

ETHNOMEDICINAL WEEDS

FOR OUR NEEDS: TODAY AND TOMORROW

Dr. Radhe Shyam Napit



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ETHNOMEDICINAL WEEDS

FOR OUR NEEDS OF TODAY AND TOMORROW

(For B.Sc., M.Sc., Agriculture & Researchers)

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2016
International E - Publication
www.isca.co.in



International E - Publication

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ISBN:978-93-84659-71-4



AMITY INSTITUTE FOR HERBAL AND BIOTECH PRODUCTS DEVELOPMENT

- An Institution of Ritnand Balved Education Foundation -
Thiruvananthapuram

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FOREWORD

Ethnomedicinal Plants have always been a fundamental area of tribal men. Ethnic people are repository of experience and knowledge on indigenous flora and fauna. Unfortunately, this traditional wisdom developed over years of observation, trial and error, is vanishing rapidly due to the assault of modern civilization into ethnic areas.

This compilation lists **306** plants and their specific features. "**Ethno medicinal Weeds for Our Needs: Today and Tomorrow**" will further enrich the know-how of readers in the treatment of various ailments. The botanical name of each plant has been followed by their common names prevalent in different languages and then is provided with various aspects of uses. The information is comprehensive and consolidated.

Diseases cured by Ethno-medicinal plants are often one of the most dreaded ailments afflicting the mankind today. It's like a slow poison which usually stays unnoticed and permanently in the human body, weakens the immune system and predisposes human beings for greater health hazards and clinical complications. The modern man looks optimistically towards genetic engineering for final resolution of the ailment but that is still a far cry. Till then, every individual suffering from any diseases has to rely on the medical aid available for controlling the diseases. In the Indian system of medicine, there are a many variety of plants which have been traditionally, used for control and cure of diseases. But the indigenous knowledge has not been scientifically and properly documented. Moreover, this information is fragmented and scattered. The first step therefore is to collect and select the available information on plants that have been used since ancient times for curing many diseases.

I am sure that the compendium will serve as a good base for further researches, research scholars, study material for college students and will be useful to different strata of society.

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Preface

Man has depended on plants from time immemorial. Our knowledge of the intimate relationship between early man and plants has come to us mainly through surviving tradition. This relationship which now forms the core of the interdisciplinary science i.e. Ethnobotany has attracted much attention, not only due to its great academic or historical importance, but also due to many economic applications.

I am thankful to all those persons from whom I have gathered plants identification along with a large amount of photographs which are used in this book. I would also like to extend my appreciation to all those who have offered assistance, encouragement and cooperation during the entire period of preparation and publication of this book.

It is therefore extremely desirable to document this precious traditional knowledge before it is lost forever. The present book – “Ethnomedicinal Weeds For Our Needs: Today and Tomorrow” has been written with a vision to give a glimpse of the prosperous treasure possessed by this region in its great ethnic diversity. Unlike a large majority of ethno botanical researchers who confine themselves either to ethnomedicine or to one or more socio-economic aspects in their works, the present manual deals with almost all aspects of ethnobotany. Besides, information of the land and the people and ethno-medicinal use of 306 plants species, indices to uses, families and local names as well as a glossary of words used by tribal people of Shahdol Region are also appended. The data presented is based on actual ethno botanical surveys conducted by the author for a period spread over more than three years i.e. 2013-2016 to collect a firsthand account of ethno botanical species at flowering or fruiting stage. The description is supported by 5 figures and 72 photographs. As far as possible, technical terms have been avoided in plant descriptions to make reading interesting for readers.

The author expresses his gratitude to the Principal and Head of Department Botany, Prof. Dr. Smt. Darshan Thakur (Ph.D. guide), Prof. Dr. T. V. Kattimani Hon' Vice Chancellor, Indira Gandhi Tribal University Amarkantak, and Prof. Dr. P. Pushpangadan, Padam Shri Awardee, Senior Vice President (RBEF) who not only provided their valuable advice but also landed their immense moral support and guidance for book writing, Dr. S. K. Saxena Principal, Govt. P.G. College Shahdol and Dr. S. K. Mishra HOD Botany P. G. College Shahdol. I would also like to thank Dr. A.K. Shukla Dean, Dr. N. K. Sharma Dean & Head, Dr. R. K. Shukla Dept. of Botany, Dr. Shivaji Chaudhri(EVS) IGNTU Amarkantak (M.P.), for their moral support, Dr. Binay Kumar Singh, Dr. Bharat Sharan Singh, Dr. K. Kumar, Dr. P. D. Rawat Dept. of Zoology Dept., Dr. Amit Nigam, Dept. of Physics, for their support in best field study and Dr. Naveen Upadhyay, Dr. Samsul Haque Dr. Uma Singh, Dr. Ganesh Singh's, Dr. Aditi Pitanya and Dr. Kunj Bihari Sulakhiya's moral support and I'm also thankful to all tribal medicineman and Dr. Moni Thomas JNKV Jabalpur. I further extend my acknowledgement to SFRI & TFRI Jabalpur for helping me in the identification of some of the plants and other facilities.

Sincere appreciation and thanks are due to all tribes and traditional practitioners in general and more particularly to Mr. Lamu Baiga (Kursa, Mr. Aitvaru Baiga, Mr. Visambhar Baiga(Sarha Kona) (Anuppur) Mr. Madan Jaiswal, (from Jaisinghnagar), Shri Jonu Baiga (Farri Semar), Shri Moti Lal Baiga (Jaleshwar) Sukh Lal Baiga (Baihar)Anuppur, Mr. Arjun Singh Umari & Rangi Baiga (Pondi), Bhujwal singh (Jaitpur), Jagdis Patel Khamahria badi (Sohagpur) and Narayan

Singh, Dindori herb traders, the tribal folk of Shahdol region for their help and co-operation in various ways without which it would not have been possible to complete this arduous task.

My thanks are also due to Mr. Lalan Pandey for preparing the illustration and typing the manuscript.

Last but not the least; I would like to thank my Parents-my Father, Late Shri Ram Kripal Napit & my Mother, Smt. Munni Bai along with my brothers & family members. I have been lucky in true sense to have enjoyed full cooperation of my Wife, Smt. Sandhya Sen and Son, Mr. Ashutosh Sen for their encouragement, moral support and unflinching patience during the completion of the book.

The present book has been prepared for the students at both Undergraduate and Post graduate levels. Moreover, it is also helpful for the students doing research in botany as well as ethnobotany.

Despite my sincere efforts, some errors and omissions might have escaped my attention. I shall appreciate these being brought to my notice for possible rectification. I do hope that this venture will stimulate further interest and curiosity among budding researchers. I also welcome comments and suggestions from research scholars, students and fellow teachers, ethno botanists and those who are engaged in work in different disciplines of plant sciences.

Shahdol: (Amarkantak): 2016

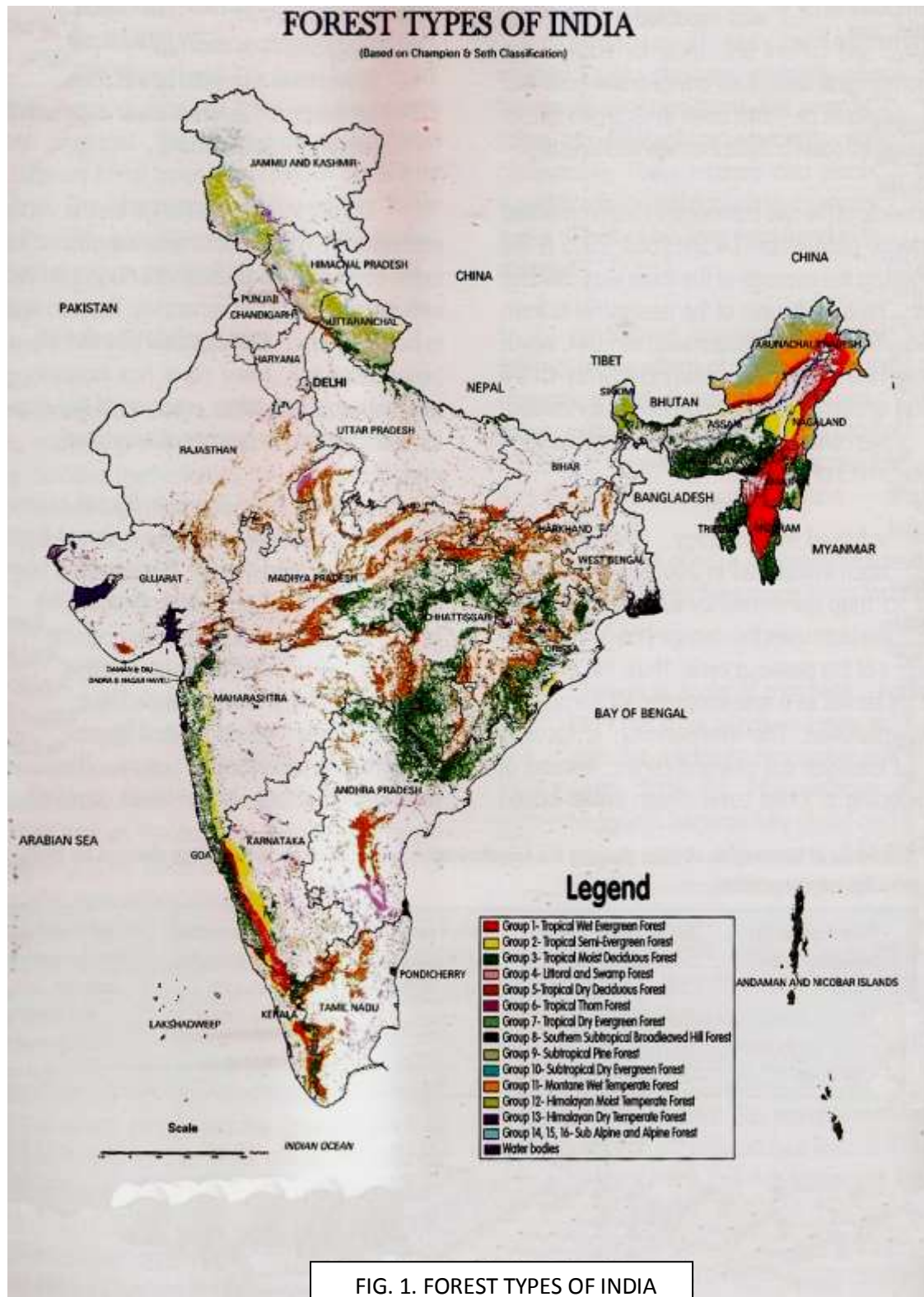


Dr. Radhe Shyam Napit

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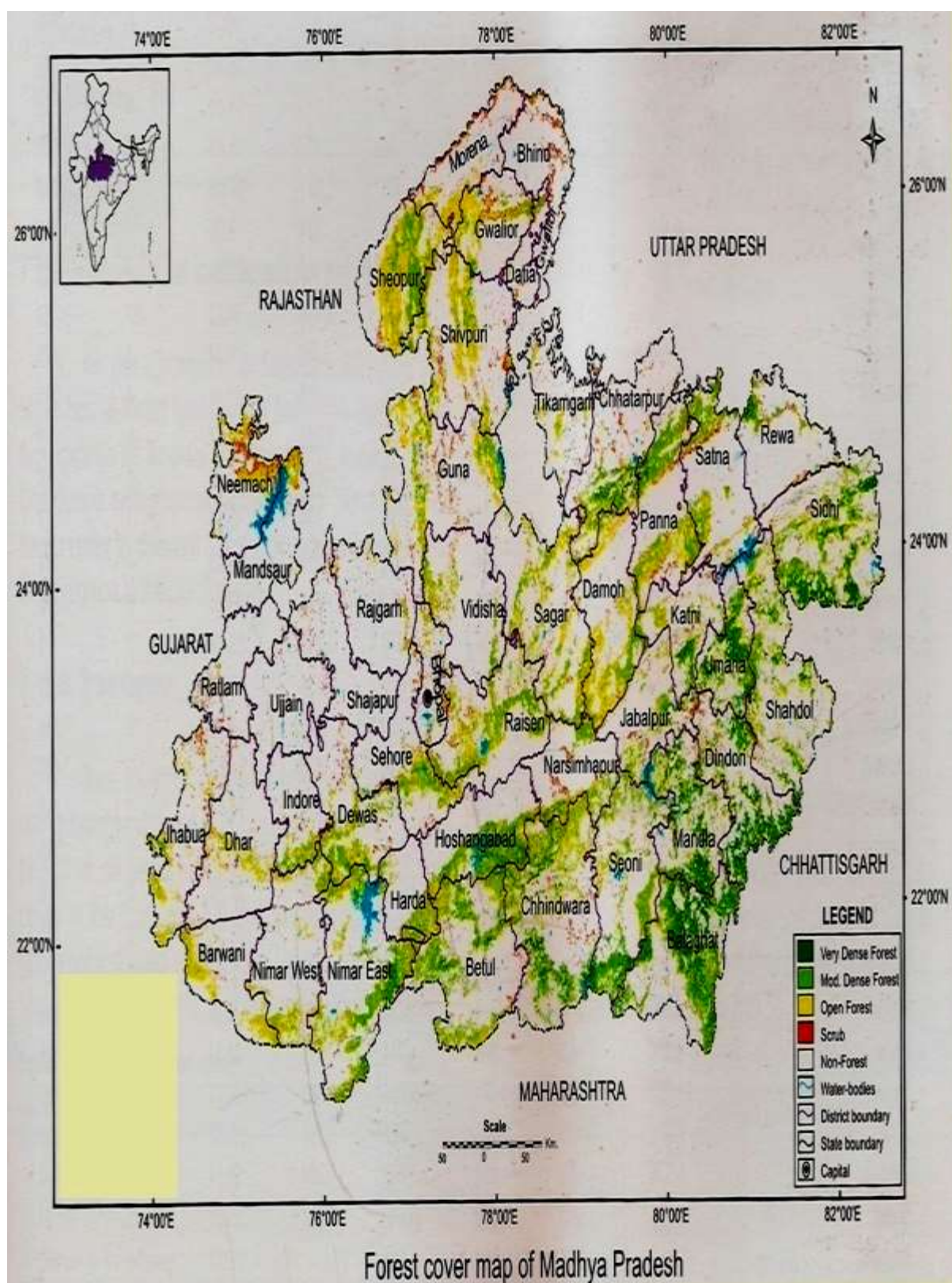


FIG. 2. FOREST COVER MAP OF MADHYAPRADESH

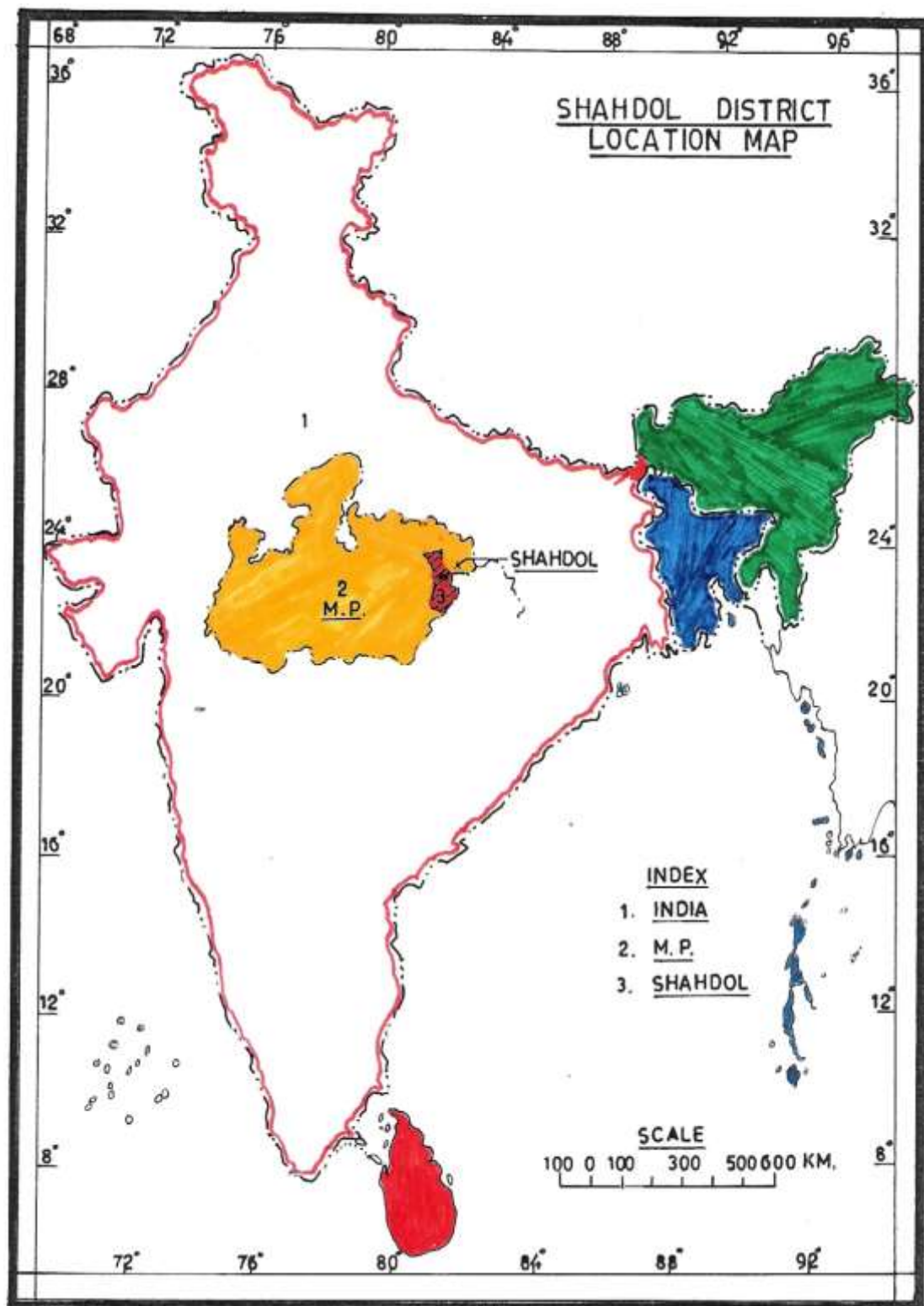


FIG. 3. LOCATION MAP OF SHAHDOL



FIG.4 PHYSICAL MAP OF SHAHDOL DIVISION DISTT.



FIG. 5. MAP OF SHAHDOL DIVISION. (1. 78- SHAHDOL 2. 78-UMARIA 3.78-ANUPPUR)

PHOTO PLATES



P-1 *Hyptis suaveolens* Poit.



P-2 *Vitex negundo* L.



P-3 *Evolvulus alsinoides* L.



P-4 *Tephrosia purpurea* (L) Pers.



P-5 *Tectaria coadunata* (Wall.ex Hook.et)



P-6 *Eclipta alba* Hassk.



P-7 *Xanthium strumarium* L.



P-8 *Solanum xanthocarpum* Schrad.



P-9 *Leucas cephalotes* Spreng.



P-10 *Leucas aspera* Spreng.



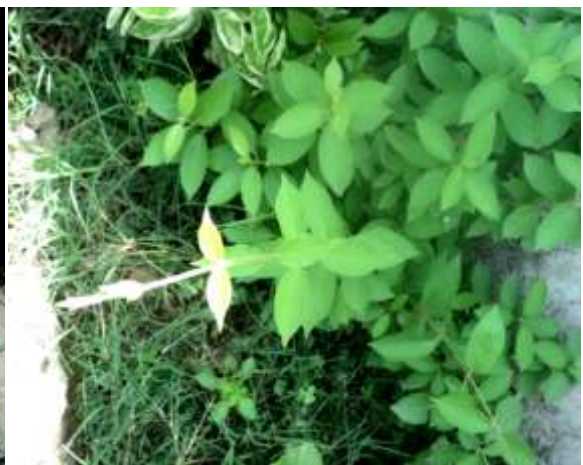
P-11 *Alternanthera sessilis* L.



