

HOMEOWNER PRECEPTIONS OF TREATED WOOD

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General Overview

1. Our society depends on wood for a variety of uses. As population increases, so does our need for wood. In areas subject to a high risk of decay, wood that is preservative treated is often recommended to prevent decay and insure structural integrity.

2. Steel, concrete, plastic, and aluminum are some alternatives to treated wood in certain applications, but this may result in higher costs, higher energy requirements in the extraction and fabrication processes, greater environmental degradation, or higher dependency on foreign sources for imported materials.

3. Many industry experts feel that treated lumber represents a maturing product line as evidenced by lower margins, industry overcapacity, and intensified market share competition. However, perhaps the greatest threat to the competitiveness of treated wood in the market comes from misinformation from mass media and substantial market penetration and marketing programs by treated wood alternatives.

Perceptions About Building Materials

1. Energy efficiency is the most important criteria to respondents when considering the purchase of a new home. Additional economic factors, initial cost of the house and resale value were ranked next. Resistance to wood destroying insects was highest ranked in the South, and ranked fourth overall.

2. Concrete and steel were highest rated for weather resistance and durability followed by naturally durable wood species such as cedar and redwood. Treated wood was ranked fourth and ahead of only untreated wood in the 11-25 year durability category.

3. Over two-thirds of respondents believe that treated wood will last 11-25 years in exposed conditions.

4. Over 50% of respondents feel that plastic causes most damage to the environment in the manufacturing process. Almost 50% feel this is the case for steel. Treated lumber follows with 38% of respondents, followed by concrete (24% of respondents). Only 18% feel that the manufacturing of untreated wood products or glass causes harm to the environment.

Treated Wood Products

1. The first fundamental treated wood question posed to respondents was with regard to their overall perception of this product. Only 5% of respondents had a negative perception of treated wood. 40% had a somewhat positive perception and nearly a quarter had a very positive perception.

2. 75% of respondents said that they are willing to use treated wood product in/at their home

3. Of the 327 respondents that said they would use treated wood, 42% live in the South, 67% are male, and 51% have a college degree.

4. For the 25% of respondents that said they would not use treated wood in their homes, the greatest concern is the perceived health risk followed by a closely related concern, long-term exposure to treated wood. 41 respondents do not know enough about treated wood while 36% are concerned about product performance.

5. Respondents developed their opinions on treated wood in a variety of ways. The top ranked methods, in order, are friends, magazines, newspapers and television.

6. 54% of respondents said they would pay a premium for treated wood over the non-treated alternative.

7. 49% of respondents said they understood the concept of wood treating.

8. 45% believe that using treated wood can reduce deforestation.

9. Only 27% of respondents trust claims made by treated wood manufacturers.

Treated Wood Applications and Purchases

1. 52% of respondents have decks made of treated wood at their homes. 50% have landscape timbers and 37% have outdoor structures.

2. In the next 12 months, 25% of respondents plan to purchase landscape timbers, 19% plan to purchase decking, and 17% plan to purchase treated fence posts or rails.

3. 21% of respondents have hired a contractor or remodeler in the past 12 months for a treated wood project.

4. 21% of respondents know what treated wood consumer information sheets are.

1. 69% of respondents feel that treated wood is safe for humans in outdoor applications, 55% feel it is safe if handled and disposed of properly, and 48% say it is safe for builders to use. 37% believe it is safe for outdoor childrens' play equipment and 34% believe treated wood is safe for pets or farm animal exposure.

2. 32% believe that treated wood emits odors, 28% believe it is safe for indoor applications, and 10% think it is safe in food handling applications (chopping boards).

3. 60% of respondents desire additional information on treated wood.

4. Nearly a third of respondents believe that some types of treated wood are safer than others. Nearly two-thirds are unsure. This has important implications for product differentiation by manufacturers.

5. Associated with products safety is the issue of trust to provide accurate safety information to consumers. Respondents indicated that the least trusted entity to provide this information are the treated wood products manufacturers.

6. The most trusted entities are environmental organizations.

Brand Recognition

1. Respondents were asked to name treated wood brands that they are familiar with. Many of the "brands" listed are not brands at all. This further supports the potential for products differentiation and consumer positioning by manufacturers.

