TECHNOLOGICAL AND NUTRITIONAL CHARACTERISTICS OF BREAD FORMULATED WITH A MIXTURE OF WHEAT AND RICE FLOUR.

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Bread is a widely used consumer food and the inclusion of whole rice flour in the formulation of a conventional product seems to be an alternative to resolve the limited wheat production in Brazil. Rice proteins lack the ability to form the necessary network for holding the gas produced during the fermentation step. The objective of the present investigation was to determine the technological and nutritional characteristics of breads formulated with the addition of 25 and 50% of whole rice flour in a wheat conventional recipe. Breads were evaluated for specific volume, crumb firmness, sensory acceptance, dietary fiber and phytate content. The addition of whole rice flour in the recipe produced a decrease on the specific volume (4.48 to 2.26 mL/g) and an increase on crumb firmness (0.77 to 3.85 N), however it was observed a good sensory acceptance of the products. Breads made with 25 and 50% of whole rice flour presented a total dietary fiber content from 5.45 to 6.23% and an INP3 content from 0.446 to 0.382 µ mol/g of bread, respectively. Results showed that it is possible to use up to 25% of whole rice flour in the formulation of wheat bread without loss of quality.