P-12 *Martynia annua* L.



P-13 *Equisetum debile* Roxb. P-14 *Argyrea speciosa* Sweet.



P-15 *Scoparia dulcis* L.

P-16 *Gymnema sylvestre* R.Br.



P-17 *Phyllanthus* sp. *Phyllanthus* sp.

P-18 *Phyllanthus amara* L.



P-19 *Momordica dioica* Roxb. Female)



P-20. *Momordica dioica* Roxb.(Male)



P-21 *Cleome viscosa* L.



P-22 *Cassia tora* L.



P-23 *Centrathium anthelminticum* (Willd)



P-24 *Curculigo orchioides* Gaertn .



P-25 *Selaginella rupestris* Linn.



P-26 *Chrozophora rottleri* (A. Juss ex Spreng.)



P-27 *Hemidesmus indicus*, R.Br.



P-28 *Caesalpinia bonducela*, Fle.



P-29 *Cardiospermum halicacabum* (L.)



P-30 *Saccharum spontaneum*.



P-31 *Zizyphus nummularia* W.&A.



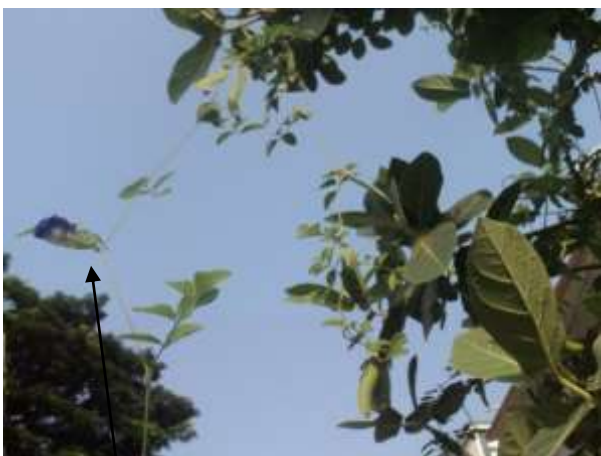
P-32 *Phoenix acaulis* Buch. (Ham.)



P-33 *Dioscorea bulbifera* L.



P-34 *Tinospora cordifolia* (Willd)



P-35 *Clitoria ternatea* L.



P-36 *Calotropis gigantea* (L.)



P-37 *Euphorbia thymifolia* L.



P-38 *Euphorbia hirta* L.



P-39 *Cynodon dactylon* L.



P-40 *Oxalis corniculata* L.



P-41. *Acalypha indica* (Linn.)



P-42 *Cyperus rotundus* L.



P-43 *Cassia occidentalis* L.



P-44 *Cuscuta reflexa* Roxb.



P-45 *Asteracantha longifolia* Nees.



P-46 *Heliotropium indicum*



P-47 *Cryptolepis buchanani*, Roem & Schult.



P-48 *Capparis spinosa*, Linn.



P-49 *Datura metel* L.



P-50 *Diplocyclos palmatus* (L.



P-51 *Smilax proliifera* Roxb./ *S. zeylanica* L.



P-52 *Spilanthes acmella* var. Indica.



P-53 *Ocimum basilicum*, L.



P-54 *Solanum indicum* L.



P-55 *Andropogon contortus* L.



P- 56 *Biophytum sensitivum* L.



P-57 *Vetiveria zizanioides* L.

Tribal Medicine Men



P- 58 Tribal Medicine man (Gond). P- 59 Tribal Medicine women (Baiga). Selling Medicinal Plant.



P-60 Tribal Medicine men in Forest areas .



P-61 Tribal Woman Carring Water.



P-62 Tribal Medicine man (Gond).



P-63 Tribal Hut.



P-64 Tribal Medicine man (Baiga).



P-65 Tribal Medicine man (Gond) .



P-66 Tribal Medicine man



P-67 Tribal Hut in forest areas.



P-68 Tribal Medicine men



P-69 Tribal Medicine woman



P-70. Tribal Medicine man Hut



P-71. Tribal Medicine man Hut



P-72. Photo. *Argyreia speciosa* Sweet., Author Dr. R. S. Napit during Survey.

ABBREVIATIONS

A. D.	-	Anno Domini (In the year of the Lord)
Alc.	-	Alcohol
B. C.	-	Before Christ
α .		-Alpha
β.	-	Beta
γ.	-	Gamma
C.	-	Central
C ⁰ .	-	Degree Celsius
cm.	-	Centimetre
Distt.	-	District
E.	-	East / Eastern
Eng.	-	English
et al.	-	et alia and other Authors
etc.	-	et cetera (and so on)
ext.	-	Extract
Fig. (s)	-	Figure (s)
Ft.	-	Feet
g.	-	Gram
i.e.	-	id est (that is)
Grk.	-	Greek
”	-	inches
Ital.	-	Italian
m.	-	Meter
mg.	-	Milligram
ml.	-	Millilitre
MSL.	-	Mean height above sea level

N.	-	North / Northern
%.	-	Percent
P.	-	Punjab
Pl. (s)	-	Plate (s)
S.	-	South / Southern
S.	-	Sanskrit
sq. km.	-	Square Kilometre
Ssp.	-	Subspecies
Syn.	-	Synonym
Tam.	-	Tamil
Tel.	-	Telugu
Var.	-	Variety
Viz.	-	Videlicet (namely)
Can.	-	Cancer
Aid.	-	AIDS
&.	-	And
Kg.	-	Kilogram
M.P.	-	Madhya Pradesh
mm.	-	Micrometer
N. E.	-	North East
N. W.	-	North West
S.E.	-	South East
S.W.	-	South West
Sp.	-	Species
WHO	-	World Health Organization
Bo.	-	Bombay State
LN.	-	Local Name
H.	-	Hindi
Lo.	-	Location

Vern.	-	Vernacular
Vet.	-	Veterinary
syn.	-	Synonym
Alk.	-	Alkaloid
Alter.	-	Alternative
Amenor.	-	Amenorrhoea
Amorph.	-	Amorphous
Antibil.	-	Antibilious
Anthelm.	-	Anthelmintic
Antid.	-	Antidote
Antidysen.	-	Antidysentery
Antilith.	-	Antilithic
Antimal.	-	Anti malarial
Antipyr.	-	Antipyretic
Antisep.	-	Antiseptic
Abortif .	-	Abortifacient
Antisyp.	-	Antisymphilitic
Arom.	-	Aromatic
Broncht.	-	Bronchitis
Chr.	-	Chronic
Constip.	-	Constipation
Decoct.	-	Decoction
Diar.	-	Diarrhoea
Digest.	-	Digestive
Dysen.	-	Dysentery
Dysmen.	-	Dysmenorrhoea
Febge.	-	Febrifuge
Gonor.	-	Gonorrhoea
Haemat.	-	Haematuria

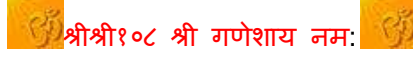
Haemor.	-	Haemorrhage
Indign.	-	Indigestion
Inflam.	-	Inflammation
Leucor.	-	Leucorrhoea
Rheum.	-	Rheumatic
Stim.	-	Stimulant
Stomach.	-	Stomachic
Subst.	-	Substitute
Tox.	-	Toxic
Guj.	-	Gujarati
Mara.	-	Marathi
M.	-	Madras
Mal.	-	Malayalam
Santh.	-	Santhal
Br.	-	Bract
Ebr.	-	Ebract
Brl.	-	Bracteole
Φ.	-	Actinomorphic
%.	-	Zygomorphic
♂ ♀	-	Bisexual
♂.	-	Male Flower (Unisexual)
♀.	-	Female Flower
Epik.	-	Epicalyx
P.	-	Perianth
♂ ♀	-	Epipetalous
♂ ♀	-	Epiphyllous
♂ ♀	-	Gynandrous
<u>G.</u>	-	Superior ovary

G-. - Half inferior ovary

$\overline{\text{G.}}$ - Inferior ovary

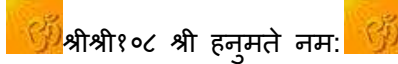
F.F. - Floral formula

F. - Family



श्रीश्री१०८ श्री गणेशाय नमः

SHRI SHRI 108 **SHRI GANESAY NMHA**



श्रीश्री१०८ श्री हनुमते नमः



[SHRI SHRI 108 **SHRI HANUMTE NAMHA**]

योदेवाऽग्नोयोऽप्सुयोविश्वभुवनमाविवेश ।

याओषधीषुयोवनस्पतिषुतस्मैदेवायनमोनमः ॥

श्वताश्वेतरोपनिषद२/१७



Tasya putra bhavatyete padapanatra samsayah |

Paralokam gatah so pi lokanapinotica ksayah | |

(Bhavisya purana)

**Attainment of 'Moksha', i.e. salvation, was a common aspiration in those days.

In order to get permanent place in **Heaven** one is advised to plant trees. **

(Bhavisya purana)

CHAPTER-1

INTRODUCTION

What is Ethnobotany?

Powers in 1874 used the term "**Aboriginal Botany**" to specify the study of plants which aboriginal used for medicine, food, textiles, fabrics and ornaments etc.

The term 'Ethnobotany' was coined by **Harshberger in 1896**. At that time, the subject included were- identification and cataloguing of plants used by the ancient people.

Harshberger (1896); Robbins, Harrington and Freire - Marreco (1916) promulgated broad definition of ethnobotany and they considered it as study and evaluation of the knowledge of all phases of plant life amongst primitive societies and effect of the vegetal environment upon the life, customs, beliefs and history of the people and gave emphasis on the linguistics.

The first specific book on Ethnobotany was written by **Faulks (1958)**, entitled "An Introduction to Ethnobotany". This author has widened the scope of the subject to almost entire economic botany. This view is generally not accepted now-a-days. **Schultes (1962)**, pointed out that Ethnobotany is a science that requires "inter-disciplinary approach".

Ford in **1978**, edited "*The Nature and Status of Ethnobotany*". "*Glimpses of Indian Ethnobotany*" (**Jain, 1981**) is the first book dealing with Indian Ethnobotany. Ethnobotany broadly means all aspects of direct relationship of plants with man. Therefore, the scope of Ethnobotany is very wide (**Jain 2004**). The term Ethnobotany has often been considered synonymous with either economic botany or with traditional medicine.

Ethnobotany is not synonymous even with traditional medicine. Traditional medicine must have its roots in ethnobotanical folklore but today, it incorporates several well-organised, distinct systems of diagnosis and cure. In India alone, three traditional systems of medicine, namely Ayurveda, Siddha and Unani are famous.

Ethnobotany includes study of foods, fibres, and dyes, other useful and harmful plants, taboos, avoidances and magico-religious beliefs about plants (**Jain 1967 a: Ford, 1978**). According to **Jain** (2004), Man-plant relationship can be classified into two groups - viz. (a) Abstract and (b) Concrete. The abstract relationship of man and plants includes faith in the good or bad powers of plants, taboos, avoidances, sacred plants, worship and folklore.

The concrete relationship includes mainly the material use such as, in food, medicine, house-building, agricultural operations, other domestic uses, trade or barter, plants in fine arts and culture like paintings, carryings and house decorating and the acts of domestication, conservation, improvement or destruction of plants.

The influence of primitive cultures on vegetation can be beneficial or harmful. The beneficial influence may be through:-

1. Preservation of vegetation as sacred groves or through various taboos and other restrictions.
2. Conservation of germplasm.
3. Occasional cultivation, introduction and improvement through selection.
4. Regularity of agricultural practices or cycles.

The harmful effects are evident through practices like shifting cultivation and increasing pressure on limited land. The daily demands of man on the forests also cause loss to plant cover.

Ethnobotanical studies have a variety of approaches:-

- * Ethnobotanical study of large or small geographic regions, Ethnobotanical study of selected primitive or otherwise interesting human societies.

- (b) Ethnobotanical study of certain plant groups or individual plant species.
- (c) Ethnobotanical study of certain specific utility groups like food, medicine, dyes etc.

During last three decades, many sub disciplines of ethnobotany have **emerged viz.**

- i. Palaeoethnobotany
- ii. Archaeoethnobotany
- iii. Ethnotaxonomy
- iv. Ethnoecology
- v. Ethnopharmacology
- vi. Ethnopaediatrics
- vii. Ethnoagriculture
- viii. Ethnomycology.
- ix. Ethnotoxicology.
- x. Ethnonarcotics
- xi. Medico-ethnobotany (or Ethnomedicine).
- xii. Ethnosilviculture
- xiii. Ethnoetymology.
- xiv. Ethnolinguistics.
- xv. Ethnomusicology
- xvi. Ethnoorthopedics
- xvii. Ethnoophthalmology
- xviii. Ethnobotany
- xix. Ethnophytochemistry
- xx. Ethnocosmetics

As the new aspects of man-plant relationships were studied, several new sub- disciplines emerged, various researchers adopted different methods, approaches and priorities in their work. The sources of ethnobotanical data have been put in four broad categories. In order of priority, these are -

1. Work among the present day aboriginal or primitive societies and recording surviving folklore about plants.
2. Scrutiny of literature such as on ethnobiology, traditional medicines e.g. Medicines of old administrative reports, floras, and archaeological data of ethnobotanical interest.
3. Scrutiny of collections in museum and herbaria for notes on uses (or avoidances) of plants.
4. Study of Archaeological remains and sites for evidences of past relationships of people with plants.

Ethnomedicine or medico-ethnobotany is an important branch of Ethnobotany and has its roots in herbal medicine which has a long old history. The practice of herbal medicine dates back to the very earliest periods of human civilization. There is evidence of herbs having been used in the treatment of diseases and for revitalising body systems in almost all ancient civilizations- the Indian , the Egyptian, the Chinese and the even the Greek and Roman civilizations. Plants were the mainstay of medicine and credited with mystical and almost supernatural powers of healing. In Britain, herbs became a focus of superstition. In the middle ages, every village had its witch and every witch had her special herbs and potions. Herbs were also used to counteract the witch's powers. Garlic, Hyssop and wormwood all combated witchcraft and evil spirits.

In India, herbs have been in use for treating diseases since ancient times. There are references to the curative properties of some herbs in Rig-Veda, which is believed to have been written between **3500** and **1800 BC**. A more detailed account is found in the Atharvaveda. A fairly comprehensive information about herbs has been recorded in **Charak Samhita (2000 plants)** and **Sushrut Samhita (700 plants)** in **1000 BC**. These Samhitas are regarded as two most important works on Ayurvedic system of medicine. In subsequent years, more and more plants were used in indigenous medicine and their number gradually increased to **1500**. The Chinese also have a compilation of

1000 ancient herbs. PAN TSAO CHING is an important Chinese worker dating back to **2800 BC** approximately, who described various plant medicaments and instructions for their use.

Hippocrates (460 BC), the Greek physician and the father of modern medicine also listed hundreds of herbal remedies. At first, the coordination unit of AICRPE was established at Regional Research Laboratory, Jammu and after twelve years it got shifted to Tropical Botanical Garden and Research Institute, Thiruvananthapuram.

AICRPE has covered about **80%** of the tribal area and recorded invaluable data on Indian Ethnobotany. Indian sub continent is inhabited by over 84.3 million tribals belonging to nearly **700** ethnic communities that belong to **227** linguistic groups (**2011census**). They inhabit varied geographic and climatic zones of the country. They spend their livelihood in about **5000** forest villages or lead a nomadic life in the forest.

=====0=====

CHAPTER-2

METHODS FOR FIELD WORK

Ethnobotanical data is collected by two methods as suggested by **R.R. Rao, 1989 (Botanical Survey of India)** and also seven pillars data collection which is given below-

1. Field work in tribal areas and
2. Analysis of different tribal Folklores.

Methods and Approaches in Ethnobotany: Literature was intensively searched to get some valuable information about the people, their culture and dialect, the region and vegetation pattern. This greatly helped the author during actual field work in the area. It also benefitted him in identifying the correct time and season for field work.

Next step was to locate some proper knowledgeable informants. In this region they are known as Gunia and Panda. For common and ordinary diseases common tribal men were contacted. For more complex diseases Gunia and Panda were contacted. They are expert tribal medicine men. Division of knowledge by gender is also seen in the area. Women knew more remedies than men. Again, there is division of knowledge according to age and experience. Young women showed limited knowledge and interest about medicinal virtues of plants prior to child bearing and rearing. But once they experienced child care, especially their own babies, they assimilate what information they have and implore from their mother, mother-in-laws and other relatives.

For gathering information, knowledgeable informants were taken to the field. Voucher specimens along with the use of the plants as mentioned by the tribal informants were recorded.

Ethnobotanical information was gathered with the help of tribal medicine men. They were asked to accompany and the area was visited. Their huts were also visited. These medicine men also grow medicinal herbs around

their huts. Thus information was also collected. Tribal headman and other senior persons were contacted for recording information about the plants used by them for construction of huts, for fibres, for beverages, preparation of drinks and plants used in ceremonies and cultural functions.

For collections of plants and the preparation of herbarium sheets, the methods recommended by Lawrence (1951), Davis and Heywood (1963) have been followed. Local names have been collected and recorded from tribals of the study area. Exact identification has been done according to the flora given in **British India by Hooker et al (1872-1897, 1907)**. The final confirmation was done with the help of Botanical survey of India, Central Circle, and Prayag Allahabad (U.P.).

The seven pillars of ideal basic methods in Ethnomedical wisdom & their dynamism are as follows- Seven pillars or commonalities of successful Ethnomedical research programmers are: **(1)** These include indigenous knowledge. **(2)** Relationship with indigenous people **(3)** Documentation (Collection of records) **(4)** Bioassay-guided fractionation **(5)** Molecular structure (Nano structure) **(6)** Indigenous knowledge Intellectual property rights and **(7)** Equitable benefit sharing.

ANNOTATION ON SHAHDOL



Fig. 1-VIRAT MANDIR (A historical monument representing Shahdol).

CHAPTER 3

ANNOTATION ON SHAHDOL

Historical & Mythological Perspective:

Shahdol is one of the important Division of Madhya Pradesh State. Asia's largest paper mill the Orient Paper Mills is located in this district. It has several coal mines and a Caustic Soda Factory. Amarkantak, a pilgrim centre and an absolute paradise is located amidst the magnificent Vindhya, Satpura ranges, with Maikal Peak at the fulcrum. It is at an elevation of 1065 MSL meters. This is mainly inhabited by people belonging to Scheduled Tribes.

Mythological Perspective:

The name of District Shahdol has originated from Sanskrit word “Shahastra Dol” which means thousand of ponds, it is said that one thousand ponds were found here in the prehistoric times. At present, there are about 100 ponds in the Shahdol municipal area, some big and some small. Due to increase in population, people are filling the ponds for construction of houses and other purposes. The history tells us that during the period of Mahabharata, Pandavas spent the isolation period of their exile at this place. Prior to reorganization of States, Shahdol was a district place in the State of Rewa and was full of forests. In 1935, Rewa State Forest Act was promulgated vide **Durbar order No. 1907, Dated 22/2/1935** and the forest region was distinguished into protected forests and the Reserved forests. The ruler of the state was very liberal towards his subjects and sanctioned free utilization of the forests for nistar (household chores), grazing and other purposes.



Fig. 2-Map of Shahdol.

