

FORMULASI DAN OPTIMASI FLAKES KAYA SERAT BERBASIS PATI GARUT RESISTEN TIPE III MENGGUNAKAN RESPONSE SURFACE METHODOLOGY

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Abstract	Arrowroot starch contains of 29,67-31,34% amylose which is a good potency as a raw material of resistant starch type III. Resistant starch type III is a starch fraction which is resistant to hydrolysis of human digestion enzyme. Flakes with addition of arrowroot resistant starch type III, red bean flour, and shrimp head bouillon is a high fiber functional food product. The purposes of this experimental research re: 1) to determine the optimum proportion of arrowroot resistant starch type III and red bean flour to produce flakes with high fiber, demanded sensory characteristics, and crispy texture as its commercial flakes. 2) to determine the optimum concentration of shrimp head bouillon to produce nice brown color flakes with savory flavor. 3) to define the chemistry and sensory characteristics of flakes with optimum range proportion of resistant starch, red bean flour, and shrimp head bouillon. The optimum formula of flakes are 71,06% : 28,94% for proportion of arrowroot resistant starch type III : red bean flour and 45,14% for concentration of shrimp head bouillon. The optimum formula has been produced flakes with composition of 2,90% water content; 5,52% ash content; 7,60% protein; 0,43% fat; 84,84% carbohydrate; 22,83% resistant starch; 2,84% crude fiber; 19,84% dietary fiber; 3,56 for bright brown; 4,04 crispy texture; 2,17 less-mid red bean odor; 2,52 less-mid shrimp head bouillon odor; 3,61 neutral like flavor; and 4,04 overall acceptance.
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Author	Doctor of Philosophy NUR AINI, S.TP, M.P.