Chemicals/Compounds Used In Treating Wood

1. Respondents were asked to evaluate their familiarity with a number of chemicals or compounds used in the treating of wood. 70% of respondents are familiar with creosote. Familiarity drops dramatically for all other chemicals listed.

2. In addition to perceptions of chemicals/compounds that are contained in treated wood products, respondents were asked to evaluate the health risk to humans for a number of chemicals/compounds in general. Arsenic heads the list with 71% of respondents stating that it poses a significant risk to human health. The perception of health risk drops sharply for the remaining chemicals.

3. 5% feel that water and 2% feel that oxygen pose significant health risks, respectively.

4. Many respondents had no opinion indicating a lack of knowledge about many of the chemicals listed.

Termites

1. Termite damage is a considerable issue for homeowners, particularly in southern states such as Louisiana. Respondents were asked a number of questions related to termites in general, and Formosan subterranean termites (FST) specifically.

2. First, respondents were asked to evaluate termite protection capabilities for a number of building materials. Steel, by far, is the highest ranked building material with 88% of respondents stating that steel greatly protects against termites.

3. Just over a third of respondents believe that treated wood greatly protects against termite damage. This further indicates an opportunity for consumer education with regards to treated wood properties and termite resistance.

4. Respondents were asked a number of questions related to Formosan subterranean termites (FST). 22% of respondents had specific knowledge about the FST.

5. Of the 97 respondents in this category, 65% reside in the south. 22% reside in the north central region of the U.S.

6. Of the respondents that are aware of the FST, 91% believe that there is potential for house damage from this termite.

7. 40% of respondents that are aware of the FST have taken steps to protect their homes from FST damage. A contract with a pest control service is the most cited preventative measure taken followed by regular home inspections.

8. The use of treated wood was cited by 26 respondents (27% of respondents) as a preventative measure against FST.

Dr. Richard Volosky: We're going to talk today about this study on homeowner perceptions of treated wood. This was a random sample of U.S. homeowners across all regions of the United States. It could be definitely considered to be a national study with representation from all four regions in the U.S. The majority being in the north central region and in the south.

A little bit on demographics. Gender; this study had about 2/3 males responding and about 1/3 female so we had a nice mix across gender. With regards to education level, everybody had at least a High School graduate degree. Some college; 34% were college graduates and 18% of respondents had a graduate degree, either a Masters degree or a Ph.D. The majority of the age group was between 40 and 80 years old. So this gives you an idea of the demographics of the group of people that responded to this study.

Let's jump right into the results here. We asked a number of questions, many of which are not going to be included today, and if you would like a copy of the full study, or would like to talk about this, at the end there's some information about contacting us, but I'll share with you some of these results.

The first question was what do people look at when they're purchasing a new house? What are some of these criteria? Across all four regions energy efficiency came out on top. For the South, tied with number one, was resistance to wood destroying insects. So right out of the gate this is a concern for homeowners in the southern part of the United States with resistance to insects, particularly the termites. We asked about their perceptions of how long different building materials last in weather exposed above ground. Concrete, followed by steel, is believed to last more than 25 years by about 3/4s of respondents. For treated wood products, 2/3s of respondents feel that treated wood can last in these types of conditions for 11 to 25 years.

We always ask about different building materials and the perception of respondents on harm done to the environment, in a very general sense, from manufacturing and from use. With regard to manufacturing the percentage of respondents who agreed or strongly agreed that these different building materials create harm to the environment in the manufacturing process, we see that plastic is number one, steel's number two and then treated wood. Thirty-eight percent of respondents believed that the treating of wood, the actual manufacturing process, is harmful to the environment.

As I go through this you'll see perceptions that lead to the notion that a better promotion campaign or positioning the products that you manufacture in consumer's minds or homeowner's minds, would be something that would be beneficial. With 38% thinking that the process "is harmful to the environment," it would cause me to take notice. However, this is just a blanket perceptual question on what do they think about treated wood. We found that 63% are either somewhat positive or extremely positive about the product. Now there are problems with perceptions about the manufacturing process, but overall these homeowners feel pretty good about treated wood. There is a 75% willingness to use treated wood in some

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component at their home. Not necessarily in their home, but in various applications. This is another upside. For the people that would not use treated wood in their homes or around their homes, these were the main reasons that they shared with us. 1) was health concerns and 2) interestingly enough, is that they're really not sure about the performance of this as a building material or as a product. This would lead us once again to suggest that a promotional effort could benefit the manufacturers and the associations such as yours.

