J. Phytol. Res. 15 (1) : 89-94. 2002

WILD EDIBLE PLANTS OF MEENA TRIBE OF SAWAI MADHOPUR, RAJASTHAN

MEENAKSHI BAGHEL, C. P. SINGHVI and S. KSHETRAPAL
Department of Botany, University of Rajasthan, Jaipur - 302004 India.

Meena tribe of Sawai Madhopur (Rajasthan, India) raise a large number of agricultural crops, but their food is supplemented by numerous wild edible plants which are consumed because of their nutritious value or sometimes as a substitute for normal diets. Several wild fruits and vegetable have a twin value of food and medicines. The economically weaker section of the Meena tribe is largely dependent upon the preparations from the wild plants. The tribals consume tubers, leaves, flowers, fruits, pods, seeds and grains of the wild plants. In the present investigation ten villages of tehsil Sawai Madhopur have been surveyed and information regarding sixty nine wild edible plants along with their local names, botanical names, parts used and mode of consumption is enumerated in this paper.

Keywords : Meena tribe; Rajasthan; Wild edible plants.

Introduction

Fifty percent of the total tribal population of State of Rajasthan (India) is predominantly represented by Meena tribe. Majority of the Meena are spread over in the districts of Sawai Madhopur, Udaipur, Jaipur Karauli, Alwar, Kota and Chittorgarh. Sawai Madhopur district is more or less rectangular in shape and is situated between the latitudes 25°45' - 27°14' N and longitudes 75°59' - 77°23' E and is at the height of 500 to 650 meters from the mean sea level. Mahuwa tehsil forms its north western corner, protruding deeply towards north. Hindon panchayat area forms the eastern side and Lalsot tehsil comes in between the Bauli and Bamanwas area of Sawai Madhopur sub-division. Topographically the Aravallis and Vindhyan system of hills traverse this district. It has good water reserves and river system.

Review of litearature reveals that studies on wild edible plants have been previously done by Jain[1] on tribals of Central India; Rawat *et al.*[2] among twenty five major tribes of Arunachal Pradesh; Arora[3] on north-eastern India; Borthaku[4] on Mikirs of Assam; Rao and Shanpru[5] on Garos of Meghalaya; Vartak[6] on Maharashtra and Goa; Ansari[7] on South India; Abraham[8] on Nilgiris etc.

In Rajsthan wild edible plants have been reported by Joshi[9], Sebastian and Bhandari[10], Singh and Singh[11] and Singh and Pandey[12]. Sawai Madhopur district has been explored taxonomically but ethnobotanically it has been neglected. Therefore the authors attempted to gather the ethnobotanical information and the significant data recorded is present here.

Methodology

The ethnobotanical surveys were conducted during the period from October 1999 to September 2000, in ten villages viz. Sherpur-khilchipur, Jheenapur, Neemli-I, Neemli-II, Khera, Chakeri, Surwal, Jatwara kalan, Ajnoti and Shyampura of tehsil Sawai Madhopur. The information was collected from elderly people, village headmen, youngsters, children and old ladies. Tribals also accompanied the authors in forest and field areas. Some of the village markets were also visited to witness and to record the wild plant products sold in the market. Wild edible plants and their uses were discussed and audio recorded in the field as well as in the villages.

Observation

The wild plant species are arranged alphabetically with their botanical name, family and local name in a tabular form. Their parts used and mode of consumption is briefly described.

