



## TECHNOLOGICAL AND SENSORY PROPERTIES OF SPONGE CAKES CONTAINING CRICKET FLOUR (*ACHETA DOMESTICUS*)

Desislava Borislavova Vlahova-Vangelova<sup>1</sup>✉, Desislav Kostadinov Balev<sup>1</sup>, Nikolay Delchev Kolev<sup>1</sup>, Rada Hristova Dinkova<sup>2</sup>, Stanko Stoyanov Stankov<sup>3</sup>

<sup>1</sup>University of Food Technologies, Department of Meat and Fish Technology, 26 Maritza Blvd., Plovdiv, 4002, Bulgaria

<sup>2</sup>University of Food Technologies, Department of Food Preservation and Refrigeration Technology, 26 Maritza Blvd., Plovdiv, 4002, Bulgaria

<sup>3</sup>University of Food Technologies, Department of Catering and Tourism, 26 Maritza Blvd., Plovdiv, 4002, Bulgaria

✉ [desislava\\_vangelova@abv.bg](mailto:desislava_vangelova@abv.bg)

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### ABSTRACT

Insects are exotic alternative protein source with huge potential for food industry by high nutritional value and limited environmental footprint. The aim of this study is to explore the colour characteristics, technological and sensory properties of sponge cakes enriched with cricket 5% and 10% cricket flour (CF<sub>5</sub>C and CF<sub>10</sub>C), used as substitute of the wheat flour. Moisture, pH, a<sub>w</sub>, springiness and specific volume decrease with increasing CF in a dose depend manner. Replacement of 10% cricket flour showed negative effect on the colour characteristics, shrinkage, specific volume, springiness and texture of sponge cakes. In CF<sub>10</sub>C a\* shows highest values, while L\* and b\* present the lowest indications in comparison to other samples measured. The sensory panel found nonspecific taste and off-flavour in 10% CF based sponge cakes. Replacement of wheat flour with up to 5 % CF has slight effect on the sensory properties (appearance, cell size uniformity, crumb tenderness, odour and taste) of sponge cakes and can successfully be used as innovative ingredient to enhance the protein content in bakery products.

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