



Longleaf Leaflet

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North Carolina Forest Service

LONGLEAF PINE FOREST - SUPERIOR ECONOMIC, ENVIRONMENTAL, AND HISTORICAL VALUES

Throughout North Carolina's history Longleaf pine has played an important role. Indeed our state toast proclaims North Carolina as the "land of the long leaf pine". In pre-settlement times longleaf pine dominated most of the state's coastal plain forest. Early explorers described the forest as a vast open park-like savanna of long-needled pine over a diverse understory of grasses and forbs. Longleaf pine habitats are recognized as one of the most diverse ecosystems in the world. The longleaf forest once covered 90 million acres in the Southeast. Today, it is one of the most threatened ecosystems in North America, with less than 3 percent of the original forests remaining. In North Carolina, and across the South, efforts are underway to restore this important tree and the plant communities associated with it.

A Toast to North Carolina

Here's to the land of the long leaf pine,
The summer land where the sun doth shine,
Where the weak grow strong
and the strong grow great,
Here's to "Down Home," the Old North
State!

by Leonora Martin and Mary Burke Kerr



With settlement, came 200 years of exploitation and the expansive longleaf pine forests were harvested for its superior wood and the resin was collected for turpentine, pitch and tar for ships. Much of the forestland was converted to farmland and used for free-range cattle and hogs that ate the slow growing seedlings. In recent times, longleaf forests have been consumed by urban sprawl or replaced with faster-growing loblolly pine. Fire, which is crucial for the continuation of these lush forests, was excluded with an efficient fire control program. Without fire, more competitive pines and hardwoods begin to replace longleaf pine. All these factors and a lack of management left only about 200,000 acres in the Tar Heel State.

Longleaf pine is well-suited for the landowner who wants to protect and manage multiple natural resources such as wildlife, recreation, aesthetics or timber. Whether you're a tree farmer, an environmentalist, naturalist, hunter or hiker, you can enjoy longleaf pine's superior qualities and benefits.

A Wondrous and Astonishing Diversity

The longleaf forest provides excellent habitat for many wildlife species and is home to several threatened and endangered species. The early successional understory layer of legumes and herbs maintained by periodic fire, produce lots of hard seed that supports a diverse wildlife population. Quail, turkey, deer and numerous songbirds such as the bachman sparrow, pine warbler, and bluebirds prefer the open, early successional habitat. Quail is particularly adapted to the open and grassy habitat of the longleaf pine ecosystem. Many wildlife species prefer the longleaf pine ecosystem and several are found nowhere else. Among them is the southeastern fox squirrel, the largest squirrel in the Southeast, the gopher tortoise in the Gulf Coast region, the red-cockaded woodpecker, the only woodpecker in the world to excavate its cavity in living trees and the northern pine snake. The wet savannas and flat woods contain up to 40 different plant species per square meter including many rare plants, such as the roughleaf loosestrife and the unique insectivorous plants such as Venus's fly-trap and pitcher plants. Of the estimated 1630 plants found in the Southeast, more than half of them are found only in the longleaf ecosystem. This astonishing biodiversity is second only to a tropical rainforest.

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Superior Wood Products

Longleaf pine naturally grows straighter, tapers less, and produces a stronger, heavier wood than loblolly pine. The superior wood quality brings in top dollar for poles, pilings, and grade sawtimber. Longleaf yields a higher number of poles and pilings whose value is 30-to-40 percent higher than sawtimber. Longleaf pine is commonly grown at harvest rotations of 60-to-80 years, but can grow past 150 years. This long life span allows landowners more time to plan thinning and wait for high timber prices. Longleaf pines respond well to release with increased growth at older ages and higher stand densities. Longleaf pine's superior form,

WHY should I Manage Longleaf Pine?

The Longleaf Pine Forest ...

- Is one of the worlds' most environmentally diverse ecosystems.
- Has a rich and diverse understory that provides superior wildlife habitat.
- Is home to several threatened and endangered species.
- Is at less risk of loss from natural disasters.
- Survive hurricanes better than loblolly pine because of its deep, wind firm root system.
- Produces superior high-value timber products.
- Can be managed as an uneven-aged stand
- Open, park-like structure is visually appealing and easy to walk -in.
- Have deep-rooted historic and cultural values in North Carolina.

ability to grow well on less fertile soils, and maintain its growth rate allows longleaf to produce better yields than loblolly on poor and average sites. Due to longer length, attractive color, and decay resistance, straw of longleaf pine is a highly-valued landscaping mulch. Landowner can rake 75-to-100 bales per acre every two or three years and earn an extra \$100-to-\$200/acre depending on site quality and tree density.

Low Risk Management

Longleaf pine is a low risk species to manage because it is able to survive damage from natural disasters that kill other pines. Its open crown, strong stem, and deep tap root make it windfirm and able to better withstand hurricanes and other storms. The thick bark of mature longleaf pine trees is also tolerant to wildfire. The longleaf pine is resistant to the major disease and insects that plaque loblolly pine, such as fusiform rust, pitch canker, annosus root rot, southern pine beetle and tip moth.

Love of the Land and for the Forest

In 1791, explorer William Bartram described the longleaf forest as "[having] a pleasant effect, rousing the facilities of the mind...". A well-managed longleaf pine forest brings out similar poetic emotions. A longleaf forest is aesthetically pleasing. The open and grassy landscape is easy to walk through while enjoying the solitude and beauty of the diverse ecosystem. Many landowners prefer to retain most of the forest and maintain wildlife habitat and visual beauty, yet still sustain a flow of income from periodic timber harvests. They are stewards of the land and manage all the natural resources.

The group selection or shelterwood harvest method is a good choice for them. Longleaf pine is well suited for either method, and the only pine effectively managed as an uneven-aged forest (a forest of many different aged trees with patches or clusters of even-aged trees). The life span of longleaf pine also allows the forest stand to be retained for a longer time.

History, Culture and Tradition

Much of North Carolina's past was shaped by the longleaf pine. Cattlemen, turpentine producers, loggers and health resorts were born within and thrived under the longleaf pine. Its historic importance is recognized through the State Toast, and the official State Tree of NC is the pine. For many landowners, returning their land to pre-settlement condition is reason enough to become a part of the longleaf pine restoration effort.



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