

USE AND MODIFICATION OF MACHINES IN ALABAMA

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At present this Company has two planting machines, a Lowther 1949 model, and a Purdue-ICRR 1950 model. Their use, after suitable modification, has given such excellent survival that we do not plan ever to plant by hand again.

We have planted in all types of soil, ranging from Rushton, fine, sandy loam to a mucky, prairie-type soil of the toughest kind. Pulling the Lowther with a D-4 tractor, we plant any soils, except the lightest sands, the roughest terrain, and cut or burned over lands. For the easier going on more level terrain with light and solid soils, we use the ICRR planter pulled by a dual-wheel Ford tractor. To go where and when we wish, we have found this combination to be unbeatable.

Our machines use a 3-man crew; a driver, a planter, and a man to supply trees to the machine. The 3 men alternate on these jobs which makes for more efficiency.

Our survival, we believe, on about 2 million trees, is better than 90%, except on longleaf pine. On most areas, it is difficult to find skips or misses. So far, we have had little success with longleaf pine and we are still experimenting with its planting.

Both machines needed some modification before they would work satisfactorily under our conditions. Neither performs too well in fine sand, for a "trench" is left which we have found impossible to avoid. We have cut off the "shoes" on both machines, leaving a planting slit 2 inches wide. We also lengthened the Lowther 4 inches to allow more time for the soil to fall back in place before the rear wheels passed. This was necessary in heavy sod or grass.

The Lowther machine does not perform, satisfactorily for us in light sands but does well on all other types, after the abovementioned modifications. It packs well and rides well, and plants equally well uphill or down and on the contour of a slope. On lighter soils with better cover, it may be desirable to remove some weight and a larger frame was found necessary. A certain amount of lost motion results when turning around and the machine is heavy and difficult to move from one area to another, but the results offset the time lost.

The ICRR planter was constructed too light for the conditions under which we use it. We rebuilt it with 1/2- to 5/8-inch metal, replaced the plow with some armor plate from an old Army weapons carrier, cut off the "shoe", and made some other changes. Great trouble was had with the wearing of bolt holes on the after part of the machine and, where possible, we substituted 15- to 20-inch bolts running through. We now find it ideal for light soils, level lands, and fairly sharp curves. It will not plant satisfactorily on slopes. We use a 4-inch mill shaft as a weight on the tractor's bumper to hold the front end down. One of the best features of this machine is its maneuverability and ease of moving.