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Scalping improves early growth of longleaf pine seedlings

David B South

ABSTRACT

Scalping is a mechanical process whereby the soil is peeled back in a shallow (5 to 10 cm [2 to 4 in]) furrow that is 75 to 90 cm (30 to 35 in) wide. Scalping is often recommended prior to planting longleaf pine (*Pinus palustris* Mill. [Pinaceae]) on pastures and land formally occupied with row crops; however, some reports suggest that growth of pines is reduced when seedlings are planted on scalped areas. A study was implemented in southern Alabama to determine the effect of scalping on early survival and growth of bareroot and container longleaf pine. In this study, scalping reduced seedling survival of bareroot stock by an average of 18 percentage points, which is contrary to findings from results on well-drained soils. On this relatively flat site (Greenville Fine, kaolinitic, thermic Rhodic Kandiudult), I speculate that scalped areas collected water and some seedlings died from waterlogging. This detrimental effect appeared to be greater on bareroot stock than on container stock. In contrast, early height growth at this site was excellent and scalping increased growth by an average of 0.9 m (3 ft). Stocktype affected both survival and growth with bareroot seedlings outperforming container stock.

South DB. 2011. Scalping improves early growth of longleaf pine seedlings. *Native Plants Journal* 12(1):18–24.

KEY WORDS

Pinus palustris, container, bareroot, stocktype, survival, seedling quality

NOMENCLATURE

USDA NRCS (2010)

Photos by David B South