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# **Ficus benghalensis** **(Bargad)**



## **Synonym:**

Gujarati: Vad (વડ) or Vadlo

Hindi: Bargad (बरगद)

English: : Banyan tree

**Botanical name:** *Ficus benghalensis*

**Family:** Moraceae

## **Chemical Constituent:**

- Flavonoids: Quercetin, Kaempferol, Rutin
- Terpenoids: Lupeol, Taraxerol,  $\beta$ -sitosterol
- Phenolic Compounds: Gallic acid, Caffeic acid
- Tannins: Present in bark and aerial roots
- Saponins: Found in leaves and bark
- Steroids: Stigmasterol, Campesterol
- Alkaloids: Trace amounts in latex and bark
- Glycosides: Contribute to therapeutic actions
- Proteins and Amino Acids: Present in latex

- Latex Components: Contains enzymes and bioactive proteins

## Therapeutic Effect:

- Antidiabetic:
  - Bark and leaf extracts reduce blood glucose levels
  - Inhibit  $\alpha$ -glucosidase and improve insulin sensitivity
- Anti-inflammatory:
  - Suppresses cytokines like TNF- $\alpha$  and IL-6
  - Useful in arthritis and chronic inflammation
- Wound Healing:
  - Promotes fibroblast proliferation and collagen synthesis
  - Latex and bark decoctions used topically
- Antimicrobial:
  - Active against *E. coli*, *Staphylococcus aureus*, and *Candida albicans*
  - Used in skin infections and oral health

- Antioxidant:
  - Scavenges free radicals, protects against oxidative stress
  - Supports liver and cardiovascular health
- Anticancer (experimental):
  - Cytotoxic effects observed in vitro against cancer cell lines
- Astringent and Anti-diarrheal:
- Bark decoction used in traditional medicine for diarrhea and dysentery

## **Marketed preparation:**

- Ayurvedic Formulations:
  - Used in *Vata Churna*, *Vatari Guggulu*, and *Banyan Bark Powder*
  - Prescribed for diabetes, skin diseases, and inflammation
- Herbal Extracts:
  - Available as tinctures, decoctions, and capsules

- Standardized for antidiabetic and antioxidant properties
- Topical Products:
  - Creams and ointments for wound healing and skin infections
  - Often combined with neem or turmeric
- Traditional Remedies:
  - Bark and aerial root decoctions used in folk medicine
  - Latex applied for toothache and skin ulcers
- Cosmetic Applications:
  - Used in natural soaps and anti-aging creams
  - Promotes skin tightening and tone improvement

**Key Constituents:** tannins, flavonoids, saponins, sterols.

**Uses:** traditional wound healing, anti-diarrheal, ornamental / large shade tree (sacred in India).