

Plantation Management Research Cooperative

Daniel B. Warnell School of Forestry and Natural Resources

The University of Georgia

Athens, Georgia 31204-2152

SPECIES COMPARISON STUDY

The species comparison study was established in the lower coastal plain of Georgia and north Florida over a two year period, 1979-1980. The study originally had 20 locations in each of eight soil types. Each location consisted of a pair of plots, one of slash pine and one of loblolly pine, each with 64 planted seedlings planted at a density of 726 per acre. Seedlings were planted following standard mechanical site preparation for the area and plots received no herbaceous weed control or fertilization treatments. Every surviving tree was measured for dbh (0.1 in) and total height (ft) at age 2 and every three years thereafter. Analyses were made comparing survival, Cronartium infection rate, basal area per acre, total and merchantable volume, and total and merchantable green weight, across the original soil groups as well as across CRIFF soil groups.

Status

- **The latest analysis is found in PMRC Technical Report 1996-4 by Shiver et al.**
- **A Southern Journal of Applied Forestry article was published in February 2000 by Shiver et al.**
- **Though the silviculture used in this study has largely been supplanted by more intensive silviculture, the benefits of using trees from some of these installations to compare wood quality across species are invaluable.**
- **These plots have been released to cooperators for harvest with the caveat that the UGA Wood Quality Consortium have the opportunity to sample trees from the plots for species differences in wood quality.**
- **Barry Shiver made a presentation at the 2002 Slash Pine Symposium at Jekyll Island that used these plots, the coastal plain culture density plots with both slash and loblolly, and literature. That presentation is available on the PMRC web site.**

Key Research Results

- **Even though many of the sites in the study would historically be termed slash sites, through age 14 loblolly pine performed as well as or better for fiber production than slash across all sites even though there were no fertilizer or weed control treatments.**