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Understanding the Barriers to Using Locally Grown Wood in the Forest Products Industry

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Understanding the Barriers to Using Locally Grown Wood in the Forest Products Industry

Abstract

Given the popularity of "buy local" agricultural campaigns, there might be opportunities for Extension to promote the local attribute of wood products. Unfortunately, there is little available literature exploring wood-products manufacturers' attitudes and opinions regarding local wood. In fall 2012, 38 in-depth interviews were conducted with individuals representing a range of firm sizes and final products. Participants provided a definition for what they considered to be local wood and identified four major barriers to the inclusion of Connecticut-grown and -processed wood in their manufacturing: high expense, low visibility, limited demand, and limited availability.

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Introduction

Given the popularity of "buy local" agricultural campaigns (Rand, 2011), there might be opportunities for Extension to promote the local attribute of wood products. Existing research on the "buy local" movement identifies several general benefits to purchasing products locally, including economic stimulus, increased social cohesion, and positive environmental outcomes (Hinrichs, Allen, & Allen, 2008). In 2011, the Connecticut Department of Agriculture and Department of Energy and Environmental Protection leveraged the popularity of the "buy local" concept by expanding the state labeling certification Connecticut Grown to include any products made from Connecticut-grown and -processed wood (CG/PW). Unfortunately, there has been little further investigation into consumers' attitudes and opinions regarding local wood products.

Objectives

Secondary wood producers (SWPs) are major consumers of wood material and are, therefore, critical to the success of any potential "buy local" promotional effort. The study discussed here provided a qualitative assessment of sample SWP representatives who were interested in discussing their

experiences with local wood. The information gained through the study might be used to direct further research or to inform the implementation of any coordinated "buy local" efforts promoting wood products.

The following questions provided guidance during this research:

1. How do Connecticut SWPs define the term *local* with regard to wood products?
2. What are the barriers preventing Connecticut SWPs from incorporating CG/PW into their manufacturing?

Methods

In fall 2012, 38 in-depth face-to-face and phone interviews were conducted with individuals representing SWPs from across Connecticut. Twenty-eight participants volunteered for interviews from a prior mail survey of Connecticut SWPs, and the other participants were selected through snowball sampling, a technique in which existing participants identify other potential research subjects during the interview process (Neuman, 2004). Eighty-six percent of interviewees owned the businesses they represented; other participants included operations managers, one forester, and one marketer. The sample SWPs were categorized by how many board feet of lumber they used in 1 year, and the following distribution resulted: seven small (<1,000 board feet), 14 medium (1,000–10,000 board feet), and seven large (>10,000 board feet). Four of the SWPs were also primary wood producers (PWPs) and were categorized by the amount of lumber they produced, resulting in the following distribution: one small (<1,000,000 board feet), two medium (1,000,000–5,000,000 board feet), and one large (>5,000,000 board feet). Manufactured products included flooring, railroad ties, cabinets, architectural millwork, furniture, boats, musical instruments, toys, post and beam houses, and caskets.

Interview questions were developed by using existing literature and were vetted by wood products experts and tested in two pilot interview sessions. The instrument probed interviewees about experiences with CG/PW and asked for personal definitions of the term *local* with regard to wood. Respondents were grouped by SWPs and PWPs, and their responses were evaluated using grounded theory and conventional content analysis, a process in which text is grouped into increasingly general themes (Hsieh & Shannon, 2005).

Results and Discussion

Defining *Local*

Participants were asked to identify the largest region that they would consider local with regard to wood products. Most interviewees had difficulty articulating responses, having never considered the question before. If they could not formulate a response, they were given a set of standardized responses to choose from (i.e., "my town," "Connecticut," "New England," "the northeast US," "the US," or "North America"). The most commonly reported response was "the northeast US," and most respondents considered wood products from the Northeast United States or closer to be local.