This was repeated by the **Vindhya Pradesh Act 1954** which came into effect on **23/2/1955**. **Under this Act**, people were entitled to certain concession. The essence of this Act was that on payment of nominal annual fee, individuals were entitled to obtain all their nistar requirements from the forest products from anywhere within the specified areas which were under little or no restrictions.

Consequently, Vide Madhya Pradesh **Forest Order No. 5383, 3983, 3964 dated 19-11-1975 states**, facilities such as nistar and grazing of cattles were abolished. At present, villagers are permitted to remove dead and fallen fuel wood, free of cost, for bonafide consumption and sale. Grazing of cattle has also been allowed. Prior to these periods, between 1875 and 1930, there was no proper management. The cutting of trees, clear fallings of forests for obtaining land for cultivation, grazing and shifting cultivation were in full swing. This created havoc and forests changed into barren field and waste lands, only the common herb and weeds started growing in association with some prominent trees like *Shorea robusta* (Gaertn.), *Butea monosperma* (Lamk.) and *Acacia catechu* (Willd.) etc.

Location, Statistics and Geographical Perspective:

Division Shahdol lies between 23°15' N Latitude to 24° N Latitude and 81° E Longitude to 81°45' Longitude. The expanse of the division is 215 kms N-S and 200 kms E-W, thus comprising an area of about 5642 sq. kms. which is 1.83% of the total area of M.P. Shahdol lies on Katni-Bilaspur railway line and is approachable by road from Jabalpur, Rewa, Bilaspur, Mandla, Sidhi and Korias district (C.G.). The roads are accessible in all weather. Division Shahdol lies in the heart of the country. It is surrounded by River Son and Satna-Sidhi district in north, Dindori in South, Korias (Baikunthpur) in east and Katni in the west. It is situated **489 m.** above the sea level.

1. Geology:

Division Shahdol has undulating and hilly topography. The Southernmost part of the district is hilly and forms part of the Maikal range, while the portion north to it is surging. The southernmost portion has hills of higher elevation as compared to the northern portion. There is a continuous drop in elevation from south to north and it attains its lower most elevation in the extreme north. The Southern-most portions forming part of Maikal range is generally more than **900m.** above the sea-level, while the portion north of it seldom reaches **800m.** The Southern hilliest tract of the district generally forms the major watershed and most of the major river originates from this tract. Smaller watersheds are scattered throughout the district and are mostly located around smaller hills and other elevated portions. They have given rise to smaller rivulets (Nalas).

The land has a general slope towards north, which is drained by major rivers like the Narmada, Son, Johila, Mahanadi, Banas, Chundi and Odari while other are tributaries of these rivers. The major drainage pattern observed in the above mentioned rivers is perennial. Several rivulets (Nalas) retain water for the major part of the year. Important among them are Jhanpar, Akhrar, Dammar, Janod, Chundi, Samadhin, Ubhya, Kunuk, Tipan, Kevai etc.

Water balance in the area is satisfactory except for the hilly portions occurring in the south. These hilly trap portion wells generally become dry during summer season, the only source of water in this area are the small springs (Jhirias/Jharne). A few wells are located in the highly weathered areas. Large diameter wells serve the purpose of drinking water to a large extent. The lower portion having Gondwana sand stone and other sedimentary formations have good reservoirs of water. Government has constructed many wells and tanks in the villages under various schemes. Stop dams on some important rivulets (Nalas) and rivers have been constructed or are being constructed. The Bansagar Dam on the river Son at Bansagar (Devland) will serve many purposes such as potable water supply and irrigation.

ANUPPUR DISTRICT

AMARKANTAK:

A Historical Monument:

Amarkantak and rivers originating from it do not find mention in Vedic literature, but they have been mentioned in Puranas, Ramayana, Mahabharata, Vashishtha Samhita and “Shatapatha Brahmana”. After Mahabharata, the history of about 3000 years is in dark. Professor Arjun Chaube Kashyap concludes that the Puranic name of Amarkantak was Riksh parvat. About 6000 years back, the Suryavanshi Samrat Mandhata founded a town in the valley Riksh parvat and named it Mandhata. The queen of Samrat Purukutsa, who was son of Mandhata, gave the title of Narmada to the river. Due to occupation of this area by Mandhata the descendants of Yayati moved from this area to west of Madhya Pradesh and settled on the banks of River Narmada.



Fig. 3-A Historical Monument representing Amarkantak:

According to tradition, this Vindhyachal area was included in the Kingdom of Ayodhya and sage like Kapila Muni, Bhrigu Rishi and Markandeya Rishi had ashrams here. It is said that Pandavas stayed here and gained spiritual benefits during their exile.

After about 3000 years of Mahabharata the Adi Shankaracharya was born in (788 AD) and got consecrated on the banks of River Narmada. He founded Pataleshwar Mahadev in Amarkantak at the origin of Narmada from the bamboo clumps. This place is known as Surajkund today. There are no bamboo clumps now.

In more recent history, this area was given in dowry to the Kalachuri King by the Chedi King (10th-11th Century AD). The Kalchuri Maharaja, Karndeva (1042–1072 AD) had constructed temples at Surajkund. In 1808, Amarkantak was ruled by the King of Nagpur and later it came under foreign rule. More recently, Amarkantak has been selected by the UPA government as the place for India's first tribal university.

Amarkantak being a unique natural heritage is very rich in biodiversity. It has highest waterfall on River Narmada. It has many places of scenic beauty. Apart from this, it is also a source of origin of three important rivers. It is a great pilgrim centre for Hindus. It is thus a great, unexplored tourist destination.

At the place of origin of River Narmada, there is an open pool known as Narmada-kund. There are a number of temples around this Kund, such as, Narmada and Shiva temple, Kartikey temple, Shri Ram Janki temple, Annapurna temple, Guru Gorakhnath temple, Sri Shuryanarayan temple, Vangeshwar Mahadev temple, Durga temple, Shiv Pariwar, Siddheshwar Mahadev temple, Sri Radha Krishna temple, Gyarah Rudra temple etc.

The ancient temples of Kalchuri period are in the south of Narmada-kund, just behind it. These were built by Kalachuri Maharaja Karndeva (1042–1072 AD). The Machhendranath and Pataleshwar temples are excellent examples of temple architecture. There is also Keshav Narayan temple built by the Bhonsle ruler of Nagpur in the 18th century.



Fig. 4-Map of Anuppur.

Sonmuda is the place of origin of River Son. It is about 1.5 km from Narmada-kund at the very edge of Maikal Mountain. The Son River cascade down from the mountain in a waterfall hundreds of feet long. From the viewing platform, one can see a panorama of forest covered hills and valleys.

According to Megasthenes and other Aryan writers, the river Son gets its name from gold as gold dust is found in its water.

A grove of trees in dense forests 1 km from Narmada-kund is named "Mai ki Bagiya" in honour of the river goddess Narmada. It is believed that she used to play here as a kid. One can find mango, banana and other fruit trees in this natural garden along with Gulbakavli, roses and other plants. Kapildhara waterfall is about six km northwest of Narmada-kund which is about hundred feet. According to scriptures, Kapil Muni lived here. It is a scene of natural beauty with mountains and dense forest down hills. According to 'Vindhya Vaibhav' Kapil Muni followed severe asceticism here and received divine light. He also wrote 'Sankhya philosophy' (an advanced treatise on mathematics) at this place. The Kapileshwar temple is also situated nearby. The surrounding mountains are full of caves where saints have been performing their spiritual practices.

It is an old belief that the great saint Kabir pursued austerity here and achieved spiritual powers. It is, therefore, a holy place for the Kabirpanth sect. The local people, the Panikas, consider Kabir Chabutara as one of the holiest places of the Kabirpanthis because Saint Kabir spent many years here in meditation. It is believed that Kabir and Nanak met at this very place and discussed spiritual matters. It is here that they introduced the way of better living for all human beings. It is also the meeting point of three districts, Anuppur and Dindori districts of Madhya Pradesh and Bilaspur district of Chhattisgarh. One can find Kabir waterfall there.

The Jaleshwar or Jwaleshwar temple and the source of origin of the third river, Johila River is 8 kms from Amarkantak on Shahdol road. According to 'Vindhya Vaibhav', Lord Shiva established a Shivling here and scattered crores of other Shivlings over Maikal Mountain. According to Puranic traditions, a rectangular area containing crores of Shivlings known as '**Maha Rudra Meru**' is the abode of Lord Shiva. There are only two 'Maha

Rudra Meru' places in India: Varanasi and Amarkantak. Lord Shiva and Goddess Parvati live here because of this special spiritual quality.

Shri Sarvodaya Digamber Jain Temple at Amarkantak is similar to the Aksharadham temple of Gujarat. More than 20 crores is expected to be spent on this mega project which is spread over an area of about 4 acres (16,000 m²). The temple is designed and constructed by more than 300 artists across India for two years under the guidance of Sri C.B. Somapura, the chief architect. The Ashtadhatu (eight elements) idol of Bhagawan Adinatha which is about 24 ft (7.3 m) in height and weighs around 28,000 kilograms is installed on the Kamala Simhasan made of Ashtadhatu weighing around 24,000 kilograms. It is the world's biggest Ashtadhatu Jain idol of Bhagawan Adinatha. The foundations are laid out with advanced engineering skills so that the temple can survive for centuries to come. A temple measuring around 144 feet (44 m) height, 424 feet (129 m) length and 111 feet (34 m) width will be constructed here.

Shree Sarvodaya Digamber Jain Mandir, Amarkantak is situated at a hill station of Madhya Pradesh from where the largest river of western India Narmada gets started. Param Puja Acharya Shree Vidyasagarji Maharajaji's one of the important "Atishay Kshetra" Temple is getting its shape at Amarkantak. It is made with 225,000 cubic feet (6,400 m³) of Bansipahadpur's pink sand stone.

Shree Kalyan Seva Ashram Trust is one of the big ashramas of Shri Mahant Tapaswi Baba Shree Kalyan Das ji Maharaj. It is an ashram of Udasin Sampradaya. Acharya Shri Chandra Devji is the main Acharya of this clan. He was the elder son of Guru Nanak Devji.

The manager is Shri Himadri Muni. This ashram does the social work. Ashram runs a school called Kalyanika (KKSAN) and Shree Chandracharya Charitable Hospital. One can also find a Gurudwara (Sikh Temple) at Amarkantak. First Guru of Sikhs; Guru Nanak Devji also visited Amarkantak. Gurudwara is on the right bank of the River Narmada in Amarkantak.

UMARIA DISTRICT

[Bandhavgarh National Park]

	23°40′58.96″N,81°2′7.49″E,23.6830444°N,81.0354139°E
Type of Hill Fort:-	23°40′32″N,81°02′08″E,23.675656°N,81.0355°E,Coordinates:
Built in:	10th Century
Construction	
Material:	Stone
Height:	811 metres (2,661 ft)
Current condition:	Dilapidated
Current owner:	Government of India
Open to the public:	Yes
Controlled by:	Bagheli Rajputs

The **Bandhavgarh Fort** is situated in Bandhavgarh in Umaria district of Madhya Pradesh, India. It is located on the Bandhavgarh hill, rising **811** meters above sea level at the centre of the Bandhavgarh National Park. It is surrounded by a large number of smaller hills separated by gentle sloping valleys. These valleys end in small, swampy meadows, locally known as 'Bohera'. The fort is also home to many of the endangered species of Vultures in India.



Fig. 5-Map of Umari Distt.

Contents

- Origin
- History
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- References

Origin:

No records are available to show when Bandhavgarh fort was constructed. It is thought, however, to be about 2000 years old, and there are references to it in the ancient books like, "Narad-Panch Ratra" and the "Shiva Purana". Regional folklore suggests that Bandhavgarh Fort was constructed by the rulers of **Gond Empire. Gond Kings of Pandro** cast are the original builders of this fort and descendants of these Kings still inhabit the vicinity of this fort. Gond Kings had constructed 12 (Talab) ponds, of which only a few remains. The fort construction and architecture are similar to other forts built by Gond Kings.

Vanganga stream originated from the Hill of Bandhavgarh Fort. In Gondi language, van means surname and Ganga loosely translates to a pure stream. That may suggest that the surname of Gond King, **Pandro** may have originated from "**Vanganga**". The Bandhavgarh fort derives its name from the most prominent hillock of the area, which is said to be given by **Lord Rama** to his **brother Lakshmana** to keep a watch on **Lanka** hence the name of Bandhavgarh (**Bandhav as brother, garh as fort**).

Bandhavgarh Fort was the business centre for the traders travelling between Kaushambi and Bharhut, at that time known as **Bardawati (Bhaudhya root)**. In the reign of Kalchuris, it was called "**Haihay Kshetra**". The **Vakataka dynasty** used this place and various stone writings are found here written by them. They made shelters by cutting stones. There are some

ruins found at the Fort in the **Bamania Hill near Bandhavgarh** and there are many sculptures and coins found in the nearby villages near Bandhavgarh, Bijhariya, and Mala which proves the economic and artistic situation of the kingdom. In the reign of **Karan Deo (Vikram Samvat 1245-1260)**, **Bandhavgarh** was the capital of the southern part of the Gahora kingdom.^[1]

There are a few statues depicting the reincarnations of **Vishnu (avatar)** - like one of the Fish and the Turtle. There are some remaining ponds on the hill e.g., **Rani Talab** (Queen's Pond). There is a view point on the hill named as Suicide point from which if one is lucky one can see the vultures in flight. On the way back from the fort, one can see the gigantic idol of **Vishnu lying down**, it is also known as **Sesh Shaiyya**. The word Bandhavgarh means the **Fort of Laxman** and the stone carved as **Shesh Shaiyya** also provides further evidence for the origin of this name.



Fig.6- Park watch by Forest Guards.



Fig.7-Bandhavgarh Fort and Lake.



Fig.8-Tiger ready for Hunting.



Fig. 9 –Sleeping statue (Sesh Shaiyya) of Lord Vishnu.



Fig.10- Black Bear in the National Park



Fig.11-Deer Sp. (Chital)

History:

River **Vanganga** originated from Bandhavgarh Fort Hill. It means “Van = Goutr” or “Surname” in “Gondi” language, and “Ganga = dhara” i.e. stream that means "Pandro" the surname of Gond King also originated from "Vanganga" thus implying that the "Gond" king was the first ruler of Bandhavgarh Fort.

Various dynasties have ruled the fort. For example, the **Mauryas** from **3rd century BC**, **Vakataka rulers from 3rd century to 5th century** the Sengars from 5th century and the **Kalchuri from 10th century**. In the 13th century, the Baghels took over, ruling Bandhavgarh until **1617**, when **Maharaja Vikramaditya** Singh moved his capital to **Rewa**. The last inhabitants deserted the fort in **1935**.

Watch it:

The closest **railway station** to Bandhavgarh National Park is Umaria (37 km), however, Katni (100 km., 2 hrs), Khajuraho & Jabalpur (230 km) are more connected/well known. You have to get a Private Taxi to reach Bandhavgarh because except Umaria there is no regular Bus service to get there. There are many lodges to stay at Bandhavgarh National Park like, White Tiger Forest Lodge (MPT Lodge), Golbro Resort. Some economic Lodges are also there like: Kum Kum Home, Pawan Lodge, GTV Resort. You can also choose DHABA'S for food. There are two Park visits i.e. morning and evening, the timings vary as per season. Now there are 3 Zones to visit:- 1. Tala, 2. Khitoli, 3. Maghadhi. If you wish to visit Bandhavgarh Fort then you should definitely opt for Tala Zone.

CLIMATOLOGY OF SHAHDOL DIVISION

Division Shahdol has a typical continental or tropical type of climate as it is located far off from the nearest ocean-The Indian Ocean. The district has

typical monsoon type of climate with hot moist summer and dry winters. The main climatic seasons are as follows:-

1. **Summer season**
2. **Rainy season**
3. **Post rainy season**
4. **Winter season**

Summer Season

This season extends from mid March to Mid June, the extreme reaching in May. The season is characterized by high temperature and humidity.

Rainy Season

This season extends from Mid June to September with mild drizzle of monsoons. About 87.33% of the total rainfall is experienced in this season.

Post rainy Season

This season extends from Mid September to Mid October and exhibits neither heavy downpour nor chilling cold temperature and can be said to be temperate.

Winter Season

This season extends from Mid October to Mid March. The extreme is reached in December exhibiting very low temperature. The average winter rainfall ranges up to 84 mm.

The characteristic feature of this climate is that there is occurrence of maximum temperature preceding the summer extreme i.e. May. The total average annual downpour is 980.66 mm, the south east monsoon being chiefly responsible for it.

Temperature

Temperature exceeding 49.97°C has inhibiting effects on the plant growth and temperature below 5-6°C also retards the plant growth. The plant growth is initiated when the temperature is “between 5-6°C to 15.6°C”, though

it is normal only when the temperature is above 13.6°C. As is evident, the temperature of the district varies well within the optimum range.

The temperature exhibits a seasonal trend with varying ranges of the extremes. The lowest temperature is recorded in the month of January. The average monthly mean temperature of this month was around 15.45°C. Thereafter, the rise in temperature was rapid and it came around 18.47°C in February, 29.55°C in March, 30.55°C in April and 34.25°C in May. In the month of June when under the influence of Monsoon winds, Monsoon breaks results, the temperature starts decreasing. In June, the average monthly temperature decreases to 35.76°C. A further decline in the average temperature trend was recorded in July, i.e. 22.37°C, due to a little stabilized type of environment in August and September leading to post rain season. The temperature falls to 24.58°C in August but buffets to 24.67°C in September. In the month of October, temperature further falls to 23.95°C. The decline in temperature continues in November and December when it is recorded to be 25.35°C and 16.19°C; respectively.

Rainfall

Month wise data of rainfall has been recorded and reproduced here for four years, viz 2008, 2009, 2010 and 2011. It is evident that maximum rainfall occurred between the month of June and September. This month comprise the main rainy season. However, winter and summer rains are also common in the district. From the table it can be assessed that maximum average rainfall was observed in the month of August, i.e. 403.4 mm and the minimum average rainfall was observed in the month of November, that is, 13.5mm. Annual rainfall of Shahdol from 2008, 2009, 2010, and 2011 in August was 1613.6 mm and average number of rainy days per annum being 71.25 rainy days. Another noteworthy feature of the rainfall distribution was that January was totally devoid of rainfall.

Relative Humidity

Humidity regulates the loss of water from plants due to evaporation and transpiration. In an atmosphere saturated with water vapour, the loss of water from the leaves is negligible. The drier the air, more rapid is the transpiration. Amount of moisture actually present in the air is called its absolute humidity and when expressed in percentage to the amount necessary for saturation at a particular temperature it is called relative humidity.

It is also an important factor in germination and growth of plants. It varies from season to season, resulting in variation in percentage of moisture. During winter, the low temperature becomes an important factor to increase the relative humidity. December shows highest mean relative humidity i.e. 76.59. It increases in the monsoon season gradually to 58.22% in June, 83.48% in July to 88.94% in August. It reaches its highest point in September i.e. 82.4%.

(Literature Source- From Bandhavgarh National Park Videos)

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THE ETHNIC PEOPLE AND THEIR SOCIO-BIOLOGY



Fig. 12-A. Tribal couple in the (Bazar) Market.