S.No.	Botanical Name and Family	Local Name	Part Used	Mode of Consumption
1.	*Abelmoschus moschatus* (Malvaceae)	Jangali Bhindi	Fruits	Cooked as vegetable or roasted and grinded as chutney
2.	*Acacia catechu* (Mimosaceae)	Khair	Gum	Eaten as such by kids or fried and used in marking sweets.
3.	*Acacia leucophloea* (Mimosaceae)	Rainj Khejara	Young pods and seeds	Young pods and seeds cooked as vegetable. Mature seeds form the substitute for pulses.
4.	*Acacia nilotica* (Mimosaceae)	Desi-Babul	Pods, Seeds and Gum	Young or shade dried pods cooked as vegetable. Seeds roasted and eaten. Gum eaten as such.
5.	*Achyranthes aspera* (Amaranthaceae)	Andhij-hara	Seeds	Sweet (Kheer) prepared with seeds. It quenches the appetite for three to four days.
6.	*Aloe vera* (Liliaceae)	Gwar patha	Leaves	Pulp of the leaves cooked as vegetable.
7.	*Amaranthes spinosus* (Amaranthaceae)	Kante-wali chaulai	Shoot	Tender shoot cooked as vegetable
8.	*Amaranthes viridis* (Amaranthaceae)	Jangali chauli	Shoot	Tender shoot cooked as vegetable
9.	*Annona squamosa* (Annonaceae)	Sitaphal	Fruits	Ripe fruits cherished by all
10.	*Anogeissus pendula* (Combretaceae)	Dhauo	Gum	Used in making laddoes specially for mothers after delivery.
11.	*Azadirechta indica* (Meliaceae)	Neemda	Fruits	Ripe fruits largely eaten by children
12.	*Bacopa monnieri* (Scrophulariaceae)	Brahmi plant	Whole	Consumed as vegetable
13.	*Bauhinia racemosa* (Caesalpiniaceae)	Sainta	Pods and flower buds	Pulp of ripened pods mixed with flour and made into bread. Raw pods and flower buds cooked as vegetable.
14.	*Boswellia serrata* (Burseraceae)	Salar	Seeds	Roasted seeds are consumed.
15.	*Butea monosperma* (Fabaceae)	Cheela	Flower	Nectar sucked by children from the nectary.
16.	*Capparis decidua* (Capparaceae)	Kareel	Fruits	Ripe fruits eaten as such, unripe ones pickled & cooked as vegetable with fruits of *Prosopis cineraria*. Flowers sucked by children for nector.
17.	*Capparis sepiaria* (Capparaceae)	Jaal	Fruits & Flowers	Mature fruits are eaten and flowers are cooked as vegetable.
18.	*Cassia fistula* (Caesalpiniaceae)	Bardaa-van	Flowers	Cooked as vegetable.
19.	*Cassia tora* (Caesalpiniaceae)	Punwad	Leaves and pods	Young leaves and pods cooked as vegetable or used in curry.
20.	*Celastrus paniculatus* (Celastraceae)	Malkan-gini	Seeds	Seed powder is made into a sweet (Halwa) after frying and consumed during fast.

S.No.	Botanical Name and Family	Local Name	Part Used	Mode of Consumption
21.	*Celosia argentea* (Amarantheaceae)	Surela	Shoot and seeds	Tender shoot cooked as vegetable and black seeds made into sweet (Kheer) with milk.
22.	*Chenopodium murale* (Chenopodiaceae)	Jangali Bathua	Shoot	Young shoot cooked as vegetable as a substitute for *Chenopodium album*.
23.	*Coccinia grandis* (Cucurbitaceae)	Kanduri	Fruits	Young fruits cooked as vegetable
24.	*Commelina benghalensis* (Commeliniaceae)	Bonkana	Shoot	Young shoot cooked as vegetable or leaves used in curry or "Pakodas".
25.	*Cordia dichotoma* (Ehretiaceae)	Lisora	Fruits	Ripe fruits eaten as such and unripe ones pickled or cooked as vegetable.
26.	*Cordia gharaf* (Ehretiaceae)	Goondi	Fruits	Ripe fruits after shade drying are used in making laddoes during summer.
27.	*Cucumis callosus* (Cucurbitaceae)	Kachari	Fruits	Eaten raw or cooked as vegetable. Fruits are also shade dried & stored for off season.
28.	*Cynodon dactylon* (Poaceae)	Dub.	Leaves	Leaves and top tender culms are consumed during scarcity.
29.	*Dendrocalamus strictus* (Poaceae)	Bans	Shoot	Young tender shoot of the apical portion is cut into pieces of one inches and pickled.
30.	*Dioscorea alata* (Dioscoreaceae)	Ratalu	Tubers	Cooked as vegetable.
31.	*Diospyros melanoxylon* (Ebenaceae)	Tendu	Fruits	Ripe fruits are eaten.
32.	*Diplocyclos palmata* (Cucurbitaceae)	Shivlingi	Leaves & Fruits	Leaves and young fruits are cooked as vegetable. Mature red fruits are however poisonous.
33.	*Ensete superbum* (Musaceae)	Jangali-kela	Fruits	Fruits consumed after spitting the seeds.
34.	*Euphorbia caducifolia* (Euphorbiaceae)	Thor	Leaves	Young and fleshy leaves consumed as vegetable.
35.	*Ficus benghalensis* (Moraceae)	Bad	Mature Receptacles	Fondly eaten by children
36.	*Ficus racemosa* (Moraceae)	Gular	Receptacles	Mature receptacles eaten as such and raw ones cooked as vegetable.
37.	*Ficus religiosa* (Moraceae)	Peepal	Mature receptacles	Eaten fondly.
38.	*Ficus virens* (Moraceae)	Paras peepal	Twigs	Young and tender twigs cooked in curry.
39.	*Grewia flavescens* (Tiliaceae)	Siyarli	Fruits	Sweet and sour fruits eaten as such.
40.	*Grewia tenax* (Tiliaceae)	Chabeni	Fruits	Mature fruits one eaten.
41.	*Hygrophila spinosa* (Acanthaceae)	Talma-khana	Seeds	Seed powder is used in making laddoes during winter which are very nutritious & heat giving.

