

SUMMARY

1. The natural harvesting of trees was studied in a mature oak-hickory forest located on the New Jersey Piedmont. Wind-throws and wind-snaps due to severe storms were the most important harvest agencies. Death through disease or removal by cutting were of lesser significance.

2. The total basal area of trees harvested per hectare was 47% on well-drained sites and 62% on poorly-drained sites relative to the basal area of living trees.

3. Wind-thrown trees were more frequent on poorly-drained sites and were predominantly in the larger size classes. Wind-snaps were more frequent on well-drained soil, possibly because of greater resistance to wind-throw and consequent breakage of the boles.

4. Thirty per cent of the dead trees were disease-killed. These trees were chiefly among the smaller size classes and the majority were on well-drained sites. Possible effects of drought and the fungus Armillaria mellea are discussed.

5. Only 11% of the harvested trees had been killed by cutting and these were evenly distributed between well-drained and poorly-drained sites.