SENSORY ANALYSIS OF CHICKEN PRODUCTS WITH A MICROBIAL FAT SUBSTITUTE

Caroline M. Calliari¹, Marciane Magnani², Raúl J. H. Castro-Goméz¹. (1)Department of Food Science and Technology, State University of Londrina - UEL, Rod. Celso Garcia Cid, PO Box 6001, 86051-980 Londrina, Paraná, Brazil. (2)Technology Center, Federal University of Paraíba – UFPB, Cidade Universitária, Campus I, PO Box 58051-900, João Pessoa, Paraíba, Brazil. E-mail: carolinecalliari@gmail.com

The growing interest in healthy life results in a tendency of substituting fats for non-caloric ingredients in meat product, which represents a challenge to maintain the sensory attributes. The present study aimed to analyze the sensory characteristics of low fat chicken products, formulated with a biopolymer produced by Agrobacterium radiobacter K84 (ARB) as a fat substitute. Three formulations were evaluated: (F0) 10% fat without ARB; (F5) 5% fat and 5% ARB; (F10) 10% ARB without fat. Using a ten-point hybrid hedonic scale, acceptance test was conducted with 50 consumers. Simultaneously, the tenderness and chicken taste were evaluated using the just right scale and purchase intent was measured by a questionnaire. In the test of overall acceptability, the F0 formulation had the highest index (7.03) differing from the F5 (5.87) and F10 (4.76). In the just right scale, the most frequent response for the three formulations was “ideal” for attribute tenderness, and there was no difference between the formulations. The F0 formulation had the greatest frequency of “ideal” responses for the attribute chicken taste. The intention to purchase was inversely proportional to the quantity of ARB in the formulations. The results suggest that ARB is a promising fat substitute because it maintained texture parameters, one of the main challenges in low fat products.