

REPORT ON STATE FORESTRY AGENCIES' ACTIVITIES IN
FOREST TREE IMPROVEMENT

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Nearly all of the southern state forestry agencies are engaged to some extent in forest tree improvement, principally with the pines. Admittedly, activity in the field for some of these agencies is limited to cooperative effort such as with forest industry, forestry schools, or with forest experiment stations or branches thereof. It is readily recognized too that the intensity and scope of effort of the state forestry agencies that are actually engaged in tree improvement activities is directly limited to the amount of funds available. Some State Legislatures are more liberal than others in appropriating funds for an activity that may require 15 to 20 years before any concrete results are shown.

There are several sources of federal funds, on a matching basis, that are available to state forestry agencies for conducting a tree improvement program. Some of these include Title IV of the Soil Bank Act, the Hatch Act, and the more recent McIntire-Stennis Act. There may be others.

Highlights of tree improvement activities of the five state forestry agencies represented here as reported by them are outlined below in alphabetical order by State.

Arkansas.--Reports three orchards underway. Two are with loblolly pine with a total of 28 acres and one of shortleaf of 11 acres. All three are, or will be, composed of grafted material. Future plans call for establishing a seedling seed orchard of cherrybark oak, with acreage and location yet to be defined. Paul didn't elaborate on the genetic quality of the clonal material being vegetatively reproduced in their seed orchards, but I assume it is or will be good growth rate and form trees.

Louisiana.--Has 23 acres of leased loblolly pine seed production area. Also, has developed a 25 acre slash pine seed production area on one of their state forests. Additional seed production areas will be developed as they are located and rogued. Seed collected from these areas will be used by their nurseries for the production of routine seedling stock. Also, obtained a 400-acre tract which will accommodate 225 acres of actual seed orchard, viz., 175 acres of buffer zone. Four acres of slash pine of high gum yield have been out-planted as grafts. Also, 6 acres of cottonwood of improved quality have been planted. Plans include establishing seed orchards of improved quality of slash, loblolly, and longleaf pines. No decision made yet on total acreage to establish. In cooperation with forest industry, has established a scion bank which I assume to be southern pine.

Mississippi.--Reports no activity in tree improvement and none contemplated.

Oklahoma.--None planned.

Texas.--Reports two seed production areas maintained on state forests, viz., slash 16 acres, loblolly 5 acres. In addition, some work is being done with drought-hardy loblolly pine. All three seed sources are used in producing nursery seedling stock for public sale. Thirty-three acres of seed orchards have been established thus far. Two state forests are used for this purpose in addition to a converted seedling nursery. An additional 24 acres of seed orchards are scheduled to be established this winter. It is currently planned to have 62 acres in pine seed orchards by calendar year 1967. The five genetic qualities currently being worked with include: good growth rate and form, high pulp quality, and high wood specific gravity for both slash and loblolly pine and in addition, drought-resistance and low wood specific gravity for loblolly. A cooperative tree improvement study with a forest industry has been started with eastern cottonwood; approximately 100 clonal selections will be tested. A southern pine scion bank has been established including an arboretum of pine exotics.