ASSESSMENT OF BISCUIT FILLINGS ON THE LIPID CONTENT AND PHYSICAL AND SENSORY CHARACTERISTICS

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The high-fat biscuit fillings, associated with increasing consumption of this product category have become a major concern due to high rates of obesity and cardiovascular disease. The objective of this study was to evaluate commercial biscuits stuffed strawberry on the lipid content, fatty acid composition, texture, particle size, morphology by light microscopy and sensory acceptance for taste, texture, grittiness, waxy and purchase intent. Regarding the amount of filling per cookie, the variation was 25.06% to 31.44%. The total lipid content of fillings varied from 22.79% to 33.15%. The fatty acids present in major proportion in all fillings were: palmitic, stearic, oleic and linoleic acids. The firmness of fillings varied from 37.41 to 124.04 g.f and the adhesiveness varied from 98.45 to 255.78 g.f. The filling with the highest fat content, also had the highest content of saturated fatty acids greater firmness, adhesiveness and greater number of positive mentions in the sensory evaluation. The filling that had lower intention to purchase was presented the lowest acceptation as waxy and higher levels of trans fatty acids. The values of trans fatty acids in fillings varied from 0.15% to 1.02% indicating that the industry has reduced the amount of trans fats, although the content of saturated fatty acids is still high, 10.24 to 17.01%. Morphological analysis showed that the presence of larger sugar crystals results in increased particle size in the filling, although all sensory fillings had good acceptance for grittiness.

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