

# THE FUTURE OF FIBER PRODUCTION IN THE NORTH-CENTRAL STATES

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It is an honor and a pleasure to make the initial presentation at this Tree Improvement Conference. I plan to cover the "future of fiber production in the north-central States" by confining my remarks to three major issues: (1) the potentials for expansion, (2) factors that may inhibit growth, and (3) changes in policies and procedures required.

## POTENTIALS FOR EXPANSION

Before discussing potentials for expansion, I want to be sure we have a common understanding of the main terms of my subject. For example, *fiber production* is referred to by your Executive Secretary Hans Nienstaedt from an economic and silvicultural point of view as "a crop to be harvested in a total system beginning with the harvesting of the tree *seed* and ending as a roll of paper coming off the end of the paper machine." I am sure that the combined papers of this conference may cover such a broad definition — but I will not.

In fact I want to confine the reference of "fiber" to *wood fiber production*. In doing so, I must point out that I am eliminating the possibility of a *vegetable fiber* or even a *chemical fiber* being produced before the end of this century. I mention this to assure you I am very much aware of the hazards of forecasting, and trust you will have your own reservations of long-term predictions.

I am not sure we all have the same concept of what is the North-Central Region. To pin that down, I will note that it is assumed to include the States as grouped in the Forest Resource Report 17, "Timber Trends in the United States." That grouping includes the Lake States of Michigan, Minnesota, North Dakota, South Dakota, and Wisconsin, and the Central States of Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, and Ohio.

It is important, also, that we have a broad picture of the relative size and importance of the North-Central Region in relation to the total U.S. (including all 50 States) by noting that this region (according to "Timber Trends") has:

1. Nearly 20 percent of the total commercial forest land *area*;
2. barely 10 percent of the total *area* of *sawtimber* stands;
3. just under 10 percent of the *net volume* in growing stock trees, in terms of cubic feet;
4. about 13 percent of the total *growth* of growing stock;
5. only 8 percent of the total cut of growing stock and 10 percent of the total cut of pulpwood; and
6. more than 10 percent of the total growth of sawtimber volume but less than 7 percent of the total annual cut.

Briefly stated, the region has a minor role in the National Forest economy; it has few negative balances between growth and cut, and obviously has room for improvement and great potentials in the years ahead.

Speaking of potentials, let us now get back to the subject of potentials for expansion of fiber production in this region. Keeping in mind the relative position of the region in the national economy, I want to refer to two recent projections of national demand for forest products by two economists highly regarded in their respective fields.

The first projection (table 1) is derived from statements made by Dr. H. R. Josephson, Director of Forest Economics and Marketing Research, USDA Forest Service, in his paper at the annual meeting of Technical Association of the Pulp and Paper Industry (TAPPI) on February 24, 1971. Dr. Josephson gave statistics

Table 1. - Estimated demand for forest products in the U.S. from 1970 to 1990<sup>1</sup>  
(In million cords)

Year	Pulpwood <sup>2/</sup>	Saw logs, veneer logs, etc.	Total forest products
1970	87	100	187
1980	122	137	259
1990	167	165	332

1/ From H. R. Josephson's Paper before TAPPI in New York City on Feb. 24, 1971.

2/ Includes "apparent" consumption in cord equivalents of net imports of pulp, paper and paperboard products.

which indicated that "apparent" pulpwood consumption (i.e., including cord equivalents of net imports of paper, board and wood pulp) would increase from 87 million cords in 1970 to 167 million cords in 1990. The total consumption of all forest products would increase from 187 million to 332 million cords, i.e., an increase of over 70 percent in just 20 years. At this rate the total consumption of forest products would be double current rates by the year 2000.

A more conservative estimate of total demand was presented by Dr. George Cline Smith, President of Mackay-Shields Economics, Inc., at the annual meeting of National Forest Products Association (NFPA) on May 10, 1971. I have converted his estimates from cubic feet to cords by assuming 80 cubic feet to the cord; the results are shown in table 2. Dr. Smith estimates that total demand for all forest products may increase from 177 million cords in 1969 to 281 million in the year 2000. This is an increase of only 60 percent — as compared with a projected increase of 70 percent in 1990 by Josephson (or about 100 percent if projected to the year 2000). Dr. Smith's staff came up with the conclusion that the demand for sawtimber and veneer logs might increase only 10 percent annually over the next 30 years — and that most of the projected 60 percent increase by the year 2000 would be in expansion of demand for pulpwood, i.e., wood fiber.

Table 2. - Estimated demand for forest products in U.S. from 1969 to 2000<sup>1</sup>  
(In million cords)

Year	Softwoods	Hardwoods	Total forest products
1969	121	56	177
2000	183	98	281

1/ From G. C. Smith's paper before NFPA in Wash., D. C. on May 10, 1971.