The diversity of responses highlights the complexity of this question. Some PWP identified different levels of radii as being local (e.g., 25 mi, 50 mi, and 100 mi). Interviewees indicated that this response related to maximum haul distances for log trucks, which determined the economical limits of their operation. Most respondents discussed the use of native species as an indicator of local. Because the commodity market does not generally track products from standing timber to finished boards, knowing native ranges can provide clues to where the wood was likely harvested. Many respondents directly referenced New York and Pennsylvania as local because they knew that the best quality black cherry comes from those areas. One representative of a medium-sized SWP summarized a common sentiment:

The wood that I buy, if it's poplar, probably comes from the Allegheny, Pennsylvania, or that area. Could be Connecticut, could be Massachusetts, wherever they're logging it. Could be New Hampshire. . . . Most of the oak probably comes from New England, and maple the same way.

Barriers

Expense

Interviewees indicated that using CG/PW can be cost prohibitive. Many participants mentioned the pricing benefits associated with using distributors over local sawmills. They also commented on the cost associated with poor-quality material available at local sawmills. The following interview excerpt is a sample comment, from the representative of a medium-sized SWP:

Rarely do I go to a local yard because, in my mind, their costs are much higher than wholesalers, and the wood isn't as good. It's green sometimes. It's dried by their kilns. It's just poor quality, generally speaking. So I do it rarely and at some cost.

Respondents also reported low profit margins due to high labor cost coupled with historically low wood prices. As mentioned in the previous sample comment, the additional labor needed to process poor-quality lumber adds more cost than savings, even if the material is inexpensive.

Another factor adding expense for some SWPs is the cost of storing lumber. Representatives from small and medium-sized SWPs specializing in custom woodworking reported that space was expensive and that buying large volumes of wood from PWPs was not practical. Most of these interviewees commented that Connecticut PWPs could not provide small enough quantities of wood to meet their constantly changing demands. The following interview excerpt is a sample comment, from the representative of a medium-sized SWP:

I never know what I'm going to use. The job I'm starting now is going to be painted soft maple with straight grained Douglas fir trim. The one before that was basic poplar. The one before that, I did something with cherry. The one before that, I did mahogany. I am always varying the wood, so I don't

usually stockpile woods.

Visibility

Respondents overwhelmingly agreed that CG/PW is not a visible part of the Connecticut experience. Many of the respondents commented that their customers did not know any native lumber species or that any wood was harvested or processed in Connecticut. The following interview excerpt is a sample comment, from the representative of a large SWP:

The customers aren't as well informed as they were years ago. [The subject of the origin of the wood] doesn't arise much anymore, although when they come here, they can obviously see we got some product here.

CG/PW also has limited visibility for some SWPs. One interviewee from a large SWP firm incorrectly claimed that no PWP in Connecticut was large enough to produce lumber in commercial volumes. This perception reflects the lack of CG/PW promotion targeting both SWPs and final consumers. Some SWPs faulted the state for not promoting CG/PW more intensely, and many commented on the lack of direct PWP marketing. The following interview excerpt is a sample comment, from the representative of a small SWP:

I'd appreciate a phone call [from a PWP] saying, "Hey, listen. We're selling wood. I know you're a woodworker. This is what we have." Or, "Here's our website." A lot of it is being comfortable where I go [to purchase wood].

Demand

Nearly all the respondents stated that their customers "did not know and did not care" where their wood came from. One participant suggested that customers needed to be educated on the many positive outcomes associated with consuming local wood. Education through improved visibility might increase demand for CG/PW among specific market segments concerned with social, economic, or environmental benefits (Rand, 2011; Hinrichs et al., 2008).

One of the interviewees, a representative of a large SWP, believed that a Connecticut Grown label would not increase demand because that person's operation already marketed itself as local:

It's on [our] label that we are Connecticut . . . people kind of already know that. And our business does well in Connecticut because it is a local product. I wouldn't mind [using CG/PW] because I want to support the local movement, but I honestly don't think that in our industry it will make any difference.

