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MR420: Designing Effective Environmental Labels for Forest Products: Results of Focus Group Research

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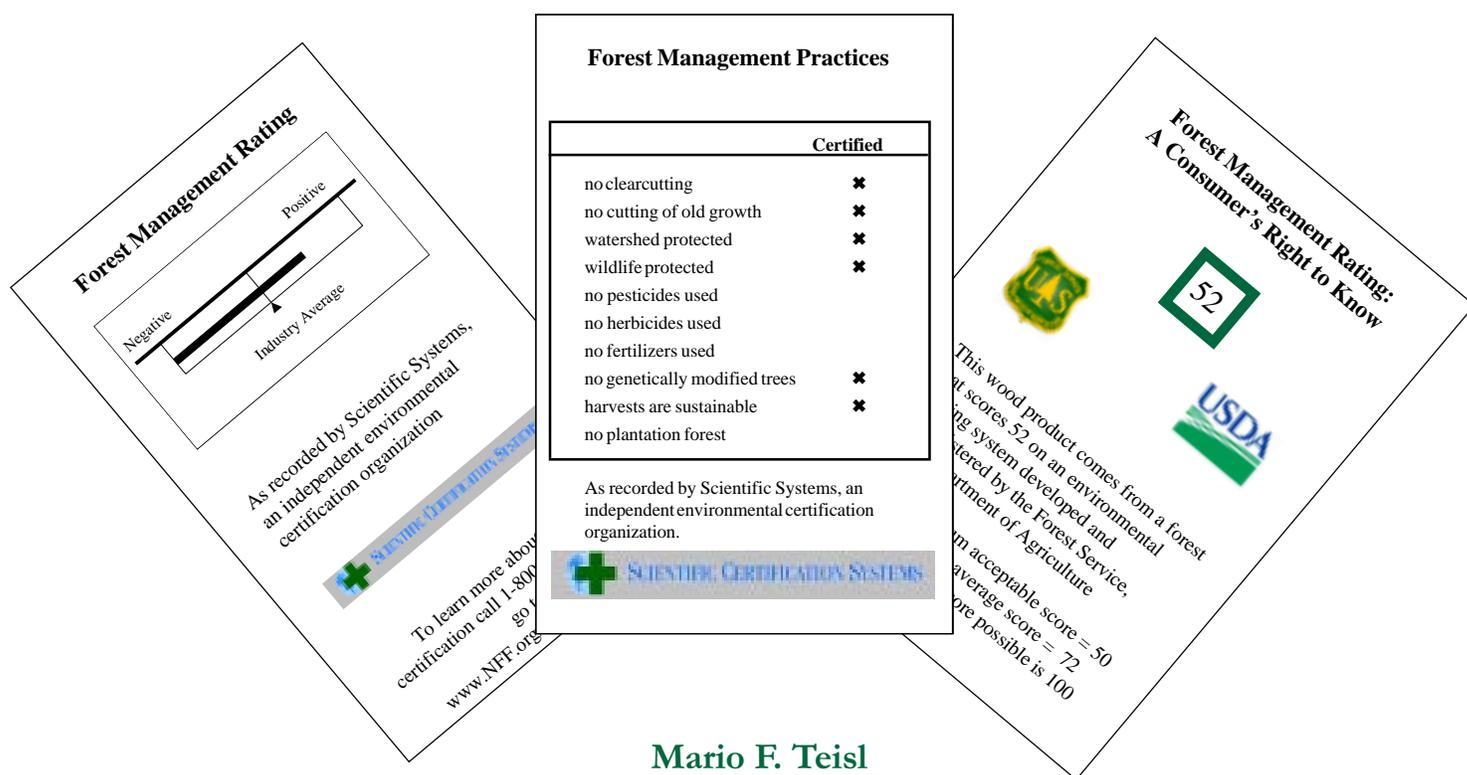
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Designing Effective Environmental Labels for Forest Products: Results of Focus Group Research



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EXECUTIVE SUMMARY

Background

Spurred by organizations like the Forest Stewardship Council and the Certified Forest Products Council, environmental certification programs for forest products are rapidly being implemented. Currently, there are hundreds of environmentally certified forest product companies in the United States selling a diverse range of products, e.g., building lumber, furniture, musical instruments, outdoor play equipment, and wine barrels. Often the forest product supplier designates the product as being certified by using a seal-of-approval designated by the certifying organization.

The widespread implementation of environmental seals-of-approval suggests that they are perceived as an effective method of altering consumer behavior. However, empirical comparisons of the effectiveness of alternative eco-labeling programs are lacking. In addition, there is no empirical literature documenting consumer use or understanding of eco-labels placed on forest products. Therefore, what is needed is an understanding of the consumer, product, label, and regulatory-framework characteristics that may affect an eco-labeling policy's market effectiveness.

Objectives

There are two phases to this research. During the first phase, qualitative research (focus groups) are used:

1. To identify the types of environmental information that consumers will find useful when choosing between forest products.
2. To understand how different modes of disclosure affect consumers' ability to comprehend and use this information.
3. To compare the effect of environmental certifications (Type I labeling) and environmental attribute disclosures (Type III labeling) on consumer perception of products' environmental impact.¹

4. To understand how the above may differ across different types of wood products.

The results of the first phase will be used to develop a survey instrument to be used in the second (quantitative) phase.

Methods

The qualitative research involved six focus group sessions. Two groups were held in Cleveland, Ohio, two were held in Bangor, Maine, and two were held in San Francisco, California. Participants were screened to ensure demographic diversity and to confirm that some proportion of the participants had purchased wood construction materials.

Props consisted of an actual catalog description of an environmentally certified wood product; alternative environmental labels and a listing of potential forest certification criteria were used to stimulate discussion. Discussion centered around whether any of the information was confusing or hard to understand, whether the information was important, and whether the display contained enough information. Labels differed in terms of the methods of presenting the information (e.g., a table format versus a bar chart graphic).

Results

What is important to participants?

In response to an unprompted question, participants in all focus groups mentioned that they were most concerned about whether forests were adequately being replanted and whether wildlife and wildlife habitat was being protected. Erosion problem associated with logging was also mentioned as a concern. When given a list of 32 forest management criteria, the five criteria deemed important by the most number of participants were primarily environmental:

- Forest operations do not harm threatened/endangered species and their habitats
- Clearcutting is not allowed
- Forest operations involve minimum waste

¹ Type I and III are differentiated by the level of information detail. Type I labels provide the least amount of detail concerning attribute values. With a Type I label, the information about a vector of attribute levels is condensed into a one-dimensional score by an agreed-upon scoring algorithm. Products receiving a score above a pre-determined threshold may present a seal-of-approval or certification seal. At the other extreme are Type III labels, which provide the most detailed information. Information is disclosed about several of the products attributes (e.g., nutrition labels on food) and the disclosure typically involves continuous or categorical information about each element (e.g., grams of fat, high/medium/low risk). Type III labels are generally considered the most objective of the label categories while Type I labels are often considered the most normative.

- Forest management ensures long-term sustainability of harvests
- Bird and animal nesting habitat is protected

The five criteria that were deemed unimportant by the most number of participants are primarily social:

- Loggers are members of the local community
- Wood products are processed locally
- Non-native tree species are not allowed
- Genetically modified tree species are not allowed
- Workers are allowed to unionize

How concerned are participants?

Participants stated that the environment was a concern when they purchased paper products because people buy/use so much paper (particularly with more computer work). The purchase of other wood products generated less environmental concern because these products are purchased less often leading to less of an individual environmental impact. In addition, some participants noted that the other non-environmental characteristics (e.g., durability, grain pattern, etc.) of these other wood products were more important. Participants indicated that they would not pay too much more for an environmentally preferred product. In addition, they also mentioned that the wood product would have to be of similar quality to the non-environmentally preferred product. Many participants indicated a reluctance to switch brands simply due to an environmentally friendly label. The participants stated that the presence of a label would encourage them to try a new product but that the product quality had to be similar to their current brand. The bottom line seems to be that price and product quality are pretty important characteristics; environmentally preferred characteristics were important, but other considerations are more important.

How credible are different environmental labels?

In general, most participants did not inherently trust environmental marketing information. They stated that environmental claims are often too vague. For example, when presented an actual catalog description of a SMARTWOOD environmentally certified wood product, participants pointed out that the description did not state what the criteria were to obtain the certification and that the text was much too vague. Further, participants did not know

who the certifying organization was. In reacting to different potential labeling approaches, many participants felt the environmental labels were just a marketing scam or an industry logo.

Participants generally agreed that the credibility of an environmental label could be increased by including a contact phone number or a website address so that they could find out more about the certification.

Consistent with other research, participants stated that independent organizations would be the most credible as environmental certifiers of wood products, followed by environmental groups, government, and finally, industry groups. However, when faced with actual labels, government agencies like the U.S. Environmental Protection Agency were seen as the most credible. The difference in reactions is due to familiarity; most participants had never heard of any of the current environmental certifiers (e.g., the Forest Stewardship Council; Scientific Certification Systems). Due to the lack of familiarity, most participants did not know whether they could trust the label information and felt that there was a possibility that the certification was just a marketing gimmick. Most participants seemed to agree that they would be more likely to react appropriately to the environmental information if they knew more about the program.

The way the environmental information was displayed also seemed to affect the credibility of the label. Participants stated that labels with more detail provided a greater sense that the environmental information on the labels was credible. A significant point brought up in all focus groups was that the success of a labeling program would be highly contingent on a significant information campaign to educate consumers about the certification and labeling program.

What information was confusing?

In general, vague or technical terms like *market incentive*, *environmentally friendly*, *eco-system diversity*, and *sustainability* were not understood by many participants. The use of a logo from a well-known government agency (the U.S. Department of Agriculture) could also cause some confusion; presumably due to the fact that many participants do not associate the USDA with forestry or with environmental programs. Bar chart presentations of environmental scores was also confusing; some participants liked the aesthetics of the bar chart graphic, but others thought the scale too confusing and hard to understand.

What made labels easier/harder to use?

A main point made by all participants is that labels and environmental certification regulations should be standardized so that it would be easier to make comparisons across products.

Labels should be simple because labels that provide too much information or are too complicated are difficult to use when making comparisons across products. They suggested that labels display some sort of summary or average score to make it easy to make quick comparisons across products. Several participants liked graphic displays (e.g., bar charts) because they were easy to compare products. However, several participants noted that a summary score would be preferable because it would be difficult to use graphic displays to differentiate across products that may be similar in their environmental ratings. This measurement problem would be especially difficult when product labels are not right next to each other.

To provide context, participants stated that they liked the presence of reference information (e.g., industry average).

Recommendations

The results of this research are not generalizable to the U.S. consumer population. However, given the consistency in several findings across participants we make the following recommendations.

1. We recommend that environmental logos should not be used by themselves; at a minimum supporting text is needed.
2. We recommend that environmental labels present the environmental information that is most important to consumers (e.g., forest replanting rate, wildlife protection).
3. We recommend that environmental labels concentrate on environmental criteria and not mix environmental and social criteria.
4. We recommend that environmental labels should include contact information (e.g., telephone number or web site address) to increase credibility.
5. We recommend that environmental labels should achieve a balance between simplicity and detail; too much information and the label will be too confusing and hard to use, not enough information and the label will be less credible.
6. We recommend that environmental labels should present the information in a standardized format to make cross-product comparisons easier.
7. If possible, we recommend that environmental certifiers use a standardized scoring method to evaluate wood products.
8. If a standardized scoring method is not used, then we recommend that information about the standards that are used for the rating system be included on the label.
9. We recommend that environmental labels use a summary scoring method to present the information.
10. We recommend that environmental certification of wood products should be performed, or regulated, by one familiar governmental or independent organization.
11. If the organization is to be a government agency, then we recommend that the U.S. Environmental Protection Agency should perform or regulate wood product certification.
12. If one familiar governmental or independent organization is not used, then we recommend that a significant public education program is needed to inform consumers about the certifying organizations and their certification process.
13. If one familiar governmental or independent organization is not used, then we recommend that information about the certifying organization should be included on the label.
14. We recommend that reference information (e.g., minimal acceptable score, industry average score) be included on an environmental label.

