

# PROSPECTS OF MEDICINAL PLANTS

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## Collection and documentation of some medicinal legumes of Goa

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Leguminous plants are widely grown throughout the world. Their dietary and medicinal importance is globally appreciated and recognized. Various plant parts viz., roots, leaves, fruits, stems, gum, bark, seeds, etc. are used for medicinal purposes, but the way of application varies according to the local traditions. The plants have numerous medicinal uses viz., treatments of blisters, ulcers, cough, cold, malaria, snake bite, women and children's health care etc. Hence, Goa possess a good source of medicinal legumes. Twenty two identified legume plants alongwith their medicinal value have been listed. One of the major problems in determining whether the herbal remedies are sufficiently safe or effective for human use is the lack of guidelines available to developing countries regarding the decision making process in drug development. There is need to conserve the wild genetic resources which are gradually getting depleted during the current era of rapid deforestation. Judicious use of legumes for medicinal purpose alongwith strategies for their *in vivo* conservation would be encouraging to preserve biodiversity.

**Key words:** Legume, medicine, documentation, collection

India possesses the richest source of medicinal plants in the world. Over 9000 economic plants in the world are recorded of which India has 5000 species of economic importance with a little over 1500 species of medicinal importance (Agarwal and Ghosh, 1985). The systematic investigation of these drugs used in indigenous medicine on modern scientific lines was started more than 30 years ago and much has been accomplished. In most developing countries, where coverage by health services are limited, it is to the traditional practitioner or folk medicinemen to play a major role in health care. Early in this century, the greater part of medical therapy in the industrialized countries was dependent on medicinal plants. But with the growth of the pharmaceuticals industry,

fell out of use forever. Even so, 25 per cent of all prescriptions dispensed between 1959 and 1980 from community pharmacies in the United States contained plant extracts or active principles prepared from higher plants. Now the pendulum is swinging back and the value of the medicinal plants in treatments is receiving increasing attention world wide (Akerle, 1990). Basically all the Indian systems of medicine are credited to have a holistic approach to human life which takes into account all dimensions of life, such as physical, mental, sociological and spiritual aspects. In actual practice, however, particularly at the community level, this holistic approach is not much in evidence. For obvious reason, all the medicinal plants are heavily biased towards the curative aspect of medicine (Satyawati, 1990).

Recognizing the potential value for the expansion of health services, the world health assembly, in 1976, drew attention to the manpower reserve by traditional practitioners (resolution WHA 29.72). The next year, it urged countries to utilize their traditional system of medicine (resolution WHA30.49). Then the following year in 1978, it called for a comprehensive approach to the subject of medicinal plants (resolution WHA31.33). This included:

1. An inventory and therapeutic classification, periodical update of medicinal plants used in different countries.
2. Scientific criteria and methods for assessing the safety of the medicinal plant products and their efficacy in the treatment of specific conditions and disease.
3. International standards and specifications for identity, purity, strength and manufacturing practices.
4. Method for safe and effective use of medicinal plant products by various levels of workers.
5. Dissemination of such information among member states, and
6. Designation of such information and training centers for the study of medicinal plants.

With approximately 650 genera and 18,000 species, the family leguminosae is the third largest family of flowering plants. They are distributed throughout the World, however, the great majority of them are growing in the tropics and subtropics. Since tropical botany has been relatively neglected, there are thousands of promising species that await research and study (Lim and Burton, 1982). The objective of the present study was to identify the legume species and to collect information on their medicinal importance by consulting the locals.

### METHODOLOGY

Regular surveys were conducted in different places of Goa to collect the leguminous plant species. The collected species were later identified using local floras and Herbaria. Information related to the medicinal value was collected through the local people.

### RESULTS AND DISCUSSION

The following leguminous species have been identified and their English and vernacular name/s alongwith their medicinal values have been listed below:

1. *Bauhinia variegata* L.

**Vernacular name:** Konkani: Kanchan / Kandvel; The bark is astringent, alternative and is useful in scrofula, skin disease, diarrhoea, dysentery, piles, worms and ulcers.

2. *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne

**English name/s:** Copper pod, Rusty shield bearer; The powdered bark is used as tooth-powders and in water to treat ophthalmia, dysentery and ulcers.

3. *Wagatea spicata* Dalz.

**Vernacular name/s:** Konkani - Vagati, Marathi - Wagati, Wakeri, Kuldgaiga; Roots are used for pneumonia. The bark is used to cure skin diseases.

4. *Delonix regia* (Hook.) Raf.

**English name/s:** Flamboyant Flame Tree, Gold Mohur, Gul Mohar, Peacock Flower, Royal Poinciana; **Vernacular name/s:** Konkani - Gul mor, Marathi - Gulmohar; Flowers are used as anthelmintic, in rheumatism and flatulence.

5. *Caesalpinia pulcherrima* (L.) Sw.

**English name/s:** Flower fume, Poinciana, Peacock flower, Pride of Barbados, Small gold mohar; **Vernacular name/s:** Konkani - Kombi, Altula, Shankahu, Alphuli, Marathi - Sankasur; Leaves are used as a purgative, tonic and emmenagogue. Bark is used as an abortifacient, prescribed in bronchitis, asthma and malarial fevers.

6. *Cassia absus* L.

**Vernacular name/s:** Marathi - Chinar, Chakan, Kankuti; The seeds are used to treat eye complaints and ringworm. The leaves are used as a cough remedy. Seeds are useful in the treatment of ophthalmia and skin infection. An extract prepared from the seeds is used to purify blood and paste is applied to heal up wounds and sores.

