

MEDICINAL PLANTS OF NEPAL

Second Edition



Government of Nepal
Ministry of Forests and Soil Conservation
Department of Plant Resources

Thapathali, Kathmandu, Nepal

2016

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Neopicrorhiza scrophulariiflora (Pennell) D.Y.Hong
(Photo by Mr. Madhu Sudan Thapa Magar)

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Foreword



The plants are important sources of medicine in different primary health care systems. Herbal medicines serve the health needs of about 80% of the world population. They are also one of the important natural resources for the upliftment of the economy of the country. Many people in Nepal do not have access to the modern medicinal facilities and depend on medicinal plant resources for their health ailments. About 70-80% of the rural population of the country still depends upon medicinal plants for their health problems remedy.

The first edition "Medicinal Plants of Nepal" was published in 1970 as a Bulletin No.3 of the Department of Medicinal Plants, enlisting 393 medicinal plants found in Nepal. Thereafter, "Supplementary Volume, No. 10" was published in 1984 enlisting 178 additional species of medicinal plants. Similarly on 2007, Department of Medicinal Plants Bulletin No. 28 was published with the addition of 130 species in previous published No. 3, and No.10 with altogether 701 species.

The revised edition 2016, is the reviewed edition of the Medicinal Plants of Nepal (Revised) published on 2007, Bulletin No. 28. This book enlists 118 medicinal plant species in addition to the 2007 revised version. Thus, altogether 819 species have been included. The cultivated, imported and naturalized medicinal plants are specified with asterisk mark (*).

The plant species have been arranged according to alphabetical order in Devnagari script. The scientific name, its synonyms and family of the medicinal species are given (based on www.plantlist.org and Annotated Checklist of Flowering Plants of Nepal, 2000).

The description of plants has been provided briefly to diagnose the species mainly based on herbarium specimens. Flowering and fruiting, parts used, and uses of plants, distribution in Nepal have been incorporated as in the previous published edition 2007, Department of Plant Resources Bulletin No. 28. Likewise Catalogue of Flowering Plants of Nepal, Part I, II, III (2010, 2011, 2012 respectively) has been followed for the revision, addition for selection of plants and distribution in Nepal. Chemical constituents of the some plants are also included based on the relevant references.

Thus, the book will be a valuable information resource on medicinal plants to researchers, nature conservationists, students, traders and local medicinal healers. I hope this book will

also help the planners and policy makers to develop policy on conservation and sustainable utilization of medicinal plants.

I would like to thank to Dr. Mahesh Kumar Adhikari, Former Deputy Director General, Department of Plant Resources, Thapathali, Kathmandu for providing some photos, review and suggestions. Likewise, Dr. Nirmla Joshi, Scientific Officer, Department of Plant Resources, for her effort to prepare the manuscript, Ms. Sangeeta Swar, Scientific Officer, Department of Plant Resources, for review on nomenclature part, Mr. Ramesh Basnet, Chief, National Herbarium and Plant Laboratories, Godawari, for the review on 'distribution in Nepal' part. Ms. Usha Tandukar, Mr. Tara Datta Bhatta, Ms. Sudhita Basukala Scientific Officers, Department of Plant Resources, for their preparation of chemical constituents. Mr. Dhan Raj Kandel, Assistant Research Officer, who has prepared most of the additional ferns part.

Finally, I also express sincere thanks to the Deputy Director Generals, Ms. Sushma Upadhyay and Sanjeev Kumar Rai for their valuable suggestions in publishing this book. I also thank to Ms. Shivani Khadgi, Ms. Saroja Baniya, Ms. Kalpana Sharma Dhakal, Ms. Ribita Tamrakar for valuable input and Mr. Sudeep Pudasaini for the typescript preparation. I appreciate the efforts of staffs of Publicity and Documentation Section of DPR to bring out this publication in this form.



Rajdev Prasad Yadav
Director General
Department of Plant Resources
Thapathali, Kathmandu, Nepal

Foreword (First edition)

It is a sign of the times that herbs and drugs of Nepal are receiving an increased attention in the country and abroad. The present day enquiries made by persons of different professions on the subject embraces a variety about their local names, botanical names, descriptions, distribution, potentialities or medicinal uses. This wide range can not be traversed without tedious study of a great variety of books and consulting a large number of articles. This is hardly possible, however desirable this may be, for a person just seeking a little information on one particular herb. It is therefore felt that it would be useful to place a handbook on the subject in a concise form so that it may be easy for the persons to acquire information just sufficient for their purpose without wading through the pages of a large number of books and articles. MEDICINAL PLANTS OF NEPAL prepared by the Pharmacognosy section of the Royal Drugs Research Laboratory under the development programme of medicinal plant resources of the country, presents a comprehensive information on the subject in a concise form. It is hoped that this book may be able to provide a lucid discourse on the subject to the persons seeking a brief information on the topics.

