{Amra}

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{Mangifera indica Linn}

{Anacardiaceae}

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| Tamil | {மாமரம் } |
| Malayalam | { Amaram} |
| Hindi | {Aam} |
| English | {Mango tree} |

Description

{1. Habit:  
  
Large, evergreen tree, up to 30–40 m tall.  
  
Trunk stout with rough, dark brown bark.  
  
Crown dense and spreading.  
  
  
2. Leaves:  
  
Type: Simple, alternate, exstipulate.  
  
Shape: Lanceolate, coriaceous (leathery).  
  
Margin: Entire.  
  
Venation: Pinnate, reticulate.  
  
Color: Young leaves reddish, mature leaves dark green.  
  
  
3. Inflorescence:  
  
Large terminal panicle (branched cluster).  
  
Flowers numerous, small, yellowish-white, fragrant.  
  
  
4. Flower:  
  
Bisexual or unisexual (polygamous condition).  
  
Actinomorphic, pentamerous, complete, bracteate.  
  
Calyx: 5 sepals, small, green, free.  
  
Corolla: 5 petals, yellowish-white, free.  
  
Androecium: Usually 5 stamens, but only 1–2 fertile, rest are staminodes.  
  
Gynoecium: Superior ovary, monocarpellary, unilocular, oblique.  
  
  
5. Fruit:  
  
Drupe, large, fleshy, oval or kidney-shaped.  
  
Epicarp: Smooth, thin skin (green, yellow, or red).  
  
Mesocarp: Juicy, sweet pulp.  
  
Endocarp: Hard, stony, enclosing single seed.  
  
  
6. Seed:  
  
Large, single, exalbuminous (without endosperm).  
  
Embryo straight, with folded cotyledons.  
  
  
7. Pollination & Dispersal:  
  
Pollination: Mostly by insects (entomophilous).  
  
Seed dispersal: By humans, animals, and naturally by gravity.  
  
  
8. Economic Importance:  
  
Fruits eaten fresh, used in pickles, juices, jams, and sweets.  
  
Wood used for furniture and packing.  
  
Leaves, bark, seed kernel used in Ayurveda.  
  
Cultural significance in India (sacred, symbol of prosperity).  
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Useful Parts

{Mula,patra,twak,puspa,phala,bija}

Benefits

1. {1. Dāruņaka (Dandruff)  
     
   आम्रबीजस्य चूर्ण तु शिवाचूर्णसमं द्वयम् । दुग्धपिष्टः प्रलेपोऽयं दारुणं हन्ति दारुणम् ॥  
     
   (शा.सं. 3/11/20)  
     
   Powders prepared from seed of Amra (Mangifera indica) and Śiva (Terminalia chebula) is mixed with milk and paste is prepared. Application of this paste relieves Dāruņaka (Dandruff).  
     
   2. Chardi (Vomiting)  
     
   जम्बु आम्म्रयोः पल्लवं कषायं पिबेत् सुशीतं मधुसंयुतं वा । (च.चि. 20/30)  
     
   Decoction prepared from tender leaves of Amra (Mangifera indica) and Jambu (Syzigium cumini) cooled, added with honey and administered.}

Pharmacological Action

* {1. Antioxidant activity  
    
  Rich in polyphenols, mangiferin, quercetin, catechins → scavenges free radicals, protects against oxidative stress.  
    
    
  2. Anti-inflammatory activity  
    
  Extracts inhibit COX and LOX pathways, reducing production of inflammatory mediators.  
    
  Helps in arthritis, colitis, and general inflammatory conditions.  
    
    
  3. Immunomodulatory activity  
    
  Enhances both cellular and humoral immunity.  
    
  Mangiferin shows immune-boosting as well as immune-regulatory effects.  
    
    
  4. Antimicrobial & Antiviral  
    
  Active against bacteria (Staphylococcus aureus, E. coli, Salmonella).  
    
  Antiviral effect against HSV, HIV (via mangiferin).  
    
  Antifungal properties as well.  
    
    
  5. Antidiabetic activity  
    
  Mango leaf extracts improve glucose tolerance, enhance insulin secretion, and reduce blood sugar levels.  
    
  Mangiferin acts as an α-glucosidase and aldose reductase inhibitor.  
    
    
  6. Hepatoprotective activity  
    
  Protects liver cells from toxin-induced injury.  
    
  Reduces serum transaminases, promotes regeneration.  
    
    
  7. Cardioprotective & Hypolipidemic  
    
  Reduces cholesterol, LDL, triglycerides.  
    
  Antioxidant effect protects myocardium.  
    
    
  8. Anti-cancer activity  
    
  Mangiferin, quercetin show cytotoxicity against tumor cells.  
    
  Induce apoptosis, inhibit angiogenesis.  
    
    
  9. Gastroprotective activity  
    
  Used in dysentery, diarrhea, gastritis.  
    
  Bark and leaf extracts show anti-ulcer activity.  
    
    
  10. Analgesic activity  
    
  Reduces pain perception by inhibiting inflammatory mediators.  
    
    
  11. Other actions  
    
  Diuretic (increases urine output).  
    
  Anthelmintic (bark decoction).  
    
  Wound healing (leaf and bark extracts).  
    
  Neuroprotective (prevents memory impairment, oxidative damage in CNS).  
    
    
  📌 Key Phytoconstituents:  
    
  Mangiferin (xanthone glycoside, major bioactive)  
    
  Polyphenols (quercetin, kaempferol, catechins, gallic acid)  
    
  Triterpenoids, carotenoids, vitamins}

Rasapancakam

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| --- | --- |
| Rasa | {1.Pakwa phala- Madhura 2.Apakwa phala -amla 3.twak -kashaya} |
| Guna | {1.Apakwa and twak- laghu, ruksa 2.Pakwa phala-Guru, snigdha } |
| Virya | {Sita } |
| Vipaka | {1.pakwa phala-Madhura vipaka 2.apakwa phala-amla vipaka 3.Twak- katu vipaka} |
| Karma | {1.pakwa phala- vatapitta shamaka 2.apakwa phala-tridosakaraka 3.twak-kapha pitta shamaka} |