INSTANT SOY COFFEE BEVERAGE: CHEMICAL STABILITY AND BIOACTIVE COMPOUNDS DURING STORAGE

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An instant soy-coffee based beverage was elaborated, and since storage may change the product quality, through oxidation and degradation, the objective of this study was to evaluate proximate composition, fatty acid composition and bioactive compounds content (isoflavones (aglycone equivalent), caffeine, trigonelline and chlorogenic acids (CGA)) in the instant beverage containing 10 g soymilk powder, 2 g instant coffee and 13 g sugar, packed in aluminum bags and stored for 32 wks at 25 ºC. The proximate composition and isoflavones were analyzed as described by AOAC. Total contents of CGA, caffeine and trigonelline were analyzed by HPLC-DAD, and fatty acids by CG-FID. The influence of storage period was evaluated by ANOVA followed by LSD test ($p<0.05$). No significant changes were observed in the chemical composition from 0 to 32 wks storage. Protein content ranged from 20.2 to 18.9 g/100g, oil from 12.3 to 11.5 g/100g, ash from 3.1 to 3.0 g/100g, caffeine from 0.39 to 0.38 g/100g, CGA from 0.32 to 0.26 g/100g, linolenic acid from 3.7 to 3.9% and linoleic acid from 49.2 to 49.9%. Trigonelline was 0.08 g/100g for all samples. Total isoflavones content ranged from 38.2 to 39.4 mg/100g. Daidzin ranged from 8.4 to 9.0 mg/100g, glycitin from 1.8 to 1.6 mg/100g, genistin from 22.8 to 23.0 mg/100g, daidzein from 1.6 to 1.7 mg/100g, and genistein from 3.9 to 4.1 g/100g. Glycitein was not detected. Therefore, in the evaluated period, the chemical composition of the instant beverage was considered stable, including bioactive compounds such as CGA and isoflavones.