

# OUR BIRCH RESOURCES

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I AM PLEASED to be here in New England this morning to help get this birch symposium under way. It is a delight, first of all to be here to enjoy the magnificent scenery. And second, I am happy to be here because this meeting is an important link in a chain of efforts aimed at resolving one of the most critical problems facing American forestry today—the need to improve the domestic supply of high-value hardwoods available for timber harvest.

Both the quality of the landscape and timber production will receive attention during the sessions that follow, for the two are inseparably related throughout the northern hardwood regions of the United States and Canada. These forests that provide birch and other fine hardwood timber for consumer use also provide some of the finest opportunities for outdoor recreation of any area in the world. Together, the wood-using and outdoor recreation industries represent the backbone of the economy in many of the birch-growing areas. As demands for wood products increase and as pressures for recreation and other forest uses continue to grow at unprecedented rates, we shall have to be increasingly skillful to harmonize these sometimes conflicting uses.

We all know that yellow birch and paper birch are important timber species. Yellow birch is generally considered to be one of the most valuable of all trees growing within its commercial range; high-quality logs bring prices that can be matched by only a few other species in the world.

Paper birch, too, commands premium prices for the larger logs. Even paper birch boltwood, in small diameters, brings high prices, particularly in New England. Because of its rapid growth and high value in small

sizes, paper birch is especially attractive to timber growers.

I am sure you all know that good quality trees of these valuable birches are in short supply. Some of you in the birch industries are more aware of this than the rest of us, for you have been paying even higher prices for suitable raw material and hauling it from ever greater distances. And the prices keep getting higher. In the last 20 years, the prices of yellow birch veneer logs and high-quality sawlogs have nearly doubled. Prices up to \$300 per thousand for yellow birch veneer logs were reported in New Hampshire in 1968. Wisconsin also reported high-quality yellow birch saw and veneer log prices in the \$200 to \$300 range. These price increases reflect a growing scarcity of birch timber.

## **More Birch Needed**

Our resource inventories show the extent of the decline in the supply of yellow birch. The inventory of yellow birch growing stock went down about 16 percent from 1963 to 1968. For the last year of record, 1967, total removals of yellow birch sawtimber were 204 million board feet. This was 23 percent higher than sawtimber growth. If the cut continues to exceed growth, there will be increased competition for residual supplies, higher prices, and increasing imports. Cut also exceeded growth for some of the other preferred species such as sweetgum and walnut.

Partly because of the rising prices for hardwood timber, the United States has been turning more and more to foreign sources for high-quality hardwood timber products. We estimate that for 1968, about three-fifths of the Nation's needs for hardwood plywood and veneer were supplied by imports. This

is a major change from the 1950's, when imports were insignificant. Thus the scarcity in quality hardwoods contributes substantially to our 900 million dollar deficit in balance of payments for forest products.

The current trends in timber cutting and growth indicate that, under present levels of management, we will be unable to supply prospective increases in demands for birch and some other high-quality hardwoods in the years immediately ahead. And within the next decade or so we will be faced with a similar situation for other hardwoods. We can scale back domestic consumption and exports, we can further increase imports, or we can increase our efforts to produce more timber. There is no question in my mind that we should take the last course. This means developing the know-how and investing the money to raise the productive capacity and quality of our hardwood resource. This in turn means stepping up our programs in research, in managing the public lands, and in cooperative assistance to private owners.

But how does this apply to birch? To find out, you are going to be taking a very close look at the birch situation. At the outset, we can trace the present scarcity of high-quality birch timber to past cutting and the lack of forest-management practices. The reversion of farm lands plus the heavy cuttings at the turn of the century have resulted in many second-growth birch stands that are not yet old enough to produce large veneer-quality material. Light cuttings in more recent years have gradually reduced the volume of birch in our older timber stands.

### **A Question of Motivation**

The problem is not likely to go away in the near future. While we have some promising second-growth stands coming along, we have many others where the potential value has been lost by failure to maintain growth, quality, and species composition through thinning or other management practices. The paper birch in some of these stands has already been harvested, leaving little prospect of value for many years to come. We have failed to reproduce enough new stands of both paper and yellow birch over the past 30 or 40 years.

I am convinced that there will always be

a demand for high-quality timber of preferred species. The mellow tone and rich grain of birch cabinets or panelling are not likely to be replaced by substitute materials as long as we can provide the quantity of wood needed at competitive prices.

