

Effect of Substitution of Sweet Potato Flour (*Ipomoea batatas* L.) on the Sensory Quality of Spent Quail Meat Sausage

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ABSTRACT

This study aimed to determine the effect of adding sweet potato flour on the sensory quality of spent quail meat sausages. The research materials consisted of spent quail meat, sweet potato flour, tapioca flour, isolated soy protein, oil, sodium tripolyphosphate, monosodium glutamate, pepper, carrageenan, salt, garlic, shallots, ice cubes, eggs, onions, coriander, nutmeg, sugar, frankfurters, collagen casings, distilled water, bottled water, and white bread. The substitution treatments comprised P1 (non substitution), P2 (20% purple sweet potato flour), P3 (20% white sweet potato flour), P4 (20% yellow sweet potato flour), and P5 (a combination of 20% sweet potato flour with a 1:1:1 ratio). The substitution used was calculated from the total tapioca flour. Sensory quality testing was conducted using a hedonic test with a Likert scale, namely 1 (strongly dislike), 2 (dislike), 3 (somewhat dislike), 4 (dislike), and 5 (strongly dislike), with 40 untrained panellists. Sensory test data were analysed using non-parametric Kruskal Wallis test and if there were differences, they were further tested using Duncan's New Multiple Range Test. The results indicated that the substitution of sweet potato flour did not significantly affect ($P>0.05$) any of the sensory quality parameters of spent quail meat sausages. However, the sweet potato flour substitution achieved the highest average scores across aroma, flavor, texture, chewiness, and overall acceptability parameters. Sweet potato flour can be utilized at a level of up to 20% without altering sensory quality.

Keywords: *sausage, spent quail meat, sweet potato flour, substitution, sensory quality.*