

# Famine Food Plants Used By Bhil And Mina Tribes Of Pratapgarh District (Rajasthan)

Vinay Kumar<sup>1</sup>, Bindu Sharma<sup>2</sup>, Amit Kotiya<sup>3</sup>

Assistant Professor<sup>1,2,3</sup>

Department of Botany, University of Rajasthan, Jaipur-302004

## Abstract:

The present paper deals with the famine food plants used by the tribal people from Pratapgarh District, Rajasthan. The predominant tribes living in this region are Bhil, Mina, Damor, Ninama, and Garasiyia. During present investigation 38 angiosperms belonging to 23 families have been documented. Documented famine food plants are tabulated alphabetically with their local name, family, part used, modes of use and the ailments for which they are used.

**Key Words:** Famine food plants, Traditional knowledge, Ailments, Pratapgarh District

## Introduction

For an adequate growth and development of an organism including human beings the basic requirement is food, fodder and water. The source of water for irrigation and drinking is dependent mainly on rainfall. In case there is no average rainfall, the underground water level goes down and scarcity of water is realized. Many times the state of Rajasthan has also been subjected to a severe famine due to the absence of regular rainfall during rainy season. The history reveals that there had been such severe famine during 1868-1870 and 1899-1901 which were termed as "Trikal" and "Chaphnia Kal" respectively. Since there was no food, fodder and adequate water for drinking, about one million human beings and cattle died due to hunger and thirst. There are reports that during Vikram Samvat 1996, almost each and every village, tehsil and taluka of the state of Rajasthan were severely affected with the scarcity of food, fodder and drinking water and this resulted into a very significant migration of people from one place to the other in search of their basic requirements. The wild plants of the famine affected area were also badly damaged and people exclusively remained dependent on such wild plants which were being used during famine period.

## Study Area

Rajasthan is the largest state of India, and lies between latitudes 23°3' and 30°12' North and longitudes 69°30' and 78°17' East. The remarkable geological feature of Rajasthan is the Aravali- the oldest mountain range in the world –which divides state diagonally end to end, from north-east to south-west; another prominent feature is the Vindhyan range. The variable climatic, edaphic and topographic conditions of the state cause diversity in the vegetation. There are two forest types in the state, namely –'tropical dry deciduous forest' (Champion and Seth, 1968) which are mostly confined to eastern and southern parts of the state. However, the western part is devoid of forest because of prevailing hot arid conditions.

The tribal's of Rajasthan state reside in numerous pockets in some inaccessible or less accessible forests, hills, desert and another habitat. Tribal population of Rajasthan is about 12.44% '(2011 Census)' of the total population of the state. These tribal's still live in the primitive style in seclusion from modern civilization, upholding the ancient traditions of their ancestors. The main tribes of Pratapgarh are the Bhil and Mina and other nomadic tribes are Garasia, Ninama and Damor.

## Material and methods:

During present investigation, attempts were made to characterize the different wildy growing plants used by tribals during famine conditions. For this purpose, collection and documentation of famine food plants of Pratapgarh District, (Rajasthan) has been done by several field trips, during March 2011 to Dec 2015. The method of collection was followed by vouchers specimens, their preservation in Herbaria and technique for the collection of famine food plants on the basis of information that recommended by scientist (Jain and Jain, 2012). During field trips, information's were collected on the basis of personal interviews with village head, knowledgeable person and old women of society. The collected plant specimens were identified with the help of taxonomic literature and floras (Jain, 1991).

The collected information was cross-checked with available literature (Katewa and Guira, 1992). The collected specimens were identified with the help of available literature. The herbarium specimens were deposited in the Department of Botany, University of Rajasthan, Jaipur.

## Results and discussion:

Total 38 plant species were found to be used by the tribal people. Tribal communities still very far from modernization or may be from economic socialization and they are still living with minimal requirements and with the dependency of plants products weather these are medicines, shelter or food, they are almost dependent on natural resources for their life expenditure. This study shows that how these plants are useful for human civilization in hunger or food crisis in respect of nutritional value. Salvi and katewa listed 46 famine food plants from 27 different families in Southern Rajasthan and this study claims 38 famine food plants from 23 different families with their different plant part use in Pratapgarh District is situated in Southern Rajasthan. (onweluzo etal) studied on isolation and characterization of protein of some legume plants here in this study area *Mucuna pruriens* is good source of it '(Sena,1998 etal)' analyzed nutrient content of famine food plants. As these famine food plants have good nutritional value due to their high reservoir energy, they are using as stored food since ancient time and scientifically proven by '(Sankhala, 2005 et al)' Vadival and Pugalenthi, Maikhuri they described nutritional value of *Cassia tora*, *Tamaridus india*, and *Ficus* spp. Most of the plants recorded in this area are used better food sources as famine food as well as regular mode dietary supplement.