CHAPTER 4

THE ETHNIC PEOPLE AND THEIR SOCIO-BIOLOGY

Ethnobotany: Ethnobotanical survey of a tribal region is not simply an inventory of plants used by the tribals either as food, medicine or various other purposes but it is more inclusive. Forests have been the axis around which tribal habitat and life have been revolving without hindrance for centuries. Jaisinghnagar and Jaitpur Tehsils of Shahdol district have a very rugged terrain punctuated by hills, rivers and rivulets and gorges' which make the whole terrain geographically very difficult and some parts quite inaccessible and hence, rich in forest and a good abode for the tribals. Considering the topographical features and the climatic variations, the district can be divided into tribal rich zones. Tribal of each zone shares more or less similar habitation pattern and economic activity through ecological conditions which may vary considerably.

They exhibit much commonness in matters of speech, dress, ornamentation, social customs, religious beliefs and practices. Even then the tribal communities have a distinct type of habitat, economy and society which are conditioned by both geographical and cultural factors. The social values of the tribal revolve around their habitation pattern and their economy is forest based. They lack profit motive because it is barter and exchange based. There is a constant interplay between environmental and cultural factors in the life of tribals and their progress or development depend much on the determination of either one or two of these factors.



Fig. 12. B. Tribal House.

A. Tribal Communities:

The district forms main tribal belt of Madhya Pradesh as the total tribal population of the district is **391027**(as in Census 2011) which is a little above 43.06% of the district total population. The district is inhabited by a number of tribes, namely the 'Agaria', 'Baigas', Bhainas, 'Gonds', Khairwar', 'Kols', 'Panika', 'Pao' (Pavras), 'Bharia', 'Kanvar', 'Paliha' (Pando), 'Bhumia' etc.

B. Habitat:

Habitat is known as the natural setting of human existence and includes the physical features of the region inhabited by people along with the natural resources available to the inhabitants, the environmental climate and geographical factors of the area to which humans have adapted. Man is able to survive in an area only if he is able to meet the challenges of the area. After assessment of the relationship of tribal culture and habitat, it becomes clear that habitat exercises a decision making influence in shifting the ways of life. The evaluation of habitat has been done under following heads -

- 1. Terrain 2. Forests 3. Climate 4. Settlement pattern.**

1. Terrain:

The terrain is full of hills of Maikal Mountains but also contains long patches of plains between the hills. There are four major rivers viz., Son, Banas, Odari and Chundi. Son originates from **Amarkantak (Son-Muda)** and Banas, Odari & Chundi belongs to the Chhattisgarh (C.G.) state. These rivers are the major sources of irrigation though there are some rivulets such as Kunuk & Jhapar etc. which also originate from these hills and carry considerable amount of water in them which keep the hills lush green along with the plains. A modest plateau which is kept irrigated by some canals originating from these four major rivers of the district and other district lies under the catchments area of these rivers.

2. Forest

The district is richly endowed with forests. Many of the forest areas in the northern and western parts of the district have sparse vegetation, but the central eastern and southern parts of the district have dense vegetation. The trees found are *Shorea robusta*, (Gaertn.), *Emblica officinalis*, (Gaertn.), *Terminalia belerica*, (Roxb.) *Madhuca latifolia*, (Roxb.), *Butea monosperma*, (Lamk.), *Buchanania lanzan*, (Spreng.), *Dendrocalamus strictus*, (Nees.), *Tectona grandis*, (Linn.), *Dalbergia sissoo*, (Roxb.), *Acacia catechu*, (Will.), *Adina cordifolia*, (Roxb.), *Eucalyptus globulus*, (Labial.), *Terminalia chebula*, (Retz.), *Terminalia tomentosa*, (W. & A.), *Chloroxylon swietenia*, (D.C.), *Anogeissus latifolia*, (Roxb.) Wall., *Diospyros melanoxylon*, (Roxb.), *Boswellia serrata*, (Roxb.), *Sterculia urens*, (Roxb.).

3. Climate:



Fig.12.C. Climatic condition

There is a noticeable climatic variation in the area due to varying degree of terrains throughout the district. The southern and middle portion of the district is hilly and densely vegetated whereas the middle, east, west & north of the district is not much hilly and has sparse vegetation. The eastern and northern parts of the district are slightly hilly and enjoy comparatively richer vegetation. This variation in terrain leads to climatic variations.

The central and western portion of the district experience summer which is very hot and excessive cold winter. In the northern and eastern portion of the district, summer is quite hot and the winter is quite cold. In the southern parts of the district; especially at Shahdol and southern parts winter is extremely cold because Shahdol has about 200 ponds. Humidity is very high due to high moisture content, often heavy rains occur.

The northern and eastern areas in the average rainfall lie between 120 - 130 cm in the eastern and in the western region it is between 140 - 155 cm; whereas, in the southern portion it lies above 155 - 160 cm.

4. Settlement Pattern

Almost a similar type of dispersed settlement pattern is found throughout the tribal areas in the district. The tribals build their houses depending on the topography. They build their house close to their work place. They prefer to live close to their relatives and friends. Thus, houses are generally scattered or different groups are scattered, each group being called 'Tola' and many 'Tolas' taken together constitutes a village.

The design and construction of the houses depend upon two main things- topography of the land and need and availability of the building materials. Tribal construct their houses in such a way so that they can protect their crops. The tribal village has scattered hamlets. The houses are placed even on hill tops and precariously perched on the slopes. Thus, tribal village has a far-flung settlement pattern. Some prosperous tribal families use half burnt bricks to make walls and timber for making doors, windows and roofs. Even slates, tiles and cement or metal sheets are used for making roofs but most of the houses are of the 'Kachcha type' being made up of mud, husk or bamboos and thatched with grass, stem & leaves. Technology available to tribals is very simple. They can exploit only a limited range of natural resources and their dependence on natural resources is greater. The plant resources are largely utilized for construction of houses. The tribal houses have a small courtyard in the centre called '**Saar**' (**Gaushalla**). The rooms for living are called 'Kothwa'. These rooms have big shelves for keeping their things which are called 'Patauahan' or 'Atari'. Special guest rooms are also constructed which are called 'Banglaiya'. The houses generally face north or east as it is considered auspicious.

C. Social Status:

An important basis for existence of a tribe as a social unit is a combination of different social units such as a family, Lineage, Sub-clan, sub-tribe and groups, but the absence of a particular social unit in a community does not mean that it is not a tribe. Tribal society appears to be very simple but in

truth it is not so. In a tribal family, lineage is traced through father and descent is on the male side. The parents of groom go to the parents of bride asking for relationship though the priority is given to the maternal Uncle's daughter. Dowry is given by parents of the groom. Marriage is done at the age of 10-12 and after it a ritualistic dance known as 'Karma' and 'Shaila' is performed by everybody. Bride remains with her parents after marriage for a few years and goes to her in-law's house after a custom called 'Gamanchar' (Gauna) or 'pathauni'. The local feuds are taken care by 'Panchayat'. They believe strongly in casteism and rebirth. The common language used by them earlier used to be Gondi but is rapidly getting replaced by 'Bagheli'.

Men mostly wear 'Pardani Kurta' (a thick cloth on waist) and Phatoni; a full sleeve button-less shirt, 'Bandi' a half sleeve shirt, 'Gangi' (Baniyani) a half sleeve button-less shirt, 'Mudbandhi' (Muretha pagri) turban and Gamchha (Towel). Women usually wear Dhoti (Long cloth), 'Faria' or (Dhoti) is worn with a 'Kachani' (Fold) on the waist due to which it rises up to the knees.

'Blouse' is a cloth wore over chest. Some educated tribals wear shirt, pant, coat etc. while girls also wear Salvar Kurta etc.

D. Ornaments:

Men wear 'Mundri' (Copper or Iron Ring), 'Churwa' (Silver Bangles), 'Dora' (thread), 'Phuliya' (Ear ring) as ornaments where as women sport 'Churia/Chudiyani' (Bangle of Lac and Lead), 'Pata' (Hand Locket), Nagmori, Bahuta, Patela, Hariya, Yanta, Banbaria, Bichhua (Toe ring), Pairi, 'Chuda' (Hand Bracelet), Payal (Anklet), 'Sutwa' (Necklace), 'Phuliya' (Nose ring), 'Kanthi' (Necklace), 'Hewal' (all neck lockets), Gandhi, 'Kathula' (Neck Locket), 'Jharka' (Ear Tops), 'Khosna' (Head or ear chain), 'Bala' (Big ear ring), 'Barri' (Ear Ring), Tikuli (Forehead dots) as ornaments. Along with these, women also love to get themselves tattooed to look beautiful.

Different tribal groups believe in different Gods. Agaria worship Iron God, 'Lohasur' while Gond considers Tiger (Baghesur) and Ghanshyam Dev as

their sacred God and call it 'Badaka Dev'. Panikas (those who follows Saint Kabir) consider crude handlooms as their sacred God, whereas Bhumiya worship Dhartimata (Earth) and sacrifice a goats, pig, hen (cock) every 1 or 3 years and also believe in Ghost, witches and departed spirits. The people who deal with these are called 'Devar' or 'Guniya', 'Baigas'. Gond do not despair much when their old people die and after 8 days they celebrate the honour of the dead by consuming bulk of country made liquor during a function called 'Mansamman'. They also sing a song called 'Dukh Bisravan', Karma or Shaila. They donate the things of the departed to 'Pathari' (Village priest who is believed to have the power to pass on these things to the departed soul in heaven).

E. Economic Status:

The tribal people practice a varied range of occupations such as fish catching; ploughing or agriculture and fixed or shifting agriculture is the main occupation of the tribal. As tribals do not have land of their own, hence, they practice shifting cultivation, thus making yield very low i.e. only up to the decisive role in agriculture as each tribal community is dependent on monsoons for agriculture. Regardless of their principal mode of substance, all of them collect and consume major and minor edible forest products. Their houses, tools, vessels, ornaments, objects of worship and rituals are largely made from plant materials indicating that their economy depends heavily on forests. Few tribal groups such as Baiga, Paliha, Bharia, and Agaria are engaged in making basket, hats, umbrella, mat, bull-carts mat and brooms from bamboos. Other groups such as Panika, Gond, Baiga, Kol and Khairwar go for the collection of minor forest products such as Harra (*Terminalia chebula* Retz.), Amla (*Embllica officinalis*), Bahera (*Terminalia belerica*), Mahua (*Madhuca Indica*), Char (*Buchanania lanzan* Spreng.), *Diospyros melanoxylon* (Roxb.), *Shorea robust* (Gaertn.), *Phoenix acaulis*, (Buch.), etc. They use these products to

practice barter economy in weekly markets for all their household day to-day needs.

The three factors – habitat, society and economy play an important role in shaping the life of tribal people. As most of the tribal prefer to live in geographic isolation and out of the orbit of the outside world, they don't demand much and mostly depend upon cooperation and collectiveness with the environment.

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CHAPTER 5

MAIN FOCUS OF ETHNOBOTANY IN DEVELOPMENT AND SUSTAINABLE CONSERVATION OF RESOURCES; A NEED TODAY

Ethnic knowledge (Wisdom) of plants is important not just for the tribal people themselves, but for the entire world, e.g. a splendid example is curare from the Brazilian vine *Chondrodendron tomentosum* Ruiz & Pavon. It was originally used as a hunting poison, but it contains tubocurarine which is now essential in surgery as a muscle relaxant. The Indian snake root *Rauwolfia serpentina*, Benth. Ex Kurtz., was employed for centuries in India to treat mental disorders and insomnia. Today it provides the tranquilizer reserpine. It is, therefore, essential to tap the information from tribal people before it is lost forever. Tribal communities and cultures are swiftly disappearing and so is their indigenous plant lore. The tribal people in developing countries depend largely on plants for their sustenance and livelihood. Most of the plants, however, are gathered from the wild; many are being depleted both by over-collection and perhaps by a more serious reason, by loss of their habitats. Number of varieties of rice, maize, sorghum, millets, beans, tomatoes, potatoes, bananas, limes, oranges, yams and cotton are almost extinct. The centres of origin of crop plants like wheat, barley, chickpeas, lentils, etc. are also disappearing. Thus, from 30,000 varieties of rice plants at the beginning of this century, India will be left with only 15 at the end of the century. Egypt, which has been the home for onions for thousands of years, now produces only one variety. New hybrid varieties of barley have annihilated 70% of natural varieties of barley in Saudi Arabia and Lebanon.

The genes of the traditional resistant varieties may be gradually lost and hence such varieties must be collected and preserved. The conservation of

genetic diversity and wild relatives of crops is vital for future breeding programmes.

Tribal communities all over the world use an enormous range of wild plants for food, fibre, medicine, shelter, etc. However, very little attention has been paid to the conservation of ethnobotanical resources. The Indian subcontinent represents one of the greatest emporia of ethnobotanical economy. A large number of tribal communities live in remote and inaccessible parts of the country, and depend on plants for their basic needs and livelihood. India has one of the largest concentrations of tribal population in the world. There are over 300 tribal communities constituting about 8% of the total population of the country. The forest plays a vital role in the economy as well as daily needs of the tribals. The ethnic people acquired knowledge of plants largely on a trial and error basis. The ancient plant remedies that medicine men have used to treat; everything from skin rashes to tumours, are being investigated in several countries as sources of new, effective drugs. During the last few decades, a succession of so-called "Wonder Drugs" has been discovered from plants with rich ethno-pharmacological histories in aboriginal societies. The science of pharmacognosy owes its development at least in part to the native medicine men that recognized and used the therapeutic qualities of herbs. Surprisingly, their uses of these drugs in North America corresponded with those approved in The Dispensatory of the United States (Vogel, 1970). Many of the plants familiar to the "witch doctor" really have the healing powers that tradition attaches to them. The age-old arts of the herbalist must, therefore, be tapped (Maheshwari, 1980). The tribal people are not only familiar with the thousands of plant species in their ecosystems, but also understand the ecological interrelations of the various components of their resource base better than most modern foresters, biologists, agronomists and ecologists. The indigenous knowledge of plants is essential for the identification, cataloguing and documentation of plants. Much knowledge accumulated by tribal people regarding ethnopharmacology, the identity, location and mode of use of myriad

foodstuffs and drug plants, cures for specific ailments, contraceptives, abortifacients, arrow poisons, ichthyotoxic substances, etc. remains unknown to the scientists. The Mauves Indians of the Central Amazon Basin cultivates caffeine-rich stimulant plant, “Guarana”(*Paullinia cupana* H.B.K.), widely used throughout Brazil as a soft drink, and know that the bushes thrive much better when infested with ants. These ants visit small nectaries on the young leaves and protect them from leaf-eating insects. The Indians encourage the ants, thus using a method of biological pest control. The knowledge of how the indigenous people manage the resources around them, often as a result of hundreds or thousands of years of experience living in peaceful coexistence with the forest, is indispensable for the management of tropical forests and other natural areas toward sustained yields of a variety of useful plant (species) varieties.

A few examples:

The ethnic knowledge of plants is important not just for the tribal people themselves, but for the world also. Recently, many plants used by ancient peoples as pain killers, febrifuges, Abortifacient, hallucinogens, etc. have been collected and screened. A splendid example is Curare, from the Brazilian vine *Chondrodendron tomentosum* Ruiz & Pavon. It was originally used as a hunting poison, but it contains tubocurarine which is now essential in surgery as a muscle relaxant. The Indian snakeroot, (*Rauwolfia serpentina* Benin, ex Kurz), was employed for centuries in India to treat mental disorders and insomnia; today it provides the tranquilizer reserpine. Many western drugs have their origin in compounds found in plants used in folk medicine, e.g. cortisone from sapogenin-plants employed by aborigines in Central America and Africa; cytotoxic principles derived from *Podophyllum* used amongst the New World Indians; hypertensive agents from America Hellebore; *Veratrum viride* Ait., used by natives in America; Khellin from *Ammi visnaga* Lamk., of the ancients; and many psychoactive agents from the hallucinogenic plants of the New World Indians. The American Indians use jojoba oil obtained from the seeds of

an ancient desert bush, (*Simmondsia chinensis Schneider*), as medicine and to cook their food; now it is used in cosmetics and shampoos and is an excellent substitute for sperm whale oil in high-technology applications. Its oil has been called as the "liquid gold" because it has proved to be the largest business enterprise in the history of Red Indians. Today, a large number of jojoba cooperatives and companies have sprung in the desert areas of California and Arizona, providing employment to more than 90 per cent unemployed Red Indians. The wonder bush has been hailed as "the most promising crop of the century".

Since ancient times, the blue-green filamentous algae *Spirulina platensis* (Gom.), Geitler has formed a part of the diet of the Kanem tribe, living in the vicinity of Lake Chad, in Central Africa. Even today, the alga in the Kanem region in Chad is collected by primitive methods, sun-dried and sold in the market for edible purposes. In Mexico, the Aztecs living in the neighbourhood of Lake Texcoco also consumed considerable amounts of *Spirulina* before the Spanish Conquest. Kenya has some small soda lakes and craters which harbour tons of the algae. The algae form the basic food item of millions of flamingos which inhabit the lakes.

The researches in other countries like U.S.A., Philippines etc. have shown that the alga is edible and can be made into cakes or used as food additives. Scientists and health experts consider that *Spirulina* has unlimited potential to provide food in a world where an increasing population is vying for shrinking planet space. It has three times more protein per weight than beef and yields 25 times more iron per acre than its nearest rival, the soyabean. The World Health Organization(WHO) has said that the highly digestible algae has 65-71 percent complete protein, while beef yields 22 per cent protein and soyabean, considered one of the most ideal foods, contains only 36 per cent. The health food vogue in industrialized countries has sparked demand for *Spirulina*, in pill and powder form, as a dieting aid, a cure for common ailments 'and a nutrition supplement. The Japanese and Mexican doctors regard the

algae as effective in treating forms of ulcers, anaemia, diabetes, some liver ailments and vision problem.

Sustainable Conservation:

The tribal societies and cultures are themselves disappearing and with them vanishes their traditional plant lore. With the changing ecosystem, the tribals are in a state of acculturation or total disintegration. The habitats and environment where the tribals experienced and learnt useful lore are also fast disappearing on account of deforestation and intensive farming. Much of our present knowledge on plant resources has its origin in primitive cultures. The rich plant lore has been passed on by word of mouth and by traditions from generation to generations in different parts of the world. Today, we still have the aboriginal tribals living in the forests. There are still 72 primitive tribal groups in the country whose life style revolves round the forest. Their knowledge of the uses of plants is often kept secret and passed on by verbal traditions only.

It is to uncover these hidden and secret uses of the flora that ethnobotany has become an important part of our investigation (Jain and Rao, 1983). Recent field work and ethnobotanical surveys among the tribals have brought to light a fund of new information which can be utilized to improve the economy of the tribals by organizing systematic collection of forest products and locating cottage industries, especially of herbal drugs, oilseeds, foodstuffs, gums, fibres, dyestuffs, tan stuffs, incense materials, cordage, basketry, combs, brooms, musical instruments, crafts, etc. in tribal areas. However, the depletion of these resources has serious implications, on the traditional Indian rural and tribal economy.

The tribal people in developing countries depend largely on plants for their sustenance and livelihood. In certain regions like Western Ghats, Assam, etc., sacred, forests, groves and trees located in remote tribal areas were placed under taboos which had the effect of preserving the forest resources. In the Andaman Islands, the yam (*Dioscorea glabra* Roxb.) collected from the wild,

is one of the major foods of the tribals. They have, however, taken the first step towards domestication of (*D. glabra* Roxb.) in that the plant is protected during that period of its life cycle when the tubers are maturing; the protection being achieved by means of a religious sanction. The period when the tubers are immature, but growing rapidly, coincides with the north-east monsoon, whose presiding spirit, Biliku or Pulaga, is one of the principal deities in the Andamanese pantheon; the yams and certain other vegetable foods are said to be reserved for the use of the goddess during this period, and so must not be harvested for fear of incurring her wrath. Once the storms of the monsoons are over, the yams may be harvested freely (Courscy, 1981).

