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## PREFACE

With the proliferation of conferences and symposia during the past few years, the question of "why another one?" is likely to be raised. The rationale behind developing the Central Hardwood Conference and holding periodic meetings is quite clear. There is a necessity to draw attention to the central hardwood region and conceptualize it as ecosystem that is substantially different from the northern hardwood-white pine-hemlock region and the southern pine region. It is not an ecotone between these two regions, but an entity, the uniqueness of which is due to the dominance of the forest by approximately 25 species of oak and 10 species of hickory.

Second, it was felt that there should be a way to periodically draw together the scientists and resource land managers who share a common interest in the central hardwoods; if not to present individual research papers on a variety of topics, then to concentrate efforts in a problem-solving approach or both. At the same time, there seemed a need for publication of research papers on the forest. The "Proceedings" serves this purpose, and over the years, it is anticipated that there will be a sizable volume of information concentrated within a few books.

A longer term objective may be to facilitate or assist a coordinated regional research program. While this objective is visualized, the necessity is real and the program to some extent already on paper. Regional research plans have already been written by the SAF for inclusion in a national research program according to reports given at the 1976 SAF Convention in New Orleans.

Such a research program will be substantially enhanced by, I believe, a developing "hardwood revolution" that is being fueled by the increasing demand for wood products combined with the presently undertapped resource of the central hardwood forest and the dwindling supply of softwood timber. For instance, recent Forest Service statistics show that the loss of loblolly pine stands to hardwood types over a ten to eleven year period is 58 percent in North Carolina, 58 percent in Georgia, and 66 percent on the Coastal Plain of Virginia. The long term implication of these forest type changes, if they continue, is clear.

A final word. It seems appropriate that the areas to be considered by the CHFC are those of ecology, silviculture and management. Certainly it is not possible for the Conference to cover all aspects of the central hardwoods, nor is it necessary as there are already no less than ten active groups and organizations covering topics such as tree improvement, Christmas trees, forest soils, mensuration, economics, and species like walnut and poplar. There are also other meetings of timely interest that are sponsored by forestry departments within the region. At present, the CHFC seems to fill the need for an organization concerned with ecology, silviculture and management of the central hardwoods.

However, the question remains, "Where do we go from here?" In concluding remarks, Orie Loucks raises some thought-provoking questions which may require new and unique approaches to the management of the central hardwoods; these could be considered at a future meeting. No doubt there are scientists and resource land managers who have additional concerns. Therefore, in order to provide an input of ideas for future meeting topics, a steering committee for the CHFC will be formed in the near future.

The editors and authors sincerely hope that researchers and resource land managers find the contents of this volume interesting and of value.

James S. Fralish

## REVIEW PROCEDURES

Each paper contained herein has been reviewed by at least two scientists\* actively working within the appropriate subject matter area (community ecology, succession, tree growth, tree physiology, forest soil and hydrology, nutrient cycling, and productivity and forest management). After revision, the editors carefully examined each paper for sentence structure, clarity and meaning. The manuscripts were then retyped at Southern Illinois University and given a final proofing by the authors prior to publication.

\*Except papers submitted by the U.S. Forest Service personnel.  
The U.S. Forest Service has an internal review system.

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