

## ABSTRACT

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### **UTILIZATION OF BLACK SOLDIER FLY LARVAE (*Hermetia illucens*) MEAL IN COOKIES PRODUCTION**

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Cookies are a kind of snack enjoyed by many yet perceived as "empty calories". Black soldier fly larvae (*Hermetia illucens*) (BSFL) may be a potential source of protein to improve the nutritional value of cookies. In this research, BSFL meal made into different ratios toward wheat flour (0:100, 10:90, 20:80, 30:70 and 40:60). The research aims to determine the best ratio of BSFL meal to wheat flour towards physical, chemical, and sensory characteristics of cookies. The BSFL meal made by sand-roasting (200°C). The best substitution ratio chosen was 10:90 with a hardness value of 2632.85 g, °Hue value of 81.20 (reddish yellow), L\* of 62.79, spread ratio of 5.44, and fat content of 14.02%. Sensory assessment results were not brown (3.50), slightly no odd taste (3.10), slightly no foreign aroma (3.15), slight sandiness (4.15), slight hardness (4.30), slightly liked color (5.40), taste (4.85), foreign aroma (4.70), texture (4.50) and foreign acceptance (4.75), and neutral acceptance for mouthfeel (4.45). Protein content of cookies made with 10:90 ratio was higher than control cookies by more than 10%, qualifying for the "more protein" claim. The best formulation of cookies also had higher ash content (2.04%) and moisture content (4.68%) but lower carbohydrate content (71.34%) compared to control formulation (0:100).

Keywords: black soldier fly larvae, BSFL, cookies, protein.

References: 45 (1995-2020)