

## Physicochemical, Microbial and Sensory Characteristics of Herbal Chocolate Incorporated with Soymilk Powder

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**Abstract**—The purpose of the study was to prepare herbal chocolate containing soya milk powder and stevia extracts and evaluate its physicochemical, microbial and sensory quality. For the preparation of chocolate, desired amount of cocoa butter (20.37gm/100gm) heated at 100°C, Isomil powder (16.70gm/100gm), stevia (2.23gm/100gm) and soy milk powder were blended in a homogeneous paste, followed by tempering, molding, refrigeration, packaging and storage. The sample thus prepared was subjected to physico-chemical characterization, viz., protein estimation (14.51%), fat content (44.11%), ash percentage (2.97%) and moisture content (34.80%) content: as per AOAC (2002) protocols; pH, total sugar (36.52gm), reducing sugars (2.68gm), non-reducing sugars (33.84gm), total phenolic content (0.29 mg GAE/g) and DPPH radical scavenging activity (3.93%), as per standard protocols. Total plate count (TPC) assay was performed for microbial analysis. Sensory quality attributes score viz. color (7.66) and appearance, consistency (8.6), flavor (8) and taste (7.33) of the samples were evaluated using a 9-point hedonic rating test. The data obtained from the various experiments were recorded and subjected to statistical analysis as per the Analysis of Variance method of Factorial Complete Randomized Design (CRD). The results suggested that the prepared herbal chocolate sample was sensorily accepted by consumers and the combination could be used for development of sweet food products, with stevia as a non-nutritive sweetener and increased antioxidant activity. This may even be consumed by individuals with diabetes and heart diseases.

**Keywords:** Stevia; sensory evaluation; physicochemical; microbial; soya milk powder; herbal.