

Prosopis cineraria (Khejri): The Golden Tree of Arid Region in India

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INTRODUCTION

Prosopis cineraria (L.) Druce vern. Khejri (Rajasthani), Shami (Hindi), Sami (Sanskrit), Khijado (Gujarati), Jhand (Punjabi), Kandi (Sindhi) is a medium sized multipurpose tree of the family Fabaceae (Leguminosae). It is distributed in arid regions of Iran, India, Afghanistan, Saudi Arabia, Pakistan, Oman and the United Arab Emirates. In India, Khejri grows mainly in dry and arid areas of Rajasthan, Haryana, Gujarat, Punjab, Western Uttar Pradesh and dry parts of Deccan Plateau. It is deep rooted, irregularly branched, evergreen thorny tree having thick and rough bark with fissures. Small yellowish flowers appear generally between March to May months and pods mature in May-June of each year bearing 10 to 25 ovoid seeds per pod. New flush of leaves are produced before summer and the dark green leaflets on branches in a canopy cast their shade during summers of desert areas. It is the only indigenous tree which has the ability to withstand in the harsh environmental conditions of hot Thar Desert in India. It is frost and drought resistant and have considerable ability to reproduce from coppice shoots also. Grasses and other xerophytic herbs grow well under its canopy, so it is also considered as an agroforestry tree. It helps to prevent desertification by stabilizing the loose sand dunes, hence control sand or soil erosion. Khejri is an important member of desert flora and recognized as “King of Desert”.

USES OF KHEJRI

Prosopis cineraria (Khejri) has multiple uses including traditional, commercial and pharmacological uses. All the parts of the tree are used by local people of the desert areas hence it has been called as ‘Kalptaru’, ‘Wonder Tree’ and ‘Golden Tree’ of the desert.

Traditional Uses: Leaves of the Khejri are highly nutritious and called as 'Loong'. Leaves and pods are good feed for desert animals like goats and camels. Local people use the paste of its leaves to cure boils and mouth blisters. It is also reported that extract of leaves have anti-bacterial, anti-oxidant and anti-hyperglycemic properties. Its bark has properties to cure dysentery, asthma, piles, leucoderma etc. and can provide immediate relief in case of scorpion or snake bite. Flowers are taken to prevent miscarriage in women while its gum is used to prepare 'ladooos' and given to women after delivery.

Pods of Khejri are 'dry fruit' of Rajasthan and also called 'sangri'. Pods have good amount of carbohydrates, minerals, proteins and other nutrients. Dry pods 'Marwari Mewa' are used as food by people during period of food scarcity. The tree is worshiped during Dussehra festivals and at other occasions customarily.

Commercial Uses: Wood of *Prosopis cineraria* is a good source of potash. Its wood

is commercially important and used to manufacture ploughs, yokes and other agricultural implements. Lopped branches are stored as fuel wood and leaves are used as fodder for goats and camels. People in desert areas care of 'Khejri' in their fields in developing tree with good bole. Such mature trees are sold at time of urgency, so 'Khejri' is considered as 'Life Line Tree' of the people living in hot dry desert areas.

Pharmacological Uses: Hydro-alcoholic compounds present in extract of leaves and bark has anti-diabetic, anti-oxidant and anti-tumor properties. Ethyl ether present in leaves can check the growth of the bacteria like *Staphylococcus aureus*, *Escherechia coli* and fungi like *Candida albicans*. Significant analgesic characteristic have been reported in ethanoic compounds of bark extract like petroleum ether, ethyl acetate and ethanol while its methanoic compounds has anti-convulsant activities.



CONCLUSION

Prosopis cineraria (Khejri) is a very valuable tree with many traditional, commercial and pharmacological activities. It plays an important role in the socio-economic development of the villages of arid regions. It increases soil fertility, supports other plants as agroforestry tree and provides fuel, timber and fodder. Various constituents of its leaves, bark and pods have analgesic, anti-tumor, anti-pyretic, anti-convulsant and anti-microbial

activities. Its all parts are used by local people to cure different ailments and as a source of food. Because of its various uses in the desert conditions, Khejri is worshipped as 'religious tree'. It is regarded as major species of desert biome in checking the shifting of sand dunes & soil erosion, hence helps to maintain ecological equilibrium with man-tree-cattle inter-relationship. This tree species have been given due importance by researchers because of its versatile importance, still there is ample

scope for further research on *Prosopis cineraria* (L.) Druce.

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