The Indian Centre of Origin of Plants (with a secondary Indo-Malayan Centre) constitutes the home of some major economic crops like rice, sugarcane, mango, banana, citrus, mustard, legumes (e.g. chick pea, pigeon pea, black gram, mung bean, cow pea, horse gram, lablab), oil plants (sesame, safflower), vegetable crops (e.g. amaranths, fenugreek, cucumber, radish, balsam pear, Indian parsley, gourds and brinjal or eggplant), fruits (e.g. Bahera, wild date, kokum, khirni, woo dapple, jambolana, jackfruit, baelfruit, bilimbi, karaunda and emblica), and edible roots and root tubers like (*Colocasia esculenta* L.), (*Dioscorea alata* L.), (*Hitchenia caulina* Baker), (*Curcuma zedoaria* Rose.), (*C. domestica* Val.) and (*Raphanus sativus* var. *indicus* Sinsk.) Some of the crop plants have their wild ancestors growing in the forest even today. The tribal belt is more often the centre of diversity and origin of our crop plants. These regions are mostly populated by tribals where so-called socio-economic upliftment may result in loss of valuable genetic diversity (see Singh, 1980 also Maheshwari, 1976).

"Some of the threatened plants are of potential economic value, e.g. *Punica protopunica* Balfe. f., the only known wild relative of pomegranate in Socotra which is now reduced due to excessive grazing by goats and cattle to 4 ageing trees. A promising new food crop is the unique Buffalo Gourd (*Cucurbita foetidissima* H.B.K.) found wild in the deserts of Mexico and South

western United States. It produces a large crop of seeds rich in edible oil and protein, and roots weighing up to 50 kilograms consist largely of starch. The Yeheb Nut (*Cordeauxia edulis* Hemsl.) is critically endangered in Ethiopia and Somalia due to overgrazing and desertification, but it has great possibilities as a protein-rich food in very arid regions where other crop legumes would not survive. The seeds which constituted a staple food of the nomads can be eaten fresh, roasted or boiled. The Gemsbok Bean (*Tylosema esculentum* A. Schreiber), native to South Africa, Namibia, Botswana and Zimbabwe, constitutes a staple food of Bushmen and Khoi-Khoi people. The main use of the plant is as a source of protein and oil-rich highly palatable seeds for human consumption. The water, extracted by pounding tubers, is a useful emergency water source.

The conservation of ethnobotanical resources and wild relatives of crop plants is vital for future breeding programmes. The search for economic plants used by tribes and aboriginals must continue. Their preservation is necessary both to secure supplies of food, fibre and certain drugs, and to advance scientific and industrial innovation. It is also necessary to ensure that the loss of species does not impair the effective functioning of ecological processes. It is unlikely that the particular communities of plants, animals and micro-organisms that make up the ecosystems associated with so many essential processes, particularly pollination and naturally occurring pest control can readily be substituted by other communities. The genetic composition of such ecosystems may be crucial for their performance.

Just as many varieties of domesticated plants are disappearing, so are the many species of wild plants. As estimated, about 20-25 thousand plant species are threatened with extinction. "the most serious threat is habitat destruction, which includes: (i) replacement of the entire habitat by settlements, harbours, and other human constructions; by cropland, grazing land, and plantations; and by mines and quarries; (ii) the effects of dams; (iii) drainage and flood control; (iv) solid waste pollution (domestic, agricultural, industrial and mining); (v)

over extraction of water (for domestic, agricultural and industrial purposes); (vi) removal of material for timber, fuel, and construction materials; (vii) dredging and dumping; (viii) overgrazing; and (ix) erosion and siltation.

Ethnobotany has, thus, become increasingly important because the information which is being gathered would otherwise be lost at a rapid rate. In this century alone, hundreds of groups of native people have become extinct or completely acculturated as their living areas are encroached upon by development. Ninety two tribes of Amazon Indians have disappeared since the turn of the century. Each group of Indians has slightly different botanical knowledge than its neighbours, which is lost with the tribe. The number of food plants and medicinal plants available in the markets has been reduced. While ethnobotanists have participated in maintaining and developing germplasm banks and conservation gardens, the policy makers, planners and administrators are generally unaware of the relevance of ethnobotanical data for agro-industrial development. The ethnobotanical information needs to be utilized and integrated with the process of development the preservation of ethnobotanical diversity in the prevailing ecosystems shouting for an important item in any overall plan for tribal development in forest areas (Maheshwari, 1980).

Barren Land at needs of Plantation: Showing Feature

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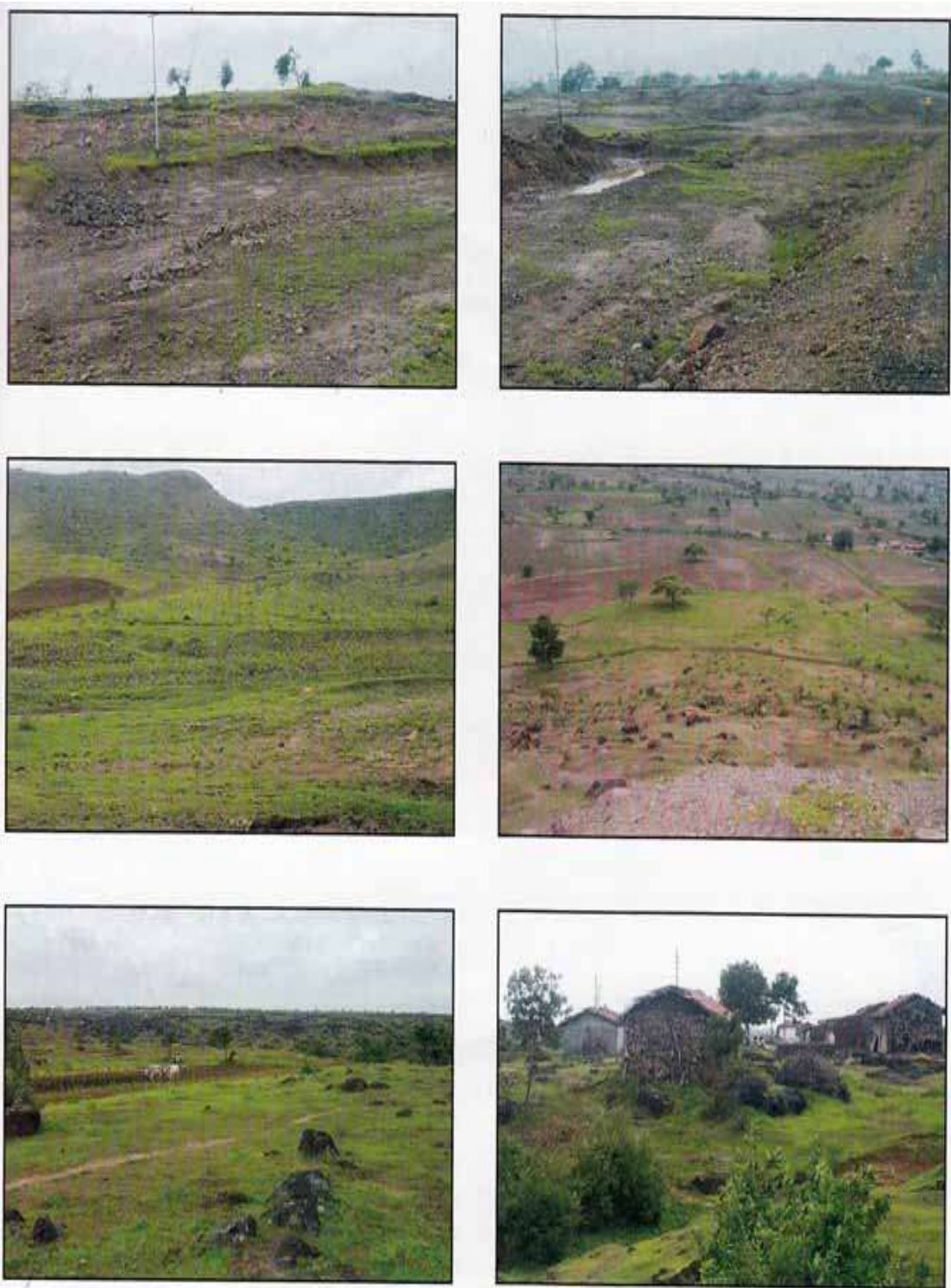


Fig .13-Needs for plantation onBarren land.



Fig.14 Needs for plantation on Barren land, (degraded lad) in valleyportions.



Fig.15-Needs for plantation on Barren land.(Degraded land) in valley portions.

CHAPTER 6

ENNUMERATION

****GLOSSARY OF ETHNOMEDITIONAL WEEDS****

- **Index to Botanical:** - Local Name, H. S., Eng. B., Bo. Guj., Ass., Kan., Mara., Mal., M., Oriya, Santh., Tam., Tel., Name and Apply in Folk Medicine, Vegetative Character, Biological Properties, Chemical Substance, and References.
- **Remarkable Point:** -The medicinal plants used by people after consulting Vaidya (Doctor) then given limited careful dose suitable, according to patient condition.
- **Weeds:** -Ethnomedicinal plants belong to the earliest known health care products that have been applied for the **human welfare**.

☼ [Sustain Plants and Enjoy Health] ☼

Family – FABACEAE

Sub Family – Caesalpinioideae)

1. *Cassia tora*(Linn.)syn. *C. obtusifolia* L.(FABACEAE)

Common & Regional Name: LN.- *Chakauda*; S.- *Chakramarda*;H. - *Chakauda*, *Panvar*; B. - *Chakunda*; Tam. - *Tagarai*; Tel. - *Tantemu*; Marathi - *Takla*.

Vegetative Character: -An annual erect & slightly woody herb. Root- tap branched. Stem– cylindrical branched smooth., Plant ½ mt. tall., Leaves - pinnately compound with three pairs of leaflets., A conical gland (Pulvinus) between the lowest pair., Flowers in pair in the axile leaf, complete, bisexual semi - zygomorphic. Calyx- 5, free sepals., Corolla- Petals unequal, 5 large yellow, free., Androecium 10, out of them 7 functional 3 Staminodes., Gynoecium, monocarpellary pistil with

marginal placentation. Pods long about 8-15 cm. seeds numerous.
Flowering- Aug. Oct. Abundant in M.P. medicinal use of whole plant.

FF - Br. %, ♀, ♂, K₅, C₅, A_{10 (7+3)}, G₁.

Use - Paste of seeds according to ones' needs is used locally to treat skin disease such as itch and ringworm and also applied in leucoderma & leprosy etc.

*Mashed seeds along with 2-3 pieces of black pepper and "Gurij" (*Tinospora cordifolia*, Willd.) Small piece, together twice a day for 3 weeks to treat gout, rheumatism, coughs, headache and fever and seed used as blood purifier.

*Paste of whole plant is applied for skin disease and leaves are used for anthelmintic, eczema cephalalgia (headache) & antipyretic.

Biological Properties:-Plant is considered as- Anti Leprotic, Anthelmintic, Analgesic, Depurative, Anodyne, Cordiac tonic, Febrifuge, Expectorant, Laxative, Stomachic, Tonic & Ophthalmic diseases.

Chemical Substance:-The plants seeds produce - Amino acids, Fixed Oil, Glucoside (Emodin) Proteins, Lignocenic acid, Palmitic acid, Linotic acid, Tannins, Reducing Sugar, Triterpenes, Rubrofusarin Na, K, Fe, & Steroids.

2. *Cassia occidentalis* Linn. (FABACEAE)

Common & Regional Name: LN. - Bada chakauda; H. - Kasondi; S. - Kasamarda; B. - Kala kashunda; Tam. - Nattam-takarai; Tel. - Kasinda; Mal. - Natram-lakara; Guj. - Kasundo.

Vegetative Character: -Plant erect, 3-5 ft. tall under shrub or annual. Stem - branching semi woody. Leaves - large, pinnate, 3-6 pairs of leaflets, leaflets about one inch long, simple, smooth, lanceolate. Flowers - in the axile of the leaf, mostly paired, typical Caesalpinia type flower yellow.

Androecium - stamens 10, only 7 functional. Ovary monocarpellary, Pods flat, curved and septets. Flowering- Aug. Oct. Occur- common in M.P. Medicinal parts use whole plant.

FF - Br.%, ♂, K₅, C₅, A₁₀₍₇₊₃₎, G₁.

Use - The leaves paste with seeds applied topically in skin diseases for ringworm, itch and root also use in snake bite.

Root bark infusion 2 spoon; given orally once a day for 2-3 weeks to treat appetite, dysurea & inflammation and seeds also used for skin diseases.

Biological Properties: -Plant considers as- Appetizer, Antipyretic, Antileprotic, Aphrodisiac, Diuretic, Digestive, Anticough, Expectorant, Purgative, Thermogenic, Blood purifier.

Chemical Substance:- Plant yields - Amino acids, Emodin, Tannic acids, Fatty Oils, Mucilage, Chrysophynol, Sitosterol, Cassiodin, Betaine Choline, Stachydrine, Trigonelline Seeds – Galactomanon, Phytosterol, 1,8 – Dihydroxy-anthraquinone, a Hydroxyl - anthraquinone, Emodin, Quercetin and another Substance Similar Tarhein Isolates, Dianthronic Heteroside (Leaves), Sitosterol, Phytosterol, Oprhein and Aloe - Emodin (Roots).

References: Balu et al., (2000); Chauhan, (1999); Ghose and Das, (2000); Warriar et al., (1996).

3. *Cassia angustata* Linn. (FABACEAE)

Common & Regional Name: LN.-Bada Chakauda; H.-chaksu / Sena; S.-Kasamarda.

Vegetative Character: -An annual or biannual shrub 5-5 ft high, diffuse procumbent, much branched, from plants out some ordure. Leaves pinnately compound, having 8-10 pairs of leaflet, leaf about 8-15 inches

length. Flowers- yellow, compact (Hani bee like), complete, zygomorphic, bisexual. Calyx- sepals 5, green imbricate, Corolla- petals 5, Yellow. Stamens total 10, and 5 functional. Ovary, superior one celled. Pod 4 angular and 8-12 cm length 7-15 seeded. Found- common all over M.P. Flowering- Aug - Sept. Medicinal use - Seeds.

FF - Br. %, ♂, ♀, **K₅**, **C₅**, **A_{10 (5+5)}**, **G₁**.

Use - leaf powder ½ spoon; dip in one glass water overnight and filter in the morning, taken for bowel movements, Stool, stomachic constipation, gas etc.

Biological Properties:- Plant leaf- a laxative, cathartic and Purgative.

4. *Cassia pumila*, Lamk.(FABACEAE)

Common & Regional Name: LN.- *Lajo*; Marathi - *Sarmal*; Tel. - *Nallajiluga*.

Vegetative Character:- An annual herb, diffuse procumbent, much branched, Leaves pinnately compound, having 8-10 pairs of leaflet, leaf about 3-5 inches length. Flowers- yellow, axillary, complete, zygomorphic, and bisexual. Calyx- sepals 5, green imbricate, Corolla- petals 5, Yellow. Stamens- 10 out of which 5 functions. Ovary- superior one celled pod 3-6 seeded. Found- common all over M.P. Flowering Aug. Sept. Medicinal use - Seeds.

FF - Br. %, ♂, ♀, **K₅**, **C₅**, **A_{10 (5+5)}**, **G₁**.

Use - The seed powder 2-5 g. taken orally once a day for 1-3 days to stomach aperients.

Biological Properties:- Plant seeds- Purgative.

5. *Cassia mimosoides* Linn. (FABACEAE)

Common & Regional Name: LN.- Patvaghas, Santhal. - Patwaghas; Tel.- Nelaponna.

Vegetative Character: -A creeping diffuse much branched, more or less perennial, slightly hairy herb. Leaf - compound, pinnate, about 5-8 cm. long, each leaf have 40 to 60 pairs of leaflets, sessile, glands below the flower pair of leaflets. Flowers - small solitary or 2-3 in leaf axile, yellow. Calyx- sepals 5, Corolla- petals imbricate 4 sub-equal stamens 10 perfect. Pod - flat 5 long, 20 - 25 seeded. Occur- common in M.P. also found in Sagar, Jabalpur & Shahdol division. Flowering- Aug. Sept. a waste land, herb. Medicinal parts use root and seeds.

FF –Br. %, ♂, K₅, C₄, A₁₀, G₁.

Use - The root powder mixed with “Ainhi” (Marorphali) (*Helicteres isora* Linn.) Fruits together ½ spoon taken twice a day for 2-3 days to cure spasm (gripping) of stomach.

The root and seeds powder is given orally one teaspoonful once a day for 2-3 weeks to improve weakness and leaves is also used in piles.

Biological Properties:- Plant root - Spasms of Stomach, Piles.

5. *Caesalpinia bonducella* (Fleming) syn. *C. Crista* Linn. (FABACEAE)

Common & Regional Name: LN.- Gataran; S.- Kuberakshi; H.-Karanju; Eng. - Bonduc Nut (Fevernut) B.- Nata-Karanja; Bo.- Sagurghota; Marathi- Gajaga; Guj.- Kandh; Tam.- Kazhichikay; Tel.- Gachacha-Kaya; Mal.- Kajanchik-Kuru.

Vegetative Character: -A prickly shrub. Root – tap, branched. Stem – erect, woody, spiny, cylindrical, solid, branched, and climbing, Leaves- compound, spiny midrib, pinnate. Inflorescence- racemose, zygomorphic, hermaphrodite, hypogynous complete. Flower - Yellow

colour. Fruit - Pod spiny, Seeds- hard, Flowering- Aug. Sep. Found - all over M.P. Medicinal use - Tender leaves and seeds oils.

FF –Br. %, ♂, K₅, C₅, A₁₀, G₁.

Use - juice of tender leaves 1 spoonful mixed with “Bhumi Neem” (*Andrographis paniculata* Nees.) leaf, pepper (*Pepper longum* Linn.) fruit and “Tulsi” (*Ocimum sanctum* Linn.) leaf, together taken once a day for 3-7 days to cure common fever, malaria fever, and dysurea etc.

*The seeds oil mixed with “Vach” (*Acorus calamus* Linn.) cooked rhizome “Datura seed” (*Datura alba* Nees.) leaf, applied in rheumatic arthritis, Osteoarthritis and also use in skin diseases.

The seeds powder use for colic pain, chronic fever, urinogenital disease, and leprosy& bile disease.

Biological Properties: -Plant considers as- Antimalarial, Antipyretic, Anti Leprotic, Anthelmintic, Anti-Inflammatory, and Anti - bronchitis, Digestive, Pungent, and Thermogenic& Styptic.

Chemical Substances: -Seeds yield various compound – Amino acids, A Bitter Glucoside, Bounducin, Bonducellin, Fatty acids, Phytosterinin, Saponins, Starch, Fatty Oils, Phytosterols, Sucrose, and Caesalpins.

(FABACEAE) Sub Family –Mimosaceae/Mimosoideae):

6. *Mimosa rubicaulis* Lamk. (FABACEAE)

Common & Regional Name: LN.- Siaka, H. & B. - Shiak kanta; P. - Arula; Tam. - Lngai.

Vegetative Character:-A pinnae 4-12 pairs opposite, leaflets 10-12 pairs, with bristle like gland between each pair. 2-3 cm long, leaflets 10-12 pairs, 1 inch long obtuse, oblong, cuspidate, membranous, pubescent. Flowers- tetramerous, pink. Calyx- sepals (4), Corolla-4 minute, stamens 8-10.

