

Workshop Summation: Alaska Value-Added Forest Products

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We have the privilege of making closing comments on this two-day workshop with a few remarks. In this paper we'll do this by touching on four topics:

- Briefly highlight points raised by presenters and panels,
- Address the collaboration necessary to achieve advancement,
- Next steps from this workshop, especially for the Wood Utilization Center, and
- Acknowledge those who made the workshop possible.

Highlights from presenters

Keynote Presentation

Jamie Kenworthy's keynote did a good job of setting the stage by describing the status of the current situation. His major points were:

- The forest products industry's contribution to Alaska's economic base has dropped from 5% in 1965, to 2.3% in 1985, to 1% of Alaska's economic base today.
- There is a lack of a supply chain between producers, a theme repeated by many throughout the workshop.
- Alaska's wood needs are met almost completely by imports since only approximately 10% are produced within the State.
- He emphasized it is not just a lumber market; it is an engineered wood product market.

Mr. Kenworthy suggested improvements for the existing system with the following:

- 1) Need to build on success of lumber grading program through use of a grading system for the market you want to penetrate, as you won't penetrate that market unless you do.
- 2) Alaska needs kiln-drying capacity if it is to build a value-added capability that leverages its high quality resource.
- 3) Need to utilize low-end product and residue with viable markets. We should not treat it as waste to be disposed of at some cost. We need to see it as a potential profit center (e.g., sell as mulch or compost).
- 4) Develop a strategy to build supply chains between producers. Alaska's relative isolation amongst producers makes this a unique challenge.

Jamie's ideas were the-beginning of a long list of suggestions throughout the workshop. For example, Phil Woolwine suggested offering smaller timber sales that smaller firms could purchase. We heard suggestions of the need for more careful merchandising to get the highest value products from the raw material. There were multiple requests, like Bernie Brown's, to develop design values for Alaska species so that they can successfully compete in the construction market. Also, Bob Loescher said, due to Alaska's position geographically, it is a global market player and many timber resources are difficult to sell in local markets under current conditions.

Economic Realities

Gunnar Knapp gave us a major dose of economic reality. Processing and product technologies are important but alone they can't solve the red ink on the bottom line. To be successful, we need to create an economic and political environment in which a healthy industry can evolve.

Economic feasibility must be established for each given set of resources, processing technologies, and markets.

Bernie Brown went further and said that subsidies provide a development crutch that keeps the industry from evolving to meet new challenges and thus subsidies keep it from growing stronger in the marketplace. Phil Woolwine helped to describe the reality that producers have to compete with substitutes, emerging markets, and new entrants into the market for the buyer's interest and business. This extends into the forest management and harvesting practices, as well as, the processing and marketing of products.

Forest Resource Management

Dick Zaborske discussed the importance of understanding the future resource situation. For example, under today's management plan we will still be harvesting old growth almost exclusively for the next 50 years. At that time, sizeable acreages of second growth will be coming on line for commercial thinning and smaller tracts of second growth will be available. We have a multitude of silvicultural decisions to make that will have a profound impact on the types of material available for future use. Systems available for use range from partial cutting (including small clearcut openings) to selective harvests. Alaska's high operational costs and environmental concerns with harvesting may leave us with few economically feasible options, but only if we can implement them to maintain biological diversity, address concerns about forest operations, and have a sound strategy for managing forests for all future needs.

Bob Deal gave us a look at past harvesting practices and partial cutting impacts through a 100-year retrospective evaluation of harvested sites. The bottom line from his results is that there are many viable choices about how to grow and harvest trees. We are not locked into a unique set of practices. He found partial cutting concerns about changes in tree composition, reduced stand growth and vigor, increased mistletoe infection, tree wounding, decay and mortality were largely unsubstantiated. Some evidence indicated moderate and heavy cutting intensities had caused some changes in plant communities and diversity.

Paul Hennon showed that we know a lot about forest ecosystems and how to manage them. His example focused on mistletoe and heart rots and concluded there are ways to mitigate them even when partial cutting rather than clearcutting. He also observed that partial cutting provides the options for managers to maintain these diseases at light or moderate levels so that key ecological functions in the stand are preserved. Deal's, Packee's, and Hennon's presentations gave us a glimpse of the increased compatibility between wood production and other forest values that are possible if we work on and actively manage it.

Timber Supply and Primary Product Recovery

There is clearly a lot of concern around the availability and predictability of timber supply. The views ranged from frustration by Dennis Egan and Wes Tyler with the past decisions to reduce federal harvests, to Bernie Brown's point that a stable timber supply is essential to capturing long-term markets for producers, to Jamie Kenworthy's point that timber supply is necessary but not sufficient alone. Ron Wolfe suggested we take a landscape look at supply and Bob Loescher suggested we look at a blended wood basket, not National Forests alone, as a basis for assessing the viability of primary industry and secondary processing options.

