

Silvicultural and Planting Density Impacts on Sawlog Quality of Loblolly Pine

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Intensive pine plantation management has been studied and developed in the southeastern U.S. over the past 25 years. Intensive management makes use of genetically improved planting stock and cultural treatments such as chemical/mechanical site preparation, herbaceous weed control, understory vegetation release, and fertilization to increase productivity on both industry and non-industry owned timberlands. A great deal of knowledge has been accumulated concerning the efficient use of these cultural treatments for increasing productivity on a wide range of sites. However, the impact that these treatments have on the quality of logs and wood within logs is only now being studied. In 2004 a special project that was undertaken to characterize branching characteristics and wood quality on the lower 1.5 logs on individual stems in a very large region-wide loblolly pine (*Pinus taeda* L.) management intensity/initial planting density study. In this project, more than 50,000 branches were measured on more than 500 individual trees at 14 study locations throughout the southern U.S. Initial results and associated solid wood management regime implications are presented and discussed.