**PERBAIKAN LISIN DAN METIONIN DALAM PRODUK TEPUNG KOMPOSIT BERBASIS BAHAN BAKU LOKAL KACANG KEDELAI *(Glycine Max),* JAGUNG *(Zea Mays),* dan SAGU***(****Metroxylon sp)* MENGGUNAKAN METODA ANALISIS INSTRUMENTAL**

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*ABSTRACT*

*Composite flours consisted of tempe flour, corn flour and sago flour, respectively. The objective of this research is to study chemical composition of tempe, corns, and sagu flours, respectively; to implement formulated foods of tempe.corn,and sagu flours based on the instrumental analysis method, the optimum condition of composit flours of tempe, corn, and sagu, and to study the condition of mixing process of composite flours.*

 *The benefit of this research is to contribute a high protein rich foods for a low income group people. The methods used are consisting of the preparation of tempe production, the preparation of tempe, corn, and sagu flours followed by chemical analysis in terms of water, ash, protein, carbohydrate, fat,crude fiber concentrations. The preparation of formulated foods based on the Design Expert, state of the arts and amino acid concentration of Methionine and Lysine analysis.*

*The research results can be shown that Solid substrate fermentation of soybean can produce a cake like fermented soybean product of Tempe that is a good source of tempe flour. A mix formulated food of Tempe flour, corn flour and sagu flour can acts a protein and calorie sources on the other hand a composite flour of tempe flour and corn flour can acts as a high protein rich food that is consisting of methionine and lysine content. A design expert 10.0 can be used to obtain the mix a quantity of formulated food consists of a cake like fermented soybean or Tempe flour, corn flour and sagu flour followed by instrumental method analysis of amino acid analyser that the prediction approach and experimental one at a laboratory that those two approaches are not a significant difference on methionine and lysine concentration. Tempe flour, corn flour and sagu flour containing protein concentration of 17,631 % according to the experimental one and 17,312% according to the prediction one. There is no a significant difference of protein concentration between experimental and prediction one. Concentration of methionine of 0,044% and lysine of 4,216% according to the prediction one and concentration of methionine of 0,041% and lysine of 4,217% according to the experimental one.*

*Keywords; Tempe, corn, sagu, lysine, methionine, instrumental analysis.*

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