Ken Kilborn provided a history and overview of the primary sawmill industry. His analysis is that there are good people in Alaska's wood products sector who are working hard and making headway, but there is still not a state-of-the-art sawmill in Alaska. He advocated development of Alaskan drying capacity with low temperature kilns, determining design values for selective major species for competitiveness in structural grades, studying supply, demand, and markets for wood products, and completion of economic analyses for potential wood product processing operation.

Kevin Curtis did a good job of building on the current situation to see opportunity. He said the lack of a fully developed industry is an opportunity for us to mold an industry with resiliency for the future. Alaska has a high quality timber resource and technology from other regions to build on.

Eini Lowell presented the results of a long history of recovery studies, including studies for lumber, veneer, house logs, and pulp. There is a significant data pool of product yield upon which to build our processing models and economic feasibility results. In addition, she reported on some recent work with thinned stands of spruce and hemlock and found no significant improvements in yield or quality of lumber. Studies have involved work with wind-thrown, beetle-killed, and fire-killed resources. These are all part of the database available for evaluating product options.

Dave Green presented recovery information for lower grade “pulp” logs and showed that with the right manufacturing processes it is possible to gain substantial product yields, especially with good quality assurance, and the value-added possible with drying and planing of those products. He found over 70% of all green lumber produced was graded No. 3 or better and approximately 67% of that (50% of all green lumber) was graded as No. 3 or better after drying and planing. The largest challenge cited in this work is to find markets for the lower grades of lumber (50% of all pieces) and the large volume of slabs, edging, sawdust and bark from these lower grade logs.

The bottom line from the recovery studies is that the resource has higher quality than previously assumed and may be marketable at higher levels. Initial investigations indicate that this may also be true of the second growth timber from thinning operations.

Secondary Processing

Jim Reeb described the evolution of the wood products industry in Oregon and Washington, which could, on some level, be a model that Alaska may follow. Harvest from public land in these states has declined, perhaps not as drastically as it has in Alaska. Although industry has found adequate timber supply there, transportation networks and processing facilities required modifications to accommodate new sources of raw material with different characteristics. In order to compete effectively, controlling costs is one of the most important areas on which to focus. Alaska has had many mills close and many jobs lost in the economic downswing that has accompanied the reduced timber supply from public lands. Unlike the preponderance of Oregon and Washington industry, the privately held timber in Southeast sells into a global market that competes aggressively for this high quality Alaskan timber, making it unavailable for sustaining the in-state industry. The survivors in Alaska are wood processors who have been able to efficiently compete through the supply and market fluctuations.

Dan Parrent discussed the ABC’s of planers, an expansion on the paper that will appear in the Proceedings where he addresses a multitude of options for secondary processing. This is a good example of the importance of manufacturing basics, the basics to produce a quality product, to keep costs low, and to keep safe. He also addressed the scale issue, i.e. how to scale equipment to the volume available and still produce a competitive product at a competitive cost. It was yet another example of the need for supporting business partnerships and supply chains.

Catherine Mater provided us with an excellent picture of the non-timber forest products, from Echinacea, salal, and Christmas boughs to character wood. A question: Is this a cottage industry or a major emerging primary market? Does it matter if it provides income? The economic opportunities that non-timber forest products can provide are to be balanced with the sustainable use of these resources. What was clear from Ms. Mater is that significant economic activity can be generated from other forest resources in addition to wood products. It was also another opportunity for showing compatibility and a demonstration that there are more choices.

Market Conditions and Competitiveness in Alaska

Lexi Hill provided us with an overview of the present industry in Alaska from a mill survey which covered aspects ranging from employment to end products. Her survey indicated approximately 240 MMBF of annual capacity in the state with 200 MMBF of that in Southeast. Actual production was 67 MMBF and 55 percent was exported outside Alaska. Tongass timber accounted for 90 percent of all logs used in the state. Suggestions from industry were solicited on the survey and responses included: more local timber sales, more dependable timber supply, and reduce costs for lumber drying.

Scott Miller talked about the potential to penetrate the in-state market for wood products. There are in-state markets, but producers need to do their homework. They need to do their “sales” job (e.g., know their cost structure and technical boundaries their products are suited to meet). Donna Logan, echoing Jamie Kenworthy, reported that Alaska wood products make up a small amount of total wood use in Alaska and some Alaska users had unsatisfactory experiences with Alaska products (most likely due to mis-manufacturing).

John Manthei said, however, that there are profitable in-state markets that can be successfully penetrated if you have a high quality product. Terry Lavallee emphasized the importance of having a sound marketing strategy and following through with marketing plans, customer feedback, and corollary business alliances for market expansion.

Bruce Lippke discussed competitiveness, as Alaska is the high cost producer in the markets it serves. At this time the Asian economic crisis created reduced demand for raw materials and Alaska was hit first. There are several reasons, including: high cost, small facilities, lack of modern equipment, poor use of residuals, transportation challenges, and secondary sector firms are sparse and small. The question is whether you can have a secondary product sector without a primary industry sector? The answer is “Not very easily.” He did list product opportunities such as niche Japanese post and beam markets, Western redcedar decking and siding in the US, engineered and glue-laminated wood members, and laminated veneer lumber.

