

## SUMMARY

Distribution of the beech was studied in Hutcheson Forest in New Jersey, where red beech approaches its southern limit.

The location of all beech stems was plotted, and dbh's recorded. Three hundred and ninety-nine stems were found of which the oldest was 150 years and the youngest seedling, five years.

The beech is restricted to the eastern and central section of the forest. This distribution can be correlated with the amount of clay present in the soil; beech is present where the clay fraction is high, and absent or rare where the clay content is low.

Seeds were tested for viability and per-cent germination. None of the seeds tested germinated, and only 8 out of 54 seeds showed the presence of living embryonic tissue.

Trees in the 4 - 10 in. dbh size class were cored and age determinations made counting annual rings. The stem range evenly in age from 42 years to around 100 years.

Examination of roots indicated that 65% of all the stems are derived from sprouts. 90% of the trees under one inch dbh are of sprout origin.

The paucity of visible mast and young seedlings indicates that beech reproduction in Hutcheson is predominantly by root sprouts as has been found in other areas where beech approaches its geographical limits.