



## Ethno-Medico Plants of Edible Oil Crop Fields of Selected Talukas in Banaskantha District, North Gujarat

Patel J.R

Researcher, Biology Department, R.R. Mehta College of Science and C. L. Parikh College of Commerce, Palanpur, North Gujarat.

Dabgar Y.B

Supervisor, R.R. Mehta college of Science and C.L. Parikh College of Commerce, Palanpur, North Gujarat.

### ABSTRACT

The present paper reveals information about some weed species which are grown in edible oil crops like Cotton (*Gossypium herbaceum* L.), Maize (*Zea mays* L.), Ground nut (*Arachis hypogaea* L.) and Mustard (*Brassica juncea* L.) Czern. field in three talukas viz, Deesa, Palanpur, Dantiwada have been investigated. The weeds are harmful for the main crops and hence are unwanted for farmers. For ethno-medicinal information, regular field trips in tribal and local area and to collect information for curing different diseases through plant in selected talukas of Banaskantha district of North Gujarat. The claims are on remedies for common cough and cold, fever, cuts and wounds, burns, asthma, jaundice, diabetes, piles, snakebites, kidney stones, burns etc. Some crop land weeds are used as mosquito repellent, insect repellent and also in snake bites. The paper carried to evaluate weed diversity and uses of different parts of weed plant species in curing various diseases of the people described in the present paper.

**KEYWORDS :** Ethno-medico plants , Weeds, Banaskantha.

### Introduction

Banaskantha district is located in the North west side of Gujarat state. It is situated between 23°33' to 24°45' north latitude and 72°15' to 73°87' east longitude. India has ancient history of use of plants in the indigenous system of medicine viz; Ayurveda, Unani and Sidha (Pareek, 1998). There are estimated to be around 15,000 species of medicinal plants in India. Plants have been main source of food, medicine and other necessities of life since ages. Tribal people of the world even today depend on all their medicinal and other needs of life on the surrounding flora. Weeds are naturally grown plants, have significant value in ethno-medicine. Indian farming areas hold rich collection of traditionally growing crop cultivars. There are about 250 plant species growing as weeds. The weeds are valuable and generally used as a fodder, dyes, manures, fuel and materials for preparing ropes and carpets, bhaji, vegetables and herbal medicines by local people and tribal in the Banaskantha district.

### Materials and methods

The study was carried out in the various farms of selected edible oil crops like Cotton (*Gossypium herbaceum* L.), Maize (*Zea mays* L.), Ground nut (*Arachis hypogaea* L.), and Mustard (*Brassica juncea* L.) Czern.) field of Deesa, Palanpur, Dantiwada talukas of Banaskantha district. During the regular field trips, recording of ethno-medico data were made by taking interviews with Bhagats and Vaidyas. Seniors and elder persons were also interviewed for getting knowledge. These consist of information which has been traditionally passed on from one generation to the next generation in the tribal communities. Identification was done by referring references Cooke (1901-1908), Santapau (1953) and Shah (1978). Local names were collected from local inhabitants' and checked for their genuine but these names should be taken in local relevance. In present work the information regarding ethno-medico values of weed species, growing in Cotton, Maize, Ground nut, and Mustard field areas were collected from the local people and were confirmed by marking frequent quires. Utility of important weeds and their parts as an account of ethnomedicinal uses are given in the table 1. Names of plants are arranged alphabetically for enumeration.

### Results

A total of 25 plant species belonging to 22 genera and 15 families are identified as ethno-medicinal plants which may be used by local people. Of which 21 species and 4 species belonging to dicotyledonae and monocotyledonae respectively. Amaranthaceae and Asteraceae were the most dominant family which is used by local communities to cure various diseases. Mostly herb species were used as various purposes like viz. Cough, fever, jaundice, asthma, wounds and skin diseases etc. by local people.

**Table 1 : Species wise uses of weeds from selected taluka of Banaskantha district, North Gujarat.**

Sr.no	Scientific name/Family	Local name	Parts used	Uses
1.	<i>Achyranthes aspera</i> L. Amaranthaceae	Angedi	Leaves, stem and seed	The curry is prepared from crushed seeds and taken orally for two days to cure cough and asthma. The seeds crushed with rice water are given to cure bleeding piles. The fresh twig (stem) is used as toothbrush, to relieve pain in tooth. The toothbrush also gives patience retentive memory.
2.	<i>Acalypha indica</i> L. Euphorbiaceae	Vinchi kanto	Leaves	Decoction of leaves is given for relieving the pain after snake-bite. Leaves are taken orally for fever in children.
3.	<i>Amaranthus lividus</i> L. Amaranthaceae	Tandaljo	Root	The extract of the root is mixed with rice water. This water is given to nursing mother to increase milk production.
4.	<i>Amaranthus spinosus</i> L. Amaranthaceae	Kantalothebdo	Root	Dried root powder with water (paste) is used to cure eczema
5.	<i>Argemone mexicana</i> L. Papaveraceae	Darudi	Root, latex	Latex with water is given orally in cough. Root juice is given orally twice a day for a week in piles.
6.	<i>Boerhavia diffusa</i> L. Nyctaginaceae	Shatodi	Leaves	Decoction of leaves is given in urine trouble; leaves juice extract is applied externally on oedema and boils.
7.	<i>Cassia tora</i> L. Caesalpinaceae	Puvadjo	Leaves and Seed	Decoction of leaves is given during tecting troubles of children. Paste of seeds is given orally to remove ring worm.

