Water and salt crackers produced with fortified wheat flour: iron content and quality parameters.

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The aim of this work is to determine the iron content and to monitor quality parameters of water and salt crackers. Four samples of different brands, in three batches, were analyzed during six months. The analyses performed were: moisture, acidity, peroxide index (PI) and fat content. Iron quantification was realized using Flame Atomic Absorption, after wet digestion. AOAC methods were used to determine the other parameters. The results varied among the analyzed brands: moisture (2.9 - 5.8 %), acidity (2.1 - 6.4 mL NaOH 0.1 mol L⁻¹/100 g cracker) and PI (0 - 9.5 miliequivalents peroxide/1000 g fat) at the beginning of storage. After six months, the measured values were: moisture (4.0 – 6.0 %), acidity (3.2 - 7.4 mL NaOH 0.1 mol L⁻¹/100 g cracker) and PI (1.0 - 10.1 miliequivalents peroxide/1000 g fat). The four brands analyzed showed fat and iron contents of 13.4, 14.3, 13.0 and 13.4% and 6.5, 6.5, 5.6 e 7.2 mg/100 g, respectively. Therefore, physicochemical parameters varied both among brands and within the period evaluated, with a tendency of increasing for PI and acidity. Differences in iron content among samples were observed, suggesting lack of homogeneity of the iron compounds added to the employed wheat flours.