INTRODUCTION

Background

Environmental labeling of forest products is a topic of growing public debate—a debate largely about how much environmental information to supply to consumers to facilitate effective choice and how that information will be supplied. From a policy perspective, one aim of eco-labeling is to educate consumers about the environmental impacts of the product's consumption, thereby leading to a change in purchasing behavior, and ultimately, to a reduction in negative impacts. From a business perspective, eco-labeling allows firms that use more sustainable forestry management practices to potentially gain market share and to maximize any value-added rents. An open question, however, is whether current eco-labeling approaches will increase purchases of products from environmentally managed forests.

Spurred by organizations like the Forest Stewardship Council and the Certified Forest Products Council, environmental certification programs for forest products are rapidly being implemented.² Currently, there are hundreds of environmentally certified forest product companies in the United States selling a diverse range of products, e.g., building lumber, furniture, musical instruments, outdoor play equipment, and wine barrels (FSC 1998). Often the forest product supplier designates the product as being certified by using a seal-of-approval designated by the certifying organization. Currently, firms are spending substantial amounts of money, and altering production methods, to obtain these environmental certification seals, and organizations like the World Bank support the use of these labeling programs.

There is evidence of a potential mainstream market for environmentally certified wood products; Ozanne and Smith (1997) estimate that approximately 25 million Americans would be likely to search for such products. In addition, several studies indicate that some portion of non-commercial³ consumers would be willing to pay a price premium for environmentally certified wood products (e.g., Read 1991; Winterhalter and Cassens 1993; CEER 1995; Lober and Eisen 1995; Ozanne and Vlosky 1997; National Wildlife Federation 1998).

The widespread implementation of environmental seals-of-approval suggests that they are perceived as an effective method of altering consumer behavior. However, empirical comparisons of the effectiveness of alternative eco-labeling programs are lacking (Brockmann et al. 1996). Market-based research investigating other types of labels (e.g., nutrition labels) has demonstrated that labeling can make significant changes in consumer behavior (e.g., see Ippolito and Mathios 1990, 1996; Teisl and Levy 1997). In addition, there is no empirical literature documenting consumer use or understanding of eco-labels placed on forest products. Therefore, if research is to make a significant contribution to the design of eco-labeling policies for forest products, the research question is not whether labeling programs can work. Rather, what is needed is an understanding of the consumer, product, label, and regulatory-framework characteristics that may affect an eco-labeling policy's market effectiveness.

The issue of forest product certification is important. Given the unequal distribution over the population of cognitive abilities, environmental values, and values of time, different labeling regulations may have substantially different market, environmental, and welfare effects. To understand these implications, policy makers need to know the performance characteristics of different environmental labels to help ensure successful outcomes. Forest product manufacturers also need to know the effectiveness of different labels so that they can effectively market their products and maximize any "value-added" rents.

Objectives

Typically, consumers choose the brand and quantities of products, not the amount or type of information presented on an environmental label. Consequently, it is difficult to use observed market behavior to identify consumer preferences for, and to quantify the social benefit from, different labeling formats. The challenge then is to design research that will provide policy makers some indication as to how the environmental labeling of forest products will affect producers and consumers. There are two phases to this research. During the first phase, qualitative research (focus groups) are used, in general.

² For example, 25 million acres of the world's forests and more than 100 forest product companies in the United States are currently certified by the Forest Stewardship Council (ENN 1998; FSC 1998).

³ Vlosky and Ozanne (1997) indicate that business customers are not likely to purchase eco-labeled forest products.

1. To identify the types of environmental information that consumers will find useful when choosing among forest products.
2. To understand how different modes of disclosure affect consumers' ability to comprehend and use this information.
3. To compare the effect of environmental certifications (Type I labeling) and environmental attribute disclosures (Type III labeling) on consumer perception of products' environmental impact.⁴
4. To understand how the above may differ across different types of wood products.

The results of the first phase will be used to develop a survey instrument to be used in the second (quantitative) phase. The objectives of the second phase are to provide quantitative answers to the above questions and

5. To provide estimates of consumer willingness to pay for forest products with different environmental profiles.

Methods

Qualitative research is critical for proper evaluation of the communication messages that will be used as part of the quantitative data-collection in-

strument. Props illustrating different information displays are used to stimulate discussion. Props consisted of an actual catalog description of an environmentally certified wood product (Figure 1), alternative environmental labels (Figures 2–25) and a listing of potential forest certification criteria (e.g., Table 2). Discussion centered around whether any of the information is confusing or hard to understand, whether the information is important, and whether the display contains enough information (the complete moderator's guide is attached as Appendix B). Labels differed in terms of the methods of presenting the information (e.g., a table format versus a bar chart graphic). The discussion centered around which components of the displays are the most/least confusing and what information on the displays is most/least useful.

The qualitative research involved six focus group sessions. Two groups were held in Cleveland, Ohio, two were held in Bangor, Maine, and two were held in San Francisco, California. Participants were screened to ensure demographic diversity and to confirm that some proportion of the participants had purchased wood construction materials (screener is attached as Appendix A). Recruitment incentives were used to ensure involvement of ethnic and racial minority groups. All groups were audio and video taped.

Table 1. Demographic characteristics of focus group participants.

	----- Cleveland -----		----- Bangor -----		----- San Francisco -----	
	GROUP I (n=8)	GROUP II (n=8)	GROUP I (n=8)	GROUP II (n=8)	GROUP I (n=8)	GROUP II (n=8)
Gender						
Male	4	4	3	4	3	3
Female	4	4	5	4	5	5
Construction						
lumber purchaser	3	3	3	4	4	1
Race						
White	4	4	8	8	5	4
Black	2	2	0	0	1	2
Other	2	2	0	0	2	2
Age						
18-34	3	3	2	2	2	2
35-49	1	1	4	3	3	2
50-64	3	3	1	3	1	2
65+	1	1	1	0	2	2

⁴ Type I and III are differentiated by the level of information detail. Type I labels provide the least amount of detail concerning attribute values. With a Type I label, the information about a vector of attribute levels is condensed into a one-dimensional score by an agreed-upon scoring algorithm. Products receiving a score above a pre-determined threshold may present a seal of approval or certification seal. At the other extreme are Type III labels, which provide the most detailed information. Information is disclosed about several of the products attributes (e.g., nutrition labels on food) and the disclosure typically involves continuous or categorical information about each element (e.g., grams of fat, high/medium/low risk). Type III labels are generally considered the most objective of the label categories while Type I labels are often considered the most normative.

Limitations

In qualitative market research, the focus group approach seeks to develop insights and direction rather than to provide quantitatively precise or absolute measures. Because of the limited number of participants and the restrictions of recruiting, this research must be considered in a qualitative frame of reference without possibility of projections to real or potential customers in this product category.

RESULTS

Because much of the discussion was consistent across focus groups, the presentation of results will first focus on the consistent responses made by focus group participants. When appropriate, additional responses will be presented by focus group location.

After the introductory presentation the moderator asked participants to come up with a list of what they consider as wood products. In general, participants mentioned lumber, paper, furniture, flooring, doors, and kitchen utensils.

The moderator then asked participants what characteristics they considered when buying particular wood products. When speaking about construction materials participants listed the following characteristics: straightness of the wood/wood not warped, durability of the wood, lack of knots or holes, the type of wood (maple, pine, etc.), grain pattern.

When asked about the characteristics of wood kitchen utensils, participants mentioned the strength of the wood, the flexibility of the wood, whether the product was well constructed (e.g., that the product was screwed together not simply glued), and whether the wood was smooth with no splinters. In addition, concerning wood kitchen utensils several participants mentioned that they wanted a wood that had a low degree of porosity. This last characteristic seems to stem from a food safety concern. That is, participants did not want high-porosity woods because of a fear that germs could collect or thrive in the wood pores.

When asked about the characteristics of paper products, many participants mentioned price, weight, texture, (for writing paper) a low tendency for the ink to smear or to spread over the paper, (for items like paper towels or toilet paper) high absorbency, resistance to tearing. In addition, participants in all groups mentioned that they preferred paper that was recycled or recyclable. When probed, most participants felt that being recycled was an important characteristic of paper.

The moderator then asked participants whether they ever think of the environmental problems associated with making wood products when they are making a purchase. Most participants indicated that they currently do not take this into consideration when purchasing most wood products, although many indicated that recycling was an important characteristic of paper products. When asked what some of the environmental problems may be, participants in all focus groups mentioned that they were concerned about whether forests were adequately being replanted. Loss of wildlife habitat and loss of wildlife were mentioned as major concerns. Concerns about loss of erosion control and a concern about how logging equipment can tear up the ground were also mentioned. Participants in some focus groups also mentioned the loss of rainforests, deforestation, and a reduction in oxygen replacement as concerns.

The moderator then asked whether their concern for the environmental impacts of producing wood products differ by what the product is. In general most participants felt that the purchase of paper products was more of an environmental concern because people buy/use so much of it (particularly with more computer work). The purchase of other wood products generated less environmental concern because these products are purchased less often, leading to less of an individual environmental impact. In addition, some participants noted that the other non-environmental characteristics (e.g., durability, grain pattern, etc.) of these other wood products were more important.

The moderator then asked participants when they shop for wood products whether they could tell which product is produced in a more environmentally friendly way. Except for seeing the recyclable label of paper products few participants could mention seeing any wood product as being advertised or labeled as environmentally friendly. One participant mentioned having seen chipboard labeled as containing recycled wood. A few others mentioned that they have seen paper towels marketed as better for the environment.

When asked whether they thought that environmental labeling of wood products would have an impact on their purchase behavior many focus group participants agreed. In addition, some participants mentioned that they would be willing to pay a little more for a wood product labeled as environmentally friendly. However, participants also indicated that they would not pay too much more and also mentioned that the wood product would have to be of similar quality to the non-environmentally friendly product. In addition, many participants indicated a

reluctance to switch brands simply due to an environmentally friendly label. The participants stated that the presence of a label would encourage them to try a new product, but that the product quality had to be similar to their current brand. The bottom line seems to be that price and product quality are pretty important characteristics; environmentally preferred characteristics were important, but other considerations are more important.

The moderator then presented participants with the following concept statement and they were asked for their reaction.

Something that is currently occurring in the wood products market is that some people would like to have wood products labeled so that you could determine which wood products came from forests that were managed in an environmentally friendly manner. How this would work is that trained forest auditors would be sent to a company's forests and they would evaluate the company's forest management based upon a set of criteria. Once the audit is done, the information from the audit could be used on product labels or in product advertising.

Almost all participants thought that the idea was "great" if it would work. Participants were mainly concerned whether they could trust the information on the label. Concerns centered around who the certifying organization was and whether the organization and the auditors would be independent. Several indicated that auditors could be bought to provide a passing certification. These participants felt that it would be beneficial for someone to "police the police".

Most participants also wanted to know what criteria would be used as a part of the certification. When asked what they thought were important criteria many participants wanted to know how many trees were being replanted for each tree harvested.

A few mentioned that they thought that this process would lead to increases wood product prices. Some of these latter participants felt that there are already regulations in place to protect the environment so the additional cost of a certification program may be too high for the environmental benefit.

When asked whether they thought such an environmental labeling program would work, many thought that a labeling program will create an incentive for companies to changes their forest management practices. However, everyone recognized that many people would simply not care and would only think about price.

During the Bangor and San Francisco focus groups, participants were given a copy of an actual catalog description of a cutting board (Figure 1).

Participants were then asked for their reactions to the catalog description and whether they would ever consider buying such an item.

In general, most participants reacted negatively to the catalog description. Participants thought the item was very expensive. In terms of the environmental information, most participants did not trust the information. When probed why, they stated that the information was too vague. For example, the catalog description did not state what the criteria were to obtain the certification. Further, participants did not know who the certifying organization was. Many did not trust the catalog description. A few participants indicated that some high-income people would probably purchase the product to make themselves feel good about their purchase. Others stated that due to the price they would not buy a product like this for themselves, but may purchase it for a gift. Another participant stated that characteristics like the product's size, shape, and color would be at the top of his/her list, not the environmental stuff. A few participants thought that the reason the cutting board was so expensive is the National Wildlife Federation would get some portion of the purchase price. Although most participants were skeptical about the environmental claims, some noted that the National Wildlife Federation lent some credibility because they were familiar with the organization. These participants stated that if a group that they had never heard of performed the certification, then they would not even consider purchasing the product. Another participant stated that the text was "gobbledygook" and sounds "like it was written by lawyers". Many did not understand the term "market incentive". Participants also felt that there was too much vague text explaining the environmental characteristics and not enough other information about the product: "I would rather know more about the quality of the cutting board."