8.	<i>Celosia argentea</i> L. Amaranthaceae	Lampdi pampdi	Leaves, Seed	The decoction of tender leaves along with buttermilk is given to cure urinary bladder complaints. The seeds are eaten early morning for few days, as they are tonic and aphrodisiac.
9.	<i>Chenopodium album</i> L. Chenopodiaceae	Chil	Leaves, Young branch	The fresh leaves and branches are used in preparation of vegetables and bhaji. The juice of the plant is mixed with goat's milk and given to cure piles.
10.	<i>Commelina nudiflora</i> L. Commelinaceae	Nanu sismuliu	Leaves	Leaves are eaten early morning for to relieve urinary problems. Leaf decoction used in profuse bleeding during menstruation. Aerial parts are also used as fodder for cattle.
11.	<i>Cynodon dactylon</i> (L.) Pers. Poaceae	Dharo	Root	Infusion of roots is given orally and also applied externally to stop bleeding from piles.
12.	<i>Cyperus cephalotes</i> Vahl. Cyperaceae	Bhada	Root	Paste of the roots is applied on breasts to increase lactation. Roots along with turmeric and curd are made into a paste and are applied on face for pimples and beautification.
13.	<i>Cyperus rotundus</i> L. Cyperaceae	Chiyo	Root tubers	Plant is used as fodder. The root tubers are called 'moth'. The moth is used as perfume in preparation of hair oil. The powdered moth is given to cure colic complaints and also to remove kidney stone.
14.	<i>Eclipta prostrata</i> (L.) L. Mant. Asteraceae	Bhangaro	Fresh leaves	Extract of fresh leaves is given orally as hair tonic. Juice of leaves is applied externally on burns.
15.	<i>Eclipta alba</i> (L.) Hassk. Asteraceae	Bhrungraj	Leaves	Extract of leaves is used for wounds and cuts.
16.	<i>Euphorbia hirta</i> L. Euphorbiaceae	Dudheli	Latex	Latex is applied externally against warts. Aerial parts are also used as fodder for cattle.
17.	<i>Moschosma polystachyum</i> (L.) Bth. Lamiaceae	Avchibavchi	Seed	The seed oil is applied externally on affected part of leucoderma and 4-5 drops are taken orally regularly once in a day.
18.	<i>Phyllanthus fraternus</i> Webster. Euphorbiaceae	Bhoi amlu	Leaves and root	The decoction of root is given to cure Jaundice. The paste of fresh leaves or root is applied on boils and inflammation. The paste of fresh leaves is applied on mammary glands swellings.
19.	<i>Phyla nodiflora</i> (L.) Greene. Verbenaceae	Rath velyu	Whole plant	Leaves are boiled with water for 5-10 minutes, then such warmed leaves spread over affected areas on the face. Repeat two or three times a day to cure infection and inflammation due to acne.

20.	<i>Pupalia lap-pacea</i> (L.) Juss. Amaranthaceae	Dholo zipto	Root and leaves	The root piece kept under cushion pillow of the pregnant female to start labour pain to remove placenta during delivery. Immediately after birth of a child or as soon as placenta removed, the root should be removed immediately. 5-10 leaves crushed and then this mixture is administered internally to treat injury due to thorn.
21.	<i>Sida cordifolia</i> L. Malvaceae	Mahabala	Leaves, root	To improve sexual potentiality, 5 gm powder of the entire dried plant is taken orally with milk once a day.
22.	<i>Tribulus terrestris</i> L. Zygophyllaceae	Bethu gokharu	Whole plant	10 gm dried fruit powder is taken orally with water twice a day to cure urinary diseases specially Haematuria. The powder is also effective for promotion of urination and as a nerve tonic. The powdered root and dried fruit are used in preparation of tonic and given with milk to cure weakness.
23.	<i>Tamarindus indica</i> L. Mimosaceae	Khati ambli	Leaves	The leaf juice is use for Diarrhoea and vomiting.
24.	<i>Vernonia cineraria</i> L. Asteraceae	Shahdevi	Whole plant	Decoction of whole plant is applied against spasm of the bladder. Flower juice is given against conjunctivitis.
25.	<i>Xanthium strumarium</i> L. Asteraceae	Gadariu	Leaves	The leaf juice is introduced in ear to relieve earache. The water boiled leaves or warmed leaves are placed and bandaged on abdomen to cure the problem of urination.



*Euphorbia hirta* L.



*Chenopodium album* L.



*Boerhavia diffusa* L.



*Vernonia cineraria* (L.) Less.



*Achyranthes aspera* L.



*Amaranthus lividus* L.

**CONCLUSION:**

In the present paper ethno-medicinal information of 22 genera of 15 families of angiosperms growing as weed species in Cotton (*Gossypium herbaceum* L.), Maize (*Zea mays* L.), Ground nut (*Arachis hypogaea* L.), and Mustard (*Brassica juncea* (L.) Czern.) field of Deesa, Palanpur, Dantiwada talukas of Banaskantha district. Tribal and rural People of this region use weed as a ethno-medicinal plants for treatments of different diseases in spite of modernization in the area. They

use against the treatments of diseases like asthma, jaundice, Diarrhoea, cough and others. some weeds were used as repellent against mosquito and insects while some weeds were used for snake bite treatment.

#### REFERENCES

1. Cooke, T. (1901-1908). Flora of the Presidency of Bombay. I, II & III. London. Botanical Survey of India, reprinted 1958, vol.I – III, Calcutta.
2. Pareek, S. K. (1998). Medicinal plants in India: Present status and future prospects. Prospects of medicinal plants Indian Society of Plant Genetic Resources, New Delhi. pp. 5-14.
4. Santapau, H. (1953). The flora of Khandala in Western Ghats of India. Rec. Bot. Surv. India. Government of India, Delhi.
5. Shah, G. L. (1978) Flora of Gujarat state Vol. I-II, University press. Vallabh Vidhyanagar, Gujarat.