In light of these two competent but diverse estimates, it seems reasonable to predict that fiber production in this region should double in the next 20 to 30 years. Since consumption in this region in 1970 according to American Pulpwood Association figures (excluding Kansas, Dakota, and Nebraska) was 5,226,000 cords, we are talking in terms of 10,000,000 cords plus by the period 1990 to 2000. This seems even more reasonable when you look back 20 years and note that pulpwood consumption in this region increased just a little over 100 percent. If I had given you a prediction based on that fact alone in the first place, it would have saved us both a lot of time and words. In any case, an annual expansion of 2 to 3 percent for this region may well be the trend.

## FACTORS THAT INHIBIT GROWTH

Any estimate of the future use of commercial forest land for growing forest products, and of producing and selling such products, is fraught with more unfavorable or unknown factors than at any time in the past. I will mention only those which are most timely and significant; for example:

1. Competition for forest land is increasing. Non-timber uses and demands are increasing. Complete withdrawals from forest production are caused by parks, highways, reservoirs, and agriculture; these total as much as 10 percent of the timber cut annually for commercial use, according to Dr. Josephson.

2. The public awareness and complaints on pollution of streams, rivers, and lakes are actually closing mills, or forcing them into expensive capital investments that may make fiber production unprofitable for some mill operations.

3. Consumer programs geared to reduce or eliminate some forms of pulp and paper packaging are already getting legislative attention and support. This could seriously reduce existing production and eliminate expansion of some pulp manufacturing plants.

4. Insistence on using high or uneconomic percentages of recycled papers may seriously disrupt current and future fiber production.

5. The demand for more esthetic considerations in timber harvesting, especially in clearcutting, is causing consternation (to say the least) among practicing foresters on both public and private lands.

Surely, the above represents a serious enough list without going into the rising costs of labor, stumpage, and ad valorem taxes, or the threat of governmental interference and control of forestry practices on public and private lands, if bills such as the one proposed by Senator Metcalfe receive any favorable action by Congress. In short, even the most conservative estimates of demand may not be fulfilled unless reasonable and economic solutions are soon developed to solve these problems by our legislators.

## CHANGES REQUIRED

In spite of the threatening array of problems I have listed for your review, I am enough of an optimist to believe they will be solved to the extent that an expansion of fiber production at a 2 to 3 percent rate in this region can be expected, *providing* we take more intensive action in changing our practices and policies. When I say "our" I am referring to foresters, managers of the private and public organizations, and legislators. Some of the concerns we must include in our consideration are:

1. Our primary and immediate concern probably should be in getting more adequate information to the public and to the consumers of forest products as to what we are doing to maintain and improve our forest resources and our general environment. We must explain what may be involved in meeting the myriad of demands for improved use of water, different forms of packaging, changes in methods of harvesting forests, etc.

2. In order to meet newly established standards, our pulpmills are already embarked on massive programs to discover ways and means of using less water or of returning it in the same condition that it was prior to use.

3. Most pulp mills are using as much sawmill and other solid wood product mill residues and so-called logging wastes as is economically feasible. Studies and pilot operations on utilizing the whole tree are well underway. The recent demonstrations of the Metro Chiparvestor in this field are, I'm sure, known to you since the main plant of the manufacturer, Morbark Industries, Inc., is located in Winn, Michigan. These potentials, which can double the yield of wood harvested per cord of this region, must be explored to the fullest.

4. If there are any foresters left who feel that commercial forest land must be devoted only to the production of wood fiber or other forest products, I feel they

better seek early retirement at the first opportunity. The pressures for using commercial forest land for recreation and other nontimber growing activities require intensive application of multiple use principles.

5. Improving forestry practices and increasing production of forest products on the lands of farmers and miscellaneous private woodland owners is a major need in both this and all other forest regions of the country. This need is not likely to be met by industry, and unless it is stimulated by direct subsidies or incentive tax policies of our government, it will be a primary cause of failure in our forest policies. These ownerships (farmers and miscellaneous) comprise almost two-thirds of the commercial forest land in this region. Their improved management must be given the highest priority of attention and action.

6. Even if all the above changes were acted upon promptly and in full measure, I doubt if they would be adequate to meet the needs of our economy by the year 2000, even if we succeed in reaching zero population growth in this country by that time. Unless we have increased consideration and action on needed forest research programs, we are likely to be faced with failure in meeting our need for forest products at that time.

Our own industry sincerely believes and supports forest research. For the past 4 years, six of our own members have supported a harvesting research project that has an annual budget in excess of \$350,000. Next year the sponsorship of this program will be expanded to 12 to 15 companies. These are primarily companies with southern mill operations. I need not tell this audience that southern pulpmill operators are currently supporting some of the most intensive research in forest tree improvement, and applying the results on a region-wide basis over hundreds of thousands of acres annually. Similar efforts and programs in this region on a proportionate scale of interest and action are presently not in evidence. I am not being critical — but I do believe that all concerned with these problems in the North-Central Region should take more progressive steps to stimulate the needed research in improving the quality of seed and growing stock that will make up the future forests in this region.

I am sure the papers that follow will outline very specifically why this is needed, and how these programs would be conducted. Pay close attention and consider their recommendations with care. The future forest and the future citizens of this region will profit accordingly as you listen and act on their recommendations.