EASY WAY TO SOW COTTONWOOD NURSERY BEDS

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An easy method of sowing cottonwood seed on nursery beds has been developed at Stoneville, Miss. Mature catkins are simply hung on two wires stretched 3 feet apart and 1 foot above the beds, and seed falls on the beds as the capsules open.

The beds at Stoneville are 4 feet wide by 100 feet long. They have frames of stakes and crosspieces at 6-foot intervals along their lengths. The wires on which the catkins are hung are stretched lengthwise on these frames to help support standard 4-foot snow fencing used for partial shade.

In testing the seeding method, the beds were first scarified, leveled, and soaked to a depth of 6 to 8 inches to aid germination. The catkins were then spaced 2 feet apart on the wires, in a staggered or alternate pattern (fig. 1) to insure good bed coverage, and the shades put in place. Burlap was stretched along both sides of the beds to prevent the seed from blowing away, and removed when germination was complete.

For the first 3 days of seedfall, the beds were sprinkled with a garden hose every 2 hours during daylight; care was taken to prevent wetting of the catkins, as that would have stopped seedfall. After most of the seed was down, the beds were watered daily for several weeks with a standard overhead sprinkler system.

Beds sown by this method averaged 94 seedlings per square foot at the end of the first summer; distribution was excellent. In contrast, a single row of catkins down the center yielded 57 trees per square foot, and seedlings were concentrated in the middle of the bed. Broadcasting seed (with cottony matrix) by hand produced 58 per square foot, mostly in clumps.

These densities are too high for satisfactory seedling development, but lower stocking can be obtained by sowing less seed (as by spacing the catkins farther apart) or thinning after the seedlings are established.

The seed was highly viable, with a laboratory germination of 99 percent in 48 hours. It came from mature catkins having at least one but not more than one-fourth of their pods open on the tree at the time of collection.

1 Stoneville Research Center, maintained in cooperation with the Mississippi Agricultural Experiment Station and the Southern Hardwood Forest Research Group.

Figure 1.--Two rows of cottonwood catkins can seed a 4-foot-wide nursery bed uniformly. Photograph was taken 20 days after catkins were hung.