

Chapter 1

Historical and Future Perspective of Indian Spices

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ABSTRACT

Spices take an important place in common man's everyday life mainly because of their flavor, taste, and medicinal values. Spice usage grew with the increased use of processed products. India is the largest producer of spices in the world. Growth in Indian spices and spice product exports clearly show that Indian spices and spice products have a great demand in international markets. India is the land of spices and could exploit the fast-growing nutraceutical sector with its high intrinsic quality spices. The scope of spices like turmeric, ginger, fenugreek, garlic, and red pepper in the nutraceutical industry with their possible role in the control and prevention of important health disorders are examined. The demand for nutraceutical products has gone up as more people are turning to natural products for treating lifestyle diseases. This review deals with the history and origin of spices and their potential uses as well as future prospects in treatment of various diseases in a natural way.

HISTORY AND ORIGIN OF SPICES IN INDIA

Spices can be derived from different parts of the plant. Cloves are the buds, cinnamon is the bark, ginger from the roots, peppercorns from the berries, cumin as the aromatic seeds, and saffron being the stigma of a flower. Various aromatic seeds used as spices are actually collected from plants after finishing the flowering stage. For example, coriander leaves are referred to as an herb, having their seeds(dried) used as a spice. The stem and roots of coriander, used in cooking, and onions, garlic, and the bulbs of fennel, are classified as herbs as these parts of their plants are often used fresh and applied in a similar way in cooking.

In India, Ayurveda for traditional medicine came into existence more than 5000 years ago in the Himalayas, and the knowledge was transmitted orally until it was written down in the Vedas by around 1500 BCE, but it flourished in the 7th century. Ayurveda mainly focuses on prevention from diseases and promotion for health through the importance of diet (Govindrajan et al,2005). Health Effects such

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as the use of turmeric for jaundice, heart protection through basil, the mace in stomach infections, cinnamon in stimulating circulation, and ginger as the universal medicine, chiefly for relieving nausea and indigestion. These are some of the examples of Ayurvedic use of herbs and spices. Most of these spices are utilized in Indian cooking to impart flavor and significant quantities are consumed in a regular meal. It has also been reported that such spices can supply appreciable quantities of nutrients as well, such as iron. India produces 75 varieties of spices of the 109 listed by ISO, and is also the world's largest producer of spices (Thatte et al, 1986).

THE HEALTH BENEFITS OF SPICES

Although herbs and spices are not often consumed in large quantities, and even small doses of them can be a powerful source of anti-inflammatories, nutrients, antioxidants agents, cancer-fighting constituents, minerals, vitamins, and more.

Cinnamon

Cinnamon has the property of lowering blood sugar levels and has a potential anti-diabetic effect. It is a very popular spice, which is found in all sorts of recipes and baked goods. Cinnamaldehyde, the prime constituent of cinnamon, is responsible for its medicinal properties. Cinnamon has high antioxidant activity, which helps fight inflammation and has also been shown to reduce cholesterol and triglycerides in blood serum. But the most important activity of cinnamon is its action on blood sugar levels. Cinnamon has several mechanisms to lower blood sugar, including slowing down the breakdown of carbs in the digestive tract and increasing insulin sensitivity. Studies have revealed that cinnamon can reduce fasting blood sugars by a significant amount, ie. 10-29% in diabetic patients. The effective dose of cinnamon to have beneficial effects is typically 0.5-2 teaspoons of cinnamon per day or 1-6 grams.

Turmeric

Turmeric contains curcumin, a substance with powerful anti-inflammatory effects. Although it contains various compounds with medicinal properties, the most important of them is curcumin. Curcumin is a significant potential antioxidant, which helps in fighting with oxidative damage and also boosting the body's own antioxidant enzymes. Oxidative damage is believed to be one of the key mechanisms behind aging and many diseases; hence, it is very important to reduce these kinds of reactions in the body. Curcumin is also strongly anti-inflammatory, as it matches the effectiveness of many anti-inflammatory drugs. Many studies have also suggested that it can improve brain functioning, fight against Alzheimer's, subside the risk of heart disease and cancer, and relieve arthritis to a large extent.

Fenugreek

Fenugreek plays a vital role in improving blood sugar control. In ancient times fenugreek was commonly used in Ayurveda, chiefly to enhance libido and masculinity. Although, studies are inconclusive for its effects on testosterone levels. Fenugreek does seem to have beneficial effects on blood sugar. It possesses the plant protein 4-hydroxyisoleucine, which is useful in improving the function of the hormone insulin.

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