I would like to express my thanks to my colleagues who have given assistance in bringing out this book in the present form. In particular I would commend Mrs. Tara Keshari Rajbhandary for the compilation of information and preparation of manuscript. It is only due to her to painstaking efforts that made me possible to bring out this in a book form. I would also like to record my thanks to Dr. S.B. Malla and Mr. T.B. Shrestha for their suggestions and helps in the preparation of this work.

His Majesty's Government of Nepal
Department of Medicinal Plants,
Thapathali, Kathmandu.
June 1970.

Dr. P.N. Suwal
Director

Preface **(Supplementary volume)**

The Medicinal Plants of Nepal was first published in 1970 as a bulletin of the Department of Medicinal Plants, No. 3. This dealt with 393 medicinal plants that were used in traditional as well as Ayurvedic medicine systems and many of them were also included in the pharmacopoeias of different countries. The book formed not only as a source of reference to the drug dealers and private entrepreneurs but also provide relevant information to the practitioners and research workers. It has been regularly given through over ever since the publication of this book to prepare subsequent supplement volumes in bringing out other plants of medicinal values that have validated by the collection of information from the local people during Botanical Survey and sample collection and ethnobotanical expeditions and also from the Ayurvedic books and personnels.

In the present book 178 Nepalese Medicinal plants have been further included. The pattern of presentation remains almost the same as the previous volume such as the vernacular and scientific names with family, short botanical description, general distribution in Nepal, their uses as medicines and also their place of representative collections as depicted in the herbarium of the Department at the Royal Botanical Garden, Godavari.

Illustrations of eight important herbs and crude drugs, three from the herbarium sheet, one living plant and four from museum specimens have been given. The plants are arranged according to the Nepali alphabetical order as in the Medicinal Plants of Nepal, Bulletin no. 3. Alphabetical arrangement of scientific names, other local and the English names are, however, given in the index.

Plants having similar vernacular names but scientifically different plants such as "Somalata", "Bhutkesh" are also incorporated in this book that have been adopted from the "Nighantu" written by Mr. Kosh Nath in B.S. 2025 (1969) and published by Royal Nepal Academy.

Beside a few anomalies as stated before, it is however, earnestly hoped that this supplement volume will be as helpful as the previous book on the Medicinal Plants of Nepal in knowing some new Nepalese plants of medicinal values and will be equally helpful to those interested in different aspects of medicinal plants.

Any valuable suggestions and comments from the readers in making this book more useful in its succeeding editions will be highly appreciated. In fact these will give us more impetus and inspirations to work still harder in fulfilling the needs of

time as called upon by our beloved sovereign in judiciously utilizing our natural resources.

I would like to record my heartfelt thanks to Mrs. Tarakeshari Rajbhandary, Scientific Officer, Royal Drug Research Laboratory for her hard work in writing the manuscript of this valuable book. I would also like to extend my thanks to all my colleagues who helped me in bringing out this book. Thanks are also due to Mr. Suraj Ketan Dhungana, Assistant Scientific Officer who regularly approached His Majesty's Government Printing Press at Singha Durbar in going through the proofs and correcting them and Dr. S.B. Rajbhandary, Deputy Director General, Department of Medicinal Plants and Dr. P. M. Adhikary, Project In-charge, Royal Drug Research Laboratory for their valuable comments and suggestions to make this book more useful.

His Majesty's Government of Nepal
Ministry of Forests and Soil Conservation,
Department of Medicinal Plants,
Thapathali, Kathmandu, Nepal.
July 2, 1984.

Dr. S. B. Malla
Director General

Foreword

(Revised edition)

The present Bulletin (no.28) is the revised and updated version of Medicinal Plants of Nepal, Bulletin (no.3) and its supplement (no. 10) previously published by the Department of Plant Resources (formerly known as Department of Medicinal Plants of Nepal). In this compiled Bulletin there has been a further addition of 130 species to the previous volume. Thus, altogether, 701 species of medicinal plants have been included in this volume with a view to make it users friendly. The added information incorporates the plants found in wild state, cultivated, naturalized or imported. The asterisk mark (*) has been indicated for the naturalized, cultivated and imported plants. The species have been arranged systematically in devnagari alphabet. The vernacular names, scientific names, ecological ranges and parts used in medicine have been dealt with. The valid names and synonyms of the species are adopted after *An Annotated Checklist of Flowering Plants of Nepal* (Press, et al., 2000) and *Flowering Plants of Nepal (Phanerogams)*, (Bulletin No. 18, DPR, 2001). The taxonomic characters have been provided for the species concerned to make it be easily identified.

In this Bulletin, hitherto undone, efforts have been made to provide for the phytochemical constituents found in the included plants. Further attempts have been made to include information on relevant literatures. Here the color plates of 96 medicinal plants are provided in alphabetical order separately at the end of the compilation. The index embraces scientific names, vernacular names and families etc. to facilitate for easy access to the species concerned. However, I think, this volume will be useful and handy for all the interested researchers and concerned people working and related to this field.

I express my warm thanks to Mr. Kuber Jung Malla, the ex Assistant Scientific Officer of DPR (currently associated with Garden & Floriculture Training and Consultancy Center (Pvt) Ltd., Harisiddhi, Nepal, for his effort in updating the information.

My special thanks go to MR. P.R. Shrestha, Deputy Director General, for showing his keen interest to publish this volume in this form.

I would also like to extend my heartfelt thanks to Dr. M.K. Adhikari, Scientific Officer, DPR, Mr.D.M. Shakya, Chief, Natural Product Research Laboratory, Mrs. M. Kayastha, Scientific Officer, DPR, Dr. S.R. Baral, Chief, National Herbarium & Plant Laboratories and Dr. M.N. Subedi, Asst. Publicity & Documentation Officer,

DPR, for going through the manuscript and providing valuable suggestions to make this book lucid.

Lastly, I would like to thank all the staffs of DPR, who are directly or indirectly involved in the publication of this book.

Dr. Lokendra Raj Sharma
Director General
Department of Plant Resources

Thapathali, Kathmandu, Nepal
July , 2007

MEDICINAL PLANTS OF NEPAL

१. **अकालबीर (Akaalbeer)**
Scientific name: *Datisca cannabina* L.
Datisca nepalensis D. Don
Family: Datisceaceae
Description:
A glabrous, deciduous, herb, 1–2 m tall. Roots bearing symbiotic nodules. Leaves alternate, pinnately compound; leaflets 5–11, linear - lanceolate, 2.5–7.5 cm long, coarsely toothed, acuminate. Flowers unisexual, male and female on separate plants, yellow, in axillary cyme. Capsules, oblong, opening at the top.
Flowering and fruiting: May-August
Parts used: Entire plant
Uses:
Plant is diuretic, expectorant, and purgative. Root is sedative and anti-rheumatic. Occasionally it is used for fevers and gastric complaints.
Chemical constituents:
Plant contains cannabin, datin, datiscanin, datisctin galanginin and galanginoside (Buckingham, 1994).
Distribution in Nepal: 1650 m, Central.
२. **अग्निमन्था (Agnimanthaa), गिनेरी (Gineree)**
Scientific name: *Premna integrifolia* L.
Premna serratifolia L.
Family: Verbenaceae
Other names: Head ache tree (Eng), Arni, Ageta (Hind), Agnimanthah (Sans)
Description:
A shrub 3 - 4 m tall. Leaves simple, opposite, petiolate, elliptic- obovate, 10 cm long and 6 cm wide, acuminate or obtuse entire or subserrate. Flowers greenish white, in terminal corymbs. Drupe globose, purple.
Flowering and fruiting: May-June
Parts used: Entire plant
Uses:
Decoction of root is cordial, stomachic and good for liver and decoction of plant is used in rheumatism and neuralgia. Leaves rubbed along with pepper administered in cold and fever, in decoction given for flatulence, soup used as stomachic and carminative.
Chemical constituents:
Plant contains anhydronellionol, aphelandrine, 12,16-epoxy-11,14-dihydroxy-5,8,11,13-abietatetraen-7-one and premnspiropodiene (Buckingham, 1994).
Distribution in Nepal: 700–1500 m, East to West.
३. **अगस्ती (Agastee)***
Scientific name: *Sesbania grandiflora* (L.) Pers.
Robinia grandiflora L.
Family: Leguminosae
Other names: Swamp pea, Sesban (Eng), Agasti (Hind), Agastya (Sans)
Description: