

THE H-C FURROW SEEDER

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The furrow seeding described here is a one-man, one-trip operation that combines seedbed preparation and planting of tree seed in rows. In comparison with most other direct-seeding techniques, it requires less seed and gives better control of seedling spacing. Combining mechanical ground preparation and seeding into a single operation keeps costs low.

The H-C Furrow Seeder was developed for soil and site conditions of the longleaf pine hills of south Alabama and northwest Florida. After a year of exploratory research, the prototype was designed and constructed in 1958 by the author and S.K. Hudson of Container Corporation of America. Funds were provided by Hudson's company. Joe H. Brady and Associates of Birmingham, Ala., built twelve of the machines and arranged to have them tested by timber companies. The original model has been improved, though additional research and development are needed to perfect the technique and the machine.

The machine is built around a conventional fireplow. The complete unit consists of the plow, a pair of hillers, a culti-packer, a seed planter, and a rubber-tired roller.

The plow is adjusted to clear away debris and grass without removing much of the topsoil. The hillers, mounted directly behind the plow, throw topsoil over the area scalped by the plow; this layer compensates for the small amount of topsoil removed. The culti-packer, mounted behind the hillers, compresses the soil to restore capillarity and forms shallow depressions to receive the seed. The planter, attached next, drops seeds on the bed at prescribed intervals. Finally, a pneumatic-tired wheel rolls over the seeds, pressing them firmly into the soil.

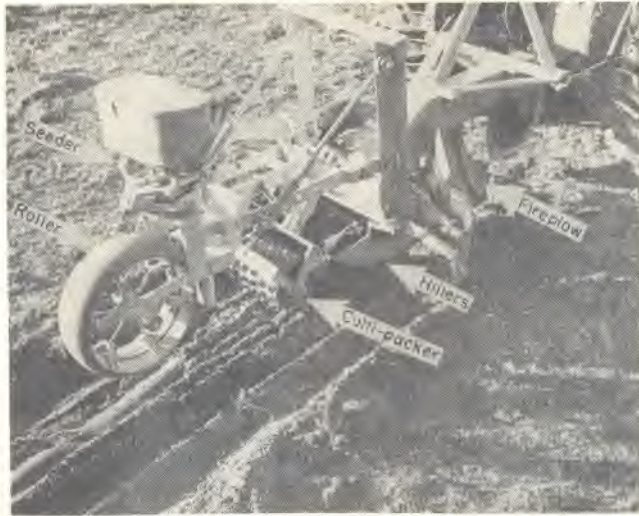
As yet, the machine has been used only on a small total acreage. Preliminary results are promising, but, at present, the machine is recommended chiefly for light-textured, well-drained soils of good moisture-holding capacity. In areas of sparse ground cover, an acre or more per hour can be seeded if rows are spaced 8 feet apart.

No advance ground preparation is required on sites like those just described, but any scrub hardwoods should be deadened shortly before or after seeding.

Most fireline tractors are satisfactory if their power lifts are strong enough to pick up the seeder. Proper adjustment of the plow and other parts of the machine is necessary for efficient operation. Slopes should be gentle enough to permit safe operation of the machine along the contour.

Practices recommended for other forms of direct seeding should be followed. These include use of viable seed coated with bird and rodent repellents, and protection of seeded areas from livestock, fire, insects, and disease.

THE H-C FURROW SEEDER



THE MACHINE IS COMPOSED OF:



A FIREPLOW, PLUS ----



A PAIR OF HILLERS,



---- A CULTI-PACKER,



---- A SEED PLANTER,



---- AND A ROLLER WHEEL.