

## TREE LIFTING MACHINE DEVELOPED BY STATE OF OREGON

by

Carl Smith  
State Department of Forestry  
Salem, Oregon

Mr. Smith showed a movie and explained the development of the tree lifting machine used at the D.L. Phipps Nursery. The construction of the machine was a cooperative effort of the Salem Shop and the Roseburg Shop of the Douglas Forest Protective Association. The cost of the lifter was approximately \$2,800.

The machine is designed with an agitating system powered by a 5 h.p. gasoline engine. The agitator is mounted behind the lifting blade and is basically a camshaft that moves steel bars vertically through the seedbed.

Depth is controlled by two sets of wheels and a double-action hydraulic cylinder. The machine performs best in sandy soils where the soil is shaken better from the roots. Best performance is in a fairly moist soil; if too wet, the agitation tends to cause puddling.

The lifting blade is normally set at nine inches. Most of the trees lifted have tops from 10" to 15" and the machine has not been tested on smaller trees. The machine will be used during the 1968-1969 season at Elkton.