

Formulation and Evaluation of Multivitamin and Antioxidant Herbal Chocolate

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Abstract: *The present study focuses on the formulation and evaluation of a novel herbal chocolate enriched with multivitamins and natural antioxidants. The aim was to develop a palatable and nutritionally enhanced confectionery product that combines the health benefits of herbal extracts with the consumer appeal of chocolate. Herbal ingredients such as Withania somnifera (Ashwagandha), Emblica officinalis (Amla), and Ocimum sanctum (Tulsi) were selected for their known antioxidant and adaptogenic properties. These were incorporated into a dark chocolate base along with essential vitamins including A, C, E, and B-complex. The formulation was evaluated for physical properties (texture, melting point, and appearance), phytochemical content, antioxidant activity (DPPH assay), and sensory attributes. The final product demonstrated good stability, high antioxidant potential, and acceptable sensory characteristics.*

The growing consumer demand for functional foods has led to increased innovation in delivering essential nutrients through enjoyable and convenient formats. This research focuses on the development of a nutraceutical chocolate product fortified with multivitamins and enriched with herbal extracts possessing potent antioxidant properties. The primary objective is to combine the therapeutic potential of traditional herbs with the nutritional benefits of essential vitamins, thereby creating a palatable, health-enhancing confectionery item.

The formulation includes a base of high-quality dark chocolate, selected for its inherent flavonoid content, which is further fortified with a spectrum of essential vitamins—namely vitamin A, B-complex (B1, B2, B6, B12, niacin, folic acid), vitamin C, vitamin D, and vitamin E. These vitamins were microencapsulated to ensure stability during the chocolate manufacturing process.

Keywords: Polyherbal, chocolate, multivitamins, Moringa, formulation

