SOME BENEFITS, PROBLEMS, AND CONCERNS OF A SECONDARY USER OF YELLOW BIRCH

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BENT & BROTHERS, Inc. is a small furniture company located in Gardner, Massachusetts, specializing in the manufacture of Early American wooden seat chairs. Because of our size and our specialization, we do not necessarily represent the industry in our ideas about and use of yellow birch as a primary raw material.

Our company during the past 100 years has made furniture from mahogany, chestnut, oak, white pine, hard pine, rock maple, and yellow birch. Various reasons such as availability, price, workability, and consumer demand have dictated which species we have used at different points in our history.

Today we use about 2 million feet of yellow birch lumber and about 2 million feet of yellow birch and rock maple dimension stock. The lumber is used almost exclusively in making seat blanks; the maple dimension stock is used for the arms; and the yellow birch dimension stock is used for the backs and other parts.

Our lumber is purchased in 6/4 and 8/4 thicknesses and is shipped by truck and freight car from mills in Maine, New Hampshire, Vermont, Quebec, and New Brunswick. We stick all this lumber in the air-dry or green condition on bunks on a rail system prior to pre-drying and kiln-drying. Our dimension stock is shipped mainly from New England; and, depending upon the use, is yellow birch, rock maple, or mixed.

We have run maple through our plant in the same manner as yellow birch, but have experienced difficulty in educating our personnel to identify the two species and to understand why they must be kept separate. We feel that we have an easier time drying yellow birch than rock maple, possibly because the mineral in the maple is more likely to cause degrade in the drying cycle. We also feel that we have fewer problems in checking with the yellow birch while it is being processed prior to finishing.

Because of a more porous grain, yellow birch does not sand to as smooth a finish in the white wood as maple, but this is actually an advantage in the finishing operation. In matching our stain colors to other manufacturers', which is a large part of our business, we find birch is much easier to work with. We actually have to take extra finishing steps when using maple parts to either shade the light parts or artificially open the grain to allow the stain to penetrate better.

It was mentioned earlier that we may not be representative of the industry because there are manufacturers who purchase stock from our same suppliers who specify all birch or all maple. Usually a case-good manufacturer will be able to use maple and realize a good yield regardless of the mineral in the stock, because he needs part of his supply to make hidden parts such as drawer sides or upholstery frames. But in our work—where all parts are exposed, as they are in a Colonial chair—the parts should be 100 percent clear of all defects.

For this reason, we have found a better yield when using both sap and heart wood from yellow birch, because the color differential is usually compatible and there is no mineral to open up in the drying process, as there is in maple.

We are aware that the price of maple is less than that of a comparable grade of yellow birch, but this advantage is mostly washed out in high-grade furniture because we would have to specify No. 1 and No. 2 white (maple), which commands a premium price over regular maple.

The one place where we have found rock maple to be superior to yellow birch is for
parts where there is a critical bending problem. We experience less breakage with maple than with birch; so we use maple exclusively for our arm bows.

However, our backs, which have a less severe bend, are made from yellow birch because we have a better chance of realizing a uniform color to match the birch seat.

As far as technical and structural properties are concerned, beech, yellow birch, and rock maple are so closely comparable that there would be no advantage of one over the other for making furniture.

Machinability is noticeably easier on yellow birch. This shows up in the increased production between knife grindings.

The foregoing remarks should make it evident that we are tremendously interested in any discussion that will promote the growth and harvesting of yellow birch. Even now demand has put a higher price on yellow birch lumber than other high-volume species in the Northeast. We hope to see more evidence of a trend toward multiple-product logging, which seems a necessity to give the land and timber owners the incentive to continually harvest this premium species.