The moderator then asked participants to gather in groups of two to come up with a list of criteria they would like to see as part of a certification and labeling program. Across all the focus groups participants were almost unanimous in wanting to know the rate of replanting being done for each tree harvested. In addition, most participants wanted the forests managed in ways that would not harm wildlife or significantly harm wildlife habitat. Some participants stated that they wanted no forest depletion in one particular area or in one type of tree species. Participants wanted forests managed to reduce land erosion impacts. Some participants stated they wanted wood operations to minimize any tree waste.

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Figure 1. Catalog description.

A significant point brought up in all the focus groups was that the success of a labeling program would be highly contingent on a significant information campaign to educate consumers about the certification and labeling program.

After allowing participants to come up with their own list of criteria, the moderator provided participant a two-page list of 32 potential forest management criteria. Participants were asked to review the list of criteria and to indicate on the sheet which of the criteria were two most important to them and which were least important. The list of all the criteria and a tally of the number of participants indicating whether the item was important, unimportant, or neither is presented, by focus group location, in Tables 2–4. A tally across all groups is presented in Table 5.

The five criteria deemed important by the most number of participants are primarily environmental:

- Forest operations do not harm threatened/ endangered species and their habitats
- Clearcutting is not allowed
- Forest operations involve minimum waste
- Forest management ensures long-term sustainability of harvests
- Bird and animal nesting habitat is protected

The five criteria that were deemed unimportant by the most number of participants are primarily social:

- Loggers are members of the local community
- Wood products are processed locally
- Non-native tree species are not be allowed
- Genetically modified tree species are not allowed
- Workers are allowed to unionize

After discussing the criteria, the moderator told participants that they were to imagine themselves to be in a store planning to purchase a particular wood item. The moderator then handed out sheets of paper that presented to the respondents three examples of the particular product (denoted as Products X, Y and Z). Participants were told to imagine that the three products were exactly the same except for the information that they saw presented on the sheet. Participants were given a few minutes to read the information sheets and were then asked to indicate (by a show of hands) which product they

would buy. Participants were then asked a series of questions to determine the reasons why they chose a particular product.

The moderator then asked participants a series of questions designed to elicit their views of how the environmental information was presented on the label. For example, participants were asked whether the information helped them determine if the product was better for the environment, if label presented enough detail, whether cross-product comparisons were easy or difficult to make, if any information was not needed, and whether the presentation format was desirable. A total of four choice presentations were made to each focus group.

Because the labels viewed by participants changed across the focus groups this section of the report presents the label discussions separately by focus group. Although the actual labels used differ across focus group, the choice presentation had some commonalties. In the first and second choice presentations the environmental information was presented to the participants as a Type I environmental “seal-of-approval” (eco-seal, hereafter). In the third and fourth presentations, more detailed (Type III) environmental labels are used. In the first choice presentation, not all products exhibit an eco-seal; this was an attempt to mimic a situation that may occur when environmental labeling is voluntary. In the other presentations, all products exhibited some sort of environmental labeling; this was to mimic a situation where environmental labeling is mandatory. In the second presentation, the environmental labels were different across products, while in the third and fourth presentations, the environmental labels were standardized in the way the information was presented. Thus the second presentation was an attempt to mimic the situation that might occur if environmental labeling was mandatory, but the way the information is presented is at the discretion of the manufacturer. The third and fourth presentations were to mimic the situation that might occur if environmental labeling was mandatory and the presentation was regulated.

DETAILED KEY FINDINGS

Cleveland Group I

After viewing the first choice presentation (Figure 2), four participants chose Product X, one chose Product Y, and three participants chose Product Z. When asked about their choice, a participant who chose Product X stated that the higher price may indicate that the wood was higher quality. Partici-

Table 2. Possible forest management criteria (Cleveland).

	Number indicating:		
	Important	Unimportant	No Opinion
Clearcutting is not allowed	14	1	1
Local rights to property/resource is protected	11	0	5
Cultural/religious sites are protected	5	5	6
Worker health and safety are assured	10	0	6
Workers are allowed to unionize	6	4	6
Social impacts to local community are minimized	5	2	9
Forest management ensures long-term sustainability of harvests	11	0	5
Loggers are members of the local community	1	8	7
Wood products are processed locally	1	7	8
Wages must be at least equal to local standards	5	4	7
Forest operations involve minimum waste	12	1	3
Forest operations do not harm threatened/endangered species and their habitats	16	0	0
Hunting, fishing and trapping are not allowed	3	2	11
Diversity of tree species is maintained	9	1	6
Ecologically sensitive portions of the forest are not harvested	8	0	8
No use of pesticides, fertilizers or herbicides	8	2	6
Genetically modified tree species are not allowed	3	4	9
Plantation forests are not allowed	3	4	9
Non-native tree species are not be allowed	3	5	8
Wildlife corridors 100 ft wide are maintained during and after logging	7	2	7
250 ft buffer strip is not logged around all wetlands and water bodies	9	1	6
Road construction and maintenance is minimized	8	1	7
Slash (non-harvested tree branches, bark and other waste) are left to lie on the ground	9	1	6
Soil fertility is maintained	12	1	3
Old growth forests are not cut	6	2	8
Company has paid all appropriate fees and taxes	5	2	9
Erosion controls are used	11	0	5
Plant and animal species are identified before logging begins	10	0	6
A minimum of 10 percent of the forest is never harvested (maintained in its natural state)	11	1	4
Recreational access is assured	5	1	10
Bird and animal nesting habitat is protected	13	0	3
Vertical layering of forest is maintained	4	2	10

Table 3. Possible forest management criteria (Bangor).

	Number indicating:		
	Important	Unimportant	No Opinion
Clearcutting is not allowed	10	1	5
Local rights to property/resource is protected	7	0	9
Cultural/religious sites are protected	2	2	12
Worker health and safety are assured	7	1	8
Workers are allowed to unionize	1	6	9
Social impacts to local community are minimized	5	1	10
Forest management ensures long-term sustainability of harvests	11	0	5
Loggers are members of the local community	3	5	8
Wood products are processed locally	1	4	11
Wages must be at least equal to local standards	5	1	10
Forest operations involve minimum waste	10	0	6
Forest operations do not harm threatened/endangered species and their habitats	11	0	5
Hunting, fishing and trapping are not allowed	2	4	10
Diversity of tree species is maintained	9	0	7
Ecologically sensitive portions of the forest are not harvested	11	0	5
No use of pesticides, fertilizers or herbicides	7	3	6
Genetically modified tree species are not allowed	1	4	11
Plantation forests are not allowed	3	3	10
Non-native tree species are not be allowed	4	2	10
Wildlife corridors 100 ft wide are maintained during and after logging	5	1	10
250 ft buffer strip is not logged around all wetlands and water bodies	7	0	9
Road construction and maintenance is minimized	7	0	9
Slash (non-harvested tree branches, bark and other waste) are left to lie on the ground	5	0	11
Soil fertility is maintained	7	0	9
Old growth forests are not cut	4	1	11
Company has paid all appropriate fees and taxes	5	2	9
Erosion controls are used	10	1	5
Plant and animal species are identified before logging begins	5	0	11
A minimum of 10 percent of the forest is never harvested (maintained in its natural state)	7	0	9
Recreational access is assured	4	2	10
Bird and animal nesting habitat is protected	8	0	8
Vertical layering of forest is maintained	5	0	11

Table 4. Possible forest management criteria (San Francisco).

	Number indicating:		
	Important	Unimportant	No Opinion
Clearcutting is not allowed	12	0	4
Local rights to property/resource is protected	8	3	5
Cultural/religious sites are protected	9	0	7
Worker health and safety are assured	13	0	3
Workers are allowed to unionize	7	2	7
Social impacts to local community are minimized	5	2	9
Forest management ensures long-term sustainability of harvests	10	3	3
Loggers are members of the local community	5	5	6
Wood products are processed locally	6	4	6
Wages must be at least equal to local standards	6	3	7
Forest operations involve minimum waste	12	0	4
Forest operations do not harm threatened/endangered species and their habitats	14	0	2
Hunting, fishing and trapping are not allowed	4	5	7
Diversity of tree species is maintained	11	0	5
Ecologically sensitive portions of the forest are not harvested	11	0	5
No use of pesticides, fertilizers or herbicides	8	1	7
Genetically modified tree species are not allowed	6	4	6
Plantation forests are not allowed	2	3	11
Non-native tree species are not be allowed	1	6	9
Wildlife corridors 100 ft wide are maintained during and after logging	6	3	7
250 ft buffer strip is not logged around all wetlands and water bodies	8	1	7
Road construction and maintenance is minimized	7	1	8
Slash (non-harvested tree branches, bark and other waste) are left to lie on the ground	5	2	9
Soil fertility is maintained	9	1	6
Old growth forests are not cut	12	1	3
Company has paid all appropriate fees and taxes	4	4	8
Erosion controls are used	9	0	7
Plant and animal species are identified before logging begins	10	1	5
A minimum of 10 percent of the forest is never harvested (maintained in its natural state)	7	2	7
Recreational access is assured	5	2	9
Bird and animal nesting habitat is protected	13	0	3
Vertical layering of forest is maintained	7	2	7

Table 5. Possible forest management criteria (cumulative totals).

	Number indicating:		
	Important	Unimportant	No Opinion
Clearcutting is not allowed	36	2	10
Local rights to property/resource is protected	26	3	19
Cultural/religious sites are protected	16	7	25
Worker health and safety are assured	30	1	17
Workers are allowed to unionize	14	12	22
Social impacts to local community are minimized	15	5	28
Forest management ensures long-term sustainability of harvests	32	3	13
Loggers are members of the local community	9	18	21
Wood products are processed locally	8	15	25
Wages must be at least equal to local standards	16	8	24
Forest operations involve minimum waste	34	1	13
Forest operations do not harm threatened/endangered species and their habitats	41	0	7
Hunting, fishing and trapping are not allowed	9	11	28
Diversity of tree species is maintained	29	1	18
Ecologically sensitive portions of the forest are not harvested	30	0	18
No use of pesticides, fertilizers or herbicides	23	6	19
Genetically modified tree species are not allowed	10	12	26
Plantation forests are not allowed	8	10	30
Non-native tree species are not be allowed	8	13	27
Wildlife corridors 100 ft wide are maintained during and after logging	18	6	24
250 ft buffer strip is not logged around all wetlands and water bodies	24	2	22
Road construction and maintenance is minimized	22	2	24
Slash (non-harvested tree branches, bark and other waste) are left to lie on the ground	19	3	26
Soil fertility is maintained	28	2	18
Old growth forests are not cut	22	4	22
Company has paid all appropriate fees and taxes	14	8	26
Erosion controls are used	30	1	17
Plant and animal species are identified before logging begins	25	1	22
A minimum of 10 percent of the forest is never harvested (maintained in its natural state)	25	3	20
Recreational access is assured	14	5	29
Bird and animal nesting habitat is protected	34	0	14
Vertical layering of forest is maintained	16	4	28

1/4" Luaun Plywood

Product X	Product Y	Product Z
\$10.50	\$10.00	\$9.50
 <p>Forest Stewardship Council</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. 		

Figure 2. Cleveland focus group one, choice set one.

pants who chose Product Z stated that they chose this product due to the lower price.

When asked what they thought of the environmental label most participants stated that they thought that there was not enough information. Participants questioned who the Forest Stewardship Council was and what criteria were used. One participant felt the environmental label was just a marketing scam or an industry logo. One suggested that a contact phone number would be helpful so that consumers could find out more about the certification.

"Seeing the words certified and environmentally-friendly caught my eye."

"I deal with fraud all the time—what is certified, who is certifying, what is the criteria for being certified?"

"I look at it as a marketing scam."

"At least there was some standard, something there, something was done."

"The public is not educated (about the label)."

"Common sense tells me the more expensive is more quality."

After viewing the second choice presentation (Figure 3), seven participants chose Product X and one chose Product Y; no participants chose Product Z. When asked about their choice, participants stated

that they primarily chose Product X because it was reasonably priced, was certified as being above the industry average in terms of the environmental score, and because they preferred to purchase products made by U.S. workers. In addition, several mentioned that they did not want to buy products made from wood harvested from tropical rainforests.

When asked about the labels, several participants stated that they liked the rating system on Product X; it seemed more credible to them. They also liked the reference values seen at the bottom of the label. One participant stated that the ITTO did not seem credible because other countries have regulations that are more lax than those of the United States. Finally, several participants stated that the labels and certification regulations should be standardized so that it would be easier to compare across products.

