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Extension Forester Discovers New Species- Landowners and Processors Make Millions!

Ron Mahoney

Paper birch (*Betula papyrifera* Marsh.) is widespread across the northern-tier of Idaho, west of Glacier National Park in Montana, and east of the Cascades in Washington, and is even more prevalent throughout adjacent Canada and the interior of Alaska. This species has generally been considered a non-commercial tree that is commonly treated as a "weed" and eradicated to favor commercial softwoods. Birch is ideal for specialty uses, including birch syrup and the Popsicle stick and tongue depressor factory that operated in Sandpoint, Idaho in the 60's and 70's. While paper birch is also ideal for lumber and veneer, it has rarely been utilized in the Northwest due to a lack of total industrial commitment, until recently, to our abundant native softwoods. This situation parallels that of native red alder (*Almus rubra* Bong.), where we can learn some important ecological lessons as well as derive some inspiration for economic development. Years ago, red alder was also unmanaged, unused, and treated as a weed to be eradicated in favor of west coast Douglas-fir. Today, red alder feeds a thriving, multimillion dollar industry that saved hundreds of jobs and several wood processing facilities in timber dependent communities in Washington and Oregon. Foresters that once used herbicides, fire, and bulldozers to eradicate red alder are now scrambling to find ways to manage and regenerate existing stands and grow red alder in plantations.

Idaho also has scattered but substantial stands of red alder which possibly could supplement the existing furniture industry. Idaho seed sources are currently being used in a red alder genetic improvement study at the University of British Columbia. I have conducted informal trials of local paper birch lumber with red alder manufacturers, and birch showed great potential as a direct substitute for red alder in several processes. I also worked with a cooperator that had birch processed as chopsticks for export, and several Pacific Rim buyers thought the species met their exacting requirements. Some small-scale milling and drying trials at the University of Idaho produced excellent lumber. Several local industries experimented with making birch lumber or veneer, with disappointing results. However, discussions have led to the conclusion that the quality of the logs used in combination with incorrect processing led to a poor product.

Successful economic development based on hardwoods requires integrated use of smaller and lower grade logs, and even use of residues, to reach its full potential. Premium saw and veneer logs are not found in every tree and, when they are, much of the tree above the premium butt-log is smaller and lower-grade material. Consequently, efficient and ecologically sound harvesting of birch will require economic utilization of lots of smaller and lower grade material along with the higher-grade, larger logs. With paper birch, I envision premium logs going to veneer markets, or perhaps export, and other quality saw lags going to red alder processors or other local/regional mills for furniture-grade lumber. Even smaller or partially defective material can go into the re-saw process used with red alder to produce edge-laminated hardwood panels, and residues – slabs and short pieces – going into chopsticks, parquet flooring, or other specialty products. The large acreage of paper birch in the Pacific Northwest seems adequate to support significant local and regional economic development; however, there are only a few, incom-

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plete birch inventories in the region, and current management information is primarily based on information from the eastern U.S. and Canada.

In order to develop a better understanding of birch ecology, management, and economic development potential, reliable information needs to be ontained on the current supply, distribution, health, wood quality, ownership, and ecology of paper birch in it's natural range in the Inland Northwest, western Canada, and Alaska.

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About the Author: *Dr. Ron Mahoney* is an Extension Forester and Professor at the University of Idaho.