

Improved loblolly pines better for the environment, study finds

April 17 2012



(Phys.org) -- More than 50 years of genetics work to increase loblolly pine production in the Southeast has improved the trees' ability to act as carbon sinks that mitigate climate change, according to a new study by North Carolina State University researchers.

"We've been working to create trees that grow faster and produce more wood, and what this research shows is that at the same time we're enhancing environmental quality by scrubbing as much carbon out of the atmosphere as we possibly can," says Dr. John King, an NC State forest ecologist and co-author of a paper published this month in the journal [Forest Science](#).

The study estimated a 17 percent increase in stem-wood production and a 13 percent increase in [carbon uptake](#) in improved loblolly pines planted throughout the Southeast between 1968 and 2007. Three generations of enhanced seedlings were released over that 40-year period.

Pine plantations cover about 15 percent of forested land in the South. Each year, almost a billion loblolly pine seedlings are planted, typically taking 25 years to reach maturity.

"We're reaping the benefits today of work our predecessors did, and our work will affect our children and grandchildren," says co-author Dr. Steve McKeand, NC State forestry professor and director of the Cooperative Tree Improvement Program, a public/private partnership founded in 1956.

The study marks one of the first attempts to quantify the effects of improved tree genetics on [carbon sequestration](#) across a large landscape, McKeand and King say.

More information: "Carbon Sequestration from 40 Years of Planting Genetically Improved Loblolly Pine Across the Southeast United States"
Authors: Michael J. Aspinwall, University of Texas at Austin; Steven E. McKeand and John S. King, North Carolina State University
Published: April 2012, in *Forest Science*

Provided by North Carolina State University

Citation: Improved loblolly pines better for the environment, study finds (2012, April 17)
retrieved 26 April 2024 from <https://phys.org/news/2012-04-loblolly-environment.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.