



HERBAL MEDICINE OF MANIPUR A Colour Encyclopaedia

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PREFACE

Of the estimated 5,00,000 angiospermic plants on our planet, it is estimated that around 10,000 plants are in regular use for medicinal purposes in one form or the other

MEDICINE is defined as "any drug or remedy for use in treating, preventing, or alleviating the symptoms of disease. It is the science of preventing, diagnosing, alleviating, or curing". The definition or concept of the traditional medicine given in the WHO technical report reads, "the sum total of all the knowledge and practices, whether explicable, or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practice and observation handed down from generation to generation, whether verbally or in writing". Ayurveda (evolved over 5,000 years ago) is regarded to be the oldest system of healing in the world, predating even Chinese system of medicine and is derives from two Indian words: ayur, meaning life and veda, meaning knowledge or science. Its principle is to bring about a union of physical, emotional and spiritual health, known as swasthya enable the individual to enter into harmonious state. In the present era of advancement in biomedicine, the status of herbal medicine or traditional medicine is largely respectable in Manipur. The traditional system of health care and disease curing is very popular and significant in Manipur. Both men and women of older ages are the ones who practice the system. Male practitioner is locally called as maiba and female as maibi.

Manipur falls in the Indo-Burma Centre of biodiversity "Hotspot" of global significance. The state is rich in both biological and cultural diversity. Manipur is the homeland of diverse ethnic communities, constituting of Meiteis, Meitei Pangals, 29 Schedule tribes, 7 Schedule castes and a number of unspecific tribes. The dominant Meitei community is inhabited in the valley. Meitei Pangals are also plain dwellers. The tribal are mainly concentrated in the hills. More than 60% of the geographical area of the state is under forest. In recent years the vegetation is depleting due to rapid population growth and land use/cover change. The changing social pattern has also influenced the pattern of utilization of biological wealth. Almost all the ethnic people are dependent directly or indirectly on the surrounding biological resources. They have rich knowledge about these resources and have their own ways of its conservation practices. Proper documentation of these resources is in prior and prime need for conservation strategies.

Data information on the medicinal uses of plants was collected through personal contact

with the local people and the *maiba* and *maibi*. The authors also interviewed some of the patients who were under treatment by *maibas* and *maibis* and observed the mode of their treatment. One comment of the patient is interesting as remarked "I have spent thousands of rupees in the hospitals but could not keep away the diseases from me, but now I am perfectly alright under the treatment of traditional medicine, that too with minimum expenditure". Traditional medicine based on herbal products has been gaining ground in the recent past due to various reasons. This inspired the present researchers to study the botanical folklore and potentialities of the floral world in the light of modern science. But in the recent years, the importance of the proper documentation of this important knowledge is realizing and works are taken up from different parts of the globe.

The present work is the cumulative knowledge and its proper documentation of the traditional herbal medicine of Manipur. The invaluable publication namely, "Medicinal Plants of Manipur" by Dr. S.C. Sinha and some of the research papers of the author (HBS) has greatly helped the authors in the task of preparing this encyclopedia. Some of the exotic species introduced in the state are also included in this report as this information is equally important in the management option.

We are really grateful to all those herbal medicine practitioners and patients who have provided their valuable information and knowledge. I (author HBS) record my deep sense of gratitude to my wife, Mrs H. Alka (SRF, CSIR) for inspiration, assistance in various ways and for shouldering herself most of my domestic duties so that I could devote more time to complete the work. We are thankful to Mr. W. Loken Singh who selflessly spent his valuable time during data collection; Prof. G. Jiten Sharma and Dr. P. Kumar, both from Department of Life Sciences, Manipur University; Dr. P. Pushpangadan and Dr. H.B. Singh, both from National Botanical Research Institute, Lucknow, Mr. S.M. Rajendran from Central Drug Research Institute, Lucknow for critical suggestions; Dr. R.K. Shyamanada, Executive Director, MASTEC for support and Dr. H. Nandiram Sharma and Mr. Kh. Ibomcha Singh both D.M. College of Science for encouragement. All the staffs of RRL Manipur Substation (CSIR) are thankful for their cooperation and support during the progress of this piece of work. The support from the authorities of RRL (CSIR), Jorhat has resulted initiation and completion of this work.

