

TITLE: MICROBIOLOGICAL AND CHEMICAL EVALUATION OF HONEY SAMPLES**AUTHORS:** SALIBA, J.; DE SOUZA, L.A.A.; VIEIRA, M.L.A.; MACHADO, A.M.R.; GOMES, F.C.O.**INSTITUTION:** CENTRO FEDERAL DE EDUCAÇÃO TECNOLÓGICA DE MINAS GERAIS. BELO HORIZONTE, MG, (AVENIDA AMAZONAS, 5253, BAIRRO NOVA SUIÇA, CEP 30421-169, BELO HORIZONTE, MG, BRAZIL)**ABSTRACT:**

Honey is a mixture of natural substances made by bees from the nectar of flowers and exudates, being collected and transformed by means of evaporation of water and the action of enzymes. The chemical composition of honey may vary, as it depends on floral origin, climate, environmental conditions and bee species. Among the compounds present in honey, monosaccharides represent 95% of their dry weight. The water content allows to estimate the shelf life of the product, in addition to increasing the probability of the honey to ferment if stored under inadequate packaging and conditions. The objective of this work was to evaluate the quality of honey marketed in markets of Belo Horizonte (MG). The criteria were evaluated through microbiological and physicochemical tests, according to Compendium of methods for the microbiological analysis of foods and the norms of the Adolfo Lutz Institute, seeking to determine the conditions in which the samples are being commercialized, besides check the presence of contaminants. In addition to the microorganisms research, the parameters of color, density, total soluble solids, moisture, pH, free acidity, Lugol and Lund tests, determination of reducing and non-reducing sugars and hydrometilurfural dosage were determined. The results obtained were compared in relation to the parameters for honey expressed by the legislation. Of the evaluated samples (21), 62% presented counts of mesophilic bacteria, while 71% presented molds and yeasts. In relation to the coliforms, two samples presented positive results for thermotolerant coliforms. The physical-chemical tests found that four samples had a higher concentration of hydroxymethylfurfural than allowed, and could infer adulteration and inadequate storage. By means of the proposed analyzes it is intended to verify, if the commercialized samples meet the established quality criteria.

Keywords: quality control, microbiological and chemical analyzes, honey**Development Agency:** Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG), Fundação de Amparo à Pesquisa do Estado de Minas Gerais (Fapemig)