

Establishment of a Trained Sensory Panel for Processed Vegetable Products

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Establishing a trained sensory panel in the food industry ensures product quality, consistency, and consumer satisfaction. It aids in detecting defects, guiding product development, aligning with consumer preferences and meeting regulatory standards. Ultimately, it enhances brand loyalty and supports efficient and innovative R&D processes. A trained sensory panel was established in HJS Condiments Ltd for analyse their products' sensory qualities and innovative product developments. The panel was established using the initial screening stage up to the trained panel stage in the sequence of training for processed vegetable products such as fermented vegetables, retorted canned, bottled products and filled-in pouches for exportation. The panellists were carefully chosen through a structured process focusing on consistency and reliability, ensuring a diverse range of sensory expertise and a genuine passion for sensory perception. Various screening tests including basic taste, odour, colour ranking, texture description and taste intensity were used to select the most suitable candidates. From the tests, fifteen panellists were chosen, all exceptional performance in duo-trio tests and paired comparison tests. To equip the panellists with necessary skills, training sessions were conducted, covering descriptive analysis techniques, standardized terminology, and evaluation procedures. Proficiency tests, including ratio, interval, and category scale tests, were administered to gauge the panellists' effectiveness. Notably, the probability values from scale tests surpassed those of other assessments ($p > 0.05$), indicating a high level of proficiency. The results underscored the panellists' ability to evaluate precisely and consistently through sensory evaluations, thereby elevating the quality and dependability of sensory analysis data in food product development and quality control. The procedures and criteria used in this study has consisted of advanced sensory science, thus recommending to apply in establishment of an in-house trained sensory panel for the food industry targeting the interested product categories for the evaluation of sensory attributes subjectively.

Keywords: Sensory Panel, Screening, Consistency, Descriptive Tests