The authors are expecting more number of medicinal plants, which are not reported in this piece of work. Any suggestion for improvement of this book is most welcome and will be incorporated in subsequent editions if necessary.

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HOW TO CONSULT THIS ENCYCLOPEDIA?

- The photo-plates are arranged according to the alphabetical sequence among the plant families.
- The description texts of the medicinal uses of plants are given in alphabetical sequence among the botanical names of the plants (genera and species within the genus).
- In the text the sign + is the type, parts and mode of uses to cure diseases in the traditional system.
- The local names are presented in the text as (M) for Manipuri name, (E) for Common/English name and (H) for Hindi name and given within single inverted commas.
- Each and every species are provided to refer the photo-plates as P- (x,y,z..) that indicates the plate number.
- The families earlier known as Compositae, Guttiferae, Umbelliferae, Labiatae, Cruciferae, Palmae and Graminae are substituted and represented here in new names as Asteraceae, Clusiaceae, Apiaceae, Lamiaceae, Brassicaceae, Arecaceae and Poaceae, respectively. The family Leguminosae (having three sub-families such as Papilionasae, Caesalpinoideae and Mimosoideae) has been divided into three independent and full-fledged families such as Papilionaceae, Caesalpiniaceae and Mimosaceae.
- The photo-plates of medicinal plants belonging to algae, fungi, bryophytes and pteridophytes are presented at the end of the photo-plates session.

ETHNO-MEDICINAL RECORDS

Abelmoschus (Malvaceae)

<u>esculentus</u> (L) Moench: 'Velandri' (M), 'Bhindi' (H), 'Lady's finger' (E); Undershrub; F/F- Apr-Aug; Cultivated; Marketable; +Tender shoot extract in water is boiled to reduce the volume to half and the luke-warm liquid is used as eye-drop against eye-ache.

P-37

Abrus

(Papilionaceae)

precatorius Linn.: 'Changning mei-mubi' (M), 'Gunchi' (H), 'Indian liquorice' (E); Profusely branched woody climber; F/F- Jul-Feb; Wild; Generally grown at the foot hills and in sacred grooves, population density become very less; Marketable; +Seed powder is used as an abortifacient.

P-50

Acacia (Mimosaceae)

<u>farnesiana</u> Willd.: 'Chigong-lei-namthibi' (M), 'Vilayti Kinar' (H); Small spinous tree/ Shrub; F/F- Oct-Feb; Wild; Grown in the valley or near foot-hills; Non-marketable; +Tender pod decoction paste is applied in ringworms; seed oil is used in gouts and muscular sprain. P-40

Acanthospermum

(Asteraceae)

hispidum DC: 'Kabo-langthrei' (M); Hispidate herb; F/F- Mar-Jul; Wild/Cultivated; Less common and grown in valley areas; Non-marketable; +Leaf extract with honey is given in cough and fever.

P-12

Acanthus (Acanthaceae)

mollis: 'Krishna-khubam' (M); Shrub; F/F- Aug-Oct; Wild; Less common and grown in valley areas; Non-marketable; +Tender shoot is eaten in dysentery; leaf paste applied on scalp to kill lice in head.

P-2

Achyranthes

(Amaranthaceae)

aspera Linn.: 'Khujum-pere' (M), 'Latjira' (H); Herb of straggling nature; F/F- May-Sep; Wild; Common in the valley areas especially in pasture lands, other waste lands and under bamboo shade; Non-marketable; *Leaf extract is taken orally in plies and applied in skin-sores. Tender shoot is cooked with fresh prawn and it is eaten to purify blood, healthy growth of child and ladies menstrual disorder.

