

This study was conducted at the Food Technology Department of Capiz State University, Mambusao Satellite College, Poblacion, Mambusao, Capiz from January to June 2023 to utilize and evaluate the acceptability of sweet potato pound cake. Specifically, the study aimed to determine the sensory acceptability of sweet potato pound cake as affected by varying levels of sweet potato flour and malunggay powder in terms of color, aroma, taste, texture, flavor and general acceptability; identify the optimum region with the best treatment combinations; determine Total Soluble Solid (TSS) and pH content of the product; and determine the production cost of the product.

This study was composed of 9 treatments replicated twice (2) and the data gathered in this study was analyzed through Analysis of Variance (ANOVA). In addition, data were subjected to response surface regression (RSREG) analysis to determine the effects of independent variables on the sensory and physico-chemical properties of the product. A total of forty-eight (48) panelists composed of BSFT students of Capiz State University, Mambusao Satellite College, Mambusao Capiz have evaluated the products.

The sweet potato pound cake as affected by varying levels of sweet potato flour and malunggay powder was acceptable in terms of color, aroma, taste, texture, flavor and general acceptability. Response surface regression analysis revealed that all levels of sweet potato and malunggay had a significant effect on both linear and quadratic form. This means that the varying levels of malunggay and sweet potato had a significant effect on all of the attributes' acceptability of the sweet potato pound cake with malunggay. However, the interaction of both independent variables, malunggay and sweet potato did not significantly affect the aroma of the product. This only implies that the malunggay and sweet potato alone and its quadratic form affected the aroma of the product but not the interaction between the two variables.

The analyzed optimum region suggests that a combination of lower levels of malunggay powder (0.20- .30%) and lower levels of sweet potato flour (6-12.5%) gives a more acceptable product which gives an & rating which translates to a "like very much" in the 9-point Hedonic scale.

In terms of the Total Soluble Solids (TSS), the highest rating is on Treatment 1 and 3 and the lowest is on Treatment 7. Meanwhile, in pH content, the treatment that has a highest rating is Treatment 2 and the lowest is Treatment 8. Cost of production treatment with 22.5% sweet potato

flour and 7.5% malunggay powder got the highest cost while 0.75% sweet potato and 0.25% malunggay powder has lowest cost.