Acerola powder as an enhancer of quality of wheat flour bread-making

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Acerola powder is a product with added nutritional value being rich in ascorbic acid having considerable amounts of phenolic compounds. The acerola can be used as an ingredient enhancer in baking, contributing to the antioxidant capacity of the loaves. In this work, 0.5 and 1.0% green and ripe acerola powder was inserted into wheat flour. Flour with and without ascorbic acid (100 ppm) was used. The effect of acerola on the rheology of the dough and bread volume was evaluated by Chopin Alveograph and baking test, respectively. The antioxidant activity of the breads was determined by the free radical DPPH^ method. Was verified that there was a slight decrease in the elasticity parameter (140 to 124-129 mm) and a small increase in extensibility (from 61 to 62-67 mm) which resulted in slight drops in the values of W and P / L. Breads produced using green and ripe acerola powder showed higher specific volumes (5.44 to 6.06 mL / g) compared to regular bread (4.48 mL / g). Only the bread prepared with 0.5% green acerola presented specific volume (6.06 mL / g) higher (p ≤0.05) to the bread with ascorbic acid (4.95 mL / g). Regarding to the antioxidant capacity, the bread made with flour 1% mature acerola had a higher antioxidant activity (p ≤0.05) than breads with or without ascorbic acid.