

THE EFFECTS ON FIELD SURVIVAL OF LATE NITROGEN FERTILIZATION OF LOBLOLLY PINE AND SLASH PINE IN THE NURSERY SEEDBED

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Ursio 1 reported in 1954 that late seedbed fertilization in the nursery had a detrimental effect on loblolly pine seedling survival. A similar study at Auburn on loblolly and slash pines conducted by the Agricultural experiment Station during the 1955-56 planting season failed to support the results obtained in the earlier study.

Ammonium nitrate was applied to normal 1-0 seedlings in the nursery beds on October 31, 1955. Fertilizer was applied at the rates of 0, 100, 200, and 400 pounds of nitrogen per acre. Four replications of 30 representative plantable seedlings from each treatment area were field planted at three different times during the lifting season. The first group was lifted on November 24, 1955, and the other two groups on January 5 and February 7, 1956. Third-year field survival of loblolly pine seedlings was as follows:

The low survival percentages of both loblolly and slash pine for the January

	<u>December 1955</u> (percent)	<u>January 1956</u> (percent)	<u>February 1956</u> (percent)	<u>Average</u> (percent)
<b>Nitrogen applied per acre (pounds):</b>				
0.....	93	34	65	64
100.....	89	35	72	65
200.....	93	41	74	69
400.....	83	36	69	63
<b>Average.....</b>	<u>90</u>	<u>37</u>	<u>70</u>	<u>--</u>

Third-year field survival of the slash pine seedlings was somewhat lower, as follows:

	<u>December 1955</u> (percent)	<u>January 1956</u> (percent)	<u>February 1956</u> (percent)	<u>Average</u> (percent)
<b>Nitrogen applied per acre (pounds):</b>				
0.....	50	27	35	37
100.....	58	31	47	45
200.....	51	35	48	45
400.....	40	35	37	37
<b>Average.....</b>	<u>50</u>	<u>32</u>	<u>47</u>	<u>--</u>

planting can be attributed to poor soil moisture. The ground was quite dry before and after the January plantings because of an extended drought that encompassed this period. Some rain fell immediately before and after the February plantings.

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With both loblolly and slash the extreme fertilizer treatments seemed to suppress survival, but it is questionable that this is a real difference. Because of the variability within treatments it is doubtful that any valid conclusions can be drawn from these findings. No effects of late nitrogen fertilization on seedling survival were demonstrated.

#### PAYING DEBT

In the fall of 1958, the editor of Prairie Farmer, Paul C. Johnson, wrote an editorial entitled, "If You Would Live Long--Plant a Tree 1" In it he told of an old man planting a tree, who was jeered by a passing youngster: "That tree will never do you any good, gramps." "I have enjoyed trees planted by others all my life," replied the old man, "I am merely paying a debt."

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