

The Effect of Type and Concentration of Filling Materials on the Physical, Chemical and Organoleptic Properties of Lemuru Fish Solid Waste Powder Broth

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ABSTRACT

This research aims to determine the influence of filler type, concentration factor, and their interaction on the physical, chemical, and organoleptic characteristics of lemuru fish solid waste powder broth and determine the best treatment from a combination of 2 treatment factors. This research used a 2-factor Randomized Block Design (RAK) with 3 replications. The first factor was the type of flour with 4 levels, namely wheat flour (P0) as a control, mocaf flour (P1), canna starch flour (P2), and arrowroot starch flour (P3). The second factor was concentration with 3 levels, namely 15% (K1), 22,5% (K2), 30% (K3). Data were analyzed by ANOVA and continued by the DMRT test. The research results stated that the type of filler had a significant effect on water content, solubility in water, protein content, hedonic and hedonic quality (aroma, texture, taste), and had a significant effect on fat content. The concentration factor had a very real influence on water content, solubility in water, protein content, hedonic and hedonic quality (aroma, texture, taste), a real influence on hedonic and hedonic quality (color). The interaction of filler type and concentration had a significant effect on water content and solubility in water, had a significant effect on hedonics and hedonic quality (aroma, taste), but had no significant effect on protein, fat, hedonic content and hedonic quality (color, texture). The best treatment was obtained from P1K1 (mocaf flour with a concentration of 15%) had 3.95% for water content, solubility 18.10%, protein content 6.43% and fat content 7.60%, color hedonic 4.19 (like), aroma hedonic 4.52 (like), texture hedonic 3.98 (like), taste hedonic quality 4.53 (like very much), color hedonic quality 4.33 (slightly pale yellow), texture hedonic quality 4.62 (not lumpy), and taste hedonic quality 4.58 (very tasty).

Keywords : Filling Ingredients, Types of Flour, Broth Powder, Concentration, Waste Solid of Sardinella Lemuru.