Now I'm into marketing and branding, and we threw this question in to see if homeowners perceive that there are differences in treated wood products -- differentiation between companies, brands, and products. We found that 31% think that some types of treated wood are safer than other treated wood products; 2/3rds aren't sure and only 7% said no. So once again, whether or not this is reality, the homeowner or consumer perception is really what counts in business.

About five years ago when I would go to Home Depot I would not see any consumer safety information sheets, but after the current controversy hit the industry I went back over to Home Depot and found these, this type of signage about every foot in every isle that had treated wood. They are covering themselves. In this case to make sure that they are providing this information to consumers who shop in those types of stores. As you know better than I this is very important information to share with consumers. Seventy-nine percent of homeowners, whether or not they purchased treated wood, had no idea what a treated wood Consumer Information Sheet was, and 21% did. To be perfectly honest with you, two or three years ago before we got involved in treated wood, I did not know what a consumer information sheet was.

We asked these homeowners, "Who would you trust to provide safety information to the public?" And the individual wood product companies, such as yourselves, were trusted least, and environmental organizations are trusted most. Statistically, the difference between the top and the bottom, is statistically significant. Now, I must share with you that in any study we do that deals with consumers and trust, across any issue that we're studying at the time, the industry always comes in dead last with regard to trust, so you're not alone here. Industry in general, including the wood products industry, still has a perception in the minds of many consumers that we are not a safe industry, we don't harvest in a sustainable manageable way.

So these are perceptions that once again present opportunities to change consumer perceptions. There's a number of ways to do that, but in this particular case there is a credibility problem. Fifty-two percent of respondents use some kind of treated wood in their current residence, in decks, and half have landscape timbers. This is good, you know, 75%, as we saw before, have a willingness to use treated wood; 52% actually have some application in an exterior and an outdoor application.

We asked questions about safety. Using some statistical analysis it broke this out into safe and unsafe applications. There are more safe applications than unsafe. These make sense to us, but it was interesting to see what homeowners in general felt about this. Here are the percentages that agreed or strongly agreed with the following statements:

Treated lumber is safe for outdoor human contact applications. 69% agreed with this, so this is the children's playground type of application or an application where humans come in contact with treated wood. This is good.

With proper use and handling, disposal of treated wood is entirely safe. Over half of respondents believed that this is true as with *Treated wood is safe to builders.*

Once again, more specifically *safe for children in outdoor play equipment.* 41% said yes although we'll see a little bit later someone by the name of Julie Houseman does not quite agree with that statement.

Now what turned out on the unsafe side, which is no mystery to anybody in my mind, that it is not safe for indoor applications or safe for food handling. So nobody would suggest that we make cutting boards out of treated wood.

Familiarity with different chemicals. Everybody's heard of creosote but not many people have heard of these other chemicals, particularly in the context of treated wood. Nine percent of respondents had heard of CCA. Perceptions of health risks of different elements chemicals, and of course we know that these elements in treated wood preservatives are not found alone, they're tied with other chemicals that render them, I wouldn't say harmless, but under safe use conditions not harmful. And we see that the word arsenic resonates with homeowners; that 71% feel that that creates or that poses a significant health risk and 16% somewhat of a health risk. So that's a word that really has an impact on consumers. And then chromium was number two and then it kind of was all over the map. And as we see at the bottom, 12% of respondents feel that oxygen poses some risk to us, so, you know, and water is even more harmful to us, so these are kind of emotional terms. I don't know who would think that water is not good for us, but maybe the water where they live is not safe.

