

CHAPTER = 10

USES OF WEEDS

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Weeds though are unwanted plants of crop-fields, have immense potential to be used as medicines, vegetables, fodder and organic mater recycling in the field. In this respect King (1966) stated that the situation is anomalous because if a plant has a reputed use, Strictly by definition it should ceased to be classed as weed. Of course, it is also true, that a weed in one region where it has few or no use, may, when growing in another region, possess some very valuable uses or sometimes few of them may actually be cultivated. Prehistoric man was dependent upon herbaceous plants for his elemental needs and later learnt to use those for various purposes. Takhtajian (1959) stated that if it had not been for the seed plants, man might not have evolved and spreaded so widely over the earth. Ames (1939) has also appraised the important role of seed plants in man's history and evolution.

Weed related literature contains numerous references about the various uses of weeds. Fukai (1940), Brewer and Blinn (1924) examined the nutritive value of weeds, whereas Fox (1942) and Palmer (1949) studied the general uses of weeds as a source of food for man. Even specific Weeds e.g. *Chenopodium*, *Typha* etc. has been studied by different workers. Weed related literature also contains many references about the utilization of weed as food for animals (Martin *et al*, 1951; McAtee, 1939; Costello, 1942 etc.). There are also works about the medical uses of weeds (Henkel, 1904; Welch, 1961). Some workers (Train *et al*, 1941; Davis and Ross, 1955; DE Laszlo and Henshaw, 1954) also indicate the medicinal value of weeds against Human Fertility and Cancer.

The flora of India is very rich and numerous of its herbaceous elements, which grow in our crop-fields, are now treated as weeds. The use of herbs in India is not new. The Worlds oldest repository of Knowledge, the Vedas, specially the Ayurveda (a part of Atharva Veda) described the use of numerous plants for different types of uses. The medical application of plants as devised in Ayurveda is still in practice specially in India and its neighboring countries. In recent past numerous literatures have been published on Indian Medicinal plants like Kirtikar and Basu (1935), Biswas and Chopra (rep. 1982), Jain *et al* (1991), Gaur *et al* 1983, Lal and Yadav (1983), Pal (1985), Puri (1983), Nautiyal (1980), Aminuddin *et al* (1994), Paul (1997), Verma and Panday (1991), Ghosh *et al* (1996) etc.

On basic consultation of these literature will reveal that hundreds of so called weeds are in use in traditional medicines and in many other aspects of everyday use.

Besides of the above, weeds also have general uses like soil binding, nitrogen fixation, ornamentation, ceremonial and religious uses etc. The recent trend of ethnobotanical studies specially among the tribals gaining momentum in different corners of the World (Gill and Opera, 1988; Gill *et al*, 1977; Posey and Overal, 1990; Berg, 1984, Born *et al*, 1996; Davis and Yost, 1983; Duke, 1994; Jain *et al*, 1995; Schultes and Raffauf, 1990 etc.) including India (Singh and Singh 1985, '88; Das *et al*, 1983; Sharma and Das 1984;

Jain and De, 1966; Maheshwari *et al*, 1980; Raghupati and Mahadevan, 1991; Shah and Joshi, 1971; Sinha, 1986; Tarafder, 1986; Ghosh and Sensharma, 1997; Rajendran *et al*, 1997; Singh *et al*, 1997; Upadhye *et al*, 1997; Viswanathan, 1997; Jamir, 1997; Lalramnghinglova and Jha, 1997 etc.)

In present work an attempt has been made to gather informations about the uses of Crop-field Weeds by the local people of Malda District. With freshly collected weeds in hand, numerous farmers and their family members are asked to know if any one or more of those are useful to them. Any information, collected from places out-side this district has not been incorporated in the present work.

Uses of these plants have been recorded (Table 9.1) under any one or more of the following categories :

10.1 WEEDS USED AS FOOD FOR MAN

People of the district not only take different weed as vegetable but weeds constitute a source of income to them, who collect and include these in the local market. Young twigs and leaves of the following weeds, namely, *Alternanthera philoxeroides*, *A. sessilis*, *Amaranthus viridis*, *Celosia argentea*, *Digera muricata*, *Centella asiatica*, *Chenopodium album*, *Ipomoea aquatica*, *Lathyrus aphaca*, *Glinus oppositifolius*, *Fumaria indica*, *Oxalis corniculata*, *Portulaca oleracea*, *Melilotus alba* and *Polycarpon prostratum* are used as vegetables. Fruits of *Cucumis melo*, Seeds of *Paspalum scrobiculatum* (locally named Dal-ghasa), Rhizome of *Cyperus rotundus* are also used as food. But the most interesting one is *Argemone mexicana*, the young shoot of which also used by the villagers as vegetable.