S.No.	Botanical Name and Family	Local Name	Part Used	Mode of Consumption
42.	*Ipomea aquatica* (Convolvulaceae)	Patnasag	Leaves & shoots	Young leaves and shoots consumed as vegetable.
43.	*Lepradenia pyrotechnica* (Asclepiadaceae)	Kheemp	Pods	Raw pods, cooked as vegetable.
44.	*Leucaena latisiliqua* (Mimosaceae)	Su-babool	Leaves and pods	Young leaves and pods cooked as vegetable in scarcity.
45.	*Madhuca longifolia* (Sapotaceae)	Mahuwa	Flowers	Flowers eaten as such and after shade drying cooked with raw mango fruit.
46.	*Mangifera indica* (Anacardiaceae)	Aam	Inflore-scence	Inflorescence is grinded to form chutney.
47.	*Manilkera hexandra* (Sapotaceae)	Khirni	Fruits	Mature fruits are eaten.
48.	*Maytenus emarginatus* (Celastraceae)	Kankero	Fruits	Fruits eaten.
49.	*Momordica dioica* (Cucurbitaceae)	Jangali karela	Fruits	Raw fruits cooked as vegetables.
50.	*Moringa oleifera* (Moringaceae)	Saijana	Flowers and pods	Fresh flowers and young pods cooked as vegetables.
51.	*Mucuna pruriens* (Fabaceae)	Kaunch	Seeds	Seed powder used in making laddoes and a special sweet called "Kaunchali Pak" which is highly nutritious.
52.	*Nelumbo nucifera* (Nelumbonaceae)	Kamak kakari	Petiole and Rhizome	Petiole and Rhizome cooked as vegetable and also pickled.
53.	*Ocimum canum* (Lamiaceae)	Nagad bapchi	Seeds	Seeds cooked in milk to make sweet (Kheer)
54.	*Opuntia elatior* (Cactaceae)	Nagph-ani	Fruits	Raw fruits cooked as vegetables and mature ones are eaten as such.
55.	*Oxalis corniculata* (Oxalidaceae)	Khatti-buti	Leaves and pods	Leaves and pods eaten by children. Leaves also form the substitute of tamarind.
56.	*Pedalium murex* (Pedalliaceae)	Bada-gokhru	Fruits	Fruit powder is used in making laddoes which are highly strengthening. Powder is also consumed with milk.
57.	*Phoenix sylvestris* (Arecaceae)	Khajoor	Fruits	Mature fruits eaten as such ar with milk.
58.	*Physalis minima* (Solanaceae)	Badi charpoti	Fruits	Mature fruits eaten as such.
59.	*Pithecellobium dulce.* (Mimosaceae)	Jangal Jalebi	Pods	Mature pods are eaten for sweet and juicy aril.
60.	*Portulaca pilosa* (Portulacaceae)	Chota-launia	Whole Plant	Young plant cooked as vegetable.
61.	*Prosopis cineraria* (Mimosaceae)	Singra-khejra	Pods	Young pods called as sangri and cooked as vegetable. Also preserved for off seasons.
62.	*Prosopis juliflora* (Mimosaceae)	Dakhni-babool	Pods	Young pods consumed as vegetable especially by economically weaker section.

