

ABSTRACT
SOYBEAN FLOUR COOKIES, YELLOW SWEET POTATO FLOUR,
AND AJWA DATE AS SUPPLEMENTARY FOOD
FOR UNDERWEIGHT TODDLERS AGED 24–59 MONTHS
(Analysis of Protein, Carbohydrate, Fat Content, and Hedonic Test)

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Malnutrition is the most common nutritional issue in Indonesia, particularly among toddlers. Providing supplementary foods from nutrient-rich ingredients such as soybean flour, yellow sweet potato flour, and ajwa dates can help improve access to nutritious food. This study examines the effects of cookie formulations made from soybean flour, yellow sweet potato flour, and ajwa dates on protein, carbohydrate, and fat content, as well as hedonic preferences among toddlers aged 24–59 months. This experimental study employed a Completely Randomized Design with one control and three treatment samples, each tested in triplicate. The treatments involved different proportions of soybean flour, yellow sweet potato flour, and ajwa dates: F1 (50%:45%:5%), F2 (40%:50%:10%), and F3 (30%:55%:15%). The organoleptic test was conducted with 30 semi-trained panelists and 22 untrained panelists. Protein content was analyzed using the Kjeldahl method, carbohydrate content with a spectrophotometer, and fat content using the Soxhlet method. Data were analyzed using ANOVA, followed by Duncan's post-hoc test, while hedonic preferences were assessed using the Kruskal-Wallis test. The results indicated that the formulation significantly affected protein, carbohydrate, and fat content (p -value = 0.000). Based on statistical analysis, the attributes of color (p = 0.003), taste (p = 0.004), texture (p = 0.000), and overall acceptability (p = 0.004) were significantly influenced by the formulation, whereas aroma (p = 0.206) showed no significant effect. The highest protein content was found in F1 (17.20%), the highest carbohydrate content in F3 (43.44%), and the highest fat content in F1 (29.60%). The highest protein content is found in F1, the highest carbohydrate content is found in F3, and the highest fat content is found in F1. The hedonic test results indicate that F3 received the highest score and was the most preferred by the respondents.

Keywords: Ajwa dates, cookies, malnourished toddlers, soybean flour, yellow sweet potato flour