P-3

Acorus (Araceae)

calamus Linn.: 'O-hidak' (M), 'Bach' (H), 'Sweet flag' (E); Marshy rhizomatous herb; F/F- Aug-Sep; Wild/Cultivated; Grown in wetlands and other water logging areas of the valley; Non-marketable; +Fresh rhizome extract is given orally in cough, stomach ulcer, fever and biliousness and it is applied in skin-itching. Fresh rhizome decoction is applied on forehead against fever. Tender leaf is used as a gradient in the preparation of traditional herbal shampoo. Dried rhizome piece is tight in neck chain for infants to cure various diseases.

P-7, 8

Adenostemma (Asteraceae)

lavenia (L) O. Kuntze: 'Lalu-kok' (M); Hispidate herb; F/F- Mar-Jan; Wild; Very common in the valley; Non-marketable; +Leaf paste is applied in fresh injuries and skin diseases. Plant is occasionally used as a gradient in the preparation of traditional hair shampoo.

P-12

Adenanthera (Papilionaceae)

<u>pavonia</u> Linn.: 'Chang-ning/Rakta-chandan' (M); Small tree; F/F- Jul-Oct; Wild/Cultivated; Non-marketable; +Seed powder paste prepared with little honey is taken in abortion of child. Dry root piece rubbed on stone-surface along with a little water and the liquid is given orally to child against cough and fever.

P-50

Adhatoda (Acanthaceae)

<u>vasica</u> Nees: 'Nongmang-kha-angouba' (M), 'Vasak' (H); Shrub; F/F- Jun-Oct; Generally cultivated or wild; Non-marketable; **+** Fresh leaf paste is given in dysentery, cough, fever, bronchial congestions, muscular sprain & gout. Fresh root paste is applied on abdomen and vagina just minutes before of child birth for easy delivery.

P-2

Adiantum (Polypodiaceae)

capillus-veneris Linn.: 'Mayur-pambi' (M), 'Maidenhair' (E); Shrub; F/F- Jun-Oct; Generally cultivated or wild; Non-marketable; +Fresh leaf paste is applied in poisonous bites and in burns.

P-77

Aegle (Rutaceae)

marmelos Correa ex Roxb.: 'Hei-khagok' (M), 'Bel' (H), 'Beal tree' (E); Small tree; F/F-Mar-Jun; Cultivated in the sacred places and wildly grown in Jiribam areas; Marketable; +Ripe fruit pulp extract in water is taken in empty stomach in the early morning to cure stomach ulcer, dyspepsia and dysentery. Fruit pulp ground together with the fresh leaf of Adhatoda vasica, fresh root of Cyperus rotundus and a few drops of honey are taken orally against excessive menstrual discharge. Leaves are used in religious purposes.

P-63

Ageratum (Asteraceae)

conyzoides Linn.: 'Khongjai-napee' (M), 'Goat weed' (E); Annual hispidate aromatic herb; F/F- Oct-Feb; Wild; Very common in the valley areas especially swampy places as well as low altitude hills; Non-marketable; Leaf extract is applies in fresh injuries. Fresh shoot and leaf is used as a gradient in the preparation of traditional hair lotion locally called as *Ching-hee*.

Albizia (Mimosaceae)

odoratissima (L. f.) Benth (syn. *Mimosa odoratissima* Linn. f.): 'Uil' (M), 'Kala siris' (H), 'Siris tree' (E); Deciduous tree; F/F- Apr-Jan; Wild; Common in the valley and also grown in the hills; Non-marketable; +Bark powder are anthelmintic and used in fish poisoning; leaf extract is used in cutaneous infections.

P-39

stipulata (Roxb.) Boivin: 'Khok' (M), 'Siris' (H), 'Siris tree' (E); Large deciduous tree;
 F/F- May-Oct; Wild; Common in the valley and also grown in the hills; Non-marketable;
 Bark powder are anthelmintic and used in fish poisoning; leaf extract is used in cutaneous infections.

