing in North Florida sandhill plantations.

Long-range studies of the U.S. Forest Service laboratory in Marianna, Florida, have demonstrated that few timber species can survive on sandhill soil. On cleared sandhill land in north Florida, 38 species of pines, four other conifers, and five hardwoods were planted. Only the species native to these sites, longleaf pine and the Choctawhatchee variety of sand pine, have survived in sufficient numbers and grown at an acceptable rate on the Sandhills.

Choctawhatchee sand pine--age 28; average height, 54 feet; average diameter, 7.7 inches.

Choctawhatchee sand pine is the most promising candidate for reforestation. It will produce twice the volume of wood in 25 years as will longleaf pine on Florida sandhill sites. Yields of at least 1 cord per acre per year from Choctawhatchee sand pine plantations are predicted. Choctawhatchee has also been established in both test and operational plantations in the Georgia and South Carolina Sandhills. Performance there is comparable to that in northwest Florida.

A vigorous competitor, Choctawhatchee sand pine is capable of invading scrub oak stands and eventually dominating the sites. However, studies have demonstrated that a higher rate of survival and a more satisfactory rate of growth results from site preparation. A double-drum rolling chopper is best suited to control competing vegetation with a minimum of soil disturbance. This equipment chops the scrub oak, and leaves the residue to stabilize the sandy soil and retain moisture.



Double-drum rolling chopper.

Of all the species tested, Choctawhatchee is the most productive over the widest range of sandhill conditions. It is resistant to fusiform rust and mushroom root rot. And, it is more resistant to ice damage than longleaf pine. Pulps produced from Choctawhatchee sand pine by the kraft sulfate process were found to be high in average strength and brightness--suitable for bleached and unbleached kraft papers of high strength.

Choctawhatchee sand pine and the soils common to the Sandhills are an excellent species site match. As a result, this largely unproductive area of the Southeast has the potential to add substantially to the wood production capacity of the South.