10.2 WEEDS USED AS FOOD FOR DOMESTIC ANIMALS

This category include majority of the monocotyledonous and some dicotyledonous weed, namely, *Cynodon dactylon*, *Cyperus rotundus*, *C. kyllinga*, *C. iria*, *Paspalum scrobiculatum*, *Echinochloa colona*, *E. crus-galli*, *Elusine indica*, *Brachiaria reptans*, *Eragrostis sp.*, *Digitaria sp.*, *Alternanthera philoxeroides*, *Amaranthus viridis*, *Vicia angustifolia*, *V. hirsuta*, and *Lathyrus aphaca*. Generally *Cynodon dactylon*, *Echinochloa colona*, *E. crus-galli* are given to lactating cattles to increase milk production. Though at the time of weeding the shorted weeds at a lot are used as food for animals.

10.3 WEEDS USED AS MEDICINE

Many crop field weeds are used as medicine by the local people of the district of Malda, namely, *Hygrophila auriculata*, *Centella asiatica*, *Fumaria indica*, *Leucas cephalotes*, *L. indica*, *Oxalis corniculata*, *Scoparia dulcis*, *Eclipta alba*, *Croton bonplandiamum*,

Physalis minima and *Cynodon dactylon*. Again *Blumea lacera* and *Acalypha indica* are used as medicine for cattles.

10.4 WEEDS USED AS FUEL

Some weeds are in dry condition used as fuel by the local people, namely, *Parthenium hysterophorus*, *Xanthium indicum*, *Leucas indica*, *Hygrophila auriculata* and *Argemone mexicana*.

10.5 MISCELLANEOUS USES OF WEEDS

Cynodon dactylon is used in worshipping and ceremonial purposes by the Hindus. Again *Cynodon dactylon* and *Elusine indica* are used as soil binder in road sides, banks of tanks and rivers etc.

However, matching with different available literatures (Kirtikar and Basu, 1935; Biswas and Chopra, 1982; Sharma and Das, 1984; Singh and Singh, 1985, '88; Jain and De 1966; Chopra et al, 1956,1965; Chopra and Chopra, 1955; Sinha, 1986; Jain, 1991; Bhattacharyya, --- etc.),it is found that quite a few other recorded weeds of crop fields of Malda District are of medicinal value. which include:

Achyranthes aspera, *Alternanthera sessilis*, *Amaranthus viridis*, *Celosia argentea*, *Digera muricata*, *Ageratum conyzoides*, *Cirsium arvense*, *Eclipta alba*, *Emilia sonchifolia*, *Gnaphalium luteo-album*, *Launea aspleniifolia*, *Sphaeranthus indicus*, *Spilanthes calva*, *Vernonia cinerea*, *Xanthium indicum*, *Heliotropium indicum*, *Cochleria cochlearioides*, *Cassia sophera*, *Polycarpon prostratum*, *Chenopodium album*, *Cleome viscosa*, *Ipomoea aquatica*, *Cucumis melo*, *Euphorbia hirta*, *E. heyniana*, *Phyllanthus fraturmus*, *Sebastiania chamaelea*, *Lathyrus aphaca*, *Medicago lupulina*, *Melilotus alba*, *Vicia angustifolia*, *V. hirsuta*, *Hydrolea zeylanica*, *Leonurus japonicus*, *Ammanitia baccifera*, *Malachra capitata*, *Sida rhombifolia*, *Glinus lotoides*, *G. oppositifolius*, *Ficus heterophyla*, *Ludwigia perennis*, *Orobanche aegyptiaca*, *Biophytum sensitivum*, *Oxalis corniculata*, *Argemone mexicana*, *Polygonum plebeium*, *Portulaca oleracea*, *p. quadrifida*, *Anagallis arvensis*, *Ranunculus sceleratus*, *Hedyotis corymbosa*, *H. diffusa*, *Lindernia crustacea*, *Solanum nigrum*, *Melochia corchorifolia*, *Corchorus fascicularis*, *Phyla nudiflora*, *Sagittaria guyanensis*, *Commelina benghalensis*, *Cyperus iria*, *C. rotundus*, *Scirpus articulatus*, *Asphodelus tenuifolius*, *Desmostachya bipinnata*, *Echinochloa crus-galli*, *Elusine indica*, *Paspalum scrobiculatum*, *Monochoria vaginalis*, *Ceratopteris thalictroides*.

