SEED LOSSES WERE HIGH in a direct-seeding study of loblolly pine at the Santee Experimental Forest, Berkeley County, S. C.

Seed were sowed in November, January, and March. As late as March 15, most treated and untreated seed were still in place. By the middle of April, average loss was 90%.

Seed were eaten on the spot on nearly one-third of the locations, as shown by hulls left. Teeth marks on the hulls showed that rodents did nearly all the damage.

Average loss of seed following Arasan-endrin treatment was 94%; with anthraquinone-endrin, 91%. With no treatment, average seed loss was 87%.

Few seedlings were growing at the end of the first season. Untreated seed had the highest average establishment rate. Evidence so far indicates that the repellents may not work as well in the Atlantic Coastal Plains as in the Gulf Coastal Plains, say C. Gordon Langdon and William P. LeGrande, U. S. Forest Service Division of Timber Management Research, Charleston, S. C.

If higher establishment rates cannot be achieved with the repellents now being used, other means must be sought to increase them, believes U. S. Forest Service. In the meantime, they advise sowing at higher rates.