Allium (Liliaceae)

<u>ascalonicum</u> Linn.: 'Meitei-tilhou-macha' (M); Spicy bulbous herb; F/F- Aug-Nov; Cultivated; Marketable; +Bulb cooked-eaten in post natal complicacies. P-36

cepa Linn.: 'Maroi-til-hou' (M), 'Piyaz' (H), 'Onion' (E); Spicy bulbous herb; F/F- Aug-Nov; Cultivated; Marketable; ♣Bulb decoction is mixed with milk butter and hing (seed of *Ferula asafoetida*) and the paste is applied externally on body in paralysis. P-35

hookerii Linn.: 'Maroi-na-pakpi' (M), 'Winter Leek' (E); Spicy herb; F/F- Sep-Dec; Cultivated; Marketable; +Leaf decoction paste is applied on forehead in excessive body temperature and vertigo.

P-34

odorum Linn.: 'Maroi-na-kupi' (M), Aromatic herb; F/F- Sep-Dec; Cultivated; Marketable; +Plant soup after boiling with water is taken against urinary disorder especially in scanty urination.

P-34

<u>sativum</u> Linn.: 'Maroi-chanam' (M), 'Lasan' (H), 'Garlic' (E); Spicy bulbous herb; F/F-Jul-Sep; Cultivated; Marketable; +Bulb decoction paste is applied to injuries to remove pus; eaten regularly with vegetables for normalizing blood pressure; bulb decoction mixed with hing (seeds of *Ferula asaefotida*) and butter is applied in body paralysis. P-34,35

Alocasia (Araceae)

indica (Roxb.) Schott: 'Yendem' (M), 'Indo-Malayan Taro' (E); Robust rhizomatous herb; F/F- Occasional during Sep-Nov; Cultivated; Very common in the valley; Marketable; +Petiole cooked-eaten to purify blood; petiole decoction paste is applied on forehead to reduce dizziness.

P-7,8

macrorrhiza (Linn.) Schott: 'Hong-ngoo' (M), 'Mankanda' (H), 'Giant Taro' (E); Robust rhizomatous herb; F/F- Sep-Nov; Wild/Cultivated; Very common in the valley; Non-marketable; +Petiole extract is applied externally in poisonous bites; petiole is used in fermented food products of dry fish.

P-7,8

Aloe (Liliaceae)

<u>barbadensis</u> Mill: 'Ghrita-kumar' (M), 'Ghee-kunvar' (H), 'Indian Aloe' (E); Succulent herb; Generally cultivated as decorative pot plant; Non-marketable; +Leaf extract is given to dysentery, cut, wound, dizziness and also applied against baldness. P-35

Alpinia

(Zingiberaceae)

galanga Willd.: 'Kanghu' (M), 'Kulanjan' (H), 'Greater galangal' (E); Rhizomatous herb; F/F-Jul-Aug; Wild/Cultivated; Common in the valley; Marketable; +Fresh rhizome paste is eaten in intestinal worms, fever, cough, excessive body temperature and as an abortifacient; fresh rhizome paste is applied in leucoderma. Rhizome can regulate blood circulation.

P-71

officinarum (Gaertn.) Burtt: 'Pullei-manbi' (M), 'Galangal' (E); Rhizomatous herb; F/F- Aug-Sep; Wild/Cultivated; Marketable; +Dried rhizome paste is chewed against intestinal worms, fever, cough, excessive body temperature and dyspepsia; rhizome is used as a spice.

P-73

Amaranthus

(Amaranthaceae)

<u>spinosus</u> Linn.: 'Chengkruk-tingkhang-panbi' (M), 'Kataili chauli' (H), 'Prickly amaranth' (E); Spiny herb; F/F- Aug-Sep; Wild; Very common in the valley; Non-marketable; +Leaf extract is taken for regulation of blood pressure; tender shoot is cooked-eaten in diabetes.

<u>viridis</u> Linn.: 'Cheng-kruk' (M), 'Amaranth' (E); Tender herb; F/F- Aug-Sep; Wild; Very common in the valley; Marketable; +Leaf is taken along with vegetable as a health improver and also as liver tonic.

