

PINEMAP: COOPERATIVE FORESTRY RESEARCH, EXTENSION AND EDUCATION FOR A CHANGING WORLD

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The USDA NIFA-funded Pine Integrated Network: Education, Mitigation and Adaptation Project (PINEMAP) is building on the existing university-industry-agency cooperative research infrastructure and tech transfer networks to develop and disseminate knowledge needed to enable southern pine breeders and land managers produce and deploy germplasm with enhanced climate change mitigation and adaptation traits. Integrated research aims to 1) increase carbon sequestration by southern pine forests, 2) foster a more robust and resilient forest-based economy in the southeast, 3) enhance connections between corporate and noncorporate landowners and climate experts and the capacity for regional interdisciplinary collaboration, 4) support public policies that promote sustainable management of planted pine under future climate scenarios, and 5) educate students and decision makers on the importance of climate, forest ecosystems, and forest management. To achieve these outcomes, PINEMAP researchers are conducting region wide analyses of carbon, nitrogen and growth dynamics in planted loblolly pine stands to determine probable changes in forest productivity and carbon sequestration with two future climate change scenarios. An important focus is a coordinated spatially explicit modeling program that is evaluating potential impacts of predicted changes in climate on net primary productivity, stand growth, timber supply and economics. A second important focus is development of the PINEMAP decision support system (DSS). The DSS is a map centric set of tools aimed to help professional foresters incorporate predicted changes in climate into their management decisions. One tool in the DSS is the seed deployment tool. Research will be disseminated to stakeholders through a two-pronged extension program incorporating the land grant extension network coordinated by the Southern Regional Extension Forester, and the well-established corporate research cooperative network.

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