

**Proceedings of the
SYMPOSIUM ON
INTENSIVE CULTURE OF
NORTHERN FOREST TYPES**



**USDA FOREST SERVICE GENERAL TECHNICAL REPORT NE-29
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**FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE
NORTHEASTERN FOREST EXPERIMENT STATION
6816 MARKET STREET, UPPER DARBY, PA. 19082**

FOREWORD

THE NORTHERN FOREST TYPES constitute a vast natural resource for the United States and Canada. For instance, in the eastern United States there are more than 10 million acres of commercial forest land supporting spruce and fir types alone. The magnitude and variety of this resource is such that treating it in any detail at a 3-day meeting was impossible. Rather, the idea that germinated and developed into this symposium was to present a broad picture of the extent of our knowledge of intensive cultural techniques, the status and trends of our research in the northern forest types, and some actual experiences in managing this resource; and to explore those factors that affect our use of the intensive cultural techniques we have at hand.

There is no doubt that we face a new era in the management of northern forests. The production of wood products is no longer the primary objective of many owners, and increased pressure for the social values of our forests is being felt by all landowners. We must recognize these other forest values, which in turn dictates intensification of all aspects of forest management if we are to meet the future demands of a wood-hungry society.

The enthusiastic efforts of the symposium sponsors—the School of Forest Resources, University of Maine; the Maine Bureau of Forestry; the Maine Forest Products Council; and the U.S.D.A. Forest Service—and the individuals behind those efforts, should be commended. Special thanks are due to Great Northern Nekoosa, Inc., and Brooks B. Mills for their help in providing interesting field trips, and to the Casco Bank and Trust Co. for sponsoring the symposium brochure. Also, without the enthusiastic participation of the experts invited to present papers, and the moderators of each session, the Symposium could not have taken place.

—**BARTON M. BLUM**
Symposium Chairman

PUBLISHER'S NOTE

This report is published by the Northeastern Forest Experiment Station as a public service. The papers it contains are published as received from the authors. Any questions or comments about these papers should be directed to the authors.

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Fred Holt, Maine Bureau
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Ray McDonald, Casco Bank
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Canada: 22 July 1976, morning session.

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*held 20-22 July 1976 at Nutting Hall, University of Maine, at
Orono.*

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CLOSING COMMENTS

Fred B. Knight, Director
School of Forest Resources
University of Maine at Orono

The papers presented during the two and one half days of this symposium have provided all of us with a deeper understanding of the present knowledge on intensive management but they have also left us with many questions about the future. There is first an overwhelming feeling that we are doing too little about our problems and perhaps we are too late to meet potential requirements. We should have all of our productive northern forest types under intensive multiple use management but how soon will this happen?

Why should we mention a note of pessimism when we have been shown that intensive management can be accomplished? Chief McGuire said and I quote from his paper - "There is no doubt that private lands--particularly small, non-industrial holdings - are the key to meeting future demands for forest resources. And please remember that while this conference deals mainly with wood supplies, the demands for other forest uses are increasing just as rapidly--in some cases, more rapidly". Can we get these private lands under intensive management soon enough to meet our future needs? Must we depend upon strict regulation to meet the requirements? Will rising prices and rising demands result in a wave of exploitation? Hopefully we can establish good management practices on all lands without excessive regulation before the pressure for more fiber destroys the opportunity.

Robert Phelps pointed out our needs and gave us our charge. He pointed out how we might get a little more production by improving efficiency of utilization and we could gain some addition to meet future needs through imports. But, in a competitive world our future needs for additional wood must come mainly through management.

We must set our goals and go after them without delay. Are we ready as a general public to set realistic goals that everyone understands? We have discussed many ideas related to these questions and we have shown clearly that we have knowledge that is not being utilized for various reasons. Some general impressions that I have developed from these discussions are as follows:

- (1) We have much knowledge about intensive management but we are not utilizing that information on a large scale.
- (2) The northern forest types may be managed inten-

sively in a variety of ways depending upon a host of varying conditions which may be biological, economic or social.

(3) Research must continue at a rapid pace to develop further methods for culture of the northern forests.

(4) There is a critical need for the development of an understanding in the public sector about the need for and methods of intensive management.

(5) The managers of forested tracts have a difficult adjustment to make in changing from present methods to more intensive procedures requiring closer supervision of on the ground activities.

(6) Education must concentrate on preparing more foresters with an interest in close attention to detail and a desire to stay in close contact with the forest. Intensive management requires more foresters with specializations but proportionally will require many more with a desire to work in the woods caring for relatively small acreages of forests.

(7) Management of northern forest types has been crude and rough. Intensive management requires the development of the attitudes of artists who look on work as a creative production and an exciting experience. The change requires a real commitment all along the line.

(8) Very little will be done unless the economic climate is adjusted considerably. The forest is the resource on which our large industry must subsist; it is the playground for millions of people; it is the home for many wild plants and animals; it has a profound influence on our physical lives. Yet, the forest receives the least portion of support possible. Timber buyers pay the least stumpage possible, Recreationists expect to use the forest for nothing, Game managers treat animals as a by-product and hunters pay very little of their fees toward management of the habitat. There are hopeful signs but we can only hope that the changes to a real recognition of forest values comes soon.

This symposium has provided all of us with a status report on management of northern forests. It has provided ideas for the future. Dr. Blum and his very fine committee should be complimented for developing a much needed review. It is up to all of us to carry out the program in the future.

Headquarters of the Northeastern Forest Experiment Station are in Upper Darby, Pa. Field laboratories and research units are maintained at:

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- Berea, Kentucky, in cooperation with Berea College.
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- Hamden, Connecticut, in cooperation with Yale University.
- Kingston, Pennsylvania.
- Morgantown, West Virginia, in cooperation with West Virginia University, Morgantown.
- Orono, Maine, in cooperation with the University of Maine, Orono.
- Parsons, West Virginia.
- Pennington, New Jersey.
- Princeton, West Virginia.
- Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.
- Warren, Pennsylvania.