P-3

Amomum

(Zingiberaceae)

aromaticum Roxb.: 'Namra' (M); Herb; F/F- Sep-Oct; Wild/Cultivated in low altitude hills; Marketable; ★Seed powder is taken against high blood pressure. Tender shoot is edible.

<u>subulatum</u> Roxb.: 'Illaichi-achouba' (M), 'Bara illaichi' (H), 'Large cardamom' (E); Herb;
 F/F- May-Aug; Cultivated in higher altitude; Marketable; +Seed powder is taken in high
 blood pressure. Dry fruit powder is used occasionally as a spice.

Ananas

(Bromeliaceae)

<u>bracteatus</u> Linn.: 'Lam-kihom/kihom-ukabi' (M), 'Variegated or red pineapple' (E); Undershrub; F/F- Apr-Aug; Cultivated; Non-marketable; +Leaf is boiled in water along with leaf of *Fragaria indica* and sugar candy and the soup is taken in urinary disorder.

P-16

comosus (Linn.) Merrill: 'Kihom' (M), 'Ananas' (H), 'Pineapple' (E); Undershrub; F/F- Mar-Aug; Largely cultivated along the hill-slopes of low altitude; Marketable; +Ripe fruit pulp is eaten in asthma, constipation and against the harms caused by heavy smoking; leaf is boiled in water along with leaves of *Fragaria indica* and *Bonnaya brachiata* and the soup in taken orally in large quantity against urinary disorder.

Anaphalis

(Asteraceae)

contorta (D. Don.) Hook. f.: 'Phunil' (M); Slender glabrous herb; Wild and very common in the paddy fields; F/F- Oct-Apr; Marketable; +Seed powder is taken against high blood pressure. Tender shoot is eaten in intestinal disorder.

P-13

Andrographis

(Acanthaceae)

paniculata Wall. ex Nees: 'Bhubati' (M), 'Kirayat' (H), 'Creat' (E); Profuse undershrub; F/F- Sep-Dec; Cultivated/Wild; Non-marketable; +Fresh leaf paste and dry seed powder are taken in asthma, chronic fever and worm diseases. Seed and matured leaf powder is soaked in luke-warm water and the soup is taken in contraception.

P-1

Anisomeles

(Lamiaceae)

indica (Linn.) O. Kuntze: 'Thoiding-angouba' (M); Scandent aromatic shrub; F/F-Jul-Aug; Wild/Cultivated; Marketable; +Seed powder is eaten with salad as an appetizer; leaf is used as a constituent in the preparation of traditional hair shampoo.

P-31

Anthocephalus

(Rubiaceae)

<u>cadamba</u> Linn. (syn. *Neolamarckia cadamba* Bosser): 'Kadam' (M, H); Large tree; F/F-Dec-Oct; Wild/Cultivated; Non-marketable; +Infusion of bark is taken in sexual weakness.

P-60

Aquilaria

(Thymeliaceae)

agalocha Lamk (syn. A. malaccensis Lamk): 'Agor' (M), 'Agar' (H), 'Eagle Wood' (E); Large tree; Wild/Cultivated, wildly grown in Moreh; Marketable; +The product agar is due to the fungi imperfecti in association with the wood which are used in the preparation of incense. Agar is useful in dizziness.

Aralia

(Araliaceae)

<u>armata</u> Seem: 'Naosek manbi' (M); A small prickly tree; F/F- Sep-Dec; Wild; Non-marketable; +Leaf decoction paste along with little honey is given orally in asthma. P-9

Ardisia

(Myrsinaceae)

colorata Roxb?: 'U-thum' (M); Medium-size tree; F/F-Mar-Jun; Wild/Cultivated; Non-marketable; +Leaf cooked-eaten in diabetes and urinary disorder. P-44

Areca

(Arecaceae)

<u>catechu</u> Linn.: 'Kwa' (M), 'Pan' (H), 'Areca nut' (E); Slender tree; F/F- Jul-Sep; Cultivated favorably in lower altitude valley areas; Marketable; +Areca nut along with leaf of *Piper betel* is chewed against low blood pressure.

