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WOOD UTILIZATION

Federal Research and Product Development Activities, Support, and Technology Transfer

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Highlights

Highlights of GAO-06-624, a report to congressional requesters

Why GAO Did This Study

More wood is consumed every year in the United States than all metals, plastics, and masonry cement combined. To maximize their use of wood, forest product companies rely on research into new methods for using wood. At least 12 federal agencies have provided support to wood utilization research and product development activities, including the U.S. Department of Agriculture's Forest Service and Cooperative State Research, Education, and Extension Service (CSREES)-funded wood utilization research centers, which historically have specifically targeted support to these activities.

GAO was asked to identify (1) the types of wood utilization research and product development activities federal agencies support and how these activities are coordinated; (2) the level of support federal agencies made available for these activities in fiscal years 2004 and 2005, and changes in the level of support at the Forest Service and at the CSREES-funded wood utilization research centers for fiscal years 1995 through 2005; and (3) how the federal government transfers the technologies and products from its wood utilization research and product development activities to industry.

GAO provided a draft of this report to the 12 federal agencies for review and comment. Some of the agencies provided technical comments, which were incorporated as appropriate.

www.gao.gov/cgi-bin/getrpt?GAO-06-624.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robin Nazzaro at (202) 512-3841 or nazzaror@gao.gov.

What GAO Found

Federal wood utilization research and product development span a broad spectrum of activities. These activities fall into five categories: harvesting, wood properties, manufacturing and processing, products and testing, and economics and marketing. Of the 12 federal agencies that provided support to wood utilization research and product development, only the Forest Service and the CSREES-funded wood utilization centers had activities in all five categories; although all the agencies had activities in manufacturing and processing. Coordination of these activities is both informal and formal. Scientists informally coordinate their activities by conferring with each other and sharing information at conferences and professional meetings and through publications. In some cases, coordination occurs through more formal mechanisms, such as cooperative arrangements and other joint ventures.

During fiscal years 2004 and 2005, the 12 federal agencies made available at least $54 million annually for wood utilization research and product development activities, measured either in budget authority or expenditures. (Dollars are reported in either budget authority or expenditure data, depending on the availability of agency data.) The Forest Service made available about half of these funds. In addition, the Forest Service—the only agency that directly employs scientists and support staff to conduct wood utilization research and product development—reported having almost 175 full-time equivalent scientists and support staff in each of these years. For fiscal years 1995 through 2005, the Forest Service's budget authority for wood utilization research and product development activities fluctuated moderately from year-to-year (in inflation-adjusted dollars). In contrast, overall, CSREES' budget authority for the wood utilization research centers increased over the period (in inflation-adjusted dollars), in part because of the addition of four new wood utilization research centers between fiscal years 1999 and 2004.

To transfer technologies and products to industry, federal agencies generally rely on scientists and technology transfer specialists, who use methods such as information sharing, technical assistance, and demonstration projects. For example, applying research from the Forest Products Laboratory, Forest Service technology transfer specialists assisted a small forest products company in producing flooring from small trees by, among other things, providing solutions to product imperfections like warping and discoloration.