**Influence of banana peel flour on the fermentation process of bread: follow-up of practice in a domestic environment.**

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ABSTRACT

Banana (*Musa spp.*) is one of the most popular and consumed tropical fruits in the world. The peel is the main by-product of the banana, which represents 40% of the total fruit. For a long time, the residue generated in the processing of bananas had no useful applications, however, the use of unconventional parts of the banana and its consequent transformation into flour is a relevant alternative for minimizing post-harvest losses and adding value to formulated products. One of the applications of flour is its use in the development of bread products as a partial replacement for wheat flour. Thus, the present work aimed to follow the fermentation process, in a domestic environment, of a bread added with banana peel flour in partial replacement of wheat flour and to evaluate the influence of this residue on the fermentation process and the physical and sensory characteristics of the elaborated product. Given the results obtained, the bread made with the flour resulted in darker products with little malleability, which partially hampered the fermentation process and the formation of the gluten protein network. There was also a reduction in the volume of the dough, but it presented itself as a product with a crunchy crust, soft crumb and, slightly astringent flavor/aroma, not differing much from the product made without the addition of banana flour. These results suggest the feasibility of applying this raw material to bread, which can increase the nutritional value of this traditional and widely consumed food. It was concluded that the addition of 10% of banana peel flour is recommended, considering that it did not prevent the growth of the dough, which lasted 30 min. For further research, nutritional characterization and sensory acceptance testing are recommended, so that the product can be suggested to bakeries.

Key words: *Musa sp.*, Astringent, Fermentation process, Residue, Value addition.