To do this will require vigorous action by everyone concerned. There must be more intensive management on both public and private lands. We as birch timber-growers have two major tasks. To boost the immediate and near-future supply of quality logs, we need to stimulate diameter growth and improve quality of existing stands through thinning, pruning, fertilization, or any other cultural measures required. And to insure that supplies will be adequate in the more distant future, we need to begin now to regenerate new stands of birch in an orderly and systematic manner. We have much of the knowledge needed to get the job done; we just need to get started and then continue on a significant scale.

A major problem is motivation. The owners of birch timberlands include public agencies and large wood-using industries — but most of all the hundreds of thousands of private individuals who may or may not have any interest in timber production. The latter group—small, private landowners—control about two-thirds of the commercial forest area in states where birch grows.

Owners of small forest acreages have widely varied objectives. Some want timber, and certainly forest management can serve their interests. But it can also serve those who want other things, like wildlife, recreation, or a vacation retreat. If these things can be combined, the lands will continue to serve the interests of the owner and help produce wood the Nation needs today and tomorrow.

### **Inform the Landowner**

The small landowner *is* interested. A 1966 study by Noyes and Babeu in Berkshire County, Massachusetts, revealed that the majority of the woodland owners there considered personal recreation as the dominant reason for holding their land. Yet 41 per cent of these owners indicated they would accept cutting of mature trees and another 41 per cent indicated they would accept cutting of this type if it is controlled or done with the advice of foresters. Some owners simply were

not well informed on the advantages of harvesting timber or did not know how to go about getting it done.

A major challenge therefore is to inform the landowner. As the recreation pressure increases, city and suburban residents can be expected to purchase greater amounts of rural forest land. How do we reach these people with management information? Today we need professional assistance for those absentee owners of small forest land. Some of the states are beginning to provide these services by offering urban forestry units in metropolitan areas. In the vanguard are Georgia, which now has people in Atlanta and Savannah, and Missouri with units in St. Louis and Kansas City. These specialists serve three functions in metropolitan areas. They offer:

- Advice to city dwellers who own rural land.
- Cooperation in community planning.
- Information to the community about the need for wise management of rural wildlands.

What this means is that the target of forestry information and education programs is shifting.

Although the motivation may be different for each of the many types of owners, we need to stress the economics of management for quality hardwoods. Profit is a motive that speaks to nearly everyone, and we need to show what can be accomplished by prudent investments on the better sites. I think we have a far better story to tell here than most of us have realized.

When a landowner is both informed and motivated to the extent that he is interested in learning more and doing more about his forest resource, then he is ready for specific advice and technical assistance. Each of the birch-growing states has a staff of service foresters operating under the Clark-McNary Act of 1924 in cooperation with the Forest Service. These men are ready, willing, and able to assist landowners in planning and achieving better management and use of their birches and trees of other species. By working with consultant foresters and industry people they can make sure that the landowner has adequate professional help in growing, harvesting, and marketing his forest products. This symposium, and the follow-up that will be generated by it, will enable state forestry

organizations to provide even better technical assistance to interested landowners.

### **Continue Research**

Of course, we need to continue our research to find better, faster, and more economical ways of producing the timber we need. We need to investigate the possibilities of very intensive culture of our quality hardwoods. I am thinking now of plantations on the very best of sites, utilizing genetically superior strains at wide initial spacings and tended on a nearly agricultural intensity to produce veneer logs on a short rotation. The existing possibilities of such tree culture are already being tested with walnut; the birches should respond to the same approach.

However, in our efforts to improve birch timber production, we will constantly need to remember the other important uses of our birch-producing forests. The birches themselves are outstanding trees from an aesthetic standpoint—especially the paper birch, with its attractive, clean white bark.

For many people, the white birches symbolize the charm that is New England. Roadside groves of paper birch, such as the one at Shelburne, New Hampshire, are significant tourist attractions marked on the roadmaps and tour-guide folders. The view of Mt. Chocorua framed by white birches along Route 16 is one of the most photographed scenes in the world. When some of these Chocorua birches died a few years back, the State of New Hampshire went to considerable trouble and expense to have them replaced, for the spot loses much of its appeal without them. Artists have the advantage over photographers here—I understand that the original birches still frame new paintings of that spot, even though they have been gone for some time!

To the tourist driving along a forest highway in this region, as in the Lake States, the paper birch adds variety and interest to the forest. The chalky whiteness contrasts dramatically with the dark greenery of the other trees. And the kaleidoscope of color in the fall—with the golden yellow of birch foliage, the oranges and reds of the maples, the dark green of the conifers, and the white birch bark—is simply unsurpassed.