"Product X rating system was based on a set of criteria, was above average and gave more information. If they had numbers they had something to base those number on."

"Comes from a US forest, there was US labor involved."

"Having a number meant something."

"Cost—it wasn't the highest priced one, it wasn't the cheapest one."

"Product X gave me more information. The others were vague."

5-Piece Oak Dinette

Product X	Product Y	Product Z
\$350.00	\$390.00	\$310.00
<p>Forest Management Rating: A Consumer's Right to Know</p>   <p>This wood product comes from a U.S. forest that scores 87 on an environmental scoring system developed and administered by the Forest Stewardship Council</p> <p>Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>	 <p>rainforest Alliance SO PRACTICAL · IT'S RADICAL</p> <ul style="list-style-type: none"> This certifies that this product comes from a rainforest that is managed in a sustainable manner. 	 <ul style="list-style-type: none"> This logo certifies that this product comes from a tropical forest that is managed in a sustainable manner.

Figure 3. Cleveland focus group one, choice set two.

After viewing the third choice presentation (Figure 4), one participant chose Product X, five chose Product Y, and two participants chose Product Z.

In general participants thought that these labels provided too much information and were too complicated. Other participants stated that they would like to know the minimum requirement for a product to obtain a certification and would like to know the industry average. Everyone agreed that the standardized presentation was beneficial.

"No pesticides, wildlife is protected."
"Product Y has more of the important things checked off (no clearcutting, pesticides, herbicides and harvest are sustainable.)"
"Easy to compare between products."
"For something as simple as a cutting board, I do not want to make my shopping this complicated."
"Sometimes shopping is too complicated."
"Needs to be simpler, but still needs to be there."

After viewing the fourth choice presentation (Figure 5), three chose Product X, two chose Product Y, and three participants chose Product Z. When asked about their choice, participants stated that they primarily chose Product X because it was cheapest. Participants chose Product Y based on the

high sustainability score and the protection of workers rights. Participants who chose Product Z stated that they liked that the product was above average for all of the environmental characteristics. One stated as willing to spend more for Product Z because the product was paper and that he/she uses a lot of paper so the choice of paper could generate a relatively large environmental impact.

"Price, price, price."
"You are just going to use it and toss it."
"Even though it cost more now, maybe in the long run it will be cheaper because of the impact it has on the forest."
"Looked at how much the product was above the industry average."

Cleveland Group II

After viewing the first choice presentation (Figure 6), three participants chose Product X, one chose Product Y, and five participants chose Product Z. When asked about the reasons for their choice, the participant who chose Product X noted that it only cost a dollar more and was environmentally certified. However, several participants noted that they did not put much trust in the certification because

Wood Spice Rack

Product X	Product Y	Product Z
\$16.00	\$15.00	\$22.00
 <p>Forest Stewardship Council</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. 		 <ul style="list-style-type: none"> This product is certified by the National Wildlife Federation's SMARTWOOD program, ensuring that your purchase contributes toward preserving and maintaining our nation's forests. A wood products company must meet stringent criteria for SMARTWOOD certification.

Figure 6. Cleveland focus group two, choice set one.

they were not familiar with the Forest Stewardship Council. The participant who chose Product Y noted that the product was just a spice rack and did not feel that the environmental impact of the purchase was that great. Participants who chose Product Z noted that the National Wildlife Federation sounded like a credible organization. In addition, they liked that the product was made from wood harvested in the United States.

When asked about their reactions to the labels several participants noted confusion with the term, “environmentally friendly”; “what does this term really mean?” Several participants liked the phrase “your purchase contributes toward preserving and maintaining our nations forests,” although these participants also thought that the SmartWood label had too much text and could be simplified.

“National Wildlife Foundation is a pretty renowned company. They would stand by things, they would not let anything fall through the cracks.”

“Like words like ‘stringent’ used in Product Z.”
“I know at least they are going to try and keep the forest going.”

“I’m a skeptic, I don’t know if any of this is trouble, but Product X is a dollar over the one that says nothings—so I’ll go with that.”

“What does it mean by a friendly manner. Does the tree say hello to you?”

“I think Product Y—it is just a spice rack. To me a spice rack is a spice rack.”

After viewing the second choice presentation (Figure 7), two participants chose Product X, five chose Product Y, and two participants chose Product Z. Participants who chose Product X stated that they felt comfortable that the product was above the industry average and felt that a government certification was more credible than that of an independent organization. Participants who chose Product Y felt the opposite, that an independent organization was more credible than a government agency. Participants who chose Product Z stated their choice was driven by the lower price since all three products were certified. Most participants who chose the more expensive products noted that if they were buying a larger quantity of the product, that price would become a more important choice characteristic.

When asked about the labels, several participants were confused by the USDA logo, not knowing what it meant. In addition, several participants did not like the aesthetics of the graphic scale used on Product X. Many participants agreed that present-

Stud-grade 2x4

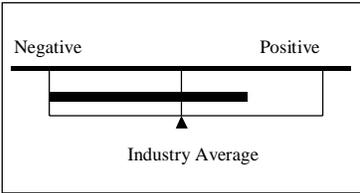
Product X	Product Y	Product Z
<p style="text-align: center;">\$2.00</p> <p style="text-align: center;">Forest Management Rating</p>  <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="font-size: small;">Environmental scoring system administered by the Forest Service, U.S. Department of Agriculture.</p>	<p style="text-align: center;">\$2.50</p>  <ul style="list-style-type: none"> The National Forest Foundation is a non-profit environmental agency that certifies that this product comes from a forest that is managed in a sustainable manner. <p style="font-size: small;">To learn more about forest certification National Forest Foundation 1-800-333-TREE or go to www.NFF.org/TREE/Cert.htm</p>	<p style="text-align: center;">\$1.50</p>  <ul style="list-style-type: none"> This product is certified by the Society of American Foresters as coming from forests that are responsibly managed. A wood products company must meet stringent criteria for certification.

Figure 7. Cleveland focus group two, choice set two.

ing a phone number and website address increased the credibility of the Product Y label.

"You don't get a phone number on a lot of things. At least this has a phone number someone to call if you wanted to. That shows something right there."

"I wouldn't put my phone number on something if it wasn't true."

"If you didn't believe them you could call."

"I trust a non-government organization over a government organization."

"I trust the government, I don't think that they ripped me off yet."

"I did rather save a buck (especially if buying in large quantities)."

After viewing the third choice presentation (Figure 8), seven chose Product X, two chose Product Y, and no participants chose Product Z. Participants who chose Product X stated that Products X and Z were close in terms of their ratings, yet X was much cheaper. They also noted that Product X met all the minimum standards. Participants who chose Product Y noted that the higher watershed protection and sustainability scores drove choice.

Participants in general thought the labels were too detailed, causing participants to become con-

fused and frustrated when comparing scores across products. Participants stated that they did like the presence of the reference scores. EPA was seen as a credible certifying agency due to its familiarity.

"The price said something. The information on the label was too much."

"Too much information on the label so I went right to the price to make the decision."

"It is overkill."

"I was getting angry with so much reading, so I went with the price."

"I read it. But like everybody else—it became confusing after awhile."

After viewing the fourth choice presentation (Figure 9), six participants chose Product X, no one chose Product Y, and three participants chose Product Z. Participants who chose Product X stated that their decisions were mostly driven by the certification characteristics of no cutting of old growth and no clearcutting. Participants who chose Product Z noted that Products X and Z were similar and that Z was much cheaper.

When reacting to the labels, some participants stated that they would have liked to see the environmental scores rather than just a check. Most partici-

Cedar Garden Chair

Product X	Product Y	Product Z																																																						
<p>\$110.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">52</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">74</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">86</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">64</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">55</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p style="text-align: center;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>		This Brand	Industry Average	workers' rights protection	52	64	watershed protected	74	79	wildlife protected	86	82	ecosystem diversity	64	69	sustainability score	55	89	<p>\$130.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">32</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">84</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">76</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">84</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">95</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p style="text-align: center;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>		This Brand	Industry Average	workers' rights protection	32	64	watershed protected	84	79	wildlife protected	76	82	ecosystem diversity	84	69	sustainability score	95	89	<p>\$150.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">92</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">54</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">66</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">94</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">45</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p style="text-align: center;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>		This Brand	Industry Average	workers' rights protection	92	64	watershed protected	54	79	wildlife protected	66	82	ecosystem diversity	94	69	sustainability score	45	89
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Figure 8. Cleveland focus group two, choice set three.

5-Shelf Oak Bookcase

Product X	Product Y	Product Z																																																																		
<p>\$280.00</p> <p>Forest Management Practices</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Certified</th> </tr> </thead> <tbody> <tr> <td>no clearcutting</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no cutting of old growth</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no pesticides used</td> <td></td> </tr> <tr> <td>no herbicides used</td> <td></td> </tr> <tr> <td>no fertilizers used</td> <td></td> </tr> <tr> <td>no genetically modified trees</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>harvests are sustainable</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no plantation forest</td> <td></td> </tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p>		Certified	no clearcutting	✘	no cutting of old growth	✘	watershed protected	✘	wildlife protected	✘	no pesticides used		no herbicides used		no fertilizers used		no genetically modified trees	✘	harvests are sustainable	✘	no plantation forest		<p>\$310.00</p> <p>Forest Management Practices</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Certified</th> </tr> </thead> <tbody> <tr> <td>no clearcutting</td> <td></td> </tr> <tr> <td>no cutting of old growth</td> <td></td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no pesticides used</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no herbicides used</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no fertilizers used</td> <td></td> </tr> <tr> <td>no genetically modified trees</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>harvests are sustainable</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no plantation forest</td> <td></td> </tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p>		Certified	no clearcutting		no cutting of old growth		watershed protected	✘	wildlife protected	✘	no pesticides used	✘	no herbicides used	✘	no fertilizers used		no genetically modified trees	✘	harvests are sustainable	✘	no plantation forest		<p>\$250.00</p> <p>Forest Management Practices</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Certified</th> </tr> </thead> <tbody> <tr> <td>no clearcutting</td> <td></td> </tr> <tr> <td>no cutting of old growth</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no pesticides used</td> <td></td> </tr> <tr> <td>no herbicides used</td> <td></td> </tr> <tr> <td>no fertilizers used</td> <td></td> </tr> <tr> <td>no genetically modified trees</td> <td></td> </tr> <tr> <td>harvests are sustainable</td> <td style="text-align: center;">✘</td> </tr> <tr> <td>no plantation forest</td> <td></td> </tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p>		Certified	no clearcutting		no cutting of old growth	✘	watershed protected	✘	wildlife protected	✘	no pesticides used		no herbicides used		no fertilizers used		no genetically modified trees		harvests are sustainable	✘	no plantation forest	
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Figure 9. Cleveland focus group two, choice set four.

pants had never heard of Scientific Certification Systems and as a result did not know whether they could trust the label information.

“Important that it allowed for no clear cutting, wildlife protection, and that the harvest are sustainable”

“I chose the cheapest product because I don’t even know what Scientific Certification Systems is.”

“If I had education on what this is then I would feel more comfortable. It would have more credibility.”

“The question is are we willing to pay more to protect are planet. I’m not.”

“How do you know that it is true.”

Bangor Group I

After viewing the first choice presentation (Figure 10), three participants chose Product X, two chose Product Y, and three participants chose Product Z.

Participants who chose Product X stated that their decisions were mostly driven by the presence of the environmental certification. Participants who chose Product Y stated that they made their decision based on the product’s low price, and they noted that just because a product is not certified does not necessarily indicate that it was worse for the environment. Participants who chose Product Z stated

that they did not choose Product X because it was too expensive and that they did not choose Product Y because it lacked a certification.

In reacting to the labels many participants stated that they had never seen a wood product certified as being environmentally friendly, but that they liked the idea. Several participants noted that they knew nothing about the Forest Stewardship Council and felt that there was a possibility that the certification was just a marketing gimmick. One participant noted that they thought that if the certification organization was truly credible that they would provide some contact information on the label (e.g., a phone number). Most participants agreed that for an environmental labeling program to work that consumers would need to be educated: “education is the key”.

“Went for price.”

“Want a product that is certified.”

“Product states that it is not from a sustainable forest. I would not want to give them my business at all.”

“Did not know what Forest Stewardship Council was. Could be for real, could not.”