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Now we'll turn our attention to termites. It's an area that involves many of us at the Louisiana Forest Product Laboratory, headed up by Ramsey Smith, who should be somewhere here in the audience. We've been doing a lot of work on Formosan subterranean termites which we know is a big problem. So we asked these folks if they had any knowledge about this critter and we see that 22% had heard about it. Concerning the potential that this termite could damage their home, we see that 91% of those that had heard about it said yes. Most of those folks are in the southern region of the United States as we might guess. It makes sense. What do they do. What have they done to prevent an infestation in their home? And number One is contract with a pest control service and then regular home inspections and number Three was use treated wood and lastly using steel and concrete. Now, steel and concrete may not seem to be the first choice to combat subterranean, Formosa subterranean termites, but through a lot of anecdotal evidence and phone calls that we receive at the lab, many people are considering shifting to the use of steel in framing and in home construction as opposed to treated wood or wood at all, particularly to combat the termites.

Todd mentioned the show *The Practice*. And we were very interested to see what impact that this episode that dealt with alleged harm to children in outdoor applications of treated wood had on perceptions of these respondents. Thirty-five percent of respondents watched the show.

Now, for the respondents who watch the show did they see the episode on treated wood related to alleged childhood illness? And 27% of those folks did see that episode. As we go down through these next issues, the number of respondents becomes smaller and smaller so statistically we must be very careful to draw any inferences, but I think it's interesting. If yes they watched the show, did this episode influenced their opinion on treated wood. The 40% of the people that saw the show saw the episode it did affect their opinion. How did it affect their opinions? These were some of the qualitative comments that these respondents wrote in. Most of them are negative and quite alarming from their perspective. *If the illness was frightening you know, a word like frightening, made me think twice about the health risks of treated wood, reconsideration in using it, danger to children, I would want my grandchildren to avoid treated wood*, with an exclamation point, *treated wood playgrounds should be removed*, etc. These are some fairly strong and negative perceptions from a few people who happened to watch that episode. Now we know that many more people out there watched that episode and perhaps they have similar negative sentiments regarding treated wood as a result of that viewing. This is a quote from Julie Houseman, who precipitated much of the controversy and issues that face the treated wood industry. And the title of the article, one of many articles that she wrote, was titled *The Poison In Your Backyard*. Now if that doesn't get people's attention, I don't know what will. And it, you know, the question she poses "Is it time to switch to a safer alternative?" this was back in 2001 and as we know there is a lot of effort afoot to actually transition to what is considered to be safer alternatives.

In summary, 52% of these respondents have treated wood in their home, 63% feel positive about treated wood, 75% are willing to use treated wood in their homes, there's some concern about toxicity of different chemicals, elements that may or may not be in treated wood and there's a direct and distinct distinction or differentiation between safe and unsafe practices and applications and treating companies are the least trusted to be making safety claims for consumers. As I mentioned a number of times this is an area of opportunity to change the perceptions for consumers. And with that we will entertain some questions, if you have any. And I thank you once again for the opportunity to share some thoughts with you today, [applause]

President Dilbeck: Any questions? Comments?

Anne D. Yancy, R. A. Yancy Lumber Company: I have two questions. When was the study done and how many questionnaires were sent out across the country? I noticed like you only had 21 returned from the West and I was just wondering how many you sent out total.

Dr Volosky: The study was conducted last year so it was post *Practice*, but pre EPA and the current CCA issue.

Ms. Yancy: So people like in Florida were hearing about Julie Houseman.

Dr. Volosky: Yes.

Ms. Yancy: So they, they were hearing about CCA and it should have been in their consciousness.

Dr. Volosky: It's hard to say. Actually I omitted noting that the majority of respondents heard about or became aware about treated wood issues or treated wood in general through friends. Through conversations with friends. So if, if the media was paid attention to, it was on TV and in the newspapers. Then one would think that there was awareness, a higher level of awareness.

The study was conducted last year and there were 1500 surveys that went out so we had around 450 come back for about a 30% response rate.

Ms. Yancy: Okay, thank you.

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President Dilbeck: Thank you. There are additional copies of the handouts of the slides in the back of the room. If we run out please don't hesitate to contact us we can have them sent it to you. Take some of these photographs and I think we can email it to you the presentation.

Thank you gentlemen great presentation. We are going to take a couple of minutes before we begin our business session, and I'll ask the Executive Committee members to come to the head table