

**Study on Making Mackerel Fish Siomay Using a Combination of Moringa Leaf
Flour as a Snack Food That Contains Iron**

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ABSTRACT

Anemia is a nutritional problem that often occurs in the world. The prevalence of anemia that occurs during adolescence is 27% in every developing country and 6% in every developed country. The cause of anemia in adolescent girls is a lack of nutritional intake, as well as a loss of iron above the average amount during the menstrual phase. Efforts to prevent and control anemia include intervention with foods high in protein and iron. One food ingredient that is high in protein and iron is mackerel fish and moringa leaf flour. Mackerel fish and Moringa leaf flour can be processed into dumplings. This research aims to analyze the nutritional value and characteristics of mackerel fish dumplings containing moringa leaf flour. This research used a completely randomized design (CRD). The Moringa leaf flour formulation used was P1 = 2 grams, P2 = 4 grams, P3 = 6 grams, P4 = 8 grams, P5 = 10 grams with repetition 5 times. The research results showed that the best treatment was P1 (2 grams of Moringa leaf flour) with the characteristics of a greenish color, savory taste, no Moringa aroma, and a compact texture. Nutritional value of mackerel fish dumplings combined with Moringa leaf flour, energy 162.64 kcal, protein 17.24 gr, fat 2.24 gr, carbohydrates 18.83 gr, water content 60.32%, ash content 1.82% and iron 0.86 mg. Giving mackerel fish dumplings combined with Moringa leaf flour 4 times per day.

Keywords: Anemia, Siomay, Moringa leaf flour, mackerel fish