

EFFECT OF FLAVORS AND MONOSODIUM GLUTAMATE (MSG) ON CONSUMER PERCEPTION AND ACCEPTANCE TOWARDS CHICKEN CLEAR SOUP AND CHICKEN CREAM SOUP WITH DIFFERENT SALT LEVEL

ABSTRACT

Salt (Sodium Chloride) is the most commonly used food additive for enhancing taste and flavor as well as creating sense of pleasure after consuming. People tend to consume salt more than daily recommended intake, 5 grams per day. High salt intake can lead to a great deal of health issues especially cardiovascular disease and chronic kidney disease. Thus, World Health Organization (WHO) plans to reduce the global population's intake of salt by relative 30% by year 2025. Scientist have studied salt reduction in food by adding substitutes such as flavors, monosodium glutamate (MSG), and potassium chloride (KCl). In this research, salt reduction in food was studied based on saltiness perception among fifty panelists. Two types of soup, chicken clear soup and chicken cream soup, were used as a food model. Each type of soup was varied by MSG added including chicken clear soup without MSG, chicken clear soup with MSG, chicken cream soup without MSG and chicken cream soup with MSG. Three different flavors – bacon, lobster and smoke – were added into each kind of soup with five different level of salt – 0.05%, 0.0375%, 0.025%, 0.0125% and 0%. Salt, MSG and flavors were found to have effect on saltiness perception and overall liking. The results have shown that overall liking toward soup with bacon flavor was not significantly different at 0.025% salt comparing to 0.05% salt, then followed by clear soup with smoke flavor and lobster flavor which was not significantly different at 0.0375% salt comparing to 100% salt. Therefore, with flavor adding, salt in soup can be reduced by 0.0125% to 50% without effect on overall liking.

KEYWORDS: salt / monosodium glutamate (MSG) / flavor / salt reduction