Pod 10-15 cm. long, linear, oblong, curved, glabrous, 6-10 seeded, joints square, sutures not prickly. Found- throughout M.P. especially in grass lands and along the water courses. Flowering- July to Sept. Medicinal parts use leaf.

FF - Br.⊕, ♀, K₍₄₎, C₄, A₈₋₁₀, G₁.

Use - Decoction of leaves ½ cup mixed with “Shirphonka” (*Tephrosia purpurea Pers.*) root given orally once a day before meals for 3 weeks to cure piles and root powder used also for weakness.

Biological Properties:- Plant root - Weakness, Piles.

7. *Acacia caesia* Willd.(FABACEAE)

Common & Regional Name:- LN.- Rail; H.- Aile; Santh - Kondrojanum; Mara. - Chilari; Tam.- Karijindu; Tel.- Kondakorinda.

Vegetative Character: A perennial prickly shrub, climber, common river side
Root - tap, branched. Stem - 5 to 7 ft. tall, branched, prickly woody.
Leaf - compound, bi-pinnate with pulvinus petioles. Inflorescence- a globose, axillary head pink. Flower – regular, actinomorphic, bisexual tetramerous gamosepalous, polypetalous, polyandrous gynoecium – monocarpellary, ovary – superior Fruit – pod – 4-7 bunched. Occur- Shahdol, Jabalpur, Sagar division. Flowering- Aug. Sep. Medicinal use - Flowers.

FF - ⊕, ♀, K₍₄₎, C₄, A₄, G₁.

Use - The flower paste ½ tea spoon and along with black pepper 2-3 seeds, “Vach” (*Acorus calamus*, L.) 1-2 gm. rhizome and “Brahmi” (*Centella asiatica*, L.) leaves ½ spoon is given orally 1-2 times a day for 7-8 weeks to control mental disorder and improving memory.

Biological Properties: Mental disorder, Memory.

8. *Canavalia ensiformis*, Linn DC. (FABACEAE)

Common Regional Name: LN. - *Sema*, H. - *Bara sem*; B. - *Makhan Shim*; Marathi - *pandhri abai*; Tam. - *Vellai tambattai*; Tel. - *Vella tamma*.

Vegetative Character:- Annual climber, some are wild, Root - tap, branched root nodule's Stem - Climbing, branched, Leaf-petiolate, compound, Trifoliate, Inflorescence- racemose, axillary. Flower- bracteate, pedicellate complete bisexual zygomorphic, slightly perigynous gamopetalous green, polypetalous Androecium- 9+1 diadelphous, Gynoecium- Monocarpellary, some time stalked, ovary superior unilocular Fruit – Pod – 7-10 long. Occurs in- Shahdol, Jabalpur, Sagar division. Flowering- Sep. Oct. Medicinal use - Fruits.

FF - Br. %, ♀, $K_{(5)}$, $C_{1+2+(2)}$, $A_{10 (9)+1}$, $\underline{G}_1$.

Use - The cooked or raw fruits, is eaten orally once a day for 20-25 days to treat hernia disease.

Biological Properties:- Plant affects - Obtained by Feeding and Drenching Experiments or Rabbits, Sheep & Hernia diseases.

Chemical Substances:- Plant contains- Alkaloids, Cystin, Tyrosin, Tryptophan, Seeds- Arginine, three Crystalline, Globulines, Canavalline, Concanavalin A, and Concanavalin B, Cholin, Trigonelline, Betonicine, Caneine, Ketogine, Desaminocanavanine.

9. *Mimosa pudica* Linn. (FABACEAE)

Common & Regional Name: LN.- *Chhuimui*, *Lajmanti*; S. - *Lajja*, H. & P. - *Lalwanti*; Eng.- *Sensitive plant (Touch me not)*, B.- *Lajak*; Mal.- *Tottavati*; Tam.- *Tottaluadi*; Tel.- *Peddanidrakanti*.

Vegetative Character: -An annual or perennial herb or under shrub. Root – tap, branched. Stem- cylindrical and sparsely prickly, Leaves - degitateley pinnate, peripinnate, leaflets lanceolate small about 10-20 pairs in each leaf. Leaves sensitive to touch, about 2-5 cm. long with bristles on rachis and petiole., Flower - on long peduncles on a globose, axillary head, pink., Bracts solitary, pink colour, linear and hairy. Calyx - minute, 4. Corolla- Pink, 4 lobed tubular. Stamens- 4 exerted, ovary monocarpellary, superior with marginal placentation, pods 1-2 cm, flat, 3 to 6 jointed, armed with bristles. Flowering – Aug. Oct. occurs in Shahdol, Jabalpur, Hoshangabad, Rewa division. Medicinal use whole plant part.

FF –Br., $\oplus, \text{♂}, \text{♀}$, **K**₍₄₎, **C**₄, **A**_{4(Polyandrous)}, **G**₁.

Use - Seeds powder ½ -1 tea spoonful mixed with “Shisham” (*Dalbergia sissoo*, Roxb.) 5 leaves is taken orally once a day for 2 month to cure gonorrhoea, leucorrhoea and syphilis. The root and leaves paste is useful in (Anus) fistula and leaf-stem paste also used in scorpion & spider sting.

The root paste; one spoon compound with “Adusa” (*Adhatoda vasica*, Nees.) leaf juice ½ tea spoon is given orally twice a day for 3 month for the treatment of asthma, cough, dysentery and leucoderma.

The root and leaf paste ½ tea spoon external used in piles and there it is also leaves paste rubbed to **hydrocele** and applied once a day for 2-3 weeks.

Seed powder along with “Babool” (*Acacia arabica* Willd.) gums one spoonful twice a day for 3-7 weeks to cure gonorrhoea and syphilis.

Biological Properties: -Plant root- Astringent, Antispasmodic, Acrid, Bitter, Constipating, Diuretic, Febrifuge, Emetic, Leaf – Bitter, Sudorific, Cooling, Pungent, Carminative, Alexipharmic, Resolvent & Vulnerary.

Chemical Substances: -Plant leaves appear various compounds – Glycoside, Flavone, Alkaloids, Mimosine, Stigmasterol, and Leucoanthocyanidin. Seed Yield- Amino acids Free & Mucilage., Seed Oil – Palmitic acid, Linoleic acid, Oleic acid, Stearic acid and Behenic acid.

(FABACEAE) Sub Family –Papilionaceae

10. *Puerariatuberosa*, DC. (FABACEAE)

Common & Regional Name: LN. - Patal Kohanda; H. - Bidari Kand; San.- Vidari; P. - Siali; Eng. - Indian Kudzu (Saral); B. - Shimiabatraji; Kumaon - Biralipuna; Bo. - Dari; Mal. - Mutukku; Mar. - Badra; Tam. - Dari; Tel. - Darigummadi.

Vegetative Character:- Climbing herb, wild plant., Root – tuberous (Nephi form 3-7 kg). Stem - woody, climbing, branched. Leaf – alternate, petiolate, compound, tripinnate, Inflorescence – raceme 5-15 cm. long., Inflorescence – Racemes. Flower – blue or purplish blue red colour, Zygomorphic, bisexual perigynous. Calyx – 5 sepals, Corolla – 5 petals, Androecium – 10 diadelphous. Gynoecium – monocarpellary, Fruit – Clothed with silky brown hairy 3-4 inch long flat 2 - 6 seeds., Flowering – Feb. March., Occurs in Shahdol, Amarkantak, Dindori, Mandla, Balaghat, Hoshangabad, and Satna. Medicinal part use is tubers roots.

FF- Br. %, $\frac{\text{♂}}{\text{♀}}$, **K**₍₅₎, **C**₁₊₂₊₍₂₎, **A**₁₊₍₉₎, **G**₁.

Use - The Powder or fresh tuber 1 spoon along with “Mahua” liquor (*Madhuca indica*) ½ cup and onion given orally 2-3 times a day for 2-3 days as prescribed for treatment of diarrhoea (Cholera), stool, fever and tuber extract to dressing of cut and wounds and tuber also useful for progestrogenic and oestrogenic, Spermatorrhoea, strangury & tuberculosis., Fresh or powdered tuber (root) half spoon along with

young root tuber of “Semal” (*Bombax malabaricum*, DC.) “Satavar” (*Asparagus racemosus* Willd.) and “Safed Musli” (*Chlorophytum arundinaceum*, Baker) is together given orally in equal amount one spoon once a day for 21 days to cure weakness and also used after delivery (childbirth) for strength, lactation and for regaining youthfulness even if old.

Powder of tuber a table spoon compound with candy sugar “Gokhuru” (*Tribulus terrestris* L.) ½ spoon and ½ glass goat’s milk is given orally once a day for 5-7 weeks to treat impotency, seminal debility and also used in over bleeding during menstruation.

Tuber powder 2-3 g along with “Mahua” (*Madhuca indica* J.F. Gmel.) Sarab (*Country liquor*) is taken 2-3 times a day for 2-3 days for abortion and anti-inflammatory, spermopoeitic and diabetes.

Biological Properties: -Anti-inflammatory, Demulcent, Diuretic, Refrigerant, Tonic, Spermopoeitic, Rejuvenator, Aphrodisiac, Emetic, Emollient, Expectorant, Laxative, Febrifuge & Sweet.

Chemical Substance:- Root yield – β -Sitosterol, Stigmasterol, Daidzein, Puerarin, C Glycoside 4and 6diacetylpuerarin. Anhydroxytuberosin, Daidzein, Puerararone, Puerarostan, Hydroxytuberosone, 3 -O-Methyleandy-rotuberosin.

References: Paranjpe, (2001).

11. *Mucuna prurita*, Hook. syn.; *M. pruriens* Bak.(non DC.)(FABACEAE)

Common & Regional Name: LN. - Kemach; H. & P. - Kawanch; Eng. - Cow hage; B. - Alkusa S. - Atmagupta; Bo. - Kuhili; Mal. - Corivalli; Shorinyanam; Mara.-Karacha Tam.- Punippidukkan, Punaikkali; Tel. - Pilliadugu, Dulagondi;

Vegetative Character: -An annual herbaceous climber, papilionate are distinguished by anomalous secondary thickening, ‘Mucuna’ stem has

secondary growth resembling *Cycas* or beet root. Root- tap branched. Stem - herbaceous, climber, branched, hairy. Leaf - compound tripinnate leaf (dorsal) upper surface smooth and ventral surface hairy. Inflorescence- racemose, solitary flower bisexual irregular complete, zygomorphic perigynous Calyx – 5 sepals. Corolla – 5 petals., Androecium 10 stamens ovary superior. Fruit - brown colour, hairy, legume, 2-4 inches long S shape. Hair is poisonous seed- spots etc. Found all over M.P. Flowering - Sept. Oct. Medicinal part use as root, leaf & seeds.

FF-Br. %, ♂, ♀, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(9)+1}$, $\underline{G}_1$.

Use - The leaf paste ½ teaspoon along with “Neem” (*A. indica* A. Juss.) leaf ½ teaspoon mixed with black pepper taken before meals once a day for 3-5 days to cure worms, it also cures headache and ulcers.

*The root powder ½ teaspoon along with “Mahua” (*Madhuca indica* J. F. Gmel.) Sarab (liquor) ½ cups given orally (10 minute gap) 2-3 times a day for 2-3 days to cure (cholera) vomiting and diarrhoea.

*Seed powder 4-5 g. mixed with cow fat (Ghee) or honey, taken once a day for 21 days to treatment tuberculosis (TB), asthma, leucorrhoea, Spermatorrhoea, scorpion sting.

*The root powder half tea spoon mixed with “Vach” (*Acorus calamus* L.) rhizome 2-3 g. and “Keokand” (*Costus speciosus*, Koenig ex. Retz.) rhizome 4-5 g. given orally once a day for 2-3 month applied for paralysis, gout, elephantiasis, dropsy, dysmenorrhoea, amenorrhoea, helminthiasis, ulcer and also root decoction useful in cholera. The leaves are also used for debility, inflammation ulcer and helminthiasis etc.

*Powder of seeds 3g, and root 3g. compound with “Chirchira” (*Achyranthes aspera* L.) root powder 4-5g., “Saherua” (*Nyctanthes arborescens* L.) root, bark, leaves, flowers, equal amount of powder or paste 1 spoon and “Bhakrandi” (*Jatropha curcas* L.) 1-2 g., “Neem”

(*Azadirachta indica* A. Juss.) bark powder 5g., “Tulsi” (*Ocimum sanctum* L.) leaf, root 7g., and “Kosam” (*Schleichera oleosa*, Lour.) seed powder 3-5 g. given orally once a day for 2-3 months for relief in cancer disease.

*The seeds powder ½ teaspoon mixed with “Nirgundi” (*Vitex negundo* Linn.) leaves decoction ½ cup, “Ghumchi/Gongch” (*Abrus precatorius* Linn.) ½ seed crushed and “Bach” (*Acorus calamus* Linn.) 3g., rhizome powder are mixed together taken once a day for 7-21 days to control arthritis rheumatic, gout, and Osteo-arthritis.

Biological Properties: -Root- Aphrodisiac, Anthelmintic, Bitter, Diuretic, Febrifuge, Emollient, Purgative, Sweet, Stimulant, Thermogenic, Astringent, Laxative, Nervine Tonic.

Chemical Substance: -Seed yields – Carbohydrate, Phenols, Steroids, Glycosides, Tannin, Fe, Ca, Mg, K, Al & Zn, Reddish, Viscous Oil, and Alkaloids Mucunine & Mucunadine.

References: Sinha and Sinha, (2001).

12. *Crotalaria prostrate*, Rattle. (FABACEAE)

Common & Regional Name: LN. -Chhota Jhunjhuna; H. & B. - Chhota Jhunjhuniya; Tel. - Serigallygista.

Vegetative Character:-Diffusely branched silky herb upto 2-3 ft. Root- tap, Stem- hard branched. Leaves - trifoliate, pedicillate. Flowers - silky 2-3, Corolla- yellow or purple colour. Fruit- pods small ½ inches, Flowering- Aug.- Oct, Found – Shahdol, Rewa, Sagar, Jabalpur & Hoshangabad division. Medicinal use- Leaves.

FF- Br. %, $\hat{CA}$, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(9)+1}$, $\underline{G}_1$.

Use: Root applied for mental disorder (Derangement) and also used in children's (infantile) diarrhoea.

Biological Properties: -Plant is considered as- Derangement (mental disorder), Diarrhoea

13. *Crotalaria verrucosa* Linn.(FABACEAE)

Common & Regional Name: LN.- *Jhunjhuna*; H.- *Banshana*; B.- *Jhanjhana*; S.- *Shanapushpi*; Bo.- *Tirat*; Tel.- *Ghelegherinta*.

Vegetative Character: -Diffusely branched herb up to 2-3 ft. high., Stem-four side (angle) pubescent. Leaves- simple, alternate 5 oblong. Vary margined, with short petiole. Flowers 10-20 on large racemes 15-20 inches long., Calyx - membranous with a tube and triangular teeth. Corolla - bluish yellow or white. Fruit - oblong 1-3" pods, hairy, style persistent broken. Seeds 10-15 kidney shaped. Flowering- Sep. – Oct. Found in- Shahdol, Rewa, Sagar, Jabalpur & Hoshangabad Division. Leaves are medicinal in use.

FF-%, $\widehat{PA}$, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(9)+1}$, $\underline{G}_1$.

Use - Leaf juice mixed with "Madar" (*Calotropis Procera* Ait.) latex applied in skin disease as boils, scabies to continue thrice a day for 7-21 days.

*The leaf juice mixed with black pepper externally used for skin disease as itch boils, scabies etc. & the leaf juice is also taken as purifier of blood, mouth and heart disease.

*The leaves paste externally applied for wound cut and accidental wound etc.

Biological Properties: Leaves- Scabies, Impetigo, Efficacious in Diminishing, Salivation.

14. *Crotalaria spectabilis* Roth. syn. *C. sericea*, Retz.(FABACEAE)

Common & Regional Name: L.N. - *Jhunjhuna*; H. *Jhunjhania*; S.- *Bhantaryva*; B.- *Pipuli jhunjhun*; Gujrati- *Ghugra*; Marathi- *Khudkhola*

Vegetative Character: -Diffusely branched herb upto 1 m. tall. Root- tap, branched. Stem four sided pubescent, Leaves simple, alternate 5 oblong. Wavy margined, with short petiolet, Flowers- 15-20 on large racemes 20 inches long. Calyx- membranous with a tube and triangular teeth, Corolla- bluish yellow or white, Fruit- oblong 1-3” pods, hairy., Style persistent broken. Seeds 10-15 kidney shaped.

FF-Br. %, $\hat{A}_G$, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(9)+1}$, $\underline{G}_1$.

Use - Leaf paste mixed with “Neem” (*Azadirachta indica*) leaf and black pepper external application for skin disease as scabies and also used in curing poison-infected livestock (Veterinary).

*Leaf paste mixed with “Amarbel” (*Cuscuta reflexa*) dry zinger and cow fat (Ghee) together used for external cut and wounds.

Biological Properties: -Plant Seeds - Scabies, Impetigo, Veterinary.

Chemical Substance:-Stems, Leaves & Seeds Contains- Alkaloid, Monocrotaline Toxic to livestock. Seed-3.2% Alkaloids.

15. *C. retusa* Linn. (FABACEAE)

Common & Regional Name: LN. &H. - Ghunghunia; B. - Bil-Jhunjhun; Bo. - Ghagri; Tel. - Potu-galligista.

Vegetative Character:-An erect robust undershrub. Root-tap branched., Stem- up to 1mt. high branches striated glabrous., Leaf- obovate,

FF - Br. %, $\hat{A}_G$, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(10)}$, $\underline{G}_1$.

Use - The crushed leaf mixed with “Neem” (*Azadirachta indica* A. Juss.) leaf juice to treat scabies, boils and other skin disease for twice a day to 3 weeks

Biological Properties: -Plant – Astringent, Bitter, Emetic, Expectorant. Seeds – Depurative, Digestive, Febrifuge, Scabies and Impetigo.

Chemical Substance : *Plant Seeds Contain – Toxic Alkaloids, Monocrotaline.*
Leaves – Indican.

16. *Teramnus labialis*, Spreng. (FABACEAE)

Common & Regional Name: *LN. - Van urda, H. - Mashoni; B. - Mashani; S. - Mashparni; Gujarati - Valigovelo; M. - Kattulandu*

Vegetative Character: -Annual herbs some climber. Root- tap branched, Stem- herbaceous hairy climber, Leaf – trifoliate hairy, Inflorescence - racemose. Flower - bisexual, irregular, complete, zygomorphic, perigynous, calyx-5 sepals. Corolla- 5 petals butterfly shaped. Androecium - 10 stamens. Usually diadelphous 09 fused and one is free inferior, Gynoecium - Mono-carpellary unilocular, ovules - marginal placenta. Fruit- A legume hairy 1-2 inches some band 8-10 seeds, colour blackish., Flowering- Aug. Sep. Occur in Shahdol division & another part of M. P. Medicinal use- Seeds.

FF - Br. %, ♀, **K**₍₅₎, **C**₁₊₂₊₍₂₎, **A**₍₉₎, **G**₁.

Use - Powder of seeds (Fruit) ½ tea spoon with 2-3 piece black pepper, “Vach” (*Acorus calamus* L.) rhizome half cm long, given orally twice a day for 5-7 weeks, prescribed for paralysis, gout and also used in weakness.

