

PREPARATION OF COTTONWOOD CUTTINGS THROUGH USE OF
SPECIAL SAW AND TRACTOR-MOUNTED CUTTER

E. C. Jones, Nurseryman
Mount Olive Nursery, Mount Olive, Mississippi

In order to get cottonwood cuttings processed and prepared for shipment and delivery in the shortest and least time possible, we needed to speed up our method of processing and handling cottonwood cuttings.

We were using axes, chop blocks, and two table saws to cut up switches into cuttings. This was too slow and time consuming in preparing cuttings. Also, it kept cuttings in storage too long before planting.

In order to speed up the processing of cuttings we began work on a gang saw to cut several sticks or switches at one time.

Five 12-inch circular saws were mounted on a shaft 20 inches apart, since 20-inch cuttings are normally used for planting. Between each 2 saws, 2 drag chains spaced about 14 inches apart are used to carry switches through the saws. A 1-inch angle iron 4 inches long was welded to the drag or feed chains, used as a standard, carries the stick through the saws.

The bed for table saw mechanism is mounted on measures 3 feet across the top, 7 feet-4 inches wide, and 45 inches high. The saw shaft is powered by a 5 h.p. motor mounted underneath the saw and chains. The chains are powered by a 3/4 h.p. motor with a gear reduction on it.

During a normal operation, a time study was made and we found that an average of 5,000 cuttings an hour was done.

The entire crew, seedling lifting, grading, and counting operations, were used in preparing cottonwood cuttings. As sticks, or switches, were brought in from the field, a trimming crew was used for that purpose. Switches were then taken to saws, usually 2 men placed switches on the saw chains. They take the cuttings from the saw and place them in tubs. Then they are taken to grading tables where they are graded and counted. Then through packing and on to storage, just as our seedlings are done.

In field cutting switches we normally used 8 to 10 men, cutting switches with axes, hatchets, and knives.

Cottonwood cuttings are planted in the nursery on 3-foot rows.

We mounted a 20-inch circular saw and 6 h.p. gasoline engine on a base which bolts on the cultivator lift frame of a tractor. This can be raised

or lowered as the need arises. Using this saw to cut switches leaves a smooth top stump or stubble, and cuts low to the ground.

The saw is run at a high idling speed. The tractor is operated in first gear, at a low idling speed. A trailer is towed behind a tractor while two men pick up and load the switches.

This operation proved very successful and worked out very well in preparing cottonwood cuttings.