Table :1. plant species used in famine conditions by tribals of Partapgarh

S. No	Botanical Name	Local Name	Family	Uses
1	<i>Acacia leucophloea</i> (Roxb.) Willd.	Roonjro	Mimosaceae	Stem bark is powdered and mix with flour
2	<i>Acacia nilotica</i> (L.) Del.	Babool	Mimosaceae	Pod use as vegetable
3	<i>Acacia senegal</i> (L.) Willd.	Kumatio	Mimosaceae	Seeds and pods are use as vegetable
4	<i>Achyranthes aspera</i> Linn.	Adalio kato	Amaranthaceae	Seeds are powdered and mixed with flour
5	<i>Asparagus racemosus</i> Willd.	Satabar	Lilaceae	Roots used as vegetable
6	<i>Asphodelus tenuifolius</i> Cav.	Pyaji	Lilaceae	Leaves are use as vegetable
7	<i>Bauhinia racemosa</i> Lamk.	Jhinjha	Caesalpiniaceae	Pods are eaten

8	<i>Butea monosperma</i> (Lam.) Taub.	Choola/ Cheela	Fabaceae	Young leaves are use as vegetable
9	<i>Cassia tora</i> Linn.	Pamad	Caesalpiniaceae	Young leaves are use as vegetable
10	<i>Celosia argentea</i> Linn.	Surela/lambi	Amaranthaceae	Leaves are use as vegetable
11	<i>Ceropegia bulbosa</i> Roxb.	Khadula	Asclepiadaceae	Leaves and tuberous roots are eaten
12	<i>Cyperus rotundus</i> Linn.	Motha	Cyperaceae	Roots bubls are mixed with flour
13	<i>Dendrocalamus strictus</i> Nees	Bans	Poaceae	Seeds
14	<i>Diospyros melanoxylone</i> Roxb.	Timbrana, Tendu	Ebenaceae	Fruits
15	<i>Ehretia laevis</i> Roxb.	Tamboliya	Ehretiaceae	Stem bark
16	<i>Euphorbia hirta</i> Linn.	Dudhi	Euphorbiaceae	Shoot part use as vegetable
17	<i>Ficus benghalensis</i> Linn.	Bad/Badla	Moraceae	Fruits eaten directly but in famine condition the dry fruits are mixed with flour
18	<i>Ficus carica</i> Linn.	Anjir	Moraceae	Fruits eaten directly but in famine condition the dry fruits are mixed with flour
19	<i>Ficus hispida</i> L.f.	Khirkhira	Moraceae	Fruits eaten directly but in famine condition the dry fruits are mixed with flour
20	<i>Ficus mollis</i> Vahl.	Kathbad	Moraceae	Fruits eaten directly but in famine condition the dry fruits are mixed with flour
21	<i>Ficus racemosa</i> Linn.	Gular	Moraceae	Fruits eaten directly but in famine condition the dry fruits are mixed with flour
22	<i>Grewia hirsuta</i> Vahl.	Chabeni	Tiliaceae	Fruits
23	<i>Grewia teliifolia</i> Vahl.	Chabeni	Tiliaceae	Fruits
24	<i>Grewia villosa</i> Willd.	Gudchan diya	Tiliaceae	Fruits
25	<i>Haloptelea integrifolia</i> (Roxb.) Planch.	bander bat	Ulmaceae	Seeds are mixed with flour
26	<i>Madhuca indica</i> J.F Gmelin	Mahua	Sapotaceae	Flowers use directly and seed oil use
27	<i>Manilkara hexandra</i> (Roxb.) Dub.	Khirni	Sapotaceae	Fruits is eaten even dry fruit is store
28	<i>Momordica balsamina</i> Linn.	Murela Karela	Cucurbitaceae	Leaves and fruits used as vegetable.

29	<i>Moringa oleifera</i> Lam.	Sainjna	Moringaceae	Flowers and Pod use as vegetable
30	<i>Mucuna pruriens</i> (L.) DC.	Kaunch	Fabaceae	Seed are eaten after rost
31	<i>Physalis minima</i> Linn.	Charpoti	Solanaceae	Fruit
32	<i>Sesbania seban</i> (L.) Merr.	Dhandhu n	Fabaceae	Flowers and young pods are used as vegetable
33	<i>Sonchus oleraceus</i> Linn.	Ankhali	Asteraceae	Young and fresh leaves use as vegetable
34	<i>Tamarindus indica</i> Linn.	Imali	Caesalpiniaceae	Roasted seed are powdered and mixed with flower
35	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Guter/ Baheda	Combretaceae	Seeds
36	<i>Wrightia tinctoria</i> (Roxb.) R.Br.	Khirmi/ Hirani	Apocynaceae	Young and fresh leaves use as vegetable
37	<i>Zizyphus mauritiana</i> Lam.	Pemli Bor	Rhamnaceae	Dry fruit powdered used to make soses
38	<i>Zizyphus nummularia</i> (Brum.f.) Wight & Arn.	Jhar Beri	Rhamnaceae	Dry fruit pericarp used to making soses

### Conclusion:

During the present investigation observations were made. Total thirty-eight plants belonging to twenty-three different families of angiosperm are being used by the tribes of Pratapgarh Tehsil. Among them the dominant families are Fabaceae, Moraceae, and Tiliaceae. These thirty-eight plants are used in portions, partially or fully, by the tribes of investigated area. Nineteen plants are being used by them for their fruits and nine plants are being used for their leaves. Two plants are differently used for their stem, or other are being used by tribal people