Biological Properties:- Astringent, Aphrodisiac, Diuretic, Demulcent, Carminative& Tonic

Chemical Substance :Plant Contains: Plant Contains- *Alkaloids, Amino acid, Carbohydrate, Galactomanon, Carotene, Diosgenin, Gitogenin, Furastanolglycosides, Luteolin, Neogigenin, Neogitogenin, Quercetin Kaempferol, Sugars, Saponins, Sapogenin, Saponeritin, Tigogecinin Vitexin, Vicenin, Yamogenin.*

17. *Atylosia platycarpa* Benth.(FABACEAE)

Common & Regional Name: LN. - Jangli-arhar; H. - Van-arhar.

Vegetative Character: -A twining or trailing herb, with slender grey pubescent. Stem- branches. Leaves-3 foliate, shining silvery grey, leaflets 3-5 cm long, the terminal one distinctly stalked, roundish acute or cuspidate acuminate, membranous, shorter than the petioles, suppressed at the ends of the shoots, 1-2 flowered pedicel as long as the calyx densely pilose, teeth linear setaceous corolla little exerted. Pod 2-3 cm straight, flat, distinctly lineate, thinly pilose, 5-7 seeded. Flowering Sept.- Nov. Found- in other parts of M.P. Medicinal use- roots

FF - Br. %, $\frac{\text{♂}}{\text{♀}}$, **K**₍₅₎, **C**₁₊₂₊₍₂₎, **A**₍₉₊₁₎, **G**₁.

Use - The paste of roots along with “Amarbel” (*Cuscuta reflexa* Roxb.) plant is given orally; one spoon twice a day for 21 days to cure gout pain.

18. *Indigofera glandulosa* Willd.(FABACEAE)

Common & Regional Name: LN. - Jhurjhura; Tel. - Baragadam; Bo. - Gauachamatmandi.

Vegetative Character: -An annual herb with Stem- erects slender branches which are woody below, hairy when young. Leave-trifoliate, petiolate, leaflet 3, stalked, Flower- axillary sessile, on short stalked heads papilionaceous, pink. Pod oblong 4-12 mm long with winged and toothed angles, 1-2 seeded. The plant is very common during khareef season and forms / large colonies if not eradicated. Flowering Sept.- Dec. Found- in all over M.P. Medicinal use- seeds.

FF – Br % $\frac{\text{♂}}{\text{♀}}$, **K**₍₅₎, **C**_{1 + 2 + (2)}, **A**_{1 + (9)}, **G**₁

Use - Powdered seed ½ tea spoon mixed with “Shisham” (*Dalbergia sissoo* Roxb.), Leaves 3-5 and “Satavar” (*Asparagus racemosus* Willd)., root one spoon together given orally once a day; early morning for 7-27 days to relieve amenorrhoea.

Biological Properties: -Seeds-Nutritious, Tonic.

19. *Indigofera linifolia* Retz. (FABACEAE)

Common & Regional Name: LN.- Bhuijauar; H. & P. - Tokri; B.& Bo.- Bhangra.

Vegetative Character:- A herbaceous most common plant in cultivated fields and waste lands., Creeping on straight, silvery grey with fine hairs. Leave - liner, pointed at both ends, stipulate, simple, entire sessile, about 1-3 cm. long. Flowers - axillary cyme, Calyx- pointed minute, Corolla – 5 papilionaceous pinkish red., companulate subequal. Pods one seeded small, globose, whitish, Perpetuating by seeds. Flowering Oct. to Mar. Found in Shahdol division, less in other parts Medicinal use- seed.

FF – Br %, ♂, ♀, $K_{(5)}$, $C_{1+2+(2)}$, $A_{1+(9)}$, $\underline{G}_1$.

Use - Seed powder; a tea spoon mixed with “Chakauda” (*Cassia tora* L.) seeds and “Nirgundi”(*Vitex negundo*) root powder ½ spoon taken once a day for 7-8 weeks to improve rheumatic & goat disease.

Biological Properties: -Plant – Febrile, Eruptions, Rheumatic & Arthritis.

Chemical Substance: Plant Contains – Lactone Linifolin and Wax.

20. *I. Cordifolia* Hayne.(FABACEAE)

Common & Regional Name: LN. - Bakri ghass; H. - Vikriavas.

Vegetative Character: -An annual diffuse branching plant, spreading in nature, Leaves- sessile, cordate, and densely hairy below, Flowers- papilionaceous, pink, 4-8 in a dense sessile head. Pods 5 mm long, cylindrical, 2 seeded common on dry and sandy soils, Perpetuating by seeds. Occur in Shahdol and abundant in Malva, Gwalior and Jabalpur

tracts also found in other parts of the state. Flowering Oct. to Mar.,
Medicinal use- seeds.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₁₊₍₉₎, G₁.

Use - The Seed used during and after delivery for medicinal uses and also taken during famine.

21. *I. trifoliata* Linn.(FABACEAE)

Common & Regional Name: LN. - Sapot, Sanphut; H.- Janglimethi; Mara. - Lalmeti; Bo- Vekaria.

Vegetative Character:- A perennial, Root- tap .Stem- sub-erect, freely branching 30-60 cm. tall shrub. Leaves- trifoliate terminal, sessile, stipulate, leaflets 1-2 cm, oblanceolate, black dotted. Inflorescence- racemes axillary, 6-12 flowered, Flowers- red. Pods covered deflexed four angled 1 cm. long poded 6-8 seeds. Occur- very common, Flowering- during Sept. – Dec. Medicinal use- seed.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- Seed powder; ½ teaspoon is mixed with Chakauda” (*Cassia tora* L.) seed, and “Nirgundi” (*Vitex negundo* L.) root powder, ½ teaspoon taken once a day for 7-8 weeks to improve rheumatic and gout etc.

Biological Properties:- Seeds- Restorative , Alterative, Astrin, Aphrodisiac, Tonic.

22. *Sesbania sesban* Linn. Merr.syn. *S. aegyptiaca* Pair.(FABACEAE)

Common & Regional Name: LN.- Jhilmilia; H. & B.- Jayanti; Bo - Jait; Mal. - Shempa; Tam.- Sembai; Tel.- Jalugu

Vegetative Character: -An annual herbaceous, Root-tap branched., Stem- aerial, erect branched cylindrical, solid glabrous., Leaf- stipulate,

petiolate alternate compound unipinnates and peripinnate., Inflorescence - axillary raceme, Flower- Calyx- 5 Corolla- 5, Androecium 10 (9+1) dithichous, dorsifixed. Gynoecium- 1 superior. Fruit- Legume 10-15 (cm.)

FF – Br, Brl, %, ♀, ♂, K₍₅₎, C_{(5) 1 + 2 + (2), A₍₉₎₊₁, G₁.}

Use - Seed powder; half tea spoon mixed with “Badi Dudhi” (*Euphorbia hirta*) one spoon given orally 2-3 times a day for 2-3 days to treat diarrhoea, stool; and also used for itching of the skin.

*The seed powder; half tea spoon with “Punarnava root” (*Boerhaavia diffusa* L.) a spoon given orally; daily, early morning once a day for 21 day to cure excessive menstrual blood flow and root also used in treatment of diabetes and tumour. The root paste is used in addition for scorpion sting.

23. *Tephrosia purpurea* Linn. pers. (FABACEAE)

Common & Regional Name: LN.- *Sirphoka*; H. & P.- *Sarphoka*; S.- *Sharapunkha*; B. - *Bannilgach*; Bo.- *Sarphunkha*; Kan.- *Phanike*; Mal.- *Kolinnil*; M.- *Mollukkay*.

Vegetative Character: -A perennial herb, or under shrub. Stem - woody below, Branched sub-erect. Leaves- compound, 13-16 mm, leaflets 13-21, narrowly lanceolate, white silky below, long. Flower - purple on lax raceme, opposite to leaves, Bracts small, linear. Calyx -5 sepals hairy. Corolla -5petales, red thinly silky. Pod 2-3 cm. long, twisted 6-8 seeded. Waste land weed, Flowering-during rainy season. Occur in Shahdol and all over M.P. Medicinal use- root.

FF – Br, %, ♀, ♂, K₍₅₎, C_{1 + 2 + (2), A_{(9) + 1}, G₁.}

Use- it is recommended to chew 5-10 leaves 2-3 times a day to cure toothache.

*The root powder along with “Safed musli” (*Chlorophytum arundinaceum*, Baker.) one spoon is taken twice a day; for 21 days to improve weakness and it is also used in anthelmintic (worms).

*The paste of root applied externally in **filariasis** disease two times a day for 1-2 months.

*Paste of roots with “Gurij” roots (*Tinospora cordifolia* Willd.) & “Harra” fruit (*Terminalia chebula* Retz.) is mixed in rice water and given orally once a day for 3-7 days to improve Hepatic - spleenomegally.

*Powder of roots; 1 spoon along with “Bel” (*Aegle marmelos* Corr.) root crushed decoction 2 spoonful mixed with whey. One cup is taken twice a day for 3-7 weeks to cure haemorrhoids.

Biological Properties: -Plant Alexiteric, Anthelmintic, Alterative, Bitter, Digestive, Anti-pyretic.

Chemical substance:-Root yield are- due to Isolochacarpin, Pongamol, Tephrosin, Degulein, Isotephrosin, Rotenone, Lanecolatin A, Lanecolatin B, Karanjin Kanjone, β -sitosterol, three new unusual flavonoids tephro-galbrin, Dephinindinchloride, Flevichapparins B & C, Tepurindiol, O-methylpongamol and β -hydroxy, chalconepurpurenone, Karangin, Kanjone, purgulin, Rutin, Lupeol, Methylkaranjinic acid.

Reference: Paranjpe, (2001).

24. *Tephrosia villosa* Pers. (FABACEAE)

Common & Regional Name: LN. - Anhai; Tel. - Nuvempali; Tam. - Punaikkaivetai; Porebunder- Runchhali, Sarpankho; Oriya- Soretokolothiya.

Vegetative Character: -A stiff small diffuse under shrub, common in barren soils. Root-tap., Stem-weak perennial, branched. Leaves- in nature linear stipules sessile, leaflets 13-19, oblanceolate, silky beneath. Flowers -

axillary clusters or a racemes, red., Calyx-5 densely silky. Corolla- 5 exerted. Pod pubescent, sickle shaped 2-3” other characters as *T. Purpurea* plant, Flowering- Oct. Nov., Found all over M.P. Medicinal use - leaf, whole plant additional purpose. Test - bitter

FF – Br, % $\frac{\sigma}{+}$, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁

Use - Juice of leaves mixed with “Gurij” (*Tinospora cordifolia*). Stem ½ Spoon used in diabetes and dropsy.

25. *Indigofera enneaphylla* Linn.(FABACEAE)

Common & Regional Name: LN. - *Basua*; S. - *Vasuka*; Mara. - *Bhuiguli*; Tel. - *Chalapachi*; Tam. - *Cheppunerunji*; Mal. - *Cherupollate*.

Vegetative Character: -A spreading and trailing annual or biennial herb with few white hairs. Stem densely branching. Leave pinnate, 1-3 cm, stipulate, Leaflets generally 5-9 oblanceolate, Flowers sessile on spike like heads, purple, bracts lanceolate. Pod 2 seeded small, separated by a partition, Flowering – Sept. Oct. Found- common weed all over M.P. Medicinal use- plant.

FF – % $\frac{\sigma}{+}$, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use - The plant juice is applied in chronic venereal affections for 21 days and also used in Antiscorbutic.

Biological Properties:- Plant Juice- Antiscorbutic, Alterative, Diuretic.

26. *Indigofera tinctoria* Linn. (FABACEAE)

Common & Regional Name: LN. - *Birhul*; H. - *Nil*; San. - *Nilini*; Eng. - *Indian indigo*; Gu.- *Nil*; Mal.- *Nilamari*; Mar. - *Neeli*; Tam. - *Nili*; Tel. - *Nili*.

Vegetative Character:-The plant occur on hill slopes and moist Wasteland grey pubescent, under shrubs with 8-12 obovate or oblanceolate leaflets.,

Inflorescence- racemes. Fruit- pods deflexed, 8-10 seeded., Flowering – May June. Found – Shahdol, Rewa, Jabalpur, Sidhi., Medicinal use- leaf.

FF – Br, %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use - The leaf paste is applied on skin diseases and root stem & leaf are also used in asthma & bronchitis.

Biological Properties:- Root, Stem & Leaf consider– Anthelmintic Bitter, Diuretic Laxative, Expectorant.

Chemical Substance:-Plant Contain – Phosphoric acid, Lime, Phosphate, Inorganic salt of Nitrogen, Kaempferol, Luteolin, Apigenin, Quercetin. Seed contain – Galactose & mannose, Galactomanon.

27. *Phaseolus trilobus* Ait.(FABACEAE)

Common & Regional Name: LN. - Van moong, Mungti; S.- Mugdaparni; H. - Moong; Eng. - Green Gram; B. - Mugani; Tam.- Panipiaya.

Vegetative Character:-An annual or perennial diffusely trailing herb with glabrous and smooth cylindrical., Root-tap Stem weak. Leaves-three foliate, leaflets deeply three lobed. Stipulate, stipules large green. Flowers- clustered in a long stalked close head, papilionaceous yellow in colour, bracteoles ovate, short stalked., Calyx- companulate, deltoid. Pods smooth about 5cm long. Flowering in Aug. Sep. perpetuating by seeds. Occur- very common in lawn and other places, which are left uncultivated and common all over the state of M.P. Medicinal use- leaf.

FF – Br, %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁

Use - Decoction of leaves compound with “Chirayta” (*Swertia chirata* Buch.ham.), “Gurij”(*Tinospora cordifolia* Willd.)Stem ½”long; one spoon is taken twice a day for 7 days to cure intermittent fever.

*Leaves tonic, sedative and leaves decoction is used for irregular fever and to improve eye sight.

Biological Properties:-Anthelmintic, Demulcent, Cooling, Febrifuge, Sedative, Tonic.

Chemical Substance:-Diphosphate, Galactouronic Acid, Methionine, Tryptophan, Tyrosine, Strepogenin, Uridine. Seed Contain – Lysine, Leucine, Phenylalkanine, Valine and also plant contains as Three Crystalline Compounds like- Friedlin, Epifriedeline & Stigma - sterol.

28. *P. aconitifolius* Jacq. (FABACEAE)

Common & Regional Name: LN.- Math; H. & P.-Moth; B. - Banmudgakheri; S. - Makushthaka; Tam..- Tulkapyrai; Tel.- Minumulu.

Vegetative Character:-Stem- weak diffuse trailing herb slightly hairy. Leaves- trifoliate leaflets deeply trilobus central lobe ligulate, petiolate, and stipulate., Stipules lanceolate smooth, and small. Flowers-small yellow on long racemes, Bracts linear., Pod- 5cm long. Occur- common all over the state during Khareef season, more commonly cultivated as a fodder. Found – Shahdol, Rewa, Jabalpur, Malva, and Sidhi. Medicinal use leaf.

FF - Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use - Decoction of leaves compound with “Gurij” (*Tinospora cordifolia* Willd.) stem ½”; one spoon given orally twice a day for 5-7 days to treat fever and also used in irregular (intermittent) fever and eye sight problems.

29. *Clitoria ternatea* Linn. (FABACEAE)

Common & Regional Name: LN. - Tarvar, Talvar; H. & B. - Aprajit; S. - Aprajita; Eng. - Butterfly pea; Guj. - Garani; M. - Kakkanan; Mr. - Gokurna.

Vegetative Character:-Root – tap, branched. Stem - climbing plant, seen on hedges. Much branched woody and twining, hairy. Leaf - pinnately compound imperipinnate, leaflets 5-7, and about 2 cm. long. Flower - papilionaceous, corolla exerted, deep violet or blue in colour, yellowish white in the centre. Pods linear 5-10cm having 6-10 seeds. Found – very common in hedges in Shahdol, Gwalior, Malwa and Jabalpur division. Flowering - Aug. Sep., Taste – Bitter., Medicinal use- leaf.

FF - Br, % ,♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use - The crushed root is used in croup (outgrowth), its use by the sick causes vomiting. Its also used in leprosy, goiter & migraine etc.

* paste of plant along with “Anantmool” (*Hemidesmus indicus*, R. Br.) roots, and “Batilha, Isharmul” (*Aristolochia indica* Linn.) leaves & roots juice together ½ cup given orally; 2-3 times a day according to patient for relief in snake-bite.

*The root paste is used as laxative for children and also used as diuretic.

*The root paste or smelt is used 3-4 times a day; for 2 days to relief one sided (half side) headache.

*The root paste mixed with water “Madar” (*Calotropis gigantea*, L.) latex, black pepper and black salt is topically used on affected area, for 3-7 weeks to cure leucoderma and also infusion of flower is useful as coolant. Root powder mixed with “Jeera” (Cumin) and black salt is given 1-2 times a day for 3-5 days to cure constipation.

*Root along with “Sankh Pushpi” (*Evolvulus alsinoides* L.) root “Danti” (*Beliospermum montanum*) seed 3g. and “Malkangni” (*Celastrus paniculatus* Willd.) seed oil or seed, paste 5 g. is mixed in cow urine 35

g.; given orally 1-2 times a day for 5-7 days to treat dropsy. Fried seed; ½ tea spoon is also used in dropsy.

*The root powder and “Bhui amla” (*Phyllanthus niruri* L.) together one spoon with butter-milk (Matha) one glass given orally; twice a day for 2-3 weeks to cure jaundice. Warm seed paste is applied locally twice a day for 2-3 weeks to treat **hydrocele**.

Biological Properties: -Anthelmintic, Aphrodisiac, Bitter, Alexiteric, Depurative, Laxative, Ophthalmic, Refrigerant, Diuretic, Intellect, Promoting Tonic.

Chemical Substance: -Root Bark Contains – Starch, Tannin, and Resin. Flower contain- Malvidin – 3 β -Glucoside and 3' methylether of delphinidin - 3 β -Glucoside, Cyanine Chloride, Kaempferol and its 3-Glucoside, Robinin, Quercetin and its 3- Glucoside., Seed – Oil, Bitter Blue Colour Resin.

References: Maheshwari, 2000).

30. *Melilotus parviflora* (Desf.) see *M. indica* (Linn.) All.(FABACEAE)

Common & Regional Name: LN.- Senjii; H.& B.- Banmethi; S.- Banamethika; Bo.- Zir.

Vegetative Character: -An annual, smooth herbaceous plant., Stem-weak about 20-30 cm tall., Leaves trifoliate compound, with ovate and emarginated leaflets., Inflorescence- raceme, 2-5 cm. long in the axile of the leaf, and at the terminus of the plant., Flower- irregular, bisexual, complete., Calyx- sepals 5, Corolla- petals papilionaceous 5, Stamens-10 in two bundles, Gynoecium- superior. Fruit- a small, pod monolocular, single seeded. Found – Shahdol, Gwalior, Malwa and Jabalpur division, Flowering - Aug. Sep. Medicinal use- seeds.

FF – Br % ♂, K₍₅₎, C_{1 + 2 + (2)}, A_{(9) + 1}, G₁.

Use - The paste of plant is applied externally as fomentation and their poultice used in swellings and pain.

Seeds powder; ½ teaspoon mixed with “Chhoti Dudhi” (*Euphorbia thymifolia*, Linn.) ½ teaspoon together given orally, 1-2 times a day for 2-3 days; to cure children (infantile) bowel complaints, diarrhoea.

Biological Properties: -Infantile Diarrhoea (Kids), Gruel (Seeds boild in milk).

31. *Psoralea corylifolia* Linn.(FABACEAE)

Common & Regional Name:LN.- Bavchi; S.- Bakachi; H. & P.- Babchi; B.- Latakasturi; Bo.- Bawachi; Tam.- Karpo-karishi; Tel.- Kalaginja.