In the past, we have relied heavily on nature to provide these aesthetic incentives to tourists, but I believe more and more con-

scious effort will be made in the future to establish and maintain really superior scenic focal points. Lines of birches along highways, groves of birches at picnic and camping areas or in vacation cottage developments or ski areas, clumps of birches framing vistas of lakes and mountains—these are all attractions that can be maintained or created through cultural practices. Foresters have much to contribute to this form of tree culture too.

### **Conflicting Demands**

In all our tree-growing activities, whether it be primarily for timber, for aesthetic values, or for other purposes, we must recognize the multiple demands being made on our northern hardwood lands. Each activity invariably affects other uses to some degree. When we clearcut a mature stand and secure birch regeneration, we have at the same time influenced the water relationships of that area; we have changed the aesthetic qualities of the area and have influenced its characteristics as a site for camping or skiing or berry picking or bird watching or flower collecting; and we have altered the type and amount of food and cover available for wildlife.

The wildlife-habitat and timber-growing relationship is one that must not be overlooked. Some wildlife prefer birch for food, and this in turn creates difficulty in achieving young growth for timber. The challenge we face is to manage birch cuttings so as to grow enough young birch to provide food for reasonable wildlife populations and at the same time provide stocking for timber stands. I believe this can be done; but it will call for skill and knowledge that we may not yet have.

Although we have recognized these influences, we need to do a lot more planning and adjusting of our forest management activities to accommodate and take maximum advantage of these multiple effects. We need to plan for orderly progressions of reproduction for timber uses, for aesthetics, and for wildlife habitat.

We need to recognize that some timber-harvesting activities can create unsightly conditions. We need to alleviate this problem by planning to take the extra measures necessary to dispose of the brush and slash or otherwise clean up areas where other uses require it.

And we need to recognize that our timber management systems will have to be modified

in some areas, even at the expense of obtaining maximum timber yields.

We need to recognize that individual uses other than timber production will be paramount in some areas—that recreation uses or water-supply requirements, for example, may preclude or limit other uses. The public will insist on such single-use management in some areas, and they are willing to pay the price necessary to get it. In November 1966, for example, Maine voters passed the State's 1½ million-dollar Allagash Wilderness Waterway proposal by a 2 to 1 majority, while at the same time they defeated three other referendums calling for increased expenditures of tax money. And in adopting articles for a new state constitution in 1967, the State of New York upheld the "forever wild" policy as applied to the Adirondack Preserve, defeating even the most modest attempts to modernize the laws governing the management of this area. On a smaller scale, we as foresters need to be sensitive to this kind of demand and demonstrate leadership in recognizing and delineating areas where special or single-use management will be appropriate.

### **Emphasize Quality Birch**

I hope that this symposium will lead to widespread improvements in the management of our birch timberlands for all uses. I feel sure that it will accomplish its primary objective of summarizing and interpreting existing knowledge on the many subjects that affect birch management and utilization. Certainly these proceedings that we have before us represent a giant step in that direction. Within these pages are the latest results of birch research and the most up-to-date recommendations for birch silviculture and management. And I have seen other published material on display here that will further supplement the proceedings.

But now I believe we should carry this one step further and provide a focus on birch as a premium, fine hardwood species—just as we did with black walnut after the symposium at Carbondale, Illinois. This promises to pay handsome dividends in the Central States. Walnut has become important to almost everyone there who has an interest in forests, from Boy Scouts to legislators.

This interest has helped foresters in that region in many ways. Research has found more

funding to intensify walnut studies. Forest nurseries are receiving more seed from more sources. The cooperative forestry programs have provided expert assistance for landowners eager to establish and manage the species on their properties.

We need a similar emphasis on quality birch, if we expect to reap these benefits. We already have the necessary cooperation. The universities, timber industries, trade associations, consulting foresters, State Foresters, extension agencies, and the Forest Service have worked together to improve forest management. It is evident in both our cooperative accomplishments and your attendance at this meeting. If we apply our cooperative force to

the task of selling the importance of producing quality birch, we should achieve the same success that resulted from the black walnut effort.

All of us will have much to carry back to the job with us—new information can be applied in management programs or in our extension and education efforts; new insight into the additional research that needs to be accomplished. We must carry back with us and sustain some of the enthusiasm generated by this meeting. We are taking part in a new era of quality tree culture that will surely be more intensive and more successful than anything that has yet been achieved.

