

WOOD PRODUCTS
AND UTILIZATION

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Wood Products and Utilization¹

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Forests are obviously a very important asset to California, and their economic and social value to the state is well documented. Wood is perhaps one of the world's most environmentally friendly raw materials. Besides being renewable, it does not require extensive cultivation and extraction methods, and it uses less manmade energy to manufacture finished goods than most other raw materials. The timberland regions of California supply nearly 20 percent of the nation's lumber needs and are also an important supplier of pulp and composite chips. In addition, these trees are a vital component of wildlife and plant ecosystems, water quality, recreation, and esthetic needs of the state.

Not only is California a major timber-producing state, it is also the nation's leading consumer of forest products. The population, which is approaching 35 million, creates a huge demand for residential housing, furnishings, paper, and a myriad of other products made from wood. Although in the past, California produced more timber than the state needed to provide these needs, California is now a net importer of wood. Although demand is increasing, supply is decreasing. The economic conditions and timber availability concerns in the 1990's have resulted in a down-sizing of the forest products industry in California. The pressures of balancing environmental concerns with consumer needs and demands are creating a need to consider alternate sources for products. Many of these issues are found in the oak-woodland/urban-interface regions.

The trees found in woodland areas are not normally considered a viable raw material for wood products. However, trees are continually being removed from these regions and winding up in landfills or as a low-value wood product such as firewood or compost. Urban expansion and firewood harvesting are two activities that consume large quantities of wood from oak woodlands. Finding higher-value uses for these species has the potential to reduce the volume of firewood removals and provide an economic incentive to manage the woodlands for the benefit of the environmental health as well as the income needs of landowners.

In addition to the oak woodlands, there are also large quantities of wood found in the urban forests and the woody component of the urban waste stream. These have the potential to provide at least part of the raw material needs for many consumer products. This session was designed to examine what role these resources might play in the forest products industry of California.

The utilization potential of various woodland species is evaluated in two of the papers presented in the utilization session. The underlying premise of the paper by Shelly was that if trees are being harvested from woodland regions, the wood should go to the highest-value use. Utilization recommendations are provided on the basis of what is known about wood characteristics and manufacturing criteria. The concept of processing grade lumber from California black oak was further discussed in the paper by Lowell and Plank. Lumber recovery results from a portable sawmill and an intermediate-size softwood sawmill provide some of the preliminary information needed to evaluate the economic viability of processing California hardwoods.

¹ Presented at the Symposium on Oak Woodlands: Ecology, Management, and Urban Interface Issues, March 19–22, 1996, San Luis Obispo, Calif.

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The importance of considering the urban wood components as a resource rather than as a disposal problem is opening many utilization opportunities. The paper by Pillsbury and Reimer provides a method for inventorying urban forests that will give urban communities a tool for collecting tree volume information that will aid in utilization decisions. The paper by O'Keefe reviews some of the utilization possibilities, illustrated with examples of successful ventures, and it also emphasizes the importance of technology assistance and education to achieving the goal of efficient and profitable utilization of urban residues.

Rounding out the overview of the utilization possibilities of the woodland and urban resources was a discussion of an example of managing a woodland resource for a product. The paper by Brooks provided an overview of the historical efforts of providing a domestic cork production through the cultivation of the exotic species *Quercus subra*.

In closing, the panel of speakers addressed the concerns that promoting utilization in woodland and urban environments could lead to the wholesale harvesting of trees from sensitive regions. The panel emphasized that, in many cases, utilization can be a healthy component of any resource management plan and that it is important to balance consumer needs with environmental concerns. The removal of woodland and urban trees and the volume of woody material in the urban waste stream should be considered a resource and not a disposal problem. A common goal that everyone can agree with is that any utilization of these materials should be an efficient process that aims for the highest-value use.