S.No.	Botanical Name and Family	Local Name	Part Used	Mode of Consumption
63.	*Rumex vesicarius* (Polygonaceae)	Palak	Leaves	Cooked as vegetable.
64.	*Solanum nigrum* (Solanaceae)	Makoi	Fruits, leaves and shoot	Mature fruits eaten. Leaves and shoots cooked as vegetable.
65.	*Salvadora oleoides* (Salvadoraceae)	Pilu	Fruits	Fruits eaten and also dried and preserved.
66.	*Tamarindus indica* (Caesalpiniaceae)	Amli	Leaves, flowers and fruits	All the three eaten and pulp of the fruits used in curry and drinks.
67.	*Wrightia tinctoria* (Apocynaceae)	Kath kharni	Latex	Latex of the stem sucked by children. Also used in artificial instant curdling of milk.
68.	*Ziziphus mauritiana* (Rhamnaceae)	Bor	Fruits	Fruits are eaten.
69.	*Ziziphus nummularia* (Rhamnaceae)	Jhari-bor	Fruits	Fruits are eaten also dried, preserved and grinded to form chutney. Root bark is highly medicinal and strengthening.

Discussion

The state of Rajasthan is rich in its biodiversity. Sebastian and Bhandari[10] have reported wild edible plants from forest areas of Rajasthan and Singh and Singh[11] from eastern Rajasthan. In the present investigation about 69 species of Sawai Madhopur are found to be used by Meena tribe as wild edibles. The edible plants are more or less common throughout the state. The most common information obtained from the survey of all the ten villages was the widepread use of root bark powder of *Ziziphus nummularia*. Its powder is prepared into laddoes and is given to the mother after delivery. The powder is also boiled in water and filtered. This filtered powder water is used by the mother of the new born in drinking, bathing and for toilet. This strengthens her teeth and muscles and she is fit to go for field work within a week. The tribal children also have a good knowledge of edible and non edible wild fruits and they satisfy their hunger with these fruits while cattle grazing in the field. The economically weaker section of the tribe is more or less dependent on these wild plants. Several wild edible plants of this area are potential of earning handsome amount for tribals. The wild edible fruits are good source of minerals, vitamins, proteins, carbohydrates etc., which is probably the secret of the long life and sound health of the tribals. Hence, there is a need for further analysis of the nutritional value of all these wild edibles. Efforts and protective measures are also expected from tribals to conserve these wild plants. The comparative study of the same wild plants within other tribes of the state can bring out new and interesting findings. The popularization of these vast edible diversity in the urban areas can add to new taste and recipes.

References

1. Jain S K 1997, *Observation on Ethnobotany, of the tribals of central India. In: S K Jain (Ed) Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 61-65.
2. Rawat M S, Shankar R and Singh V K 1998, *Bull, Med. Eth. Bot. Res.* **19** 23
3. Arora R K 1997, *Native food plants of the tribals in north Eastern India.* In: S K Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 137-152.
4. Borthakur S K 1997, *Plants in the folklore and folk life of the Karbis (Mikirs) of Assam.* In: S K

Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 169-178.

5. Vasudeva Rao M K and Shanpru R 1997, *Some Plants in the life of the Garos of Meghalaya* In: S K Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 179-185.
6. Vartak V D 1997, *Observation on wild edible plants from hilly regions of Maharashtra and Goa*. In: S K Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 225-232.
7. Ansari A A 1997, *Less known wild edible Plants of Shevoroy and Killi of south India* In: S K Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 243-247.
8. Abraham Z 1997, *Further Ethnobotanical study of the Todas and Kotas of the Nilgiris*. In: S K Jain (Ed) *Contribution to Indian Ethnobotany*, 3rd Ed., Scientific Publishers, Jodhpur, PP. 249-254.
9. Joshi P 1995, *Ethnobotany of the primitive tribes in Rajasthan*, Printwell Jaipur, PP. 38-46.
10. Sebastian M K and Bhandari M M 1990, *J. Eco. Tax. Bot.* **14(3)** 689
11. Singh V and Singh P 1981, *J. Ecom. Tax. Bot.* **2** 197
12. Singh V and Pandey R P 1998, *Ethnobotany of Rajasthan, India* Scientific Publishers, Jodhpur.