

LIFE SUPPORT PLANT SPECIES USED IN FAMINE BY THE TRIBALS OF ARAVALLIS—A SURVEY

PRABHAKAR JOSHI and ALKA AWASTHI

Department of Botany, University of Rajasthan, Jaipur-302004, India.

The tribals inhabiting Aravallis are the Bhils, Damors, Garasias and Kathodias mainly. Famine is not uncommon in this region. In the communication thirty plant species, the products of which are consumed in famine conditions by the tribals, are given.

Keyword : Famine; Aravallis; Tribals.

The tribals in Rajasthan inhabit the south and south-eastern portion of Aravallis covering an area of about 19,570 sq. km. The region is predominantly hilly and undulatory with the highest rainfall in the state. The forests covering these hills are chiefly of dry deciduous type showing altitudinal zonation and various stages of degradation. The major tribes of this region are—Bhils, Garasias, Damors and Kathodjas.

Ethnobotanical surveys have been carried out by the authors in Southern Rajasthan during 1981–1988. Tribal villages were visited in the five tribal dominated districts viz. Banswara,

Chittorgarh, Dungarpur, Sirohi and Udaipur and information was collected first hand by interview, observation and participation. Data collected on scarcity and famine foods is being presented here.

Famine foods of Aravallis : The tribals are used to famine which is not uncommon. When their granaries are exhausted or their crops fail they turn to mother nature for survival. From the array of whatever floral wealth is at their disposal they recognize useful plants with which they supplement their diet. The following list though not exhaustive is a representative one.

Acacia leucophloea (Roxb.) Willd. (V. RIJUA, RONJ, ROONJRO) MIMOSACEAE. In times of scarcity young pods are cooked as vegetable. Flour is augmented by stem bark powder for bread. Brandis (1874) reports usage of ground seeds also. Enquiries by us however revealed that they are toxic.

Achyranthes aspera L. (V. KHARA, DINTARA) AMARANTACEAE. Seeds powdered and added to flour.

Aegle marmelos (L.) Corr. (V. BAELE, BEELEY, BILLI PATRA) RUTACEAE. Ripe fruits are eaten raw, unripe ones are boiled and eaten.

Bauhinia racemosa Lam. (V. JHINJHA, SAHATA) CAESALPINIACEAE. Powdered bark is used for augmenting flour.

Celastrus paniculatus Willd. (V. JANGLI MALI, KANGNI KA-VELA, MALI, MALKANGNI) CELASTRACEAE. The gum is taken in a raw form.

Cenchrus biflorus Roxb. (V. BHEROOT) POACEAE. The ripened inflorescence is dusted for seeds. Seeds are powdered and added to flour.

Cucumis melo L. var. *agrestis* Naud. (V. KACHRA) CUCURBITACEAE. The fruits are dried, stored and cooked as vegetable.

Dendrocalamus strictus Nees. (V. BANS, TOKOR, VNAHADO) POACEAE. Powder of seeds and stem used to augment flour.

Dioscorea bulbifera L. (V. MODI) DIOSCOREACEAE. Underground part washed and eaten raw or boiled and then consumed. Tastes like sweet potato.

Dioscorea tomentosa Spreng. (V. HOORI, LOONDI) DIOSCOREACEAE. Rootstock is stripped of bark and hairs, sliced washed and cooked as vegetable.

Diospyros melanoxylon Roxb. (V. TENDU, TIMRU) EBENACEAE. Fruits eaten raw. Stored dried ones boiled and consumed.

Ehretia laevis Roxb. (V. DANDOS, LUNI, TAMBOLIA) EHRETIACEAE. Powdered stem bark is added to flour.

Ficus benghalensis L. (V. BADLA, VADLA) MORACEAE. Fresh or dry receptacles mixed with maize or wheat flour is rolled into bread.

Ficus racemosa L. (V. UMAR, UMBIO) MORACEAE. Flour is supplemented with powdered receptacles or stem bark.

Ficus religiosa L. (V. PIPAL, PIPALI) MORACEAE. Ground receptacles kneaded with flour.

