NUTRITIONAL COMPOSITION AND TEXTURE PROPERTIES OF GEBLEK WITH ADDITION OF HYDROCOLLOIDS FOR IMPROVEMENT OF QUALITY AND CONSUMER'S PREFERENCE OF TRADITIONAL FOOD

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ABSTRACT

Geblek is a traditional food from Kulonprogo, Yogyakarta and made from cassava starch. Characteristics of geblek are white, shaped like number of eight, tasty, and chewy. The objective of this research was to evaluate the physicochemical and sensory properties of geblek with adding of hydrocolloids (guar gum, xanthan gum, carageenan, alginate, and dry grated coconut) for increasing the quality and preference of traditional food.

The research material was fresh cassava starch and hydrocolloids. The research stages consisted of: 1) making of geblek with adding of various hydrocolloids, 2) determination of nutritional composition and texture properties of geblek. The research design use a complete randomized design. Data analysis was conducted using one way anova with Duncan Multiple Range Test ($p<0.05$).

Research results showed that hydrocolloids affected the proximate and texture properties of geblek. Deep-frying increased the lipid content of geblek. The addition of dry grated coconut to the geblek dough caused the highest increase in fat content, while alginate and xanthan gum had the lowest fat content. The hardness of fried geblek was from 16.67 N (control) to 30.34 N (carrageenan) after frying then increasing from 68.52 N (alginate) to 218.06 N (carrageenan) after being stored for 24 hours. The chewiness of geblek with the addition of dry grated coconut has a similar pattern with control. Storage of fried geblek at room temperature for 24 hours increased the hardness, gumminess, springiness, chewiness, crispiness, and crunchiness, but decreased the cohesiveness and resilience. The best texture of deep-fried geblek after 24 hours was found in geblek with the addition of 0.5% alginate.

Output of this research was a geblek which is tender and not tough, a draft of simple patent, and a research article in Scopus indexed international journals (Food Research).

Kata Kunci: *geblek, hydrocolloid, nutritional composition, texture profile, traditional food*