“Just because they say nothing leads me to believe that they are not certified. Because if they were why wouldn’t it just say so.”

Wood Spice Rack

Product X	Product Y	Product Z
\$22.00	\$13.00	\$16.00
 <p>Forest Stewardship Council</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. 	<ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. 	

Figure 10. Bangor focus group one, choice set one.

After viewing the second choice presentation (Figure 11), two chose Product X, no one chose Product Y, and six participants chose Product Z. Participants who chose Product X stated that their decisions were mostly driven by the presence of the environmental score; these participants stated that they trusted a government rating. They also liked that the product was above the minimum acceptable level. Products Y and Z were rejected because “although I don’t trust industry groups, I don’t trust environmental groups either”. Participants who chose Product Z stated that they primarily did so because the product was made in Maine. One participant who chose Product Z noted that they thought that Product Y’s label gave more information and was more credible, they still chose Product Z due to the Maine-made label.

Participants liked the contact information on Product Y’s label; they felt that it increased the credibility of the certification.

“Made in Maine is important to me.”
“All things being equal, I would always by a Maine product.”

“I’m equally cynical of environmental groups. They have their own ax to grind.”
“USDA means something to me. I tend to trust them more.”

After viewing the third choice presentation (Figure 12), four participants chose Product X, one chose Product Y, and three participants chose Product Z. Participants who chose Product X seemed to do so because they do not like clearcutting. Participants who chose Z noted that Products X and Z were environmentally similar, but Z was cheaper. One participant did not really care about clearcutting, but did feel that maintaining sustainable harvests was important. Several noted that their choice was dependent on how much they were buying; most participants stated that they were most likely to opt for the cheaper product if they were going to buy a lot of product.

In general participants felt that these labels were too complicated and had too much information. One participant simply counted the checks rather than trying to compare each of the characteristics. In reacting to the Scientific Certification

5-Piece Oak Dinette

Product X	Product Y	Product Z
<p style="text-align: center;">\$310.00</p> <p style="text-align: center;">Forest Management Rating: A Consumer’s Right to Know</p> <div style="text-align: center; border: 2px solid green; width: 40px; margin: 0 auto; padding: 5px;">62</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;">   </div> <p style="font-size: small;">This wood product comes from a forest that scores 62 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture</p> <p style="font-size: x-small;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>	<p style="text-align: center;">\$390.00</p> <div style="text-align: center; margin-bottom: 10px;">  </div> <ul style="list-style-type: none"> The National Forest Foundation is a non-profit environmental agency that certifies that this product comes from a forest that is managed in an ecologically sensitive manner. <p style="font-size: x-small;">To learn more about forest certification National Forest Foundation 1-800-333-TREE or go to www.NFF.org/TREE/Cert.htm</p>	<p style="text-align: center;">\$350.00</p> <div style="text-align: center; margin-bottom: 10px;">  </div> <div style="text-align: center; margin-bottom: 10px;">  </div> <ul style="list-style-type: none"> The Maine Wood Products Association is a forest industry trade organization that certifies that this product comes from a Maine forest that is managed in a responsible manner.

Figure 11. Bangor focus group one, choice set two.

1/4" Luaun Plywood

Product X \$10.50 Forest Management Practices	Product Y \$10.00 Forest Management Practices	Product Z \$9.50 Forest Management Practices																																																																		
<table border="1"> <thead> <tr> <th colspan="2" style="text-align: right;">Certified</th> </tr> </thead> <tbody> <tr><td>no clearcutting</td><td style="text-align: right;">✘</td></tr> <tr><td>no cutting of old growth</td><td style="text-align: right;">✘</td></tr> <tr><td>watershed protected</td><td style="text-align: right;">✘</td></tr> <tr><td>wildlife protected</td><td style="text-align: right;">✘</td></tr> <tr><td>no pesticides used</td><td></td></tr> <tr><td>no herbicides used</td><td></td></tr> <tr><td>no fertilizers used</td><td></td></tr> <tr><td>no genetically modified trees</td><td style="text-align: right;">✘</td></tr> <tr><td>harvests are sustainable</td><td style="text-align: right;">✘</td></tr> <tr><td>no plantation forest</td><td></td></tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p> 	Certified		no clearcutting	✘	no cutting of old growth	✘	watershed protected	✘	wildlife protected	✘	no pesticides used		no herbicides used		no fertilizers used		no genetically modified trees	✘	harvests are sustainable	✘	no plantation forest		<table border="1"> <thead> <tr> <th colspan="2" style="text-align: right;">Certified</th> </tr> </thead> <tbody> <tr><td>no clearcutting</td><td></td></tr> <tr><td>no cutting of old growth</td><td></td></tr> <tr><td>watershed protected</td><td></td></tr> <tr><td>wildlife protected</td><td></td></tr> <tr><td>no pesticides used</td><td style="text-align: right;">✘</td></tr> <tr><td>no herbicides used</td><td style="text-align: right;">✘</td></tr> <tr><td>no fertilizers used</td><td></td></tr> <tr><td>no genetically modified trees</td><td style="text-align: right;">✘</td></tr> <tr><td>harvests are sustainable</td><td></td></tr> <tr><td>no plantation forest</td><td style="text-align: right;">✘</td></tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p> 	Certified		no clearcutting		no cutting of old growth		watershed protected		wildlife protected		no pesticides used	✘	no herbicides used	✘	no fertilizers used		no genetically modified trees	✘	harvests are sustainable		no plantation forest	✘	<table border="1"> <thead> <tr> <th colspan="2" style="text-align: right;">Certified</th> </tr> </thead> <tbody> <tr><td>no clearcutting</td><td></td></tr> <tr><td>no cutting of old growth</td><td style="text-align: right;">✘</td></tr> <tr><td>watershed protected</td><td style="text-align: right;">✘</td></tr> <tr><td>wildlife protected</td><td style="text-align: right;">✘</td></tr> <tr><td>no pesticides used</td><td></td></tr> <tr><td>no herbicides used</td><td></td></tr> <tr><td>no fertilizers used</td><td></td></tr> <tr><td>no genetically modified trees</td><td></td></tr> <tr><td>harvests are sustainable</td><td style="text-align: right;">✘</td></tr> <tr><td>no plantation forest</td><td></td></tr> </tbody> </table> <p>As recorded by Scientific Systems, an independent environmental certification organization.</p> 	Certified		no clearcutting		no cutting of old growth	✘	watershed protected	✘	wildlife protected	✘	no pesticides used		no herbicides used		no fertilizers used		no genetically modified trees		harvests are sustainable	✘	no plantation forest	
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Figure 12. Bangor focus group one, choice set three.

System logo, few participants had any knowledge of the organization and seemed skeptical. However, several participants thought that an independent organization or the government was more credible than an industry group.

"I went for what is important to me. I want them to have a sustainable forest."

"I just looked at the price and ignored all the other information on the label."

"I looked at the labels and said to myself this is kind of mind boggling. I just picked the one that had the most x's"

"Price was important, but how they handled clear cutting won out."

After viewing the fourth choice presentation (Figure 13), six participants chose Product X, one chose Product Y, and no participants chose product Z; one participant stated that he/she would not buy any of these products. The participants who chose Product X did so because of its low price. Product Y was chosen because the product scored relatively high on workers rights protection and on the sustainability score. Participants reject Product Z

because of its high price. The participant who rejected all of the birdfeeders would only buy a feeder that was above the industry average across all of the characteristics.

In general, most participants liked the format of the label although one participant was confused by the term "watersheds". Most participants stated that the Environmental Protection Agency would provide a highly credible certification. Participants generally agreed that they liked the idea of environmental labeling of wood products. However, they also stated that many consumers would need to be educated about the label: "as people become more educated the label becomes more important".

"I wasn't satisfied with any of the labels. Either the price was too high or the ratings were below the industry average."

"I would rather see this type of label because it is providing me with the information to make an educated decision. However, I still do not agree with the practices of the companies."

"All categories should be at or above the industry average."

Cedar Birdfeeder

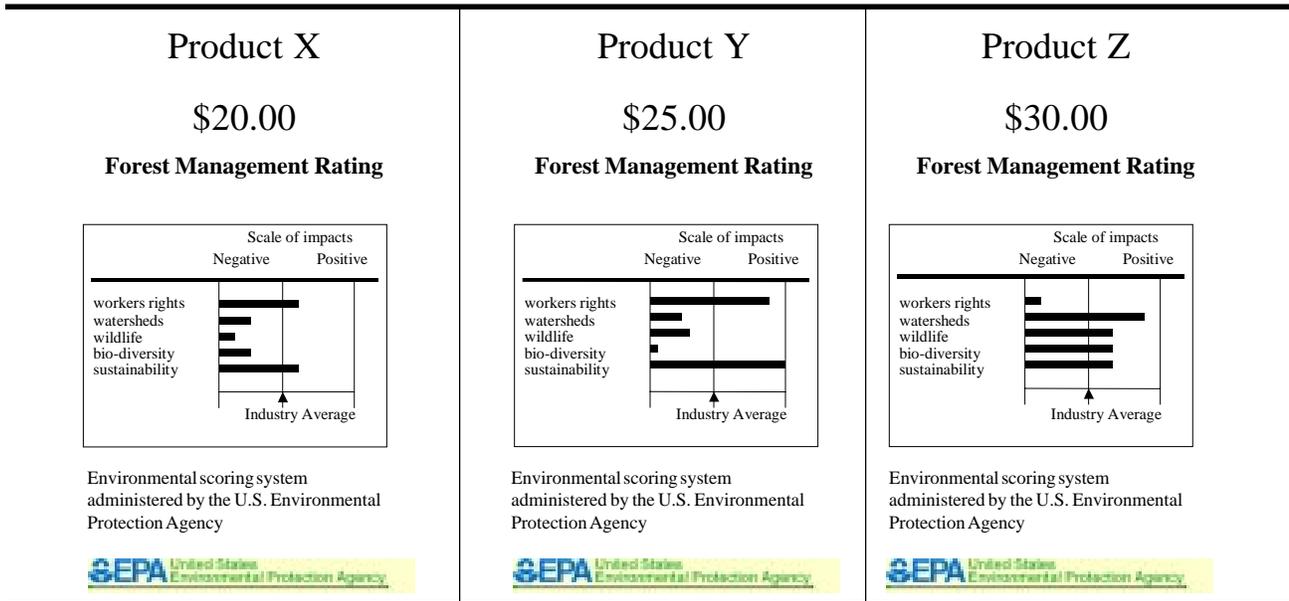


Figure 13. Bangor focus group one, choice set four.

Bangor Group II

After viewing the first choice presentation (Figure 14), two participants chose Product X, no one chose Product Y, and six participants chose Product Z. Participants generally chose product Z due to its low price and the feeling that just because it is not certified does not necessarily mean that the product was any less environmentally friendly. They noted that the lack of a standard label lead to some uncertainty regarding the relative standing of individual products.

Some participants felt that the USDA logo, because it was a familiar organization, provided some credibility to the label. However, others disagreed; some stated that the labels would be much more credible if they had heard about the program before. At least one person was confused about the reference information at the bottom of the label.

"If I'm going to give money to a charitable organization it is not going to be a manufacturing organizations."

"I know that product X is cheaper and I just imagine that it passed too."

"There is no standard here- to me this does not mean anything."

"I weigh the price and the environmental rating."

"The rating means something. It meant a guilt trip."

"You don't know what any of that stuff on the label means."

"USDA sounds a little better, it is a name that you know."

"I did not place a lot of credibility in the labels because it has not become mainstream yet."

"I have to have some faith in the system."

After viewing the second choice presentation (Figure 15), no participants chose Product X, three chose Product Y, and five participants chose Product Z. Participants who chose Product Y stated that their decisions were mostly driven by price although one participant stated that s/he chose Product Y because it means that "less trees are cut in Maine". Another preferred that Product Y was from forests that were managed in a "sustainable" rather than a "responsible" manner. Other participants seemed to view these two terms as synonymous. Participants who chose Product Z stated that they primarily did so because the product was made in Maine.

Some participants liked the aesthetics of the ratings scale graphic although participants were confused by what the scoring system represented. Participants generally agreed that EPA would be a credible certifying organization. However, partici-

Cedar Garden Chair

Product X	Product Y	Product Z
<p>\$180.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <div style="border: 2px solid green; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">52</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> </div> <p style="font-size: small;">This wood product comes from a forest that scores 52 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture</p> <p style="font-size: x-small;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>	<p>\$220.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <div style="border: 2px solid green; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">87</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> </div> <p style="font-size: small;">This wood product comes from a forest that scores 87 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture</p> <p style="font-size: x-small;">Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>	<p>\$150.00</p>

Figure 14. Bangor focus group two, choice set one.

