

Exploring Taiwanese consumers' preferences for domestic fresh milk and Japanese milk from the perspectives of milk composition and sensory evaluation ⁽¹⁾

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Abstract

Most Taiwanese consumers perceive Japanese milk as rich and flavorful, leaving a lingering taste after drinking. However, according to a number of studies, the sensory characteristics of fresh milk is influenced by various factors, and Taiwan and Japan have similar dairy farming system. Therefore, whether Japanese milk is truly preferred by Taiwanese consumers over domestic milk requires further verification. Consumer testing involves assessing the sensory characteristics of beverages by individuals without specific training, who represent the true consumer base of products. Thus, this study aims to conduct blind sensory evaluation of milk with consumers, by comparing the acceptance, preference, and sensory characteristics of Taiwanese fresh milk and Japanese milk, and thereby to understand the true preference of Taiwanese consumers over domestic fresh milk and Japanese milk. A total of 22 types of milk were evaluated, including 11 Taiwanese fresh milk and 11 Japanese milk, with 21 local consumers selected to participate in the blind sensory evaluation, including assessment of appearance, aroma, taste, and the overall acceptability. Subsequent data analysis was compared for the differences in milk composition from different origins and analyzed for the relationship between milk composition, sensory characteristics, and origin. The results showed that the relationship between milk composition and origin could clearly distinguish between Taiwanese fresh milk and Japanese milk; and that Japanese milk indeed comes with a unique flavor with higher milk fat content which is not widely accepted by consumers in general due to the higher off-flavors. In conclusion, Taiwanese fresh milk has lower milk fat, protein, and lactose in milk content, compared to Japanese milk, which probably makes the taste of Taiwanese fresh milk more refreshing, less cloying, smoother, and accepted by Taiwanese consumers over most Japanese milk. The study analyzed the comprehension of Taiwanese consumers on fresh milk and milk from different place of origin through the comprehensive understanding of products with different flavors from two countries. This helps the daily industries to explore into the uniqueness of their products. In the future, such knowledge can be adopted to make relative choices and adjustment, in addition to providing reference for the agricultural agencies in the formulation of effective market promotional strategies for Taiwanese domestic fresh milk.

Key words: Fresh milk, Milk composition, Sensory evaluation, Consumer preference, Flavor, Overall acceptability.

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