

Uji Hedonik Dan Formulasi Cookie Ampas Kedelai, Bubuk Daun Kelor, Dan Biji Labu Sebagai Alternatif Makanan Selingan Tinggi Protein Dan Serat

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Abstrak

<div style="text-align: justify;">Saat ini diabetes melitus (DM) masih menjadi tantangan global yang dapat menyebabkan komplikasi jika tidak terkontrol. Tren DM pada kelompok usia<hr /><div style="text-align: justify;">Diabetes mellitus (DM) remains a global health challenge due to its increasing prevalence and the risk of complications when left uncontrolled. The incidence of DM among individuals aged below 40 years has continued to rise, partly due to unhealthy dietary habits, including frequent consumption of sugary snacks. University students represent one of the populations at greatest risk because academic pressure and stress may increase their tendency to consume sweet foods and beverages. Cookies are among the most popular snack foods in Indonesia. However, conventional cookies are generally high in sugar and fat but low in protein and dietary fiber, making them unsuitable for DM diet principal and highlighting the need for product modification. Meanwhile, okara, moringa leaf powder, and pumpkin seeds have demonstrated beneficial effects on glycemic control and therefore have potential as alternative ingredients for cookie production. This study aimed to develop high protein and fiber cookies enriched with okara, moringa leaf powder, and pumpkin seeds. A quantitative experimental design was employed using four cookie formulations with okara to wheat flour ratios of 1:3, 1:1, 3:1, and a control formulation. Hedonic testing was conducted at the Nutrition Laboratory, Faculty of Public Health, Universitas Indonesia, in May 2026, involving 36 untrained panelists who evaluated the cookies based on taste, color, aroma, texture, and overall acceptability. The results showed that formulation R2 was the most preferred in terms of taste, aroma, and overall acceptability, with mean scores of 6.25, 6.33, and 6.31, respectively. The nutritional composition per serving (40 g) of the R2 cookies consisted of 197 kcal of energy, 19 g of carbohydrates, 10 g of fat, 7 g of protein, and 8 g of dietary fiber. The cookies were characterized by their high protein and dietary fiber contents, which may contribute to improved blood glucose control. The production cost per serving was IDR 2,305, which was IDR 54 lower than that of the control cookie formulation.</div></div>