

ABSTRACT

Soy is a widely popular seasoning in East and Southeast Asian cuisine, traditionally made by cooking soybeans and inoculating them with *Aspergillus sojae* yeast for a five-day fermentation period, followed by brining. This project aimed to explore the potential of pigeon pea (*Cajanus cajan*) as a substitute for soybean in the production of sweet soy sauce. Both soybean and pigeon pea sweet soy sauce samples underwent sensory evaluation, using a 5-point hedonic scale with 50 panelists. The evaluation encompassed assessing the color, texture, taste, and smell of the sauces, and the overall acceptance was determined by averaging the scores across these parameters. The analysis revealed a p-value of 0.944 from the Mann-Whitney test, suggesting no significant difference in overall acceptance between soybean and pigeon pea sweet soy sauce. This acceptance is likely due to the similarities between soybean and pigeon pea in terms of their legume family classification, comparable properties, similar appearance and texture when cooked, protein content, and consistent treatments. Consequently, it can be concluded that pigeon pea can serve as a viable alternative to soybean as the main ingredient for producing sweet soy sauce.

Keywords: soybean, pigeon pea (*Cajanus cajan*), soy sauce, sweet soy sauce, moromi stage fermentation, hedonic sensory evaluation