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A Comprehensive review on Phytochemical, Restorative values and Pharmacological perspective of *Pithecellobium dulce*

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ABSTRACT

Background: *Pithecellobium dulce* is versatile medicinal plant which has attracted worldwide prominence in recent years, owing to its wide range of medicinal properties.

Materials & methods: All parts of the plant have rich nutritional value. The active constituents of the plant include rich presence of flavonoids, sterols, tannins and triterpenoids. *Pithecellobium dulce* has been utilized by antiquated individuals in treating various ailments due to its restorative properties and disease preventing attributes, namely Antioxidant, antifungal, antiviral, antibacterial, antidiabetic, antispasmodic, diuretic, anthelmintic, antipyretic, anti-inflammatory, hypoglycemic and sedative action, which has been further confirmed by modern scientific research.

Results: This review gives an exclusive detail on the plant including phytochemistry, nutritional value, and significant pharmacological importance of *Pithecellobium dulce*.

Conclusion: The literature was explored via reliable search engines such as PubMed and Science Direct. The data obtained reflected invariable therapeutic utilization in terms of leaves, stem, roots, and fruits.

Keywords: *Pithecellobium dulce*, Hypoglycemic, Phytochemical, Anti-inflammatory, nutritional value.

INTRODUCTION

Plant description/Etymology

Pithecellobium dulce, commonly known as the Manila tamarind, Madras thorn or Canachile [1, 2] is a flowering plant in the pea family [3], is native to the Pacific coast and the adjacent highlands of Mexico, Central America and the northern part of South America. It is a small and medium-sized evergreen prickly tree that is 18 m tall and grows on the Indian Plains and the Andaman Islands. The common name refers to the curly pod that mimics ape earrings, and the species name "dulce" refers to the sweet pod. It is the only species among 100-200 species of this genus and has spread widely outside its origin [4]

Morphological Description

The bark of *P. dulce* is gray in color, becomes rougher, and begins to peel when mature. The size of the leaves is 2–2.5×1–2 cm, with kidney-shaped lobules and a pair of two leaves.

In *P. dulce*, there are hairy crown flowers and small white heads with a diameter of 1 cm. In the flower, 50 sparse stamens are surrounded by the calyx of a joint tube. Each pod is 10–15×1.5 cm in size, and is spiral and reddish brown when mature [5].

Taxonomic Tree [6]

Domain: Eukaryota
 Kingdom: Plantae
 Phylum: Spermatophyta
 Subphylum: Angiospermae
 Class: Dicotyledonae
 Order: Fabales
 Family: Fabaceae
 Subfamily: Mimosoideae
 Genus: *Pithecellobium*
 Species: *Pithecellobium dulce*