Summary

When we put all of this together, one thing is clear: We need to be careful not to box ourselves in. A key element for any healthy industry is consistency in raw material supply. That supply needs to be economically viable and environmentally sustainable. Harvesting systems and other management techniques, whether for timber or non-timber forest products, must address these two criteria first, or there will be no potential for the industry to grow or evolve. We hold a lot of promise for value-added processing. It is just one option, and it's a good one, from a community development standpoint, but only if it is an economically viable business. Several Southeast communities have supported emerging businesses and have taken risks with their limited capital.

In order for value-added processors to have a chance, we must recognize that a primary industry that cuts and processes timber and lumber is a requirement for having a secondary industry. Alaska's secondary value-added businesses hold the promise of being an industry formed of an accumulation of small firms that can produce unique and high quality competitive products from a relatively small timber supply. It will likely have to rest on a more fully developed primary processing industry than exists now.

We also need to think in a broader context of “industry” than value-added secondary wood products alone. The non-timber forest products potential points out that we need to think of all natural resources in identifying economic opportunities. However, utilizing non-timber or special forest products (SFP) requires us to pay just as much attention to sustainability and harvesting practices as we would with timber. Although SFPs have traditionally been small business operations, the market value for many of these products has brought increasing numbers of entrepreneurs, most of them still operating as sole-proprietor or small businesses, into the forest to capture these market demands.

We can also identify a set of corollary needs for a healthy forest products (timber and non-timber) industry in Alaska. Required elements for business success are effective market research and business planning, production efficiency, business collaboration and marketplace alliances, and general infrastructure for the full range of community-based businesses. That infrastructure should include markets and economic forecasting, technical and economic feasibility support, and technical and business development assistance. The bottom line is that there are choices and there are opportunities. We aren't captured by the past. Our job is to work together to create more choices by collaborating.

Collaboration

Building from the theme at this meeting of supply chains, the need for more fully developed market partnerships clearly shows that we need to work together. No one of us has all the answers, but each of us can contribute a piece of the whole. We need to recognize that there are options and we can create more options as follows:

- It is clear that we need to connect users of the information in the industry, communities, and managers with the people who can provide the information.
- PNW's Alaska Wood Utilization R&D Center here in Sitka can support that liaison role to bring parties together and to assemble information that helps users make informed choices and explore new opportunities.
- We feel we can do that in an open interactive process rather than responding to a fixed advisory board.

To begin our dialogue, all that those of us in the information business can do is provide data, which others use to support their discussion. We can work with you in that discussion to better identify the data, information, and analyses you need to explore. Our research and development role should be one that provides factual and science-based responses to an evolutionary set of questions and options. In the end it is the land managers, the private sector firms, and the communities who need to decide if there really are opportunities or not.

Next Steps

- 1) The PNW Station will publish the papers submitted by the speakers at this workshop.
- 2) We are working with the University of Alaska Fairbanks to plan another similar workshop in the Interior during the year 2000.
- 3) We are in the final stages of staffing the Wood Utilization R&D Center with five people.
- 4) We are also still working to secure the funding for the Center. This past nine months we have been operating on funds gathered from all FS research stations. We are optimistic that the Center will have specific funding for its operations in the 2001 budget.
- 5) As staff gets on board and builds upon the ideas from this workshop, we will begin to focus the Center's priorities. We will engage further with users and other information providers in concluding priorities for the Center's plan of work.
- 6) As with other PNW Research Station efforts, like the Science Findings series, the Proceedings from this workshop will be published so it is available to a wide audience. All our publications will be available on our web page.

Acknowledgements

So many people and entities made this workshop the success it was. We salute the co-chairs, Dan Parrent and Bob Gorman, who worked with Ted Laufenberg and Bridget Brady to shape the sessions, speakers, and scope of the workshop. We also thank the session chairs that provided excellent facilitation for discussion and, lastly, the speakers, including those who shared their experiences by participating in the user panels.

We contracted with almost a dozen consultants this spring for the express purpose of consolidating and analyzing all current information for your benefit here at this workshop. Our speakers were exceptionally responsive to the short timeframe to prepare their reports and deliver these presentations. (Consider that only 5 months have passed since we began planning for this workshop.)

"Hats off" to our small business exhibitors and poster presenters at Monday night's session who bathed us in tangible, palpable, and, demonstrably economically viable products, crafts, arts, and services. We'd be remiss not to mention, with appreciation, all the contributions of a whole host of Alaskans who worked with the organizers to coordinate logistics, including the 3 days of sunshine, and made our gathering a most pleasant experience.

The sponsors were revealing in the diversity of their composition. They included universities, federal agencies, and state agencies, the City and Borough of Sitka and the Society of American Foresters and other NGOs. The real thanks go to the participants from the wood products industry, the communities, and the land managers who contributed their experience and are the real audience for the ideas generated. This workshop builds on those experiences before us and lends strength to our collaborative efforts that will follow.



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