

MODIFICATIONS REQUIRED ON A MACHINE IN MISSISSIPPI

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The Biloxi Ranger District of the Mississippi National Forests is located within convenient fishing distance of the Gulf of Mexico. In this flat coastal plains area there are some 16,000 acres of wide, open, wet "savannah" lands. Unlike true savannahs which are characterized by the presence of saw-palmetto or bunchgrass, these openings are low meadowlike areas which remain wet a large part of the year. The higher ground in them runs heavily to sandy soils.

Machine planting of slash pine on this type of ground began three years ago, employing the Lowther tree-planting machines. Different kinds of mechanical trouble were encountered and corrective action

had to be taken. Perhaps the most outstanding weakness was the speed with which the plow points and mouldboards wore out as a result of the abrasive action of the sandy soils, and delays for this reason were numerous.

In overhauling one of the planting machines one summer, mechanics at the central machine shop at Forest, Mississippi, welded hard steel over the plow point and mouldboard of the plow, making it a solid unit. The planting machine manufacturers frankly felt that this modification would not be of any practical value. However, the Biloxi District obtained one of these modified machines and tried it out. Less trouble with the modified machine was encountered than with the others. When the three machines were overhauled the following summer they were all built up with a "sturdy self-hardening steel" and converted to solid units. During the entire 1950-51 planting season just completed, not a single breakdown from this cause occurred on any one of the 3 planting machines. Two of the machines, kept on the job full time, planted an average of around 600,000 seedlings each during the season.

Careful overhaul of the machines following each of the 3 planting seasons has just about eliminated lost time from mechanical failure. The correction described is not recommended for the planting of any other species than slash pine in so-called savannah, although a modified machine has been used to plant some longleaf on high ground with good success.