



William B. Bankhead National Forest

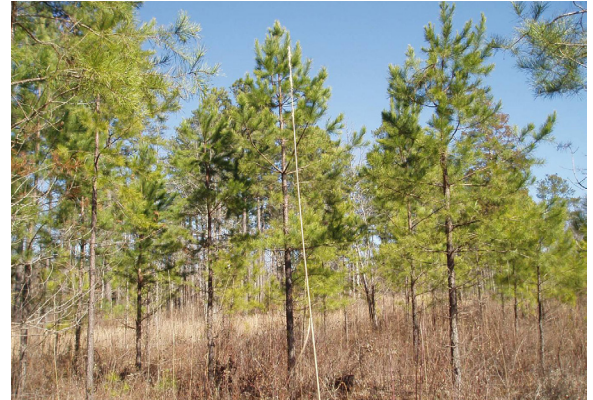
DOUBLE SPRINGS, ALABAMA

*Shortleaf pine and shortleaf pine-oak woodland restoration & management**

Background

Southern Pine Beetle (SPB) destroyed over 18,000 acres of loblolly pine forests at the William B. Bankhead National Forest during the years 1998-2000. To restore these areas, Bankhead created the Forest Health and Restoration Plan. Rather than replacing all SPB impacted areas with loblolly pine, the Plan recommended restoration of Cumberland Plateau native forest communities to enhance wildlife diversity. Shortleaf pine was one species recommended by the Plan.

Shortleaf pine will be used to replace loblolly pine on higher elevations of the Bankhead landscape, with a future goal of shortleaf pine encompassing approximately 7% (12,600 acres) of the National Forest. This will be a long term transition and will entail artificial regeneration of shortleaf pine to sites. Establishment and management of shortleaf pine and shortleaf pine-oak woodlands are the future restoration goals for these areas.



Eight year old shortleaf pine plantation at Bankhead National Forest Credit: US Forest Service

Restoration Activities

In preparation for planting shortleaf pine at Bankhead, sites are prepared using herbicides, mechanical methods, prescribed fire, or a combination of these methods. Following site prep, containerized seedlings are planted (500-700 trees/ acre) on either an 8X8 or 9x9 foot spacing. The second growing season after planting, mechanical competition control (brushsaws) is used to reduce vegetation competition. After the fourth growing season, a dormant season, cool backing fire is used to reduce competition in the young shortleaf stand and is burned every 2-3 years thereafter. These stands will be commercially thinned at approximately 25 years to 50-60 square feet/ acre basal area and then managed on a 200 year harvest rotation.



Thirteen year old shortleaf pine plantation at Bankhead National Forest Credit: US Forest Service

**The shortleaf pine forest type is an FIA-defined forest type group where pines comprise 50% of the species present in a forest stand and shortleaf is the most common pine that occurs. The shortleaf pine-oak forest type contains 25-50% pines (shortleaf is the dominant pine) and 50% oak. Basal area for woodlands ranges from 45-65 sq. ft./ acre. Basal area is used to describe the average amount of an area (usually an acre) occupied by tree stems (trunks) and is measured by the total cross-sectional area of all stems in a forest stand-measured at breast height and typically expressed as square feet per acre. Woodlands are described as having widely spaced trees with sunlight reaching the forest floor and contain diverse understory vegetation and wildlife.*



Shortleaf Pine Management Area (SMA) fact sheets highlight regional shortleaf pine management or research projects. Please inquire with project contact/ partners to learn more about a specific management area. For general questions concerning SMAs or the www.shortleafpine.net website, please contact: **Holly Campbell**, hcampbell@sref.info

The Shortleaf Pine Initiative represents a broad range of federal, state, and private agencies and organizations currently working to promote shortleaf pine ecosystem restoration. For more information about shortleaf restoration or the Initiative, please visit: www.shortleafpine.net



*Introducing prescribed fire to young shortleaf pine at Bankhead National Forest
Credit: US Forest Service*



*Introducing prescribed fire to young shortleaf pine at Bankhead National Forest
Credit: US Forest Service*



*Planted shortleaf pine after 3 growing seasons at Bankhead National Forest
Credit: US Forest Service*

Additionally, Bankhead is restoring or introducing (seeds) a diverse understory of native warm season grasses (little and big bluestem, indian grass), forbs, and minor shrub components to shortleaf and shortleaf-oak woodlands. This understory establishment is a restoration goal for shortleaf woodland management at Bankhead.

Additional Information

- Greater Collier Watershed project-will convert approximately 1000 acres of loblolly pine to shortleaf pine:
<http://www.fs.usda.gov/goto/alabama/CollierWatersheProject>
- Bankhead National Forest Health and Restoration Plan: FHRP
http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5157287.pdf

Project Partners

Bankhead Liaison Panel, American Forest Foundation, National Fish and Wildlife Foundation, National Wild Turkey Federation, International Paper

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Southern Regional
Extension Forestry



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