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ABSTRACT

Objective: To estimate consumers' acceptance of shelf-stable pecans or ingredients as well as snack products and their willingness to pay for these products. Specifically, the research was to determine factors that affect consumers' attitudes toward proposed pecan snack products and to elicit the additional amount of premium that consumers would be willing to pay.

Problem: The demand for pecan products has been stagnate. One of the problems associated with stagnate pecan consumption is rancidity. Pecans are not very shelf-stable and become rancid over time. To address this issue a new processing approach has been developed to produce a shelf-stable product. Products are currently being developed using supercritical CO₂ to infuse pecans with antioxidants in order to extend storage life and retard rancidity development. Shelled pecan meats in various forms (whole, halves, cut or broken pieces) are be loaded into a pressure vessel and supercritical CO₂ carrying a known amount of dissolved antioxidant will be introduced

Given the new shelf-stable pecan, it is important to evaluate the market for value-added pecan products, both as a snack food and as an ingredient, to help understand the factors impacting consumers' willingness to purchase pecans. Are consumers locked into a cycle of purchasing pecans during the winter holiday season as whole nuts, while purchasing

pecans for ingredient purposes the remainder of the year? A more thorough understanding of how consumers' use and view pecans is necessary in developing a strategy focused on increasing pecan consumption.

Results: The results of a nationwide survey indicate that consumers are willing to purchase pecan snack products in both the raw natural form as well as flavored varieties. Currently, it appears 20% of consumers purchase pecans as a snack food. On average, consumers purchase pecans only three times per year. To increase consumption, it is important to increase purchase frequency and increase the number of consumers who purchase pecans for snacks.

To provide further insights on how consumer awareness, attitudes and demographics affect or correlate with their willingness to pay for shelf-stable pecan snack products, a two-step decision process is assumed in this study. The empirical model, in which the probability of an individual's acceptance of shelf-stable pecans was estimated in the first step. The results of this estimation was then used in the second step estimation of consumer willingness to pay for these products. Socio-demographic factors that may affect consumer attitudes toward purchasing of shelf-stable products are identified. Results will help producers to develop strategies targeting the market segment that is receptive to purchasing shelf-stable pecans for use as ingredients and snack products.