

COMPOSITION AND STARCH DIGESTIBILITY OF WHOLE GRAIN BARS CONTAINING MAIZE OR UNRIPE BANANA FLOURS.

ABSTRACT

The development of functional foods with low glycemic index and high levels of RS are of importance in the fight against the rapidly increasing rates of obesity and chronic diseases in modern societies. In this work, three cereal bars containing white maize, blue maize, or unripe banana flours were prepared. The proximal composition, in vitro starch digestibility and product acceptability were evaluated. The bar prepared with blue maize exhibited the highest level of protein and fat, and that containing white maize the highest dietary fiber and indigestible fraction contents. However, the product prepared with unripe banana flour showed the highest total and rapidly digestible starch levels, while that added with blue maize exhibited greater slowly digestible starch values. No difference in RS content was detected among the three bars. The starch hydrolysis indices and predicted glycemic indices of the three preparations were low (40–54% and 42–54%, respectively). Similar acceptation scores were recorded for the three experimental bars. Cereal bars with variable starch digestibility features and good acceptation by consumers may be prepared following the proper choice of functional ingredients.

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