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Nutritional, Medicinal, and Industrial Applications of Tokma (*Hyptis suaveolens*), Isabgol (*Plantago ovata*), and Chia (*Salvia hispanica*): A Comprehensive Review

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Abstract

Herbal plants offer three significant benefits: nutritional support, disease treatment, and industrial utility. For centuries, they have been valued for their beneficial properties. Among them, Tokma (*Hyptis suaveolens*), Isabgol (*Plantago ovata*), and Chia (*Salvia hispanica*) are well known and widely used for multiple health benefits and diverse applications. This review aims to provide a comprehensive overview of the nutritional, medicinal, and industrial use of *Hyptis suaveolens*, *Plantago ovata*, and *Salvia hispanica*, thereby facilitating further research and understanding. A systematic review of peer-reviewed articles was conducted, supplemented by self-exploration. The study highlights that *Plantago ovata* is notable for its high fiber content and positive impact on gut health, making it widely used in dietary supplements and animal feed. It can also be researched for its application in green food packaging and emulsion-based drug delivery systems. *Salvia hispanica* is rich in omega-3 fatty acids and essential minerals and is especially valued for its cardiovascular and metabolic health benefits. It is used largely in bakery products, beverages, and cosmetics. Although *Hyptis suaveolens* is less researched globally, it shows significant medicinal potential, including anti-inflammatory, antiviral, antimicrobial, and blood purifying properties. Its oil has potential insecticidal properties and may be used in agriculture as a natural herbicide or grain preservative. In conclusion, *Salvia hispanica* is more nutritionally balanced and has more diversified use compared to the other two. Nevertheless, *Hyptis suaveolens* and *Plantago ovata*, also offer diverse health benefits and applications. Further studies are essential to fully explore their potential and uses.

Keywords: *Hyptis suaveolens*, *Plantago ovata*, *Salvia hispanica*, Medicinal, Nutritional, Industrial application

