# A HOMEMADE TREE POTTING SYSTEM

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It is difficult to obtain satisfactory survival of evergreen seedlings on nonirrigated lands in the Great Plains when bare-root planting stock is used. Ranchers and farmers in this region, however, want and need evergreens for windbreak and shelterbelt plantings. Potted seedlings could provide one answer to this problem.

To furnish potted stock to landowners at a reasonable cost, a potting system was devised and built by John Ellis and Ardy Keck of the Colorado State Forest Service. The major components of the system are: (1) 10 potting trays, (2) a series of live conveyor belts, (3) a soil packing machine, and (4) a heavy-duty stapling machine. Figure 1 shows the arrangement of these various components.

The soil packing machine was constructed from an Army surplus hydraulic press. The press was converted to operate by air pressure and was mounted on a frame made from steelplate.

The potting trays, each with three compartments, were made from steelplate. The bottoms of the compartments are movable, thus allowing the finished pots to be pushed out of the tray from below. A treadle (foot-operated) does this.

The system, exclusive of live conveyors and labor, costs about $500. On an average 8-hour day, some 4,000 trees are potted.

The potted trees are placed in a lathe shadehouse for 1 year before being distributed to landowners.

The homemade tree potting system is illustrated in figures 2 through 10.

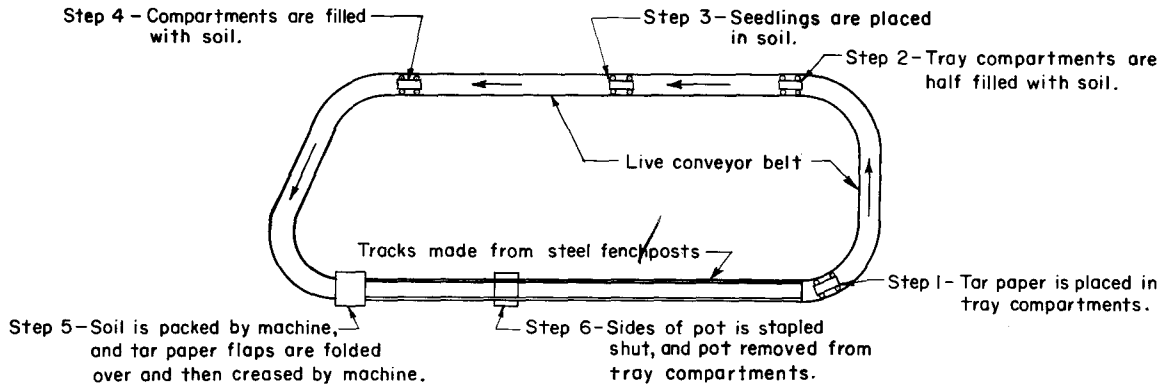


Figure 1.--Step-by-step operation of the system.

Figure 2.--Nine- by 15-inch pieces of 15-pound asphalt roofing paper are placed in the tray compartments.

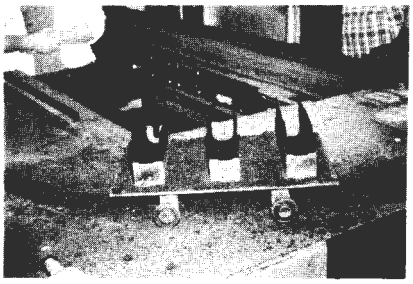

Figure 3.--Potting tray with paper in place.

Figure 4.--After the compartments are half filled with soil, the seedlings are placed in them.

Figure 5.--More soil is added to fill the tray compartments.

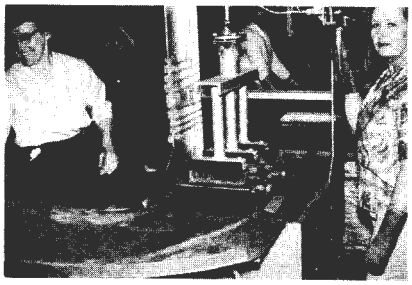

Figure 6.--The soil is packed firmly around the roots; then the paper flaps are folded over and pressed down by the machine.

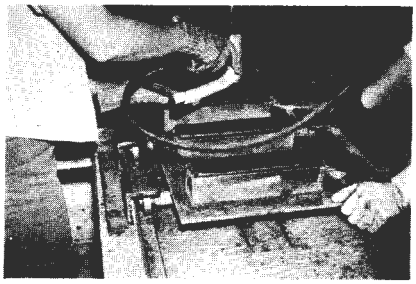

Figure 7.--The air-operated stapling machine is used to staple the sides of the pots closed.

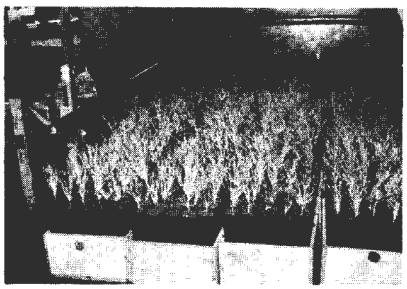

Figure 8.--Finished pots ready for transporting to the shadehouse.

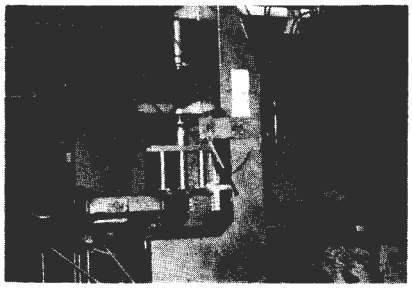

Figure 9.--The soil packing machine.

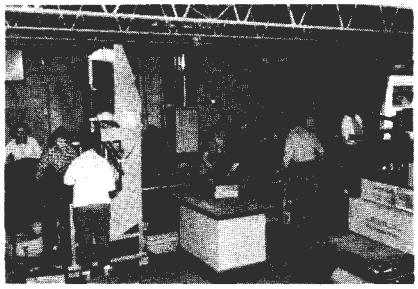

Figure 10.--A view of the entire potting operation.