

EVALUATING SAFETY AND EFFECTIVENESS OF STEVIA AND MONK FRUIT FOR INDIVIDUALS WITH DIABETES AND THEIR IMPACT ON FOOD FORMULATION AND CONSUMER ACCEPTANCE

Visalini TSK¹, Melitta Grace J², Priya Banthia³ & Shubhada Naik⁴

¹MSc Food and Nutrition, Dr. NGP arts and Science College, Coimbatore, Tamilnadu, India

²Dietitian, Tamilnadu, India

³MSc. in Microbiology Hons., University of Calcutta, Kolkata, India

⁴MSc. Biotechnology, Vellore Institute of Technology, Vellore, Tamil Nadu, India

ABSTRACT

The growth and popularity of the South American herb *Stevia rebaudiana* has increased due to its abundance of sugary compounds, particularly stevioside and rebaudioside A, which have sweetness levels 250-300 times higher than sucrose. Additionally, stevia leaves include a variety of phenolic compounds, fatty acids, water-soluble vitamins, and other important components that are critical to human health. *Siraitiagrosvenorii*, also referred to as monk fruit, is a herbaceous perennial plant that has drawn notice for its great sweetness, which is ascribed to mogrosides, which are triterpene glycosides. They possess number of health advantages, including helping with blood sugar regulation, reducing inflammation, and having antioxidant and anti-inflammatory qualities. Nevertheless, despite its benefits, Stevia may induce gastrointestinal discomfort and hypotension in some individuals, while monk fruit faces limitations in availability, taste perception, and research gaps. However, the food industry has embraced these natural sweeteners and has utilized them in a variety of goods, including as confectioneries and baked goods. The degree to which consumers accept stevia and monk fruit as sugar alternatives for managing their diabetes varies depending on a number of factors, including taste preferences, health advantages, and education. Both stevia and monk fruit show promise as healthier substitutes for regular sugars, providing sweetness without sacrificing nutritional value, despite certain disadvantages. Further research is essential to completely comprehend their long-term impacts and enhance their marketability and acceptance.

KEYWORDS: Stevia, Monkfruit, Diabetes, Antioxidant Activity, Anti-Inflammatory Activity

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