Table 9.1 : Uses of Crop-field Weeds of the district of Malda

Weed (1)	Parts used (2)	Uses (3)
<i>Acalypha indica</i>	Leaf	For stomachache of Goat.
<i>Alternanthera philoxeroides</i>	Young twigs; entire plant	Vegetables; food for domestic animals
<i>Alternanthera sessilis</i>	Young twigs	Vegetables
<i>Amaranthus viridis</i>	Young twigs; entire plant	Vegetables; food for domestic animals
<i>Argemone mexicana</i>	Young stem; dry plant	Vegetables; fuel
<i>Blumea lacera</i>	Leaf	For early deplacentation of Cow.
<i>Brachiaria reptans</i>	Entire plant	Food for domestic animals
<i>Celosia argentea</i>	Leaf	Vegetables
<i>Centella asiatica</i>	Leaf	Vegetables; decoction of leaf used in dysentery and as liver stimulant.
<i>Chenopodium album</i>	Young twigs	Vegetables
<i>Croton bonplandianum</i>	Latex	Used as antihammoragic
<i>Cucumis melo</i>	Young and ripe fruit	Vegetables
<i>Cynodon dactylon</i>	Entire plant; twigs	food for domestic animals; soil binder; crushed leaf used as anti-hammoragic; ceremonial and worshipping
<i>C. iria</i>	Entire plant	Food for domestic animals
<i>Cyperus kyllinga</i>	Entire plant	Food for domestic animals
<i>Cyperus rotundus</i>	Rhizome; entire plant	Vegetables; food for domestic animals
<i>Digera muricata</i>	Young twigs	Vegetables
<i>Digitaria sp.</i>	Entire plant	Food for domestic animals
<i>Echinochloa colona</i>	Entire plant	Food for domestic animals
<i>E. crus-galli</i>	Entire plant	Food for domestic animals
<i>Eclipta alba</i>	Leaf	Decoction of leaf for checking early fall of hairs and cool down the head.
<i>Elusine indica</i>	Entire plant	Food for domestic animals; soil binder
<i>Eragrostis sp.</i>	Entire plant	Food for domestic animals
<i>Fumaria indica</i>	Twigs	Vegetables; Decoction of plant is locally used to purify blood in skin diseases.
<i>Glinus oppositifolius</i>	Leaf	Vegetables
<i>Hygrophila auriculata</i>	Leaf; dry plant	Decoction of leaf used in anemia; fuel.

(1)	(2)	(3)
<i>Ipomoea aquatica</i>	Leaf and young stem	Vegetables
<i>Leucas cephalotes</i>	Leaf	Leaf sap used in headache and stomachache
<i>L. indica</i>	Leaf, dry plant	Decoction of leaf in bronchitis and dyspepsia; fuel.
<i>Lathyrus aphaca</i>	Young twigs and entire plant	Vegetables; food for domestic animals
<i>Melilotus alba</i>	Leaf	Vegetables
<i>Oxalis corniculata</i>	Leaf and young twigs	Vegetables; decoction of leaf used to cure dysentery and as appetite.
<i>Parthenium hysterophorus</i>	Dry Plant	Fuel
<i>Paspalum scrobiculatum</i>	Seed; entire plant	Used as supplement of rice; food for domestic animals
<i>Physalis minima</i>	Calyx with fruit	Ash used in skin diseases for children.
<i>Polycarpon prostratum</i>	Young twigs	Vegetables
<i>Portulaca oleracea</i>	Young twigs	Vegetables
<i>Scoparia dulcis</i>	Leaf	Decoction of leaf in diabetes and toothache.
<i>Vicia angustifolia</i>	Entire plant	Food for domestic animals
<i>V. hirsuta</i>	Entire plant	Food for domestic animals
<i>Xanthium indicum</i>	Dry Plant	Fuel