



Research Paper

Khejri: Gold Mine of the Thar Desert

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ABSTRACT

Prosopis cineraria is commonly known as Khejri. It is a leguminous multipurpose tree. The tree have climatic adaptation. It is very useful tree and famous specially in desert area. Khejri stem bark is useful in treatment of cough, common cold, dysentery, asthma, leucoderma, piles and tremors of the muscles. Khejri plays an important role in the socio economic development of the farmers. It is used for fuel, firewood and charcoal. Flowers are used for skin disease, as a blood purifier and producing a cooling effect. Dry pods of Khejri is known as sangri and is main part of Rajasthani dishes.

I conducted a comprehensive literature review of research studies that reported as the Khejri is gold Mine of Thar desert.

I. INTRODUCTION

Mounting pressure on our natural resources due to rocketing population rise has ushered in large scale degradation of our environment and ecosystem, calling for immediate attention for seeking newer approaches in farming system to meet food, fiber, firewood and timber requirement of the 21st century, adoption of agro forestry on a wide range of land in the country and incorporation of multipurpose trees in existing farming/cropping system seems and apt option to achieve the objectives. Khejri is one of the chief indigenous tree species of the north-western plains of India, a constituent of dry tropical forests and tropical thorny forest. The trees having monolayer canopy and deep root system is recognized as one of the important tree species suited to arid and semi-arid region for fuel wood, timber and forage purpose in plantation as well as agro forestry system. It is known to improve organic matter contents, total nitrogen, available phosphorus and soluble calcium as well as decrease soil pH.

Khejri is one of the most common tree species found in the Thar desert of Rajasthan. It plays a vital role in preserving the ecosystem of arid and semi arid areas mainly in the Thar desert. The tree is frost and drought resistant and tolerates extreme temperature ranging from 40-45⁰ C in summer to less than 10⁰ C in winter. It is capable of growing in areas of rainfall ranging from 100-600mm. The tree can withstand the hottest winds, the driest season and stay alive where other plants cannot service.

Khejri is known by many local names in zonal districts of Rajasthan, popularly it is called Khejri or Khejra. It is also called jant or janti in areas like Alwar, Sikar, Jhunjhunu, Churu, Jaipur, Bharatpur, Karoli, Dholpur and Banswara districts of Rajasthan.

The scientific classification :

Kingdom	Plantae
Order	Fabales
Family	Fabaceae
Genus	Prosopis
Species	Prosopis cineraria (L.) Druce

It is the national tree of the United Arab Emirates and is state tree of Rajasthan.

II. DESCRIPTION OF TREE

Prosopis cineraria is a small tree, ranging in height from 3-5m leaves are bi pinnate, with seven to fourteen leaflets on each of one to three pinnae, branches are thorned along the internodes. Flowers are small and creamy yellow, and followed by seeds in pods. The tree is found in extremely arid conditions, with rainfall as low as 15cm annually, but is indicative of the presence of a deep water table.



RELIGIOUS SIGNIFICANCE

The tree is highly revered among Hindus and worshipped as part of Dusshera festival, historically among Rajputs used to conduct the worship and than they used to liberate a jay which was considered the sacred bird of lord Rama.

In the Mahabharata,. In their thirteenth year of exile, before going to virata, they have hung their weapons in this tree for safe keeping for a year. After one year, they took their weapons and worshipped the tree.

USES OF KHEJRI

In Thar desert, the singhri or sangri pods growing on prosopis cineraria is used in various types of bhaaji and kadhi. Singhri is one of the traditional cuisines of the Thar desert.

This tree has a wide number of uses form its pod to the roots is used as food, medicines and sacred tree. Khejri is consumed by priests and monks for their medicinal use. As all the parts of the tree are useful, it is called Kalpatru. The Khejri tree supports rural economy like no other wild vegetation does. Leaves of the Khejri are collected by the farmers and used as sources of compost on the agricultural field. The leaves have some fungicidal and insecticidal activity. Bark of Khejri is used as a source of tannin, dye and fibers. Khejri is a nitrogen fixing tree.

PHARMACEUTICAL PROPERTY OF KHEJRI.

Khejri has a broader range of pharmaceutical application like in pain, high cholesterol level, Diabetes, Anemia, kidney and liver disorders. The leaf of the tree has high nutrient content like carbohydrate protein, fat have antibacterial, anti hyperglycemic and anti oxidant activity. Flowers are used for skin disease and as a blood purifier. Bark is used in treatment of cough, dysentery, asthma, files and tremors of the muscles.

THE DYING OF KHEJRI TREES OF RAJASTHAN.

Khejri is dying a slow death, Scientists and environmentalist have warned. It covers about two third of total geographical state of Rajasthan and is of immense significance culturally and economically. The tree supports rural economy like no other wild vegetation does. Scientists of Jodhpur- based arid forest research institute (AFRI) have assessed that Khejri mortality ranged from "18.08 percent to 22.67 percent with an average mortality of 20.93 percent" in Jodhpur, Nagaur, Churu, Sikar, Jhunjhunu and Jalore districts. Many scientists explanations have been offered for the death of khejri like declining water table and growth of parasite Gonoderma Luciderm but there is nothing conclusive so far. Plants diseases are one of the major problems being faced by the researches across the globe. Plant cells contain a variety of substances which are involved in resistance or susceptibility to infection by pathogens. The main biotic factors responsible for Khejri mortality in Rajasthan were root borer.

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