



A Color Handbook of Flowering and Medicinal Plants

Dr. Yashwant Rai

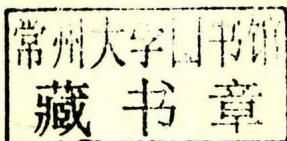


A Color Handbook of Flowering & Medicinal Plants

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Ph.D. M.Phil., M.Sc.

(President) Green Planet Welfare



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**A Color Handbook
of
Flowering & Medicinal Plants**



Dr. Yashwant Rai is a naturalist and his, life dedicated for plants and wildlife. He has been working on the conservation of the endangered medicinal plants at the D.N. college Meerut, Uttar Pradesh, India for the last eight years. Various endangered medicinal plants species such as *Adenanthera pavonina*, *Acorus calamus*, *Caesalpinia bonduc*, *Chlorophytum borivilianum*, *Couroupita guianensis*, *Costus speciosus*, *piper longum* *Randia uliginosa*, *Sterculia foetida*, *Sterculia villosa* etc. has been grown and establishment in Meerut district by the author. He has long travelled many times of forests and stay many nights in jungle, for study of plants. His favourite plants are the *Ficus benghalensis*, *Sterculia villosa*, *Butea monosperma* and *Xeromphis uliginosa*. All original photographs of the book are taken by the author. He obtained Ph.D. on botany in 2012 from C.C.S. University Meerut. He has ten research paper published in international journal to his credit. All photographs are taken by Dr. Yashwant Rai.

Acronyms

- AJCBIB - Acharya Jagadis Chandra Bose Indian Botanical Garden,
Sibpur, Howrah, Kolkata
- DNP - Dudhwa National Park, Lakhimpur
- IGBG - Indra Gandhi Botanical Garden, Raebareli
- NBRI - National Botanical Research Institute, Lucknow
- NZP - National Zoological Park, Delhi
- KNP - Kanha National Park, Mandla, Madhya Pradesh
- FRI - Forest Research Institute, Dehradun
- LBG - Loid's Botanical Garden, Darjeeling, West Bengal



INTRODUCTION

Plants represent one of the most important components of terrestrial and aquatic ecosystem. They are a part of nature's precious gifts. Plants are the backbone of life on earth. They play an important role in maintaining the oxygen cycle, which is essential for the survival of all forms of life. Plants are vital to almost all aspects of our daily lives. Plants provide food, vegetables, fodder, fuel, fiber, masticatories, medicines, oils and paper, etc. Many animal species are also directly and indirectly dependent on plants. The flowers are the most beautiful part of the life cycle of plants. There is a close relationship between many insects and the beauty of flowers. The colours of flowers attract the nectar feeding birds, butterflies, honey bees, and other insects. Through this attraction, plants are pollinated and seeds dispersed.

In this book, pictures of medicinal plants with their pollinator insect or bird or other animals have been shown. *Many plants useful to animal kingdom, have been included like as Adhatoda vasica, Allamanda blanchetii, Azadirachta indica, Atalantia monophylla, Bombax ceiba, Butea monosperma, Caesalpinia bonduc, Calendula officinalis, Callistemon viminalis, Calotropis gigantea, Calotropis procera, Campsis radicans, Carica papaya, Chrozophora rottileri, Commelina forskalii, Dendrocalamus strictus, Dorotheanthus bellidiformis, Ficus benghalensis, Ficus religiosa, Hamelia patens, Hibiscus rosa sinensis, Lantana camara, Litchi chinensis, Melia azedarach, Muntingia calabura, Murraya koenigii, Musa paradisiaca, Nymphaea pubescens, Oxalis violacea, Passiflora incarnata, Phoenix dactylifera, Psidium guajava, Salvadora persica, Santalum album, Tagetes tenuifolia paprika, Urena lobata, Withania*

somnifera, etc.

There are some medicinal plant species given in this book which are rare according to IUCN (International Union for Conservation of Nature). These are as follows *Acorus calamus*, *Adansonia digitata*, *Adenanthera pavonina*, *Aphanamixis polystachya*, *Argyreia nervosa*, *Aristolochia indica*, *Artabotrys odoratissimus*, *Atalantia monopyhylla*, *Barleria prionitis*, *Caesalpinia bonduc*, *Calamus rotang*, *Crescentia cujete*, *Dillenia indica*, *Drosera burmannii*, *Ephedra regeliana*, *Evolvulus alsinoides*, *Grewia salviifolia*, *Isonandra villosa*, *Justicia procambens* var. *Simplex*, *Oxystelma exculentum*, *Mallotus philippensis*, *Muntingia calabura*, *Pedaliium murex*, *Pentapetes phoenicea*, *Phyla nodiflora*, *Plectranthus cremnus*, *Rauvolfia serpentina*, *Santalum album*, *Saraca asoca*, *Solanum sisymbriifolium*, *Sterculia urens*, *Sterculia villosa*, *Saxifraga ligulata*, *Strophanthus gratus*, *Strychnos nux-vomica*, *Swietenia macrophylla*, *Tamilnadia uliginosa*, *Terminalia catappa*, *Trichodesma indicum*, *Utricularia graminifolia*, *Woodfordia fruticosa*, *Zingiber roseum* etc.

