

NO ADVANTAGE TO CLIPPING BALDCYPRESS PLANTING STOCK

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Early in 1955, 900 1-year-old seedlings of baldcypress (Taxodium distichum) were planted near Stoneville, Miss. to compare seedling treatments that were intended to reduce transpiration and thereby increase survival during droughts. Seedlings were planted as follows:

- A. With root collar at ground line but with the stem clipped 6 inches above the ground.
- B. With root collar at ground line but with the top third of the stem removed.
- C. With root collar 6 inches below the ground level, and the top third of the stem removed.
- D. With root collar at ground line and no top clipping.

The planting site had a heavy clay soil and sloped from a ridge top to a drained slough, the range in elevation being 3 feet. To aid in cultivation, rows at right angles to the slope were placed 10 feet apart, with 6-foot spacing between trees. The area had to be cultivated 3 or 4 times. each year to keep down vines.

Rabbits nipped off about 100 of the newly planted seedlings, but these were replaced and further damage was prevented by spraying the trees with a copper carbonate-asphalt emulsion. A frost defoliated the trees the first spring, but no defoliation from frosts or floods has occurred since.

After four growing seasons, seedlings that had been clipped or planted deep are not significantly superior in either growth or survival to seedlings planted normally. Average heights range from 6.9 feet for the untreated seedlings to 6.5 feet for both treatments involving stem clipping in conjunction with normal planting. The treatment which left only 6 inches of stem also has had the poorest survival--57.6 percent. Best survival was 66.5 percent for the seedlings that had the top third-of their stem removed after deep planting. The normally planted seedlings showed the second-best survival, 63.4 percent.

Any treatment that lowers the growing tip is likely to be detrimental if it results in complete submergence of the tip during high water after the tree is in leaf. Though this often kills young bald-cypress, it does not always do so (probably warm water and heavy sediment load are also unfavorable factors.) For example, bald cypressseedlings in an area in north Louisiana were completely submerged for several months after they had leafed out in the spring, yet they put out new leaves in August after the water had subsided.

Stationed at the Delta Research Center, which is maintained by the southern Forest Experiment Station at Stoneville, Miss. in cooperation with the Mississippi Agricultural Experiment Station and the Southern Hardwood Forest Research Group.