Optimasi Formulasi Pasta Edamame, Tepung ISP, Modified Starch pada Sosis Ayam Menggunakan Metode Mixture Design (Optimization of Edamame Paste, ISP Flour, Modified Starch Formulation in Chicken Sausage Using the Mixture Design Method)

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ABSTRACT

This study aims to determine the optimal formulation of chicken sausages with the use of edamame paste, ISP flour, and modified starch on the response of moisture content, WHC, physical texture, physical color, and hedonic quality of color, texture, aroma, and taste. The method used in the study is optimal mix design with 13 software design experts which produces 16 formulations. The independent variables used consisted of edamame paste (X1), ISP (X2), and modified starch (X3). Dependent variables include moisture content, WHC, physical texture, physical color, and hedonic quality of color, texture, aroma, and taste. The results showed that the formulation of chicken sausage had a real effect on the response of water content by 62.317%, WHC 166.733%, L color 56.301, color b 18.697, hedonic quality of color 3.892, texture 2.698, aroma 2.499, and taste 3.005, but no real effect on physical texture response of 28.405 N and color a of -0.157. The best chicken sausage formulation suggested by software design expert 13 is the use of edamame paste of 29.955%, ISP flour 3%, and modified starch of 5.045%.

Keywords: Mixture Design, Modified Starch, Edamame Paste, Chicken Sausage, ISP Flour