

Utilization of Kecipir Seeds Flour (*Psophocarpus tetragonolobus*) on Modification of Formula WHO 100 Low Lactose

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ABSTRACT

The prevalence of malnutrition problem is high. Formula WHO 100 is a liquid food for malnourished children, given during the transition phase from stabilization to rehabilitation. The main ingredient of Formula WHO 100 is skim milk which can sometimes cause lactose intolerance in children. One alternative is to replace skim milk by utilizing kecipir seeds as a modification of Formula WHO 100. This study aims to determine the utilization of kecipir seeds flour in the modified Formula WHO 100. This study used a Completely Randomized Design (CRD) with 6 treatment levels and 4 replications so that 24 samples were obtained. The formulation applied with the proportion of the kecipir seeds flour and skim milk flour in each formulation in a sequential manner is P1 (100%: 0%); P2 (90%: 10%); P3 (80%: 20%); P4 (70%: 30%); P5 (60%: 40%); and P6 (50%: 50%). The results of this study indicate that there is a significant effect of the lactose content and viscosity of the WHO formula of 100 substitutes for kecipir seeds flour (sign <0.05). The best treatment of this study was P2 with the percentage of 90% winged bean flour and 10% skim milk. The conclusion of this study is the WHO Formula 100 substitution of the best winged bean flour (P2) compared to the standard WHO 100 formula has a higher energy, protein, and viscosity content while the lactose value, protein bioavailability, and lower osmolarity value.

Keywords: *Formula WHO 100, kecipir seeds flour, skim milk*