



Medicinal and aromatic herbs diversity in croplands and cultivable wastelands of Malwa Plateau, Madhya Pradesh

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ABSTRACT

An extensive survey of indigenous medicinal herbs occurring associated with crops and in cultivable wastelands in adjoining areas of Mandsaur district was undertaken. In the present study, seventy-five species belonging to thirty families were dominantly found which have the medicinal value and are being used to cure various diseases by local people. These medicinal and aromatic plants are used in pharmaceutical industries. The survey has revealed that herbs like *Trianthema monogyna*, *Boerhaavia diffusa*, *Ocimum basilicum*, *Cyperus rotundus*, *Solanum nigrum*, *Sida* sp., *Pedaliium murex*, *Tribulus terrestris*, *Vernonia* spp., *Psoralea coryllifolia*, *Cleome viscosa*, *Datura stramonium*, *Vitex negundo*, *Eclipta alba*, *Achyranthus aspera*, *Chenopodium album*, *Argemone maxicana*, *Evolvulus alsinoides*, *Tridax procumbens* and *Withania somnifera* were found dominantly. These are of more importance in pharmaceutical preparations. The maximum number of medicinal and aromatic herbs was represented by family Asteraceae and Lamiaceae, respectively. The plants collected during survey were identified, taxonomically classified as per morphological characters specific to species. Medicinal use of plant species by local people and from available textbooks has also been provided so that possibility of their cultivation may be explored for sustained supply of the authentic raw drug material requirements of industries.

Key words : Medicinal and aromatic herbs, Diversity, Croplands, Cultivable waste lands.

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INTRODUCTION

The collection of medicinal herbs dates back to antiquity. The earliest mention of medicinal plants is found in the *Rigveda* having been written between 4500 and 1600 BC where the properties of various medicinal herbs has been given in detail. In *Atharveda*, there is mention of *kirata* girls who used to dug out drug yielding plants in the mountains. *Sushruta samhita* (800-1000 BC) contains a detailed account of medicinal drugs. Charak (800-1000BC) in his *Charak samhita*, gave a remarkable description of medicinal plants.

Diversified ecosystem availability in India due to its unique location, climate, soil and topography make it a treasurer

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house of biodiversity in terms of flora and fauna. India has huge potential of medicinal plants diversity, which are degraded at a very much faster rate since two decades due to increasing demand of herbal medicines throughout the world. Result of merciless exploitation of medicinal and aromatic herbs from their natural habitats led these herbs at the verge of rare, endangered and even to the extent of extinction. These medicinal herbs are found in dense forests, forest wastelands, croplands, non-forest wastelands, grazing lands, which should be conserved judiciously *in-situ* and *ex-situ* ways.

Malwa plateau is an agro-climate zone of Madhya Pradesh covering Indore, Dewas, Ujjain, Dhar, Ratlam, Neemuch, Mandsaur and parts of Jhabua districts. This zone has a variety of semi-arid natural habitats with flat topography, medium rainfall (75-100 cm), vertisol type soil with medium fertility and other specific agro-climatic peculiarities. Pace of degradation of herbal diversity particularly of medicinal and aromatic plants was accelerated at an alarming rate since two decades due to