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INTODUCTION OF Mango (*Mangifera indica* L.) & SEEDS

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Abstract:

Often utilized in ayurvedic therapy is the herb Mangifera indica. The seeds and plant of Mangifera indica have anti-inflammatory, anti-oxidant, antiviral, cardiotonic, and hypotensive qualities.

1. Mango (*Mangifera indica* L.):

Mango, or Mangifera indica, is a species of flowering plant belonging to the Anacardiaceae family.[1] It's a big fruit tree that can reach a height of thirty meters (one hundred feet). Modern mangoes are divided into two main genetic populations: the "Southeast Asian type" and the "Indian type."

2. DESCRIPTION:

It is a big green tree that is mostly prized for its luscious and green fruits.[1] In India, there have been reports of about 500 kinds [1]. Its maximum height is 15–30 meters (50–100 feet), with a trunk circumference of more than 3.7 meters (12 feet) and a corresponding crown width [1][2]. The dark green, glossy, and uncomplicated leaves [3].

Both at the conclusion of winter and the start of spring, red-yellow flowers bloom. The same tree bears both male and female flowers.In [1]. The timing of blossoming is significantly influenced

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by climate.In [1] Flowers bloom in South Asia in December in the southern regions, January in Bihar and Bengal, February in eastern Uttar Pradesh, and February–March in the northern regions of India. For the Dasheri variety, flowering lasts for 20–25 days; panicle emergence happens in early December, and flower opening is finished by February. In Kanyakumari, Tamil Nadu, the Neelum variety yields twice a year; however, in North Indian conditions, it flowers just once.

The mango is a juicy drupe with an uneven, egg-shaped form. [3] Mangos are usually greenish yellow in color and are 8 to 12 centimeters (3 to 5 inches) in length. The fruits come in heart, kidney, oval, and round shapes [1]. Unripe mango fruits have a green color.[1] There is a big, flat pit in the center of the soft, brilliant orange internal flesh [1]. April and May mark the mango's maturity. Mango pickles and chutneys can be made with raw mangos [4]. Mangos that are ripe are a popular fruit all around the world. The mango's skin and pulp make up 85% of its weight, with the stone (seed) making up the remaining 15% [5].

3. CLASSIFICATION:

CLASSIFICATION	
Kingdom	Plantae
Clade	Tracheophytes
Clade	Angiosperms
Clade	Eudicots
Clade	Rosids
Order	Sapindales
Family	Anacardiaceae
Genus	Mangifera

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Species	M.indica

Figure No. 01 Mango (*Mangifera indica* L.)

4. Mango Seed and Mango Seed Kernel:

Depending on the variety, the endocarp, which encloses the kernel, makes up 10–25% of the entire fruit. About 20% of the entire fruit is made up of the mango seed kernel, which is found inside the seed and makes up 45–85% of the seed [6]. The compositional analysis of seeds reveals the following values on a dry basis: moisture (5.1%), crude protein (4.6%), crude fat (7.8%), carbohydrates (78.2%), mineral ash (2.2%), and crude fiber (2.1%). In terms of the mango seed kernel, its dry chemical composition is made up of the following: mineral ash (2.1%), crude fiber (0.5%), crude protein (7.2%), carbs (73.1%), and polyphenols (0.1–8.6 g GAE/100 g). Crude fat

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contains no trans fatty acids and is primarily made up of oleic acid (23.5%) and linoleic acid (56.3%) [7,8,9,10]. The majority of research on kernel fat emphasizes the strong oxidative stability brought about by the percentage of saturated fatty acids present. A Brazilian cultivar (50.69% stearic and 39.04% oleic acids), twenty Colombian varieties (37.58% stearic and 46.46% oleic acids), and the oil derived from the mango Dashehari kernel in India (58.08% stearic and 17.99% oleic acids) are a few examples [11,12,13]. Furthermore, it was found that the oil produced from an Iranian mango kernel flour included the acids oleic (34.8%) and lauric (28.7%) [14]. This oil's fatty acid makeup makes it potentially stable, rancidity-tolerant, and useful for developing functional foods. Mango seed kernel extracts have been the subject of more reports concerning bioactive components than mango peel extracts. The TPC content of the Arumanis mango kernel oil extract from Indonesia was 67.77 mg GAE/g oil and the vitamin E concentration was 141.22 mg/L. According to this study, mango kernel oil has potential uses as a bioactive ingredient and is naturally rich in antioxidants [15].

The mango, also referred to as the "king of fruits" (Mangifera indica L.), is highly nutritious and has a pleasing flavor and scent. India is a major mango producer, accounting for around half of the world's production. Fruit consists of three primary parts: kernel, peel, and pulp. The pulp is the portion that is most frequently consumed; the peel and kernel are typically thrown away. A range of reducing sugars, amino acids, aromatic compounds, and functional components like pectin, vitamins, anthocyanins, and polyphenols can be found in mango pulp. Peels and kernels from processed mangos are bio-wastes, yet they also have nutritional value. Protocatechuic acids, mangiferin, and β-carotene are among the functional components in the peel that have been linked to antibacterial, anti-diabetic, anti-inflammatory, and anti-carcinogenic effects.

5. CONCLUSION:

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More than 4,000 years have seen the use of Mangifera indica (MI), also known as mango or aam, as a significant herb in indigenous and Ayurvedic medicine. In the flowering plant family Anacardiaceae, mangoes are members of the genus Mangifera, which includes roughly thirty species of tropical fruiting trees.

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