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Longleaf pine stood firm to Hurricane Katrina's winds

When Hurricane Katrina blasted the Gulf Coast in August 2005, she left a swath of damaged forestland. But longleaf pine withstood the storm much better than many other tree species, according to a S.C. Department of Natural Resources wildlife biologist and forester.

In Mississippi alone, about 1.2 million acres of forestland were negatively impacted by Hurricane Katrina. Much of the damage was to bottomland hardwood forests and pine forests, but not all pine species were affected equally. According to Johnny Stowe, S.C. Department of Natural Resources (DNR) heritage preserve manager, wildlife biologist and forester, longleaf pine withstood the storm much better than either loblolly or slash pines.

Longleaf pine has long been known to be great for wildlife like bobwhite quail, and is more resistant to fire as well as insect and disease pests such as Southern pine beetles and fusiform rust than other Southern pines. Longleaf has also been known to be more resistant to wind damage.

Researchers in Forrest County, Miss., took advantage of Hurricane Katrina to gather some data and quantify longleaf's storm-hardiness, according to Stowe. They compared longleaf, loblolly and slash in two pine plantations that were established in 1985. Both plantations were planted in all three species, and both sites were thinned four years ago. Researchers collected data on whether or not the trees were damaged, the type of damage, and other information.

The results of the research showed that longleaf pine was not only less likely to be damaged at all, but when it was damaged, it tended to lean or blow over, as opposed to snapping mid-stem. Conversely, most of the damage to loblolly and slash pines was from snapped trees. Snapped trees at once lose most of their dollar value, sometimes as much as 90 percent. Trees marketable as valuable chip-and-saw products before Katrina storm were reduced to pulpwood after the storm.

The majority of the damage to longleaf pine was trees that either leaned or blew over. Leaning or blown-over trees, because their root systems are at least partially intact, tend to hold their value much longer. They can be harvested for higher value forest products long after snapped trees have gone for pulpwood or been wasted.

"Landowners in the Sandhills and Coastal Plain of South Carolina who value secure forestland investment should consider planting and managing for wind-resistant longleaf pine, especially if they are near the coast, where storm damage is more likely," Stowe said. Having forests that are relatively wind-firm may be even more important to risk-averse landowners in the coming decades. The National Oceanic and Atmospheric Administration recently stated that, "It is quite possible that the extreme (hurricane) activity since 1995 marks the start of another active period that may last a total of 25-40 years."

The Longleaf Alliance is working with landowners, researchers, conservation groups and government agencies to restore longleaf to parts of its former range. Longleaf pine forests once covered about 90 million acres from Virginia to Texas, but only about three million acres remain. For more information on any aspect of longleaf pine, visit the Longleaf Alliance Web site at <http://www.longleafalliance.org/>, or send an e-mail to moguijo@auburn.edu or call (334) 844-1032 in Auburn, Ala..