Cedar Birdfeeder

Product X	Product Y	Product Z
<p>\$30.00</p> <p>Forest Management Rating</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p style="font-size: x-small; margin: 0;">Negative Positive</p> <div style="border: 1px solid black; width: 80%; margin: 5px auto; position: relative;"> <div style="background-color: black; width: 40%; height: 10px; position: absolute; top: -5px; left: 0;"></div> <div style="position: absolute; top: 5px; left: 50%; transform: translate(-50%, -50%);"> Industry Average </div> </div> </div> <p style="font-size: x-small;">Environmental scoring system administered by the U.S.Environmental Protection Agency</p>	<p>\$20.00</p> <div style="text-align: center; margin: 10px 0;"> </div> <p>American Forest and Paper Association</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable manner. 	<p>\$25.00</p> <div style="text-align: center; margin: 10px 0;"> </div> <div style="text-align: center; margin-top: 10px;"> </div> <ul style="list-style-type: none"> The Maine Wood Products Association is a forest industry trade organization that certifies that this product comes from a Maine forest that is managed in a responsible manner.

Figure 15. Bangor focus group two, choice set two.

pants felt that the environmental claims were pretty similar and that the non-standard nature of the labels across products made cross-product comparisons relatively more difficult.

*"I saw Maine and that was it."
 "Product Z makes you feel twice as good. It is Maine made and it was harvested in a responsible manner."
 "Product X was too confusing."
 "The word sustainable gives more definition than the word responsible."
 "I responded emotionally to Made in Made."*

After viewing the third choice presentation (Figure 16), one participant chose Product X, six chose Product Y, and one participant chose Product Z. The participants who chose Product Y stated that they did so due to the relatively high environmental scores; the participant who chose Product Z did so due to the relatively high score on workers rights protection.

Participants generally reacted negatively to these labels, stating that they were much too detailed and took too much effort to make cross-product comparisons. Several participants stated that they doubted that anyone would bother to compare all these characteristics. However, one

participant noted that he/she look at nutrition labels all the time and that there may be a time when people would similarly learn how to use the environmental labels. Participants stated that they would like to see a summary score in addition to all the detailed information. Most participants seemed to agree they would be more likely to react appropriately to the environmental information if they knew more about the program; the knowledge would help establish the label information as credible.

*"I would be forever in the stores reading these labels."
 "I look at food labels and I do use that information. So the day might come where this would be used the same way."
 "I think that we can get to know and learn these just as we did with fat calories."
 "If I can learn one in a few years, I guess I can learn another."
 "If that had a number at the top that was an overall score you could look at a glance which one is better overall."
 "I went for the lowest price because there is no credibility with the information."
 "If the rating system had credibility, I would buy it."
 "Once it establishes credibility then it will have an impact."*

500 Sheets Multipurpose Paper

Product X	Product Y	Product Z																																																						
\$3.00	\$4.00	\$4.50																																																						
Forest Management Rating: A Consumer's Right to Know	Forest Management Rating: A Consumer's Right to Know	Forest Management Rating: A Consumer's Right to Know																																																						
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Figure 16. Bangor focus group two, choice set three.

After viewing the fourth choice presentation (Figure 17), five participants chose Product X, two chose Product Y, and no one chose Product Z. Participants who chose Product X stated that the environmental information influenced their decision; participants who chose Product Z stated that their decision was primarily driven by its low price.

Participants were not familiar with the Scientific Certification System and were more likely to view it as less credible than an organization which they were more familiar. However, many participants stated that the addition of the contact information increased the label's credibility: 'I could go to the web and check it out'.

*"Scientific Certification System means absolutely nothing."
"I don't want to make a purchase and then go have and think about it?"*

San Francisco Group I

After viewing the first choice presentation (Figure 18), seven participants chose Product X, no one chose Product Y, and one participant chose Product Z. Participants who chose X noted that it was only a dollar more than the uncertified product. The label denoting that Product Y was not certified led some participants to be uncertain about its environmental characteristics. One participant noted that just

because it was not certified does not necessarily mean that the product is less environmentally friendly, in fact they stated that it could be better. One participant who chose Product X stated that if Product Y did not exhibit any label at all he/she would have chosen Y, but that the non-certification disclaimer made them choose X. Most participants thought that Product Z was too expensive. The one participant who chose Product Z thought the high price would indicate a higher quality product (after this remark the moderator reminded participants that all other quality characteristics were the same across products).

Most participants were unfamiliar with the Forest Stewardship Council and felt that this lack of familiarity hurt its credibility. The National Arbor Day Foundation was seen as more credible because they had heard of this organization before. Almost all participants liked the display of the organizations' website and phone number because it allows them an opportunity to check up on the criteria and to help to assess the organizations credibility.

*"At least having a phone number and a web site gives me a place that I can check."
"Having a web site and phone number makes it more accessible."
"The extra money for Product Z is only being used to 'cushion' their group."*

1/4" Luaun Plywood

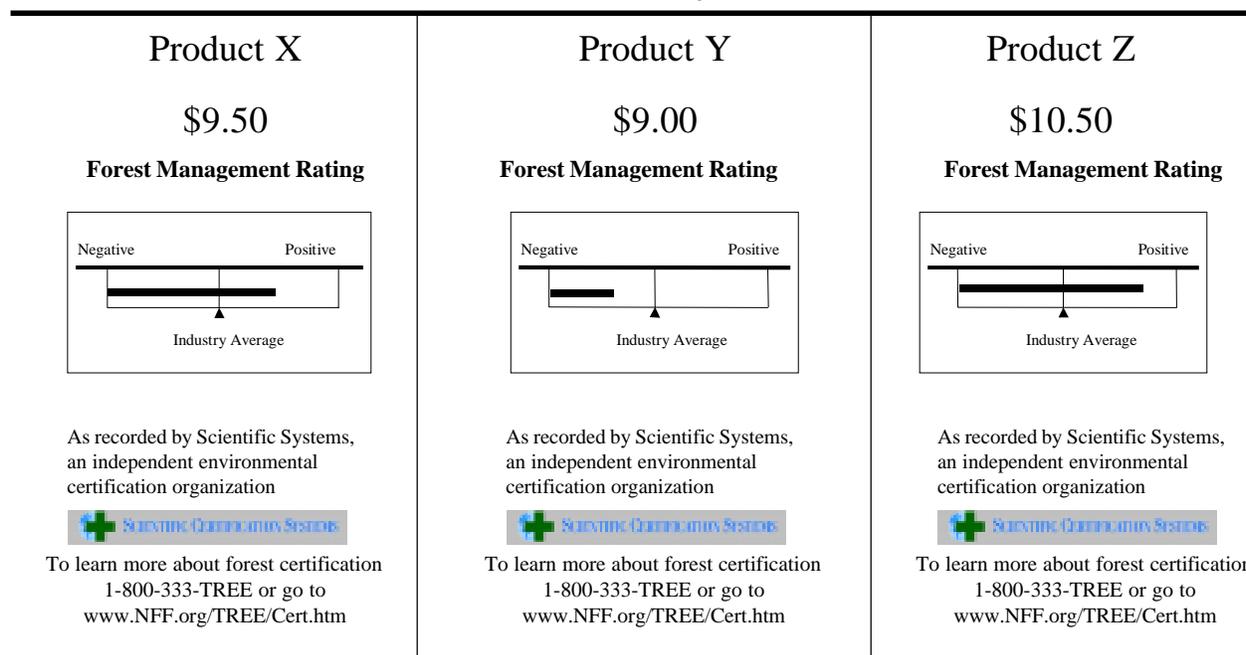


Figure 17. Bangor focus group two, choice set four.

Wood Spice Rack

Product X	Product Y	Product Z
\$16.00	\$15.00	\$22.00
 <p>Forest Stewardship Council</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. <p>To learn more about forest certification call FSC at 1-800-333-TREE or go to www.FSC.org/TREE/Cert.htm</p>	<ul style="list-style-type: none"> This product not certified as coming from forests that are managed in a sustainable and environmentally friendly manner. 	 <p>The National Arbor Day Foundation 100 Arbor Avenue • Tacoma, WA 98402 • 425-474-9883</p> <ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner.

Figure 18. San Francisco focus group one, choice set one.

"If it does the same thing people will most likely go for the cheaper thing."

"Just because the product is not certified does not mean that it comes from an environmentally unfriendly place. You simply don't know."

After viewing the second choice presentation (Figure 19), four participants chose Product X, one chose Product Y, and two participants chose Product Z. One participant refused to choose any of the products. Participants who chose Product X stated that they did so because they did not want to purchase wood products made from rainforests. Although environmental problems associated with rainforest logging was a factor some participants also indicated that they were concerned about slave-labor conditions in lesser-developed countries. Participants who chose Product Z indicated that price was the primary consideration and that although the product was made from tropical woods, they pointed out that the forests were managed in a sustainable manner.

There were mixed reactions to the rating scale; some participants liked it because it provided some quantifiable information, others thought the scale and the text was too confusing and hard to understand.

"Other than price they pretty much seemed the same."

"Don't know how it is 'managed' to improve the environment."

"Don't know what is meant by a sustainable manner."

"I absolutely confusing me. I go into the store and buy a 2x4. I know the quality is there. By what does all the other information mean."

"This is absolutely misleading."

"Don't know what the bar graph is trying to say."

"It is all meaningless. How do we know the industry average is?"

"The industry averages provide no information."

After viewing the third choice presentation (Figure 20), four participants chose Product X, one chose Product Y, and three participants chose Product Z. Participants who chose Product X stated that the environmental characteristics were better than Product Z, particularly with respect to forest sustainability. Participants who chose Product Y did so because of price and that the environmental characteristics were all above the minimal acceptable level. Participants who chose Product Z stated that the environmental characteristics were similar to Product X, but that workers rights protection was very important to them.

Participants were in general agreement that these labels provided too much information. They suggested that the labels also display some sort of summary or average score to make it easy to make

Stud-grade 2x4

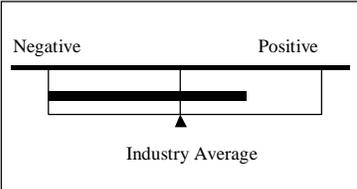
Product X	Product Y	Product Z
<p>\$2.00</p>  <p>Forest Management Rating</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Negative Positive</p>  <p>Industry Average</p> </div> <p>This wood product comes from a U.S. forest. Environmental scoring system developed and administered by the Forest Stewardship Council</p>	<p>\$2.50</p>  <p>rainforest Alliance <small>SO PRACTICAL • IT'S RADICAL</small></p> <ul style="list-style-type: none"> This certifies that this product comes from a rainforest that is managed in a sustainable manner. 	<p>\$1.50</p>  <ul style="list-style-type: none"> This logo certifies that this product comes from a tropical forest that is managed in a sustainable manner.

Figure 19. San Francisco focus group one, choice set two.

Cedar Garden Chair

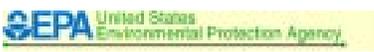
Product X	Product Y	Product Z																																																						
<p>\$180.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">52</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">84</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">86</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">84</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">75</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p>Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p> 		This Brand	Industry Average	workers' rights protection	52	64	watershed protected	84	79	wildlife protected	86	82	ecosystem diversity	84	69	sustainability score	75	89	<p>\$150.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">32</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">74</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">76</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">64</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">65</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p>Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p> 		This Brand	Industry Average	workers' rights protection	32	64	watershed protected	74	79	wildlife protected	76	82	ecosystem diversity	64	69	sustainability score	65	89	<p>\$190.00</p> <p>Forest Management Rating: A Consumer's Right to Know</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">This Brand</th> <th style="text-align: center;">Industry Average</th> </tr> </thead> <tbody> <tr> <td>workers' rights protection</td> <td style="text-align: center;">92</td> <td style="text-align: center;">64</td> </tr> <tr> <td>watershed protected</td> <td style="text-align: center;">84</td> <td style="text-align: center;">79</td> </tr> <tr> <td>wildlife protected</td> <td style="text-align: center;">96</td> <td style="text-align: center;">82</td> </tr> <tr> <td>ecosystem diversity</td> <td style="text-align: center;">64</td> <td style="text-align: center;">69</td> </tr> <tr> <td>sustainability score</td> <td style="text-align: center;">45</td> <td style="text-align: center;">89</td> </tr> </tbody> </table> <p>Environmental scoring system developed and administered by the U.S. Environmental Protection Agency</p> <p>Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p> 		This Brand	Industry Average	workers' rights protection	92	64	watershed protected	84	79	wildlife protected	96	82	ecosystem diversity	64	69	sustainability score	45	89
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Figure 20. San Francisco focus group one, choice set three.

quick comparisons across products. Participants stated that the level of detail did provide a great sense that the environmental information on the labels was credible. EPA was also seen as a credible certifying organization. A few participants claimed confusion with the terms “eco-system diversity” and “sustainability score”. These participants would like to know more about how these items are determined. Several participants indicated that they preferred the standardized labels because it was easier to make comparisons across products.