7. *Cassia alata* L.

**English name/s:** Candle bush, Acapuko, Ring worm Senna Candelabra bush; **Vernacular name/s:** Marathi - Shimai-agase; The leaves are tonic, purgative, expectorant, aperient, astringent and anti-parasitic. In bronchitis and asthma, a decoction of the leaves is given many times a day. As a purgative, an infusion or decoction of the dried leaves is used while a strong decoction is used to hasten labour. It also acts as an abortifacient. The leaf juice with the addition of lime juice is given as an anthelmintic. Either juice, paste or ointment made with vaseline or lanolin of the leaves is a recognized remedy for ring worm, herpes and other parasite skin diseases, insect bites etc. Leaf juice is useful in treating skin diseases. The seeds are used to treat intestinal worms.

8. *Cassia fistula* L.

**English name/s:** Golden shower, Indian Laburnum, Purging Cassia, Purging fistula, Jhagras; **Vernacular name/s:** Konkani - Bavo Bale, Dirgha phala, Kashta-sudana, Aragbada, Marathi - Bahava, Boya; Dried fruits and pulp are used as purgative for habitual constipation. Fruit is also cathartic.

9. *Cassia surattensis* Burm. f.

**Vernacular name/s:** Marathi - Motha-tarvad; An extract of the roots is used to treat gonorrhoea.

10. *Cassia mimosoides* L.: Roots are used in spasms of stomach.

11. *Cassia sophera* L.

**Vernacular name (s):** Konkani - Arphuli, Alphulli, Marathi - Jangli takla, Ran-takla, Kasodi; The plant is expectorant, depurative and alternative, its decoction is used as an expectorant in acute bronchitis. The leaves are used as purgative. The leaf extract alongwith sugar and water is given in jaundice. A paste of the leaves and root-bark made with honey has useful application in skin disease, like ringworm, ulcers etc. The bark is cathartic, its infusion is given in diabetes. The paste made of the seed with sulphur is applied in skin diseases. Leaves are used externally in ringworm. The extract of the whole plant is effective against snake bite.

12. *Cassia tora* L.

**English name/s:** Sickle pod, Cakwash, Foetid cassia; **Vernacular name/s:** Konkani - Taykilo, Marathi - Takla, tankil; Decoction of the leaves is a mild laxative especially for children having fever while teething. They are also used in the treatment of skin diseases like ringworm, scabies, eczema etc. Root is used to cure snake bite.

13. *Crotalaria prostrata* Roxb.

**Vernacular name/s:** Konkani : Ghati; The root is used for stomachache and diarrhoea, specially infantile diarrhoea.

14. *Desmodium gangeticum* (L.) DC.

**Medicinal Importance:** The plant is considered antipyretic and anticatarrhal. The decoction of the root is used in fever.

15. *Abrus precatorius* L.

**English name/s:** Crab's Eye, Jecquirity seeds, Rosary Pea, Indian Liquorice, Jeguirity; **Vernacular name/s:** Konkani - Gungi, Marathi - Gunj, Gunchi, Chanoti; The roots and leaves are used in coughs and catarrhal affections. The roots possess diuretic, tonic and emetic properties and are used in preparations prescribed for gonorrhoea, jaundice and haemoglobinuric bile. The leaf juice is employed as cure for sore-throat, and mixed with oil it is applied for painful swellings. The leaves are also considered useful in biliousness and in leucoderma, itching and other skin diseases. The seed extract is used externally in the treatment of ulcers and skin affections of the nervous system and their paste is applied locally in sciatica, stiffness of shoulder joints and paralysis. They are said to be useful in diarrhoea and dysentery and possess anthelmintic activity. Powdered seeds are said to disturb the uterine functions and prevent conception in women.

16. *Atylosia scarabaeoides* (L.) Benth.

**Vernacular name:** Konkani : Ghosvel; The crushed seeds are given as a remedy against tapeworm. The plant is reported to be helpful in dropsy, fever, pains, sores, anemia, cholera and dysentery.

17. *Clitoria ternatea* L.

**English name/s:** Butterfly pea, Winged-leaved clitoria, Kordofan pea; **Vernacular name/s:** Konkani - Supli, Gokarni, Marathi - Gokurna; The root bark is diuretic demulcent and laxative. The plant used in snake poisons.

18. *Pseudarthria viscida* (L.) W. & A.

Decoction of roots or their powder is used for biliousness, rheumatism, excessive heat and fever, diarrhoea, asthma, heart diseases, worms and piles.

19. *Acacia farnesiana* (L.) Willd.

**English name/s:** Cassie flower, Scented Babul, Sweet Acacia; **Vernacular name/s:** Konkani - Kemsra, Marathi - Kankri, Kankar; The tender leaves, bruised in a little water, are prescribed for gonorrhoea.

20. *Leucaena leucocephala* (Lam.) de wilt.

**English name/s:** Horse Tamarind, Lead Tree, White Popinac; Seeds are used as a vermifuge, for gonorrhoea and defects of vision.

21. *Sesbania bispinosa* (Jacq.) Willd.

**Vernacular name/s:** Marathi - Renshevari; Seeds mixed with flour applied to ringworm and skin diseases, plants considered cure for wounds.

22. *Smithia sensitiva* Att.

**Vernacular name/s:** Konkani - Kavla, Damapan, Marathi - Kaola; Leaves are refrigerant and said to stimulate the flow of milk. A lotion prepared from the herb is employed to cure headaches.

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