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Survey of Weeds as a Source of Pharmaceuticals from Mohol Tahasil

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Abstract - Weeds are considered as unwanted plants. However some weeds possess valuable pharmaceutical importance. Number of researchers combined this fact with an ethnobotanical approach. The present work reports, pharmaceutically important weeds from the common fields (Sorghum, Sugarcane, Maize, Wheat, Pulse crop and waste land) of Mohol tahasil of Solapur district, Maharashtra state. 21 valuable weed species were collected from different fields of Mohol tahasil and identified for their pharmaceutical source using standard literature and herbal pharmacopoeias. Ethnomedicinal and weed survey in this area was not much explored and hence the present investigation was taken up.

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I. INTRODUCTION

Weeds are considered as unwanted plants nevertheless number of researchers proved the valuable aspects of some weed species. Natural products can be important source for new pharmaceuticals (Abelson, 1990). The role of weed in the present pharmacopoeia has been overlooked; weeds are an important source of medicines for indigenous peoples and have a highly significant over representation in indigenous pharmacopoeias in relation to other types of plants (Stepp and Moerman, 2001).

Mohol tahasil is the semi-irrigated area of Solapur district with an annual rainfall 500 mm and temperature ranges from 18° C to 41°C. Sorghum,

Maize, Wheat, Pulses and sugarcane are the common crops of the Mohol tahasil.

II. MATERIAL AND METHODS

Monthly visit to selected field crops were made during the period of July. 2005 to July 2006. For the survey 100 fields were selected to study the weeds flora. Weed plant species having high frequency in a crop were collected to know the botanical name, family and common names. The collected plant specimens were identified with the help of flora of presidency Bombay (Cooke T. 1903- 1908). Information on the medicinal uses and local names of the plants gathered was confirmed with scientific literature mentioned in Useful Plants of India (Ambasta et al., 1994), Medicinal Plants (Jain S.K. 1968), Database on medicinal Plants Used in ayurveda (Sharma *et al*) and herbal pharmacopoeias. Photographs of plants have been taken during the field survey.

III. RESULTS AND DISCUSSION

As many as 21 species showed the higher frequency in maximum crops. The pharmaceutical status was confirmed with the help of methods mentioned in methodology. Botanical names and crop wise distribution are as per described in table-1.

Table -1 : List of weed species in different crops and wastelands.

Sr. No	Weed Species	Sorghum	Maize	Wheat	Sugarcane	Pulses	Waste lands / Road side
1.	<i>Acacia arabica</i> L.	— —	— —	— —	— —	— —	*
2.	<i>Achyrrathus aspera</i> L.	*	**	**	— —	*	**
3.	<i>Argemone maxicana</i>	— —	*	**	*	*	*
4.	<i>Barleria proutis</i>	— —	— —	— —	— —	— —	*
5.	<i>Boerhavia diffusa</i> Linn.	**	**	**	— —	**	**
6.	<i>Calotropis gigantea</i> L.	*	— —	— —	— —	— —	*
7.	<i>Celocia argentiana</i> L.	*	— —	*	— —	— —	*
8.	<i>Commelina benghalensis</i> L.	*	*	*	*	*	— —
9.	<i>Cynodon dactylon</i> L.	*	— —	— —	— —	*	**
10.	<i>Cyperus rotundus</i> L.	**	— —	*	— —	— —	**
11.	<i>Datura metel</i> L.	— —	— —	— —	— —	— —	**
12.	<i>Euphorbia geniculata</i> L.	*	— —	*	**	— —	*
13.	<i>Euphorbia hirta</i>	**	*	*	*	*	— —
14.	<i>Phyllanthus amarus</i> Schum. & Thonn.	*	*	— —	*	*	*

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15.	<i>Portulaca oleraceae</i> L.	— —	— —	*	*	— —	*
16.	<i>Sesbania grandiflora</i> L.	— —	— —		*	— —	*
17.	<i>Solanum nigrum</i> L.	*	**	*	*	*	**
18.	<i>Solanum xanthocarpum</i> L.	— —	— —	— —	— —	*	**
19.	<i>Tinospora guardifolia</i> (Willd)	— —	— —	— —	*	— —	*
20.	<i>Tribulus terrestris</i> L.	*	— —	— —	— —	*	*
21.	<i>Withania somnifera</i> L. Dunal	— —	— —	— —	— —	— —	*

* Present, ** Present in high frequency, — — absent

In the present survey we have reported crop wise distribution of the common weeds. All the observed 21 weeds showed the source of pharmaceutical in various remedies of the ayurveda and unnani system of medicine.

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