Many participants expressed a concern that this type of labeling might be confusing to consumers who are already bombarded by products claiming to be local. They reported that their customers often patronize their businesses because they are in their communities, not because they source their material locally.

Availability

Interviewees reported that the appropriate quality CG/PW was not available in the quantities necessary to meet their demands. They identified three quality shortcomings, which they associated with the CG/PW that is available: species, dimension, and moisture content. According to the participants, black walnut, black cherry, and mahogany were the three most popular species of wood they used. Black walnut and black cherry are native to Connecticut; however, they often have poor form and, consequently, can be difficult to process. Mahogany, which includes several different genera and species, is imported from the world's tropical forests.

Respondents also reported that CG/PW is not available in the appropriate dimensions. Most SWPs want the longest, thickest, and widest boards available. A representative of one medium-sized SWP provided an example for why SWPs need boards having these dimensions:

I like to go to [a Connecticut distributor] for their red oak because it's 12-ft lengths, but also 12-in. widths. . . . When I manufacture treads, I'll make them from two pieces of material for prevention of cupping, but if it's a 12-in. width, I'll just rip it in half, flip it, and glue it, so more often than not, grain and color will match.

The most frequently discussed quality concern, addressed by nearly all of the participants, was the moisture content of CG/PW. The sample agreed that CG/PW is almost always poorly dried or not dried at all. The following interview excerpt is a sample comment, from the representative of a medium-sized SWP:

We have a moisture meter, which I don't use much with my present suppliers. They seem to have it pretty well nailed. But you gotta be real careful to check each board when you buy at a sawmill because you don't know.

Without appropriately dried wood, SWPs have difficulty maintaining the quality necessary to meet their customers' demands. Even if some PWP's correctly dry their wood, the sample of SWP representatives in this study seem unlikely to risk purchasing poor-quality material when their current suppliers offer consistent moisture content in their products.

Recommendations

There might be potential for addressing the demands of SWPs by sourcing wood from small PWP's and the emerging population of portable sawmills that could specialize in the small and diverse batches this sample identified. Although many respondents indicated that CG/PW can be difficult to work with, most were supportive of using CG/PW, largely because of the positive social and economic benefits. The following interview excerpt is a sample comment, from the representative of a medium-sized SWP:

It keeps money local. You have this building being occupied here as opposed to just a big empty building. People are here working. So there's the economics of it, and there is the community aspect of it. Being able to go up and, ya know, haggle face to face with the guy who's cutting the tree. And it makes the whole process a stronger process.

Therefore, major barriers identified by SWPs need to be addressed, and small-scale production capacity must be determined.

Outreach and networking are strategies that can address these barriers and should be key Extension activities. In the short term, information about SWP specifications exchanged with small and medium-sized PWP might improve manufacturing quality. Long-term education on the art of wood manufacture and drying can be targeted to small and medium-sized PWPs. A voluntary online community and clearinghouse identifying local supplies and demands might address availability and provide a platform for Extension professionals to educate SWPs and PWPs on marketing local wood (Quesada-Pineda, Conn, & Sanchez, 2011).

Demand and visibility are barriers for SWPs centered primarily in customer knowledge and attitudes. Participants' responses in this study support past research suggesting that consumers have low knowledge levels regarding wood species and their sources (Polzin & Bowyer, 1999; Costa, Garcia, & Ibanez, 2011). Outreach highlighting the benefits of CG/PW or other local wood products might raise public awareness. However, broad awareness raising and visibility might require a targeted long-term informational campaign, such as the "Be a Local Hero" campaign for agriculture in western Massachusetts (Rand, 2011). Responses in this study support previous findings that consumers' support of local economies/businesses (Rand, 2011) outweighs environmental or material-source concerns. A long-term informational campaign, using the "Be a Local Hero" model, should emphasize the economic benefits while educating conscientious consumers about the social and environmental impacts of buying local.

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