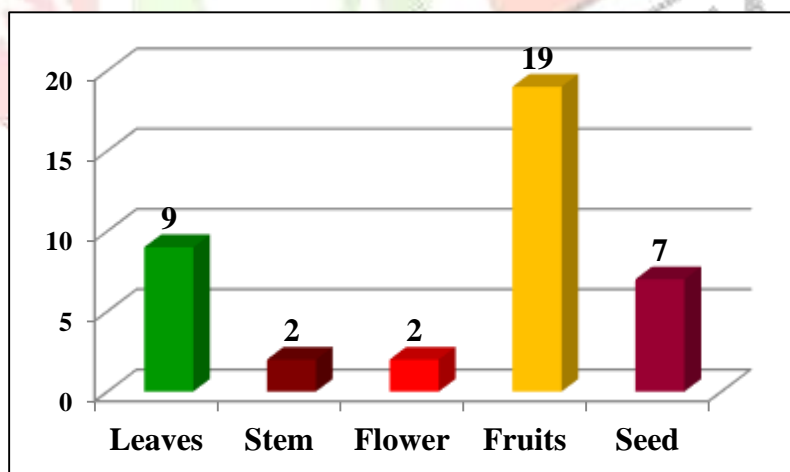


Figure 1- Showing plants species used in famine conditions

### References:

1. Bhandari MM. Flora of Indian Desert, Scient. Publ. Jodhpur. 1978.
2. by the tribal's of Udaipur region. Journal of food science and technology. 2005; 42(5):446-448.
3. Chandal KPS, Shukla G, Sharma N. "Biodiversity in medicinal and Aromatic plants in India".



Conservation and utilization 1996; 239.

4. Hooker JD. *Flora of british Indica*. 7 Vols Reeve and Co. Ltd. England. 1872-1897.
5. Jain A and Jain AK. Ethnobotanical studies in Rajasthan, India – An overview. *Ethnobotany* 2012; 24(1&2):59-74.
6. Jain SK. 1991 Dictionary of Indian Folk Medicine and Ethnobotany. Deep publication, New Delhi
7. Kala CP, Dhyan PP and Sajwan BS. 2006. Developing the medicinal plants sector in northern India: challenges and opportunities. *J. Ethnobiol. Ethnomed.* **2**:32.
8. Katewa SS and Guira BD. 1992. Ethnomedicinal observation from certain wild plants from Southern Aravalli hills of Rajasthan. **2**:85-88.
9. Kingston C., Jeeva S., Jeeva G.M., Kiruba S., Mishra B.P. and Kannan D. 2009. Indigenous knowledge of using medicinal plants in treating skin diseases in Kanyakumari District, South India. *J. Trad. Knowledge.* **8(2)**:196-200.
10. Maikhuri R.K. 1991. Nutritional value of some lesser-known wild food plants and their role in tribal nutrition. A case study in north East India. *Trop Sci.* **31**:397-405.
11. Onweluzo J.C., Onuoha K.C. and Obanu Z.A. 1995. Isolation and characterization of proteins of some lesser known tropical legumes of Africa. *J. food. Science. Tech.* **4**: 349-351.
12. Onweluzo J.C., Onuoha K.C., Obanu Z.A., 1995. Isolation and characterization of proteins of some lesser known tropical legumes of Africa. *J. food Sci. Techn.* **32(4)**:349-351.
13. Rao R.R. 1989. Methods and techniques in ethnobotanical study and research: Some basic considerations. In: *Methods and Approaches in Ethnobotany* Edited by S. K Jain, (Society of Ethnobotanists), Lucknow, Uttar Pradesh., pp. 3-23.
14. Sena L.P., Vanderjagt D.J., Rivera C., Tsin A.T.C., Muhamadu I., Mahamadou O *et al.* 1998. Analysis of nutritional components of eight famine foods of the Republic of Niger. *Plant Foods for Human Nutrition.* **52**:17–30.
15. Shetty B.V. and Singh V. 1993. *Flora of Rajasthan*, Vol. 1-3, Botanical Survey of India, Calcutta.
16. Singh T. and Pandey S.B. 2000. Ethnomedicinal use of Terminalia species. *Indian Med. Plants.* **8**: 74–80.
17. Singh V. and Pandey R.P. 1998. *Ethnobotany of Rajasthan, India*. Scientific Publisher. Jodhpur.
18. Singh V.K. 1998. Relevance of folk medicines in the context of primary health care programmes in North India. *Proc. Herbal Medicines in primary health Care. Lome (West Africa), MC, Geneva.* 14-19.
19. Singh V. and Pandey R.P. 1980. Medicinal plant lore of the tribals of Eastern Rajasthan (India). *J. Econ. Taxon. Bot.* **1**: 137-147.
20. Tripathi Y.C. 2000. Ethnomedicinal Treasure of Tribal Rajasthan. *J. Non-Timber Prod.* **7(2)**:77-84.
21. Vadivel V. and Pugalenti M. 2010. Evaluation of nutritional value and protein quality of an under-utilized tribal food legume. *Indian J Trad Knowledge.* **9(4)**:791-797.