Vegetative Character: -An annual herb, erect 2-5 ft. tall, all parts dotted with black sports or glands. Stem grooved. Leaves, simple, hairy ovate, crenate to slightly serrate, petiolate. Flowers blue or purple in axillary racemes, typical papilionaceous., Pods one seeded black with pleasant smell., Flowering- Sept. Oct. not a common plant. Found in Shahdol, Jabalpur, Rewa, Sagar, Hoshangabad division, Taste – Acrid. Medicinal use- seeds.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use - Powder of seeds mixed with mustard oil and “Koreya” (*Holarrhena antidysenterica*) bark together; topical application twice a day; for 3-5 weeks to control psoriasis and leucoderma and also carbuncle.

*The seed powder 1-3 g. along with “Dry Ginger” 20 mg, “Black Tilli” (*Sesamum indicum* Linn.) seeds, one spoonful “Neem” (*Azadirachta indica* A. Juss.) leaf and “Tulsi”(Ocimum sanctum L.) leaf, given orally once a day for 3-4 weeks; to improve leprosy , leucoderma and psoriasis.

*Some seeds are soaked for 4 days in cow urine and then seed are dried. Its dry powder 2-3g., along with honey, “Amla” (*Embllica officinalis*, Gaertn.) leaves juice, “Gurij, Amrita” (*Tinospora cordifolia* Willd.) stem

juice and “Neem” (*Azadirachta indica* A. Juss.) leaf juice is taken for 3-8 weeks to cure leprosy and leucoderma etc.

Biological Properties: Seeds – Acrid, Bitter, Anthelmintic, Aphrodisiac, Diaphoretic, Diuretic, Laxative, Stimulating, Stomachic and also Anti Bacterial, Wound healing, Expectorant, Appetizers Tonic.

Chemical Substance: -Seed Contains – Oil, Which contains, Bakuchi, Phenol and this contains Psoralane and psoradin active compound, Resin Volatile Oil, Essential Oil, Terpinoid Oil, and Isopsoralen.

32. *Rhynchosia minima* DC.(FABACEAE)

Common & Regional Name: LN.-Turela; Mar.- Dhaktaranghevada; Tel.- Nela alumu; Guj.- Nahanikamalavel; Kan.- Ghattavare.

Vegetative Character: -An annual, Stem- smooth, twiner much branched, grows over the hedges and other waste land. Leaves- trifoliate, compound, the apical leaflet stalked ovate and emarginated, Inflorescence- racemes, in the axile of the leaf having 6-12 flowers. Flowers yellow papilionaceous. Pods about 1 cm long, having slight bend, and contain two seeds in each pod. Occur in Shahdol and common in Malwa, less common in other parts of the State, Flowering in July, Aug. Medicinal use- leaf.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The leaves paste mixed with “Chirchira” (*Achyranthes aspera* Linn.) root powder is taken together, one spoonful given orally (for women); twice a day for 2-3 days as abortifacient.

33. *Alysicarpus vaginalis* (L.) DC. var. *diversifolius* Chun. (FABACEAE)

Common & Regional Name: LN.-*Mothadamp*; Mara.- *Jangli-gailia*; Gujrati-*Dhodasamervo*.

Vegetative Character:- A perennial robust shrub, Stem 20 to 60 cm ascending branches downy., Leaves-unifoliate, stipule half as long as petiole., Leaflet- cordate and variable in size. Inflorescence- racemes, 2-7 cm long laxy papilionaceous, 8-12 flowered, Calyx-as long as first joint of pod. Corolla-small yellow tinged with pink. Pod-upto 1.5-2.0 cm reticulate veined, joints 6-8. Found Shahdol & throughout M.P. during Khareef season. Flowering- Aug. Sep. Medicinal use- root.

FF – Br , %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root decoction; one spoon along with 2 pieces black pepper, 2 pieces cloves and 2 gm. “Vach” (*Acorus calamus* Linn.) Rhizome (Stem) together is given orally 2 times a day for 2-3 days for relief in cough and cold.

34. *A. Longifolia* W. & A. (FABACEAE)

Common & Regional Name: LN. – *Saura*; H.-*Seura*; Mara.- *Jangli-gailia*; Gujrati-*Dhodasamervo*.

Vegetative Character:-Stem 1-1.5m stout (Strong) tall, glabrous., Leaves 1-foliate 5-15 cm. long, oblong or lanceolate, mucornate, and stipules large, lanceolate., Flowers on long racemes, appressed to the rachis. Bracts large are concealing the buds., Calyx-5, covering the first joint of pod., Corolla-5, Androecium-10, toothed, pod upto 1 cm long, acuminate, 4-6 jointed, moniliform a glabrous. Found- through the plains of M.P. more abundant in Malva., Medicinal use- root.

FF – Br , %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root paste mixed with “Sheesum” (*Dalbergia sissoo* Roxb.) leaf one spoon once a day; before meals take orally for 21 days to treat liquorice.

35. *Alhagi pseudalhagi* (Bieb.) Desv. syn *A. Camelorum* (Frisch.)

(FABACEAE)

Common & Regional Name: LN. *Durlabh*; H.-*Jawasa*; S.- *Durlabha*; Tel.- *Tellaginiya*; B.-*Dulal-labah*.

Vegetative Character: -A perennial herb or small shrub. Stem- erect much branched. Some of the lateral branches modified into spines which are long., Leaves - small, ovate, and obtuse. Flowers- in groups of 2 to 6 on they formed spines. Calyx-5 gamosepalous, Corolla -5 larger than the sepals, which are green and about half of the corolla in size. Pod 3 cm. long, curved and having constrictions between seeds, Flowering March – April. Found- in Shahdol and some parts, M.P. Medicinal use- leaves.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- Leaf oil mixed with “Arandi” (*Ricinus communis*) root and leaves cooked in oil of “Nirgundi” (*Vitex negundo* L.) is externally used for rheumatism.

36. *Vicia hirsuta* Koch. (FABACEAE)

Common & Regional Name: LN.- *Ankadi*, *Jeelo*; B.- *Ankari*; H.- *Ankari*.

Vegetative Character:-The similar to (*V.sativa* Linn.) but bigger in size about 2-3 ft. Leaves- large in size and the number of leaflets per leaf 5-7 pairs., Flower-papilionaceous. Corolla - blue in colour, generally two flowers on the axillary raceme, Pods small having two seeds. Perpetuation through seeds, common in the Rabi crops, especially in wheat, gram and pea fields. Flowering - Dec. Jan. associated with wheat crop. Occur all over in M.P.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Not Used - Its seeds are poisonous and give rise to gout diseases.

37. *V. Sativa* Linn.(FABACEAE)

Common & Regional Name: LN.- *Ankadi*; H.- *Ankara*.

Vegetative Character:-The very common weed of Rabi season. Stem - about 15-30 cm. high, weak stemmed, trailing or climbing on the adjoining plants. Leaves- pinnate, leaflets linear or lanceolate, upper leaflets modified into tendrils, leaves alternate, Flowers- in axillary raceme., Papilionaceous, Calyx-5sepals., Corolla-5petals, pink or purple, flowers small. Pods small with one or two seeds, Perpetuation by seeds. Occur -very common in Shahdol, Rewa, Gwalior, Jabalpur divisions of the State. Flowering- Dec- Jan.

FF – Br, %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Not **Used**- Its seeds are poisonous and give rise to gout diseases.

*Seed contain Hydrocymic acid and glucoside, vicianine, and hence is harmful and poisonous.

Biological Properties: Seed contain – Glucoside, HCN and Vicianine.

38. *Abrus precatorius* Linn. (FABACEAE)

Common & Regional Name: LN.-*Ghumchi*; H.-*Ghungchi*, *Ratti*; B.-*Kansh*; Tel.-*Guriginja*; Tam.- *Jundamani*; Mal.- *Kahani*; Kan.- *Gunji*.

Vegetative Character:-Plant climber with many slender glabrous or thinly silky branches, Stem- woody below. Leaves- 4 to 5 cm. long, leaflets peripinnate 10-20 in opposite pairs, ligulate, oblong, glabrous, and silky beneath. Inflorescence- racemes crowded many flowered, usually shorter than the leaves, Calyx- 5sepals, Corolla- 5petals white or pink. Standard ovate, acute adhering below to the staminal tube, wings narrow, and keel curved. Stamens- united in a tube slit above, Ovary- subsessile, many ovule, style short, incurved, headless, stigma capitate. Seed- polished, globose, usually scarlet with black hilum, White or black. Rare

occurring plant, but sometime grow on hedges, Flowering-Ague - Sept.
Found all over M.P.

FF – Br, Brl, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- Powder of seeds; ¼ part is given orally 2-3 times a day for 2-3 days to cure children (Chill) pneumonia and also cold.

*The root paste; ½ tea spoon mixed with “Anantmool” (*Cryptolepis Buchanania* Roem.) root, ½ teaspoon together given orally 2-3 times a day for 2 days to treat of snake bite and also used in scorpion bite.

*Paste of seeds mixed with “Madar” (*Calotropis procera* Ait.) latex is used topically as ointment twice a day for 21 days; to treat skin diseases and also used in leprosy.

*Paste of one seed is given orally two times a day for 21 days to cure rheumatism and also in paralysis.

*The fresh leaves are chewed 5-10 minutes; 3 times a day, for 2-4 days to get relief in mouth ulcer.

Biological Properties: -Root & Leaves Is considered as- Aphrodisiac, Acrid Alexiteric, Bitter, Diuretic, and Emetic. Fruit- Acrid, Aphrodisiac, Bitter. Seeds - Abortifacient, Aphrodisiac, Purgative, Emetic.

Chemical Substance:-Root Contain – Glycine, Glutamic acid, Aspartic acid, Quercetin, Lutelin, Kaempferol, Taxalbumin, Alkaloid-abrin, Glucoside – abrin, Anthocyanin, Abranin., Seeds – Lupeol acetate, Sitosterol, Sucrose, Gallic acid, Orientin, Isoorientin, Abrussic acid, Haemagglutinin. Leaf- Abrol abrasine, Precasine, Precol and also Glycyrrhizin, Premtorin and Abrusosides, A, B, C and D (Total yield 0.389%) isolated from leaves,(Balu et al. 2000).

39. Abrus Sp. White (FABACEAE)

Common & Regional Name: LN.- *Safed Ghumchi*.

Vegetative Character:- Given above 38 No.

FF – Br, Brl, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root paste is given orally; one teaspoonful after five days of MC (Menstrual cycle), once a day, early morning for 5-7 days for family planning, to stop child birth (sterilization).

*Juice of leaves ½ cup with water, “Tulsi” seed (*O. sanctum L.*), candy-sugar and “Tikhur” (*Curcuma angustifolia Roxb.*) rhizome (stem) paste are given empty stomach; early in the morning, once a day for 5-7 weeks to treat leucorrhoea.

*Seed paste along with “Vach” (*Acorus calamus*) and “Arandi” (*Castor oil*) is used for massage; 2-3 times a day for 2-4 months to treat paralysis and gout.

40. *Abrus Sp. Black.*(FABACEAE)

Common & Regional Name: LN.- *Kali Ghumchi*.

Vegetative Character:- Given above 38 No.

FF – Br, Brl, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- Seed paste; ½ part mixed with 3-4 “Tulsi” (*O. sanctum L.*) leaves and 3 black pepper seeds given together orally; 2-3 times a day for 3-4 days to treat cold fever and root is also used for snake bite.

41. *Uraria lagopoides D.C.*(FABACEAE)

Common & Regional Name: LN. *Bhalu punch; Sher baithka; H. – Pithavana; S. – Prishriparni; Vishnuparni; B. – Chakulia; Bo – Dowla; Mal. – Orila; Tel. – Kolaponna. Guj. – Prashtparni; Mara. – Pithvan; Dabla.*

Vegetative Character:- The plant is herbaceous us Root- tap, branched. Stem - prostrate. Leaf – simple lanceolate 4-5 cm. long. Inflorescence- solitary disc like papilionaceous. Flower white, blue or violet colour. Calyx- 5 sepals., Corolla – 5 petals, polypetalous, descending imbricate, Androecium- 10 stamens, usually diadelphous nine fused and one is free, Gynoecium – monocarpellary., Ovary- superior, Fruit- legume 1 inch long. Occurs- in Shahdol division and other parts of M.P. Flowering- Oct- Dec. Medicinal use- root.

FF – %, ♂, ♀, **K**₍₅₎, **C**₁₊₂₊₍₂₎, **A**₍₉₎₊₁, **G**₁.

Use – The decoction of root; one spoon mixed with “Kali musli” (*Curculigo orchoides* Gaertn.) root; ½ spoon and “Satavar” (*Asparagus racemosus* Willd.) ½ spoon given together orally, once a day for 4-5 weeks to cure weakness, cough, fever and stool.

*The root paste ½ - 1 spoon mixed with black pepper; 3-4 seeds given orally, 2-3 times a day. Local application is recommended to treat snake bite, scorpion sting and burns.

*The root paste; ½ spoon with a glass of milk is taken on 7th day of the period by female to control abortion and its paste is rubbed locally on vagina to ease delivery.

42. *Uraria picta* Desv. syn. *Hedysarum pictum* Jacq. (FABACEAE)

Common & Regional Name: LN. - *Hansia Dafar*; H. - *Dabra*; Sans.- *Chitraparni*; B.- *Sankharajata*; Bo.- *Prishniparni*; Tam.; *Sittirappaladai*.

Vegetative Character: -Plant under shrub, 2-4 ft. Root- tap and Stem- branched. Leaf- compound heterophyllus, basal small 3-6 leaflets various shape lower spherical and upper long 4-5 inches long and on side white broad striped. Inflorescence- racemose 3-4” long flower red

violet, bisexual, Calyx - 5 sepals. Corolla - 5 petals, Androecium-10 (9+1) diadelphous, Gynoecium- monocarpellary superior fruit 3-5 inch long white. Flowering – Aug. to Oct. Occur- in Shahdol (Amarkantak), Rewa, Jabalpur & Hoshangabad division, Medicinal use- Plant root.

FF - $\%, \frac{\sigma}{\rho}, K_{(5)}, C_{1+2+(2)}, A 10_{(9+1)}, \underline{G}_1$.

Use- The plant powder is mixed with “Bhuneem” (*Andrographis paniculata*, Nees.) Stem leaf “Gurij” (*Tinospora cordifolia* Willd.) Miers., Stem, “Van Jeer” (*Centratherum anthelminticum* Willd.) Seeds in equal amount and $\frac{1}{2}$ table spoon are taken twice a day; for 3 days to cure common fever & Malaria and also used in piles, ulcer, cough, diarrhoea & snake bite.

*Powder of root; along with $\frac{1}{2}$ spoon black pepper, 2-3 pieces and a spoon given orally; once a day for 5-6 weeks to treat rheumatic- arthritis Osteo-arthritis and snake bite.

*Root powder; a spoon meshed with “Punarnava” (*Boerhaavia diffusa*) root and leaf powder in equal amount and honey given orally twice a day, daily for heart diseases and also used in asthma and dysurea.

Biological Properties: - **Plant considers-** Antibiotic, Alterative, Anti-inflammatory., Carminative, Stomachic, and Tonic.

Chemical Substance:- 5- Hydroxyl- 7, 4-dimethoxy flavonol & 5 other flavonoid.

43. *Zornia diphylla* Pers.(FABACEAE)

Common & Regional Name: LN. - Nalamari; Mal. - Nelammari; Santh.- Taudijha.

Vegetative Character:- A diffuse annual with slender zig-zag wiry branches. Leaves - shortly stalked; leaflets, lanceolate, scute, almost covering the yellow flowers. Pods 1-6 jointed pubescent, densely prickly. Flowering-

Sep - Dec. Found- in sandy waste lands and specially occurs in Shahdol, Dindori & Bundelkhand areas, Medicinal use- root.

FF – Br, Brl, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root paste along with “Aphim” (*Papaver somniferum* Linn.) 4-5 mg, ¼ teaspoon is given to induce sleep in children.

44. *Desmodium latifolium* (DC.) syn *D. lasiocarpum* (DC.)(FABACEAE)

Common & Regional Name: LN. & H.- *Chimba*; Tem. - *Chimbattai*; Santh. - *Simmithasura*.

Vegetative Character: -Plant branched erect under shrub 1 to 1.5 m tall. Root - tap, branched., Stem- branches angular, Leaves- 3foliate, petiole 1-2” long, stipules lanceolate, leaflets upto 5 cm. ovate, membranous, under surface hairy., Inflorescence- racemes axillary and terminal, 25cm. long. Flowers- several at each node shortly stalked, bracts minute, Calyx- 5sepals. Corolla- small hairy toothed standard white, wings to and keel tinged (light) with blue. Pod- 2-4 cm. clothed with hooked hairs, slightly constricted at joints, joints 6-10 flattened 3-4 times as long as broad. Flowering- in Aug.-Sept. Occur- in areas near forests, Shahdol, Jabalpur, Malva, Bundelkhand regions and other parts of M.P. Medicinal use- root.

FF – Br, %, ♂, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root powder mixed with hot pepper 3-4 parts is used in anaemia, to cure urine in blood and also in weakness.

45. *D. triflorum* (Linn.) DC. (FABACEAE)

Common & Regional Name: LN.- *Chepti Ghass*; H.- *Kudaliya*; B. - *kodalia*; Bo. - *Jangli methi*; Tel. - *Munta mandu*; Tam. - *Sirupulladi*.

Vegetative Character:-An annual or perennial herb with small trailing. Stem - about 15-20 cm. long profusely branched and clothed with hairs. Leaves- 3-foliate, stipule lanceolate leaflets 0.5 mm obovate, cuneate and emarginated, under surface hairy. Flowers-1-3 in the leaf axile, Calyx-5 sepals, covered with minute hairs, Corolla-5 petals, small pink or white. Pod 1 cm. in length indented on lower suture, 4-5 jointed. Abundant throughout grass lands of M.P. A good fodder soil binder and turf plant. Flowering- rainy season. Medicinal use leaf, seed.

FF – %, ♀, $K_{(5)}$, $C_{1+2+(2)}$, $A_{(9)+1}$, G₁.

Use- The paste of fresh leaves; ½ spoon mixed with “Badi Dudhi” (*Euphorbia hirta* L.) leaf, ½ spoon given orally 2-3 times a day to cure diarrhoea, dysentery etc.

*The paste of fresh leaf along with “Baramasi” (*Tridax procumbens* Linn.) is used topically on wounds as well as in convulsion (Mirgi like) pain.

*Plant decoction 5-8 branches is given orally; once a day for a week for treatment of worms, pain and also in toothache.

Biological Properties:- Leaves- Galactagogue, Convulsion, Diarrhoea, Dysentery.

46. *D. parviflorum* DC.; *D. microphyllum* (Thumb.) DC. (FABACEAE)

Common & Regional Name: LN. - Vanmethi; H. - Kudaliya.

Vegetative Character:-A tap root, branched. Stem- procumbent trailing herb, well branched and pubescent. Leaves- 3 foliate, stipules as long as petiole linear, persistent, leaflets upto 1 cm. oval or obovate mucronate, bracts lanceolate-cuspidate, Calyx-5 sepals, hairy, toothed. Corolla-5 petals purple. Pod- about 1 cm. both sutures indented, joints 3-4, orbicular, pubescent. Occur- commonly found all over M.P. Good for

fodder & soil binder, Flowering rainy season. Medicinal use whole plant.

FF – Br, %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- Plant paste is applied locally; twice a day for 3-5 days to cure boils, cut and wounds.