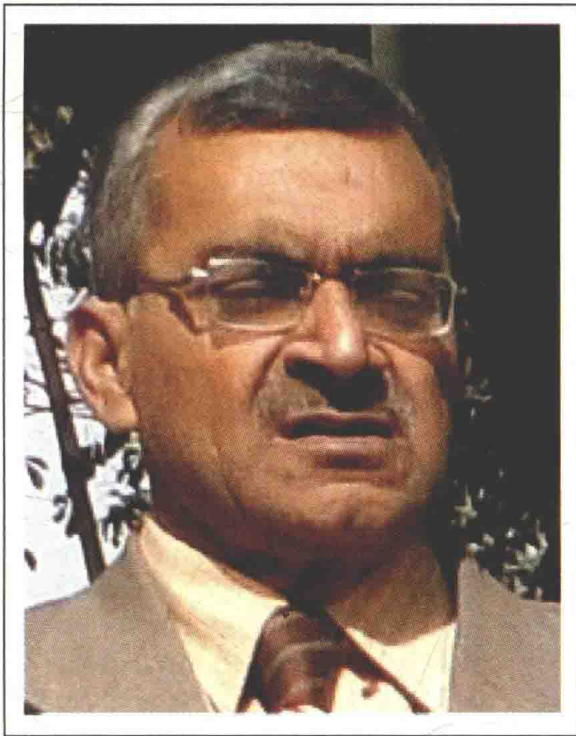
Some medicinal plant species have capacity to grow in highly contaminated site. These species purify the air, water and soil which act as pollutant scavengers. There are some species included in this book which grow in highly contaminated site which are :

Ailanthus excelsa, *Alstonia scholaris*, *Azadirachta indica*, *Calotropis gigantea*, *Calotropis procera*, *Capsella rubella*, *Dendrocalamus strictus*, *Eichhornia crassipes*, *Ficus religiosa*, *Lantana camara*, *Melia azedarach*, *Nelumbo lutea*, *Nelumbo nucifera*, *Nerium indicum*, *Nymphaea alba*, *Nymphaea pubescens*, *Ranunculus sceleratus*, *Ricinus communis*, *Thevetia peruviana* etc.

The botanical name of plants are arranged alphabetically. The common names, family and medicinal uses of the plants are also given in this book. "A Color Handbook of Flowering & Medicinal Plants " contains about 580 color photographs of 335 species taken by author from different regions of India. The original locality of the plant from where the photographs have been clicked is mentioned under each picture.

For writing this book I visited many places for study such as National Botanical Garden, Lucknow; Lalbagh Botanical Garden, Bangluru; Acharya Jagadis Chandra Bose Indian Botanical Garden Sibpur Howrah, Kolkata; Indira Gandhi Botanical Garden, Raebareli; Botanical Garden, Saharanpur; Wildlife Sanctuary Katarnighat, Bahraich; Dudhwa National Park, Lakhimpur Kheri; Kanha National Park, Mandla; Bhedaghat, Jabalpur; Jambughoda, Vadodara; National Zoological Park, Delhi; Zoological Park Lucknow, Forest Research Institute, Dehradun; Zoological Park, Kanpur; Kintoor, Barabanki; Orissa; Dhampur; Loid's Botanical Garden, Darjeeling, West Bengal; Padamaja Naidu Himalayan Zoological Park Darjeeling, West Bengal; Pachmarhi-MP; Bhopal; Hardoi; Sohagi Barwa Wildlife Sanctuary, Maharajganj, Urban and Rural areas of Meerut etc. "A Color Handbook of Flowering & Medicinal Plants" is very useful for plant identification for Botany students, Environmentalists, Naturalists, Botanical Gardens, Wildlife Sanctuary, National Zoological Parks, Pharmacists and Botanical Survey of India. The book also includes attractive photograph of each plant which are useful to us.

Dedicated to :
My Teacher



Dr. A.K. Shukla

Ex. Reader - (Botany Department) D.N. College Meerut

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