PHYSICAL AND SENSORY ANALYSIS OF SLICED BREAD WITH COWPEA BEAN FLOUR

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The cowpea is a staple food for low-income populations in northeastern Brazil and is still a major source of income and employment for this region. This research aimed to produce sliced bread with partial replacement of wheat flour (WF) for different percentages of roasted cowpea flour (RCF), to evaluate consumer acceptability and to determine physical properties. Four bread formulations were prepared; 100% wheat flour and three with replacement of 10%, 20% and 30% of wheat flour by roasted cowpea flour. Attributes such as the overall quality, aroma, color, flavor and texture were evaluated using acceptance testing with untrained panelist with a hedonic scale of 7 points, whose extremes corresponded to “dislike very much” (1) and “like very much” (7). Breads prepared by replacing part of wheat flour for roasted cowpea flour with 10% and 20% had average equal to or above 5 (like slightly) for all attributes studied. Then, physical determinations were performed in loaves with 100% WF and 20% RCF such as: mass, volume, specific volume, density, texture and color. The bread with replacement of 20% RCF was found to be a viable product, varying significantly from the 100% WF bread, only to the values of specific volume (3.18cm³ and 3.45cm³), mass (982.50g and 920g) and density (0.31g/cm³ and 0.28g/cm³). According to the results obtained it can be prepared sliced bread up to 20% by substituting wheat flour for roasted cowpea flour without harming the technological and sensorial qualities.