“Don’t know what the term eco-diversity means.”
“Product X and Y are not as friendly to their workers as they are to the environment.”
“Having EPA at the bottom gave the number more weight.”
“Having the same information on each product label makes the decision easier and the comparison quicker.”
“Surprised that all the scores were not summarized to give you one score at the top. It would have been quicker to make a comparison.”

After viewing the fourth choice presentation (Figure 21), one participant chose Product X, three

chose Product Y, and four participants chose Product Z. The one participant who chose Product X indicated that price was a major factor in their decision, but that the environmental rating was above the minimum acceptable level. Those who chose Product Y pointed out the high environmental rating was worth the higher price. The participants who chose Product Z indicated that price was a factor in their decision, but that the environmental rating was above the industry average. Participants who chose the higher-priced products indicated that price would be a bigger factor in their decisions if they were purchasing a large quantity of product.

In general participants like these labels although one participant wanted to know how the environmental scores were determined. When asked whether USDA was seen as a credible agency one participant indicated that the USDA logo did not affect the decision. However, other participants indicated a familiarity with USDA and felt that the logo did increase the credibility of the label.

“The quantity that you are buying influences one’s decisions.”

Pressure-treated Decking

Product X	Product Y	Product Z
\$5.50	\$8.50	\$7.00
Forest Management Rating: A Consumer’s Right to Know	Forest Management Rating: A Consumer’s Right to Know	Forest Management Rating: A Consumer’s Right to Know
62	87	75
 	 	 
This wood product comes from a forest that scores 62 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture	This wood product comes from a forest that scores 87 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture	This wood product comes from a forest that scores 75 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture
Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100	Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100	Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100

Figure 21. San Francisco focus group one, choice set four.

"If you are buying one the choice may be different than if you were buying more."

"The environmental scoring system is vague, but at least it is over the industry average."

"If a company fell below the industry average I would not think that they were such a quality company."

"If they cut corners on environmental scoring where else are they cutting corners."

"The USDA has no impact."

"The USDA has some impact. I certainly buy USDA butter and meat."

"The USDA is at least something that I knew existed."

"I'm philosophically opposed to spending tax dollars this way."

San Francisco Group II

After viewing the first choice presentation (Figure 22), all participants chose Product Y; no one chose Products Y or Z. Participants choosing Product Y indicated that the certification and price did affect their decision. However, several participants noted that the lack of certification on Product Z did not necessarily indicate that Z was less environmentally friendly. They understood that Product Z could have been just as good, but that the company just did not seek certification. One participant stated that his/her perception of the non-certified product would be contingent on the ratio of certified to uncertified products that were available.

The Forest Stewardship Council logo did not mean anything to participants; no one had ever heard of this organization.

"What is the point of being certified if you are not going to advertise."

"If most of the products have a label, I might ignore the product that did not have a label. I would just consider those with a label because they are the 'good' companies."

After viewing the second choice presentation (Figure 23), no one chose Products X or Z; all eight participants chose Product Y. The reasons they gave for choosing Product Y were (1) Product X was rejected due to its low environmental score (barely above the minimum acceptable score) and (2) the certifications on Products Y and Z were viewed as the same yet Product Y was significantly cheaper. The certifications were seen as similar even though the certifying organizations differed because the text was exactly the same and both labels provided contact information.

Participants viewed the USDA certification as credible primarily due to familiarity with the governmental agency. The National Arbor Day Foundation was seen as more credible than the AF&PA because of familiarity with the former organization, and some participants felt that they AF&PA was an industry trade group. However, several participants stated that they paid more attention to the text

1/4" Luaun Plywood

Product X	Product Y	Product Z
\$10.50	\$10.00	\$9.50
		
Forest Stewardship Council	Forest Stewardship Council	
This product is certified as coming from forests that are managed in a sustainable an environmentally friendly manner.	This product is certified as coming from forests that are managed in a sustainable an environmentally friendly manner.	

Figure 22. San Francisco focus group two, choice set one.

rather than the logos. Several participants stated that they would like to know more details about what was entailed as part of the certification process.

"Since the descriptions are the same and they both have web sites the decision came to pick the cheaper one."

"I thinking that the American Forest and Paper Association must be a trade organization. May be more interested in selling their product and have less stringent guide lines."

"The ultimate deciding factor was the price."

"Product Y and Z were essential the same except \$65 dollars cheaper."

"The average person, like me, would not know the difference between the American Forest and Paper Association and The National Arbor Day Foundation."

"I would say that the National Arbor Day Foundation has more credibility, but I still chose Product Y. It was \$65 dollars cheaper."

After viewing the third choice presentation (Figure 23), three participants chose Product X, no one chose Product Y, and five participants chose Product Z. Participants who chose Product X rejected Product Y's lower environmental rating while also

rejecting Product Z's higher price. Participants who chose Product thought that the better environmental rating of Z was worth the extra dollar. When asked, these participants noted that if they were buying ten sheets of plywood most would chose to buy Product X and one would choose Product Y.

Several participants liked these labels because they made it easy to compare products. However, several participants noted that a summary score may be preferable because it would be difficult to differentiate between products that may be similar in their environmental ratings. This measurement problem would be especially difficult when product labels are not right next to each other. One participant stated, "you may need a ruler to measure small differences." Several participants questioned the credibility of the Scientific Certification System organization. "They sound like they get paid to do these certifications" and "they sound like a corporate organization, not an environmental organization" were two comments made by participants.

"I looked at the length of the black line and said what is a dollar more."

"When you are buying one, what is a dollar."

5-Piece Oak Dinette

Product X	Product Y	Product Z
\$350.00	\$310.00	\$375.00
Forest Management Rating: A Consumer's Right to Know		
	American Forest and Paper Association	<ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner.
  <p>This wood product comes from a forest that scores 52 on an environmental scoring system developed and administered by the Forest Service, U.S. Department of Agriculture</p> <p>Minimum acceptable score = 50 Industry average score = 72 Maximum score possible is 100</p>	<ul style="list-style-type: none"> This product is certified as coming from forests that are managed in a sustainable and environmentally friendly manner. <p>To learn more about forest certification call the AF&PA at 1-800-333-TREE or go to www.AFPA.com</p>	<p>To learn more about forest certification call the National Arbor Day Foundation at 1-800-333-TREE or go to www.NADF.org/Tree/Cert.htm</p>

Figure 23. San Francisco focus group two, choice set two.

1/4" Luaun Plywood

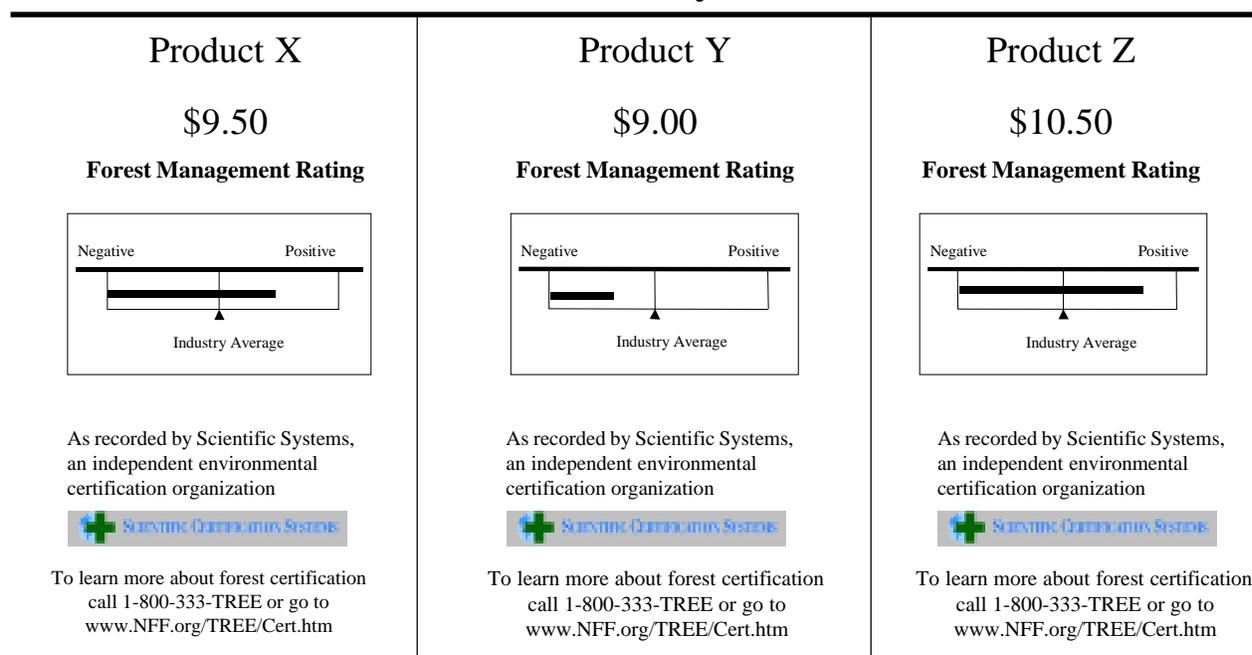


Figure 24. San Francisco focus group two, choice set three.

"I'd rather save the dollar and buy the one that is a little less positive."

"The graph is a very easy comparison."

"The graph is like the battery charger strip. We are use to it. It is an easy comparison."

"Might be easier for a lot of people just to have a numerical value."

"With the line graph you may need a ruler to tell the difference between products that are very similar."

"On first sight it looks good, but than you start to think about how hard will it be to tell the difference if you did not have the bars right next to each other."

"If I had to buy a large quantity, I'm going to go with the cheapest one."

After viewing the fourth choice presentation (Figure 25), five participants chose Product X, no one chose Product Y, and three participants chose Product Z. Participants who chose Products X and Z rejected Product Y primarily because the manufacture of this product appeared not to protect wildlife. In addition, participants who chose Product X rejected both Y and Z because of concerns over clearcutting and the use of genetically modified

trees. One additional concern regarding both Products X and Z was the use of pesticides.

"It is the nature of the product. It for birds. I like birds. I want to feed the birds."

"Product Y has no wildlife protection. Why would you buy something for birds that has no wildlife protection."

"I would pay the extra money to get what I thought was a friendly environment for birds."

"Don't want to buy a product for birds that uses pesticides. I'm just going to through the bird food on the floor."

"If I know that I could not purchase any of the product I would not. I wasn't impressed with any, but at least Product X had no clear cutting and protected the wildlife."

After viewing the four choice presentations, the moderator asked participants to form themselves into groups and, using the labels to which they had been exposed, take a few minutes to design an ideal label. Given that the focus groups differed in terms of the labels that they had viewed the report separates them by focus group.

Cedar Bird Feeder

Product X	Product Y	Product Z																																																																		
\$23.00	\$20.00	\$22.00																																																																		
Forest Management Practices	Forest Management Practices	Forest Management Practices																																																																		
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Figure 25. San Francisco focus group two, choice set four.

