

SURVIVAL AND EARLY GROWTH OF AN
EASTERN COTTONWOOD PLANTATION ON THE PIEDMONT

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This note records initial survival and height growth of an eastern cottonwood (Populus deltoides Bartr.) plantation in a river bottom of the Georgia Piedmont. There have been few, if any, eastern cottonwood plantations in the southeastern states until the past several years and no known plantings in the lower Piedmont. This lack of interest has prevailed even though the species grows well naturally, individual trees attaining as much as an inch of diameter growth per year.

A 1/2-acre area in an overflow bottom along the Oconee River near Greensboro, Georgia, was disc-harrowed in the fall of 1955. Unrooted cuttings obtained from the Delta Research Center, Southern Forest Experiment Station, U. S. F. S. , were planted in January 1956, with approximately 14 inches of cutting underground and 6 inches above the soil. Spacing was 9 x 9 feet. Two cultivations were made during the 1956 growing season.

The planting area was flooded for three days after planting and again flooded for a slightly shorter period in late April after leafing had occurred. Rainfall was 4 inches below normal for the growing season.

Out of the 252 cuttings planted, over 88 percent rooted and survived the first growing season. Average height growth was 7 feet, and over 10 percent of the surviving cuttings grew 9 feet or more in height. Maximum height growth was 10.8 feet and several cuttings reached close to an inch in diameter at breast height. Well developed branches were present on many stems.

Additional plantings are planned for the next several growing seasons to determine whether this high survival rate and good height growth is the general rule.