

## **ABSTRACT**

**Dwi Wulan Lestari, 2023.** Effect of Cereal Milk Drink Formulation Made from Sorghum Flour (*Sorghum bicolor*) and Tempe Flour on Nutritional Quality (Energy, Protein, Fat, Carbohydrate, Iron, and Zinc) and Organoleptic Quality for Protein Energy Deficiency Prevention in Children 4-6 Years of Age. Scientific Paper, 3<sup>rd</sup> diploma Nutrition Study Program, Department of Nutrition, Health Polytechnic of the Ministry of Health Malang. Supervisor: Theresia Puspita, STP, MP, RD.

Protein Energy Deficiency is the condition of a person who is malnourished caused by low consumption of protein energy in daily food and/or certain disease disorders so that the Nutrition Adequacy Rate (RDA) is not fulfilled. For this reason, it is necessary to improve the quantity and quality of food. The use of cereals (sorghum) and nuts (tempeh) is the best combination to complement each other in essential amino acids. The purpose of this study was to determine the effect of sorghum flour and tempeh flour formulations in cereal milk drinks on nutritional quality (energy, protein, fat, carbohydrates, iron, and fat) and organoleptic quality as stunting prevention in children aged 4-6 years. This type of research was a Completely Randomized Design (CRD) consisting of 3 treatment levels with proportions (sorghum flour : tempeh flour), P1 (35 : 15), P2 (25 : 25), and P3 (20 : 30). The organoleptic quality test for the parameters of taste, aroma, and texture decreased as the amount of tempeh flour increased, and the color parameters increased. The results of the laboratory nutrition quality test per 100 grams of product yielded 424.51 Kcal of energy, 16.9 grams of protein, 15.23 grams of fat and 54.8 grams of carbohydrates.

**Keyword** : KEP, Sorghum Flour, Tempeh Flour, Cereal Milk Beverage