Cleveland Group I

- Single number rating
- Simple—not cluttered with too much information
- All manufacturers must conform to the same regulations
- Common logo
- State origin of lumber
- Education program to inform public about the new regulations
- Regulated by the United States government

Cleveland Group II

- Telephone 800 number
- Common and familiar logo
- Governmental verification
- Simple design

Bangor Group I

- Where and how the wood is harvested
- Ways to contact the company
- Sponsoring group should be governmental or independent

- Numerical rating system
- Information on the certifying organization

Bangor Group II

- Public information campaign
- Telephone number or web site
- Standardized presentation format
- Information about the standards that are used for the rating system
- Made in Maine statement
- Numerical rating

San Francisco Group I

- EPA or USDA notation
- More than less data
- Recognizable certification agency
- Information on how numerical rating was achieved
- Single average score
- Listing of scores (acceptable score, industry average score, and maximum score)
- Where wood originated

San Francisco Group II

- Listing product is certified, environmental safe, no pesticides or herbicides, wildlife protected, and numerical rating scale
- Single numeric number
- Simple
- Endorsed by an environmentally friendly organization
- Graphic
- Made in the United States
- Legitimate organization
- Telephone number and web site
- Uniform numeric rating
- Standard rating system for all wood products
- Familiar logo
- Public education program

RECOMMENDATIONS

1. We recommend that environmental logos should not be used by themselves; at a minimum supporting text is needed.
2. We recommend that environmental labels present the environmental information that is most important to consumers (e.g., forest replanting rate, wildlife protection).
3. We recommend that environmental labels concentrate on environmental criteria and that they not mix environmental and social criteria.
4. We recommend that environmental labels should include contact information (e.g., telephone number or web site address) to increase credibility.
5. We recommend that environmental labels should achieve a balance between simplicity and detail; too much information and the label will be too confusing and hard to use, not enough information and the label will be less credible.
6. We recommend that environmental labels should present the information in a standardized format to make cross-product comparisons easier.
7. If possible, we recommend that environmental certifiers use a standardized scoring method to evaluate wood products.
8. If a standardized scoring method is not used then we recommend that information about the standards that are used for the rating system be included on the label.

9. We recommend that environmental labels use a summary scoring method to present the information.
10. We recommend that environmental certification of wood products should be performed, or regulated, by one familiar governmental or independent organization.
11. If the organization is to be a government agency, then we recommend that the U.S. Environmental Protection Agency should perform or regulate wood product certification.
12. If one familiar governmental or independent organization is not used, then we recommend that a significant public education program is needed to inform consumers about the certifying organizations and their certification process.
13. If one familiar governmental or independent organization is not used, then we recommend that information about the certifying organization should be included on the label.
14. We recommend that reference information (e.g., minimal acceptable score, industry average score) be included on an environmental label.

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APPENDIX A – SCREENER INFORMATION

Job # f071
September 28, 1999
FOR.SCR.doc

Media, Pennsylvania 19063

**WOOD PRODUCT LABELING
FOCUS GROUP SCREENER**

Hello, I'm calling from (FOCUS GROUP FACILITY). We're conducting a very brief survey about wood products. We're interested only in your opinions. I'M NOT TRYING TO SELL YOU ANYTHING.

Because we must interview an equal number of adult males and females, may I please speak with a (male/female) 18 years or older?

1. (RECORD SEX OF RESPONDENT)

- | | | |
|---|--------|---------------------|
| 1 | Male | CHECK QUOTAS |
| 2 | Female | CHECK QUOTAS |

2. Have you purchased any construction lumber, such as plywood, 2X4's etc. in the last year?

- | | | |
|---|-----|---------------------|
| 1 | YES | CHECK QUOTAS |
| 2 | NO | CHECK QUOTAS |

3. In which category does your age fall?

- | | | |
|---|---------|-----------------------|
| 1 | 18-34 | |
| 2 | 35-49 | |
| 3 | 50-64 | |
| 4 | 65+ | |
| R | Refused | (THANK AND TERMINATE) |

4. Do you consider yourself to be white, black or African-American, Asian-American, or some other race?

- | | |
|---|---------------------------|
| 1 | White |
| 2 | Black or African-American |
| 3 | Asian-American |
| 4 | Some other race |
| D | (DO NOT READ) Don't know |
| R | (DO NOT READ) Refused |

We're asking some area residents to participate in a discussion group about wood products. The discussion will be held at:

GROUP 1 (Cleveland)
6:00 p.m. on Monday, October 18th
GROUP 2 (Cleveland)
8:00 p.m. on Monday, October 18 th

or:

GROUP 1 (San Francisco)
6:00 p.m. on Wednesday, October 20 th
GROUP 2 (San Francisco)
8:00 p.m. on Wednesday, October 20 th

The discussion group consists of 10 or 12 people and will last about two hours. Each participant will be paid \$50. We will be serving refreshments during the meeting.

Are you interested in being part of the group?

1 Yes CONTINUE	2 No THANK AND TERMINATE	8 Don't know THANK AND TERMINATE	9 Refused THANK AND TERMINATE
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That's Great!

We will be sending you a letter confirming when and where the discussion group will be held. May I have your name and address, please?

Name: _____

Address: _____

Phone #: _____

Thank you. We look forward to seeing you on (REPEAT DATE AND TIME) at

**WOOD PRODUCT LABELING FOCUS GROUP
SCREENER QUOTA TALLY SHEETS
FOR SUPERVISOR USE ONLY**

•Recruit 14 people with the following profile:

GENDER (Mix of male/female)

Women (5-9):	1	2	3	4	5	6	7	8	9
Men (5-9):	1	2	3	4	5	6	7	8	9

DISTRIBUTION OF AGES

18 to 34 (3-4)	1	2	3	4
35 to 49 (3-4)	1	2	3	4
50 to 64 (3-4)	1	2	3	4
65+ (3-4)	1	2	3	4

CONSTRUCTION LUMBER PURCHASERS

YES (4-5)	1	2	3	4
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RACE (MIX)

White	1	2	3	4	5	6	7	8	9
Black (At least 2)	1	2	3	4	5	6			
Other (At least 2)	1	2	3	4	5	6			

APPENDIX B—MODERATOR'S GUIDE

Introduction and Group Orientation (5 minutes)

Thank you for participating in this focus group today. I'll be leading you in a discussion about shopping for wood products. I want you to know that there are no right or wrong answers. We expect to receive a wide range of opinions and are eager to hear everyone's ideas and thoughts.

Tonight we are interested in your wood products shopping experiences, the different concerns you may have while you shop and the types of information you might find useful when shopping for wood products.

General Discussion on "What are Wood Products?" (5 minutes)

I want to start the discussion by asking you to come up with a list of what you consider are wood products. Please list for me some wood products that you purchase.

Here is a list of the type of products we would like you to think of as wood products [*show list 1*].

Wood Product Purchasing (15 minutes)

Still focusing on the list of wood products, I want to take each category and ask you to tell me what characteristics you look for when buying wood from each one of these product groups?

Do you ever think of the environmental problems associated with making wood products?
What types of problems?

How concerned are you about these problems?

Does your concern for the environmental impacts of producing wood products differ by what the product is? [*show list 1 again*]

What can you as a consumer do to choose more environmentally friendly wood products?
When shopping for wood products can you tell which product is produced in a more environmentally friendly way?

Certification Concept Statement (10 minutes)

I would like to read to you a concept statement about the possibility of labeling wood products to indicate they come from forest that are managed in an environmentally friendly manner. After I read the statement, I want you to tell me your reaction.

Something that is currently occurring in the wood products market is that some people would like to have wood products labeled so that you could determine which wood products came from forests that were managed in an environmentally-friendly manner. How this would work is that trained forest auditors would be sent to a company's forests and they would evaluate the company's forest management based

upon a set of criteria. Once the audit is done, the information from the audit could be used on product labels or in product advertising.

What is your reaction to this statement?

Have you seen any wood products that are advertised or labeled that their manufacturing process is safer for the environment?

What did you think of these claims?

(Moderator hands out copies of a SmartWood certified cutting board taken from the National Wildlife Federation catalog)

What is your reaction to this catalog description?

Is any of the information hard to understand?

Is this information helpful?

(Moderator asks participants to get together in groups and answer the following question)

What criteria do you think should be used by the forest auditors?

Criteria List

(Moderator will hand out a list of 32 criteria that could potentially be used to certify wood products by the forest auditors. Participants will first do the questions individually then the moderator will proceed with a group discussion.)

Here is a list of potential criteria that could be used by the forest auditors *[show list 2]*.

Which of these criteria are most important to you? **Please circle.**

Which are least important? **Please cross out.**

Should the social/cultural criteria be separate from the environmental criteria?

Would you add any criteria?

Reaction to Predetermined Labels (40 minutes)

What if you were buying [mention a type of wood product] and three of the brands you were considering had labels that looked something like this.

(show first set of labeled products).

By a show of hands, who would buy Product X? Product Y? Product Z?

Would this type of information help you make choices in the store?

Would you like more detail on these labels?

Should any of the information be explained better?

What other information would you like to see on a label?

Do you think that one product is 'safer for the environment' than the other brand?

Do you think that these audits should be mandatory or voluntary?

Now that we have had a chance to discuss the labels, would your selection change? If so, in what way?

(show second set of labels)

By a show of hands, who would buy Product X? Product Y? Product Z?

Would this type of information help you make choices in the store?

Would you like more detail on these labels?

Would it be easier to make comparisons if the information was standardized?

Should any of the information be explained better?

What other information would you like to see on a label?

Do you think that one product is 'safer for the environment' than the other brand?

Now that we have had a chance to discuss the labels, would your selection change? If so, in what way?

(When appropriate) should the criteria be different for rainforests vs. other forests?

(show 3rd labels)

By a show of hands, who would buy Product X? Product Y? Product Z?

Would this type of information help you make choices in the store?

Do you like the greater amount of detail on these labels?

Is it easier to make comparisons when the information is standardized?

Should any of the information be removed? Improved or refined? Explained better?

Do you think that one product is 'safer for the environment' than the other brand?
What other information would you like to see on a label?

Now that we have had a chance to discuss the labels, would your selection change? If so, in what way?

(show 4th set)

By a show of hands, who would buy Product X? Product Y? Product Z? Would this type of information help you make choices in the store?

Do you like the greater amount of detail on these labels?

Is it easier to make comparisons when the information is standardized?

Should any of the information be removed? Improved or refined? Explained better?

Do you think that one product is 'safer for the environment' than the other brand?

What other information would you like to see on a label?

Now that we have had a chance to discuss the labels, would your selection change? If so, in what way?

What factors effect the confidence you have in these labels?

Who should be in charge of these labeling programs?

Did having the same type of label on each product help things?

Ideal Label Brainstorming Activity (15 minutes)

If you were going to develop a label to that would help you determine the differences in the environmental characteristics of wood products, what information would it contain?

How should the information be presented? [Have participants review all the labels they have already looked at. Ask them to think about what parts of the labels worked and what parts didn't.]

APPENDIX C—HANDOUTS

Wood Product List**Construction materials**

doors, flooring, plywood, particle/chip board, dimensional timber (2X4's etc.), moldings

Kitchen utensils

cutting boards, meat mallets, rolling pins, spatulas/wooden spoons, mug trees, spice racks, knife blocks

Wooden furniture

garden furniture, tables, cabinets, kitchen chairs, bookshelves

Paper products

stationery, envelopes, cardboard

Miscellaneous wood products

clothes pegs, coat racks, wood storage boxes, picture frames, charcoal

POSSIBLE FOREST MANAGEMENT CRITERIA

Please circle the criteria that are important to you.

Please cross out the criteria that are not important to you.

1. Clear-cutting is not allowed
2. Local rights to property/resource is protected
3. Cultural/religious sites are protected
4. Worker health and safety are assured
5. Workers are allowed to unionize
6. Social impacts to local community are minimized
7. Forest management ensures long-term sustainability of harvests
8. Loggers are members of the local community
9. Wood products are processed locally
10. Wages must be at least equal to local standards
11. Forest operations involve minimum waste
12. Forest operations do not harm threatened/endangered species and their habitats
13. Hunting, fishing and trapping are not allowed
14. Diversity of tree species is maintained
15. Ecologically-sensitive portions of the forest are not harvested
16. No use of pesticides, fertilizers or herbicides
17. Genetically-modified tree species are not allowed
18. Plantation forests are not allowed
19. Non-native tree species are not be allowed
20. Wildlife corridors 100 ft wide are maintained during and after logging
21. 250 ft buffer strip is not logged around all wetlands and water bodies
22. Road construction and maintenance is minimized

23. Slash (non-harvested tree branches, bark and other waste) are left to lie on the ground
24. Soil fertility is maintained
25. Old growth forests are not cut
26. Company has paid all appropriate fees and taxes
27. Erosion controls are used
28. Plant and animal species are identified before logging begins
29. A minimum of 10 percent of the forest is never harvested (maintained in its natural state)
30. Recreational access is assured
31. Bird and animal nesting habitat is protected
32. Vertical layering of forest is maintained