Madhuca longifolia (Koen.) Macbr. var. *latifolia* (Roxb.) Chev. (V. MAHURA MOWA) SAPOTACEAE. Bark is boiled to make a sort of broth called "RAB" and consumed. Dried stored corollas and fruits help during scarcity.

Phoenix sylvestris (L.) Roxb. (V. KHAJOOR) ARECACEAE. The farinaceous deposit (BALA) from the apex (MATHA) of the tree is extracted and eaten.

Prosopis cineraria (L.) Druce. (V. KHEJRI) MIMOSACEAE. Bark powder is added to flour.

Randia dumetorum Lam. (V. GAY, MENDOL, MENDULA) RUBIACEAE. Ripe fruits are roasted and eaten.

Salmaalial malabarica (DC.) Schott. & Endl. (V. HAMLO, SEMAL) BOMBACEAE. Flower calyces edible.

Schrebera swieteniodes Roxb. (V. MOKHA, MOKHDI) OLEACEAE. Powdered stem bark is used to augment flour.

Terminalia bellirica (Gaertn.) Roxb. (V. BAHEDA, VEDA) COMBRETACEAE. Seed coat removed and the inner starchy portion consumed.

Tribulus terrestris L. (V. BANKDI) ZYGOPHYLLACEAE. Tender parts of plant collected for consumption.

Urginea indica (Roxb.) Kunth (V. KARWA KANDA, KOLI KANDA) LILIACEAE. Bulb boiled peeled, sliced, put in running water overnight, eaten next day after cooking.

Zizyphus nummularia (Burm. f.) Wt. and Arn. (V. JHADBOR) RHAMNACEAE. Fruits eaten raw. Dried stored ones boiled and eaten. A systematic screening of herbarium sheets of the Industrial Section of Indian Museum, Calcutta (ISIM), revealed the following plants used as famine foods though the mode and part used was not given in the notes. The localities are Ajmer, Kishangarh region in central Aravallis.

Acacia jacquemontii Benth. MIMOSACEAE

Acacia senegal (L.) Willd. MIMOSACEAE

Albizia lebbek (L.) Benth. MIMOSACEAE

Dalbergia sissoo Roxb. PAPILIONACEAE

Melia azedarachta L. MELIACEAE

The famine foods can support life for short duration only. They are deficient in many dietary components and contain a large amount of indigestible woody tissues and other substances that may be toxic if consumed in large quantities. They are therefore definitely not advocated for prolonged use as they may cause digestive disorders. The plants however, possess properties that make them survive the rigours of famine and are common.

Some of the plants enumerated are similarly consumed in other regions also. King (1869) and Bhandari (1974) have reported *Acacia jacquemontii*, *A. leucophloea*, *Achyranthes aspera*, *Cenchrus biflorus*, *Prosopis cineraria* and *Zizyphus nummularia* from the Marwar and desert region of Rajasthan. From the adjoining state of Punjab, Stewart (1869) has reported *Prosopis cineraria* and *Ficus religiosa*. The pods of *Bauhinia racemosa* have been reported from Melghat (Patel, 1960) while the bark is consumed in Rajasthan. Duthie (1960) reports from the upper Gangetic Plains *Acacia leucophloea* (bark), *Ehretia laevis* (fruits), *Ficus racemosa* (fruits), *Prosopis cineraria* (pulp of pods), *Schreberia swietenoides* (leaves) and *Tribulus terrestris* (fruits). Cooke (1958) and Talbot (1909) from Maharashtra and adjoining areas reported *Acacia leucophloea* (bark), *Ehretia laevis* (bark), *Zizyphus nummularia* (fruits) besides *Dendrocalamus strictus* (seeds). In fact bamboo seeding coincides with famine and the large amounts of seeds produced are largely consumed almost throughout the tribal

India. While the gum of *Celastrus paniculatus* is tapped in Aravallis, the tribals of Bastar consume the young fruits as vegetable (Jain, 1963). Ripe fruits of *Celastrus* are eaten in West Bengal too (Maji and Sikdar, 1982) and also the roots of *Dioscorea tomentosa*.

From the foregoing account it is interesting to observe that diverse peoples in widely separated areas have discovered the edible properties of some plants simultaneously.

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