

Study: Forest productivity hiked by CO₂

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An Oak Ridge National Laboratory study in Tennessee suggests forest productivity may be significantly greater in an atmosphere enriched with carbon dioxide.

The study, performed at the Department of Energy's Oak Ridge facility and 10 other U.S. and European institutions, revealed a strong relationship between forest plot production in the current atmosphere and productivity in plots enriched with the 23 percent higher carbon dioxide levels that are expected by the middle of this century.

Researchers analyzed data from experiments conducted in a deciduous forest in Tennessee, a pine forest in North Carolina, a young hardwood stand in Wisconsin and a high-productivity poplar plantation in Italy.

"When we got together to analyze these data, we expected to spend our time explaining the differences between sites," said ORNL's Rich Norby, lead investigator in the study. "We were really surprised and excited when all of the data fell neatly onto a single line."

The paper is to be published Dec. 13 in the Proceedings of the National Academy of Sciences.

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