P-9

Argemone

(Papaveraceae)

mexicana Linn.: 'Khom-thokpi/Yen-khumit' (M), 'Bharband' (H), 'Prickly poppy' (E); Spiny herb; F/F- Feb-May; Wild; Common near river banks in the valley areas; Non-marketable; +Seed oil is used in cracking of skin, loosening of limbs and bones and in rheumatism.

P-49

Argyreia

(Convolvulaceae)

nervosa (Burm. f.) Boj.: 'Pungding-uri' (M); Herbaceous climber; F/F- Aug-Oct; Wild; Common in the valley; Non-marketable; +Stem paste is applied in rheumatism and muscular sprain.

P-22

Arisaema

(Araceae)

tortuosum Schott: 'Lin-cheishoo' (M), 'Cobra plant' (E); Rhizomatous herb; F/F- Sep-Oct; Wild common in hills; Non-marketable; ♣Rhizome decoction applied in snake-bite. P-7

Artabotrys

(Annonaceae)

<u>hexapetalus</u> (Linn. f.) Bhandari (syn. *A. odoratissimus* R. Br. ex Ker-Gawl): 'Chinichampá' (M); Climbing shrub; F/F- Apr-May; Cultivated; Marketable; +Leaf and flowers are used as a gradient in the preparation of traditional hair lotion.

P-4

Artemisia

(Asteraceae)

maritima Linn.: 'Laibak-ngou na-kuppi/Ching-laibak-ngou' (M); 'Kirmala' (H); Aromatic undershrub; F/F- Aug-Dec; Wild and very common in foot hills and hills of low altitude; Non-marketable; +Leaf is used as a gradient in local hair lotion, leaf shoot paste applied against muscular sprain.

P-13

nilagirica (C.B. Clarke) Pamp (syn. *A. vulgaris* Linn.): 'Laibak-ngou' (M); Aromatic undershrub; F/F- Aug-Feb; Wild and common in valley and foot hills and also in wastelands; Non-marketable; +Leaf is used as a gradient in the preparation of traditional hair lotion; leaf paste is taken orally in stomach ulcer.

P-10

Artocarpus

(Moraceae)

heterophyllus Lamk: 'Thei-bong' (M), 'Kathal' (H), 'Jack tree' (E); Tree; F/F- Aug-Mar; Cultivated in low altitude warm-clime areas; Marketable; +Ripe fruit rachis after removing the pulp is burnt and the ash with little lime is applied to boils for early suppuration has been reported. Gum exude from unripe fruit is burnt and the ash powder is applied in skin diseases.

P-43

lakoocha Roxb.: 'Hari-kokthong' (M), 'Barhal' (H), 'Monkey jack tree' (E); Tree; F/F-Jul-Aug; Wild/Cultivated in the valley areas; Marketable; ♣Ripe fruit pulp is taken in constipation and fever.

P-44

Arundo

(Poacėae)

donax Linn.: 'Yeng-thou' (M), 'Bara-nal' (H), 'Giant reed' (E); Gregarious shrub; F/F-Sep-Feb; Wild/Cultivated commonly in every household; Marketable; +Tender shoot decoction paste is given to children suffering from worm diseases; useful in typhoid and pneumonia; applied in wounds for early suppuration; tender shoot is given to cows suffering from various diseases.

P-54

Asclepias

(Asclepiadaceae)

curassavica Linn.: 'Krishna-chura' (M), 'Kakatundi' (H), 'Curassavian swallow-wart' (E); Slender herb; F/F- Aug-Oct; Wild/Cultivated as ornamental plant; commonly grown near river banks; Non-marketable; +Leaf extract is used as ear-drop in ear-ache. Flower is boiled in water, cooled and used as eye-drop.

P-9