

## EFFECTS OF BERMUDAGRASS ON PRODUCTION OF LOBLOLLY PINE SEEDLINGS IN A LOUISIANA NURSERY

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Nurserymen and nursery researchers often cite weed competition as a major factor in reducing quantity and quality of seedlings. However, reports of specific species reducing seedling production are rare. This report describes the deleterious effects of bermudagrass (*Cynodon dactylon* (L.) Pers.) on the production of loblolly pine (*Pinus taeda* L.) seedlings at the Columbia Nursery, Columbia, La.

A section of nonfumigated beds was designated for weed control experiments during 1976 at the Columbia Nursery. One bed was periodically weeded of all weed species, while adjacent beds had all weeds removed except bermudagrass.

Other nursery practices remained the same for all beds and no inherent differences between the beds were observed. In December, 12 samples (.37 m<sup>2</sup> / sample) from each area were lifted and weighed. Number of plantable seedlings (morphological grades 1 and 2<sup>1</sup>) in each sample was also recorded.

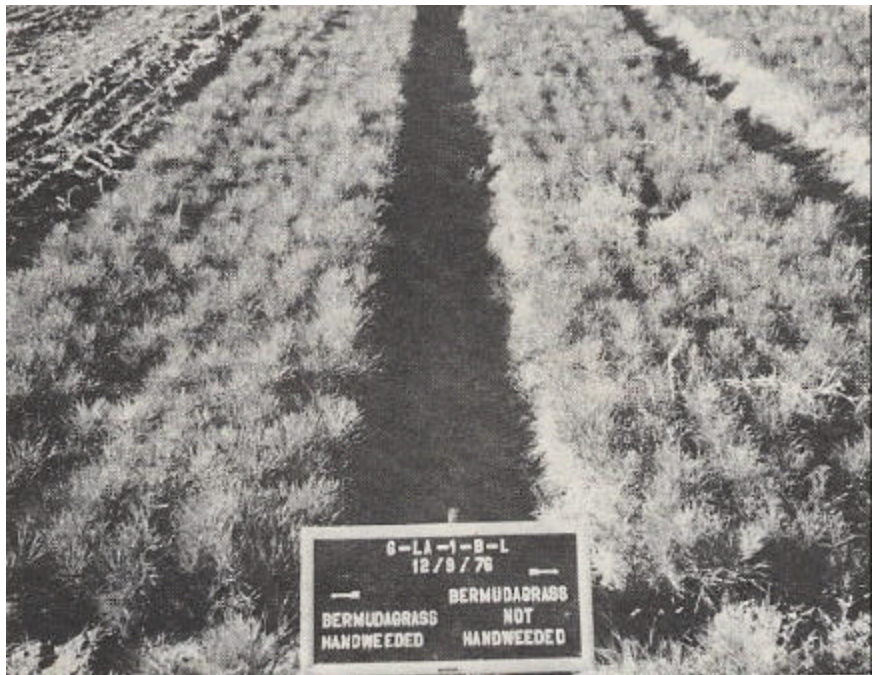
Although visual differences between the two areas were not great (fig. 1), the presence of bermudagrass caused a 66 percent reduction in plantable seedlings and a 44 percent reduction in fresh weights (table 1).

<sup>1</sup> Wakely, P. C. 1954. Planting the southern pines. U.S. Dep. Agric. Monograph No. 18. p. 233.

**Table 1.**—Effects of bermudagrass on fresh weights and plantable seedling production of loblolly pine

Treatment of Bermudagrass	Plantable seedlings per square meter	Fresh weights of all seedlings per square meter
	(no.)	(grams)
Handweeded	242 <sup>1</sup>	2551
Not handweeded	82	1421

<sup>1</sup> Indicates significant differences at the 0.01-percent level between means within a column by student's t-test.



**Figure 1.**—Loblolly pine nursery beds with and without bermudagrass competition.