

Diversification of Indonesian Terasi Shrimp (*Acetes indicus*) Powder as Alternative and Sustainable Food for the Double Burden of Malnutrition

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Abstract : Double burden of malnutrition (DBM) has been a global problem in these last decades occurs in both developed and developing countries. Overweight in adults and stunting among preschool children have dramatically increased and become the main problems of malnutrition that should be solved immediately since they are directly related with the health status and productivity. Reformulation of food product by using the local sea resources called terasi shrimp (*Acetes indicus*) has a potential possibility in facing the DBM. A study was carried out in Indonesia to determine the acceptability of terasi shrimp powder through sensory evaluation. Terasi shrimps were processed into powder form through sun drying and pounding methods. The powder form was directly added in food as alternative seasonings and tested among stunted and normal preschool children. Meanwhile, a further processing method is given to the shrimp powder tested in overweight and normal-weighted adults. The shrimp powder was mixed with sago flour and formed into balls, then steamed for 15-20 minutes, and finally served as alternative snacks. Based on the sensory evaluation, the shrimp powder has a good acceptance in taste (54%), shape (60%), and color properties (63%), while the shrimp balls has a good acceptance in size (65%), shape (50%), color (48%), taste (40%), and texture (36%). Terasi shrimp powder can be stored for a month in room temperature. In addition, carried out chemical analysis revealed that terasi shrimp (*Acetes indicus*) has higher percentage of protein, calcium, and iron than other animal sources, but conversely contains zero sodium and very low percentage of fat. Terasi shrimp's shell also contains a substance called chitosan which acts by forming gels in the intestinal tract to entrap lipids, thus interfering with their absorption. After going through some processing methods, the shrimp powder and balls did not show any significant changes in their nutrient contents. So that, terasi shrimp powder is good to be consumed not only by overweight adults, but also by children to support their optimum growth. Intervention of terasi shrimp powder should be implemented step by step from national up to global governance program to face the DBM.

Keywords : *Acetes indicus*, alternative food, double burden of malnutrition, sensory evaluation

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