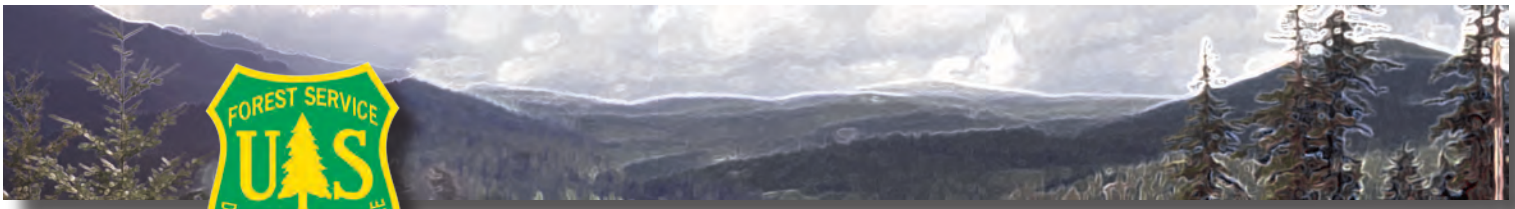

Recent Work from The Sustainable Wood Production Initiative

Technology and Information for Wood Plastic Composites

Vikram Yadama

Photo courtesy of WMEL, WSU

A showcase for wood composite materials at Washington State University.

Wood-plastic composites are ideal for playground and roofing materials because they are thermally stable; resistant to decay, insects, and moisture; easy to work with and maintain; and made from recycled materials.

Alternative Wood Technologies

When Vikram Yadama talks about picking the low-hanging fruit, he's not talking about choosing projects that are necessarily easy. Yadama, an assistant professor and extension specialist at Washington State University, picked two industries to examine for their use of wood plastic composites (WPCs): playground material and roofing. Wood plastic composites are materials typically made from a mixture of wood, thermoplastic resins, and other additives. Although the playground and roofing industries are as complex and nuanced as any other, Yadama calls them low-hanging fruit because of their good fit with WPC technology and their emerging market opportunities.

Wood-plastic composites are ideal for playground and roofing materials because they are thermally stable; resistant to decay, insects, and moisture; easy to work with and maintain; and made from recycled materials. Especially important for playgrounds is the fact that WPCs do not contain banned toxic substances used in most treated lumber and to children's delight, WPCs are free of splinters. Yadama's project involves surveying existing and likely participants in WPC markets, gathering and synthesizing information, and putting that information in a central, accessible place.

WPC Information Portal

How does an entrepreneur or business owner break into the WPC market, or expand existing capabilities?

Vikram Yadama is an assistant research professor/extension specialist at the Wood Materials & Engineering Laboratory, Washington State University, Pullman, Washington.

Photo courtesy of WMEL, WSU

Wood-plastic composites are materials typically made from a mixture of wood, thermoplastic resins, and other additives.

Many obstacles to business startup and expansions exist, but one of the primary barriers is lack of information about current and potential markets. What markets and distribution channels are available for WPCs, and which can be expanded? These questions apply for those wanting to start a business from scratch, expand existing infrastructure, or find niche markets as a contractor for larger companies. Another hurdle for business startups or expansions is where to find information about testing codes and standards. According to Yadama, "Information about wood plastic composites is scattered everywhere. What we're trying to do is compile it." The solution that Yadama and his collaborators came up with was a pair of Web sites that act as information portals, places where people can get objective, advocacy-free information. One Web site is the WPC Information Center (www.wpcinfo.org) containing a plethora of information for consumers, producers, and suppliers of WPC products (WPC information Center 2005). Its companion site is the WPC blog (wpcblog.wsu.edu), where discussions occur regarding new technologies, conferences, and other topics (WPC Blog 2005). Michael Wolcott of Washington State University maintains and edits the WPC Blog website. Both sites are hosted by Washington State University, and partial funding for the initial development of WPC Information Center came from the Sustainable Wood Production Initiative.

Key Points about WPCs

- Small start-up processing plants can be profitable and so can expansions.
- Flexible manufacturing is major advantage.
- Newcomers to the industry need to do market research and understand distribution channels.
- Capital costs for WPC startup are low (around $5 to 10 million) compared to other industries.
- The WPC industry provides employment and uses local resources (including recycled materials), thereby contributing to sustainable wood production in the region.

"Information about wood-plastic composites is scattered everywhere. What we're trying to do is compile it."

Photo—Courtesy of Erik Ackerson

References

WPC Information Center. 2005. Wood Materials and Engineering Laboratory, Washington State University. http://www.wpcinfo.org. (23 October).

WPC Blog. 2005. Washington State University. http://wpcblog.wsu.edu. (23 October).

More on the Sustainable Wood Production Initiative

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