Wire-Rolling Machine Saves Man Hours

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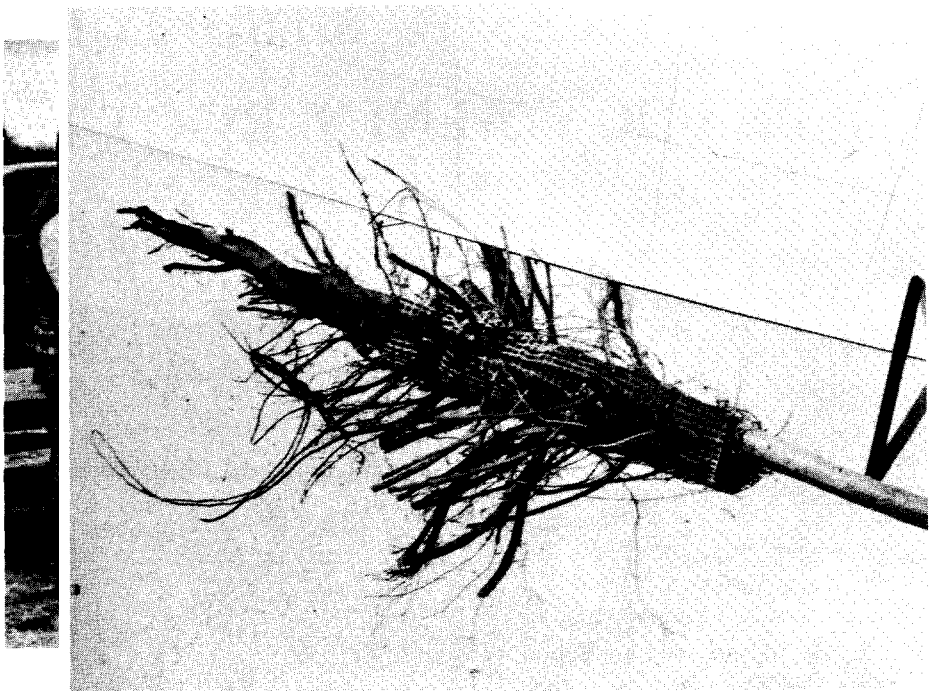

The Delaware Department of Agriculture's new (1970) 12-acre nursery contains 3 acres of seedlings, divided into 52 beds at 4' wide and 420' long.

Straw is used in the fall after seeding to protect the beds, then wire placed over them to prevent movement of straw and seeds. At first, wire removal was done by handrolling each row, an operation that took about 3 man-hours per bed. In March 1972, a simple wirerolling machine was developed for this job. The new equipment and its operation are described below.

The wire-rolling equipment is mounted on a flat bed wagon. The equipment consists of two wooden uprights 3' high and set 6' apart, and braced with angle irons with a U-groove in the top. A shaft is then built from a 10'1" pipe with a drive shaft welded on one end. To this is connected a universal joint on a 4' sliding rod which is mounted to the power take-off of a tractor.

Wire is fastened to the rod by connecting the two ends through a hole in the pipe. The tractor is idled down to about 60 rpm. The speed of the rod is controlled by slowly placing the drive into gear. Once the wire becomes tight on the shaft, 450' can be reeled in about 2 minutes. Two persons are needed on each side of the wire to guide it straight, and another to operate the shaft speed.

After rolling, the wire is lifted off the upright supports and a steel bar is placed through a hole in the shaft. With a twisting movement, the shaft is pulled out and the wire loaded on a truck. The trailer can then be pulled to the next bed and the operation repeated.

News & Reviews

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Tree Nursery Experience Viewed As School Aid for Deaf Children

A greenhouse at the State School for the Deaf in Salem, Oregon, has become a miniature forest nursery at the hands of the school's science teacher and a small group of sixth grade girls.

With the guidance of Don Haevers, their teacher, the girls are raising some 13,000 fir, pine, spruce and hemlock seedlings for the State Forestry Department.

The project is being done as part of the school's Career Education Program. The youngsters are now spending 1 hour each day working in the greenhouse with the tree seedlings and other plants. In 9 weeks another class will take over.

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Figure 2.-After 2 years, the portion of the 10-inch plastic mesh tube above ground had deteriorated but the underground portion had not.

stem, lateral, and tap root development were good, but there were root deformities caused by the ridged plastic tube.

Although survival and growth rates appear good, a tube that breaks down the first year would be desirable. Damage to the lateral root system may hinder later development of the tree and cause injury-allowing insects and disease to infect the tree.