MEDICINAL PLANTS:
*Ethnobotanical Approach*
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Editor
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AGROBIOS (INDIA)
Dedicated to My Loving Mother, and to My Wife, Daughter and Son.

For their Constant Encouragement, Support and Patience
Any plant which harbours curative elements or properties in one or more of its organs may be termed as medicinal plant and plant-based medicaments have been employed since the dawn of civilisation for prolonging the life of man by combating various ailments. Ancient ethnic communities around the world have learnt to utilize their neighbourhood herbal wealth for curative as well as offensive purposes. Amongst the ancient civilizations, India has been known to be a rich repository of medicinal plants. The Rig Veda (5,000 BC) mentioned 67 medicinal plants, the Yajur veda 81 and the Atharva Veda (4,500 – 2,500 BC), 290 species. Later on, the Charaka Samhita (700 BC) and the Sushruta Samhita (200 BC) described the properties and uses of 1,100 and 1,270 plants respectively, in compounding of drugs and these are still used in classical formulations in the Ayurvedic system of medicine.

The World Health Organisation (WHO) has compiled a list of 20,000 medicinal plants used in different parts of the globe. A large number of these species have local uses within the country or spread over several countries in a region. Amongst these over 100 botanicals are reported to have consistently large demand and are traded in major drug markets in the world. The medicinal virtues of these raw materials including chemical contents and composition of these species have been well worked out to have merited inclusion in National Pharmacopoeias and official formularies in different countries.

About 80 per cent of the world population depends on traditional medicines for primary health care. Interest in traditional medicine is renewed nowadays. Demand of more and more drugs from plant sources is increasing specially from developed countries during the past decade. This is because of the wide belief that “green medicine” is safe and more dependable than the costly synthetic drugs, many of which have adverse side effects. The revival of interest in plant-based drugs have necessitated and increased demand of medicinal plants leading to over-exploitation, unsustainable harvesting and finally to the virtual decimation of several valuable plant species in the wild. Moreover, the habitat degradation due to increased human activities, illegal trade in rare and endangered medicinal plants and loss of regeneration potential of the degraded forests have further accelerated the current rate of extinction of plants, particularly medicinal plants.

India is rich in all the three levels of biodiversity, namely, species diversity, genetic diversity and habitat diversity. Due to varied topography and altitudinal variation from sea level to the highest mountain ranges and the vast coastal line in peninsular India, desert in the west, coolest desert in the eastern regions, the plant diversity is quite versatile in the Indian subcontinent. Nearly 426 biomes
representing different habitat diversity give rise to one of the richest centres in the world for plant genetic resources. Out of 17,000 flowering plants, the classical system of medicine like Ayurveda, Siddha and Unani make use of only about 2000 plants in various formulations. The traditional village physicians of Indian are using about 4,500 to 5,000 species of plants for medicinal purposes. The oral tradition of the villagers uses about 5,000 plants for medicinal purposes. The Indian systems of medicine have identified 1,500 medicinal plants, of which 500 species are commonly used in the preparation of ISM and H drugs. The World Health Organisations (WHO) forecast is that the global market for herbal products is expected to be US$ 5 trillion by 2050. Herbal medicines are in great demand in both developed and the developing countries in primary health care because of their great efficacy and little or no side effects.

The present book “Medicinal Plants: Ethnobotanical Approach” contain 18 articles covering information on medicinal plants and their utilisation with special reference to the Indian Scenario. Book covers articles on utilisation and development of drugs from medicinal plants; cancer chemopreventive agents from medicinal plants; Antidiabetic medicinal plants; Recent developments in antitubercular natural products and Hepatoprotective medicinal plants. Articles on assessment and conservation of medicinal plants and wealth of vedic knowledge for present day clinical management of poisonous snake bite have added to the value of the book. Medicinal plants used by ethnic tribes of immigrant muslims; in Brahmaputra valley of Assam; by people of Uttaranchal; by North Eastern Sub-Himalayan forest and Meena tribes of Jaipur district provide comprehensive account of different aspects of their utilisation and conservation. Additional information on mineral nutrition of medicinal plants and treatment of hyperlipidemia with nutraceuticals and herbal drugs covers latest knowledge on the subject. This book also provides excellent glimpses of the rich ethnobotanical heritage of India.

I am grateful to all the contributors for writing authoritative and informative article for this volume. The publication of the present work could not have been possible without the sincere co-operation and hard work of the contributors. I have tried to honour their ideas in the original shape. However, the onus of technical content rests with the contributors.

This book “Medicinal Plants: Ethnobotanical Approach” in dedicated to my loving mother Mrs. Kamla Trivedi who in a strong supporter of green medicine to cure various ailments. I wish to dedicate this book to my wife Mrs. Kusum Trivedi, daughter Priyanka and son Rohit for their, constant encouragement, support and patience throughout my academic career. They have extended their full co-operation in many invisible ways during the preparation of books written and edited by me. Special best wishes to my son Rohit for his first trip to Germany and other European countries in year 2005.

This book provide adequate information on medicinal plants with special reference to ethnobotanical approaches. It will be very useful for a variety of scholars – Ayurvedic and medical people, botanist, pharmacologist, phytochemist and conservationist.

I appreciate the cooperation and support of Dr. S. S. Purohit of Agrobios (India), Jodhpur for publishing this book with patience, care and interest. I am confident that the book will be widely accepted by all students, teachers and researchers in the field of medicinal plants.

Jaipur

Prof. P. C. Trivedi
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