

COMMERCIAL FORESTRY

VALUE OF YOUNG GROWTH KOA AND CONSUMER PREFERENCES FOR KOA COLOR AND FIGURE

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Paper Title: Consumer preferences for koa color and figure

Abstract

Today's koa industry relies on harvest of remaining old-growth koa. As this resource is depleted and remaining stands are protected from harvest, the koa industry will turn to harvesting either plantation-grown koa or young koa trees from naturally regenerated second growth stands. The quality of wood from young koa trees, however, is likely to be very different from the quality of wood from old-growth trees. In a previous study, we harvested 31 young koa trees (ages 25 to 32 years), milled them, and distributed both lumber and bowl stock to local woodworkers. They created a number of pieces from the wood and gave us an assessment of the quality of the wood. All agreed that the wood from young koa was lighter in weight (less dense) and lighter in color than the wood they were used to using with little figure. Most noted that the wood was softer than old-growth wood. Opinions differed as to the value of the young koa wood, but all agreed that pieces made from young koa wood would have different markets than pieces made from traditional, old-growth wood.

In the current study we asked the broad question of how consumers value color and figure in koa wood. We created a survey in which respondents chose among photos of koa that varied in color, figure (curl), and price (called a conjoint choice experiment) (figure 1). We also created six identically-shaped koa bowls that differed in color and degree of figure and asked the consumers to choose among these (figures 2 and 3). We surveyed 372 people, including people at the Hawai'i

Woodshow, malls on O‘ahu, and at trailheads of hiking trails on O‘ahu. Both residents and visitors were surveyed.

The results show that there is a lot of variation in what consumers prefer in koa color and figure and what they are willing to pay. The responses could be clustered into five groups as follows:

- 24% liked wood that was medium colored, straight grained, and inexpensive.
- 22% liked wood that was light colored and curly and didn't care about price.
- 20% liked wood that was light or medium colored, curly and didn't care about price.
- 19% liked wood that was light or medium colored and inexpensive.
- 15% liked wood that was dark, curly, and inexpensive.

Profile 1. If these koa bowls were your only options, which would you choose?



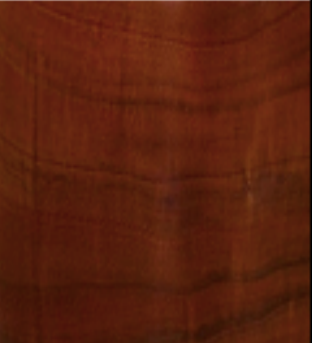
Attribute	Option A	Option B	Option C
Figure	Not curly	Curly	Not curly
Color	Light	Medium	Dark
			

Figure 1: One example of a choice presented to the consumer in the survey. Figure, color, and price were randomly assorted; each respondent was asked to do twelve of these comparisons.



Figure 2: Koa bowl used in the survey showing dark color but little figure.



Figure 3: Koa bowl used in the survey showing medium color and high figure.

For the bowls, consumers generally preferred the bowls with some figure, but responses were about even among those who preferred light, medium, or dark bowls (figure 4).

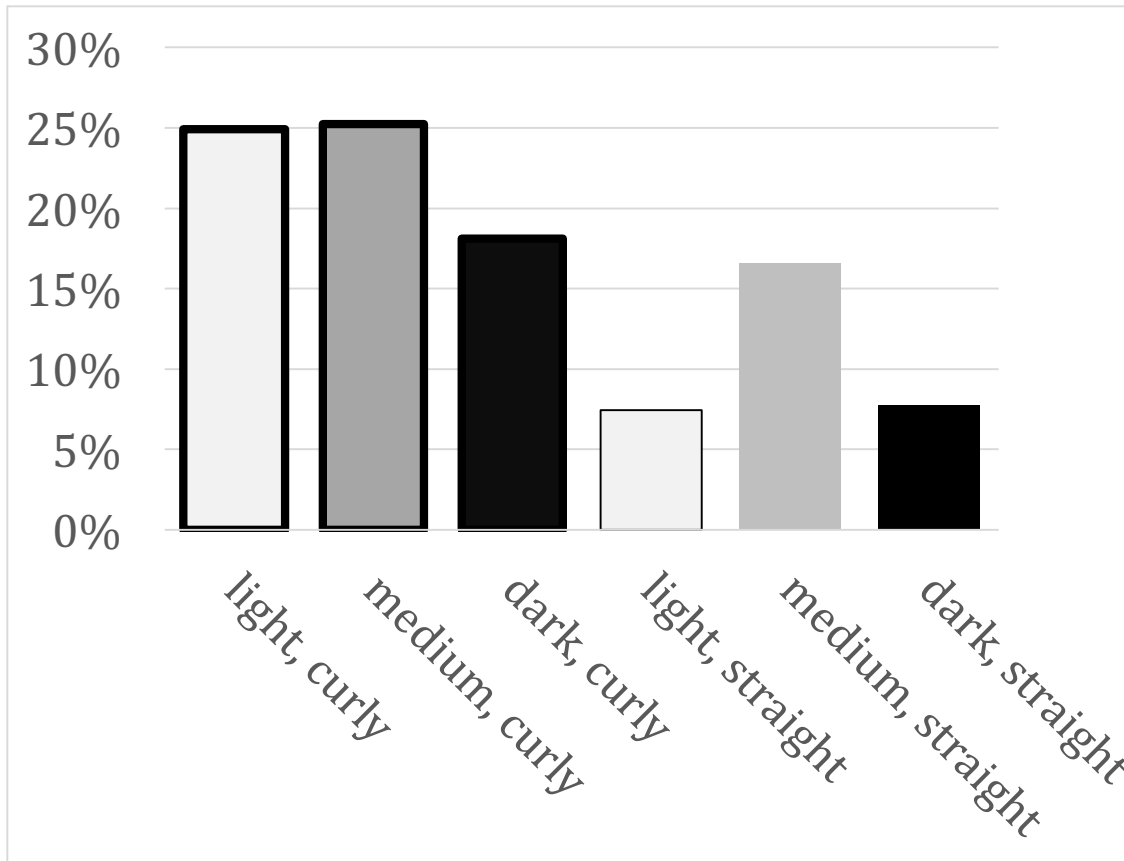


Figure 4: Consumer preferences among differently figured and colored koa bowls.

Our results indicate that there is a significant market for koa wood that is lighter in color and less figured than what is generally considered merchantable today. Tomorrow's koa industry will be able to exploit new markets for what is seen as lower-value wood in addition to maintaining the current market for dark, highly figured timber. Because the lighter colored wood is likely to be less valuable, however, harvesting will have to become more efficient in order to remain economically viable. Woodworkers may choose to use the young wood to create products requiring less labor that can be sold at a lower price. The possibility of new markets for young koa opens up new possibilities for landowners to sell some young koa trees to generate income during intermediate harvests while reserving the best trees on the land for final harvest of old-growth wood.