

Effects of sand pine scion on monoterpene composition of slash pine rootstocks

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ABSTRACT

Xylem oleoresin was analyzed from slash-slash, sand-slash, and sand-sand pine scion-rootstock graft combinations varying in age from ca. 8 to 15 years in a northwest Florida seed orchard. The predominant components, α -pinene, β -pinene, and β -phellandrene averaged 48.8, 23.5, and 21.4% of the monoterpene composition in slash-slash trees compared with 21.6, 71.4, and 2.2% in sand-sand trees. When sand pine was grafted onto slash pine, the percent composition of β -pinene in the slash pine was significantly increased from 23 to 50% while rootstock content of β -phellandrene was significantly reduced from 19 to 2%, and α -pinene was not significantly altered.