## PLOWS TO PRECEDE A TREE PLANTING MACHINE

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(Editor's note: As a result of a recent report of difficulties in operation of planting machines on a national forest in California, Mr. Rudolf offered the following comments and pictures.)

Results with planting machines were reported to be unsatisfactory because brush and other debris hindered their operation. It occurred to us that a practice used in Minnesota might prove successful under such conditions. Both the Minnesota and Ontario Paper Company and the Chippewa National Forest have planted brushy areas with the following equipment: a crawler type tractor with a Minnesota pusher plow mounted ahead and a Lowther planter pulled behind. The plow is equipped with a shoe and is so mounted as to ride on the ground surface. Its sole purpose is to clear away brush, slash, down logs and similar debris ahead of the planter. It has done this quite successfully. Presumably an Olympic plow could be used in the same manner, but under our conditions the Minnesota plow is preferred.

The photos may give you a clearer idea of this equipment. A TD-9 tractor was used on the M & 0 operation and a T-6 tractor on the Chippewa job. The latter had less debris to contend with.





Minnesota pusher plow ahead of a TD-9 tractor. Planting machine is pulled behind tractor at the same time.