

Effect of Filler Substitution of Pumpkin Flour (*Cucurbita moschata*) on Organoleptic Quality of Culled Duck Meatballs

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ABSTRACT

This research aims to determine the effect of pumpkin flour filler substitution on the organoleptic quality of the rejected laying duck meatballs. The research materials consisted of refined laying duck meat, tapioca flour, pumpkin flour, egg white, garlic, onion, salt, pepper, monosodium glutamate, sodium tripolyphosphate, and ice. The substitution treatments of pumpkin flour filler were P0 (0%), P1 (25%), P2 (50%), P3 (75%), and P4 (100%) of the total filler. The parameters tested were color, aroma, taste, texture, chewiness, and overall preference for meatballs. The organoleptic quality of the meatballs was tested using the scoring method by 40 untrained panelists. Data from the organoleptic quality test of meatballs were analyzed by non-parametric analysis through the Hedonic Kruskal-Wallis test. The difference in means was tested with Duncan's New Multiple Range Test. The results showed that the substitution of pumpkin flour filler up to the level of 100% had a very significant effect ($P < 0.01$) on the color, aroma, taste, texture, chewiness, and overall preference for meatballs. The yellow pumpkin flour filler substitution up to 50% level was still favored by panelists with almost the same organoleptic quality as the control, while pumpkin flour filler substitution of more than 50% could reduce the organoleptic quality of the rejected laying duck meat balls.

Keywords: Meatballs, Culled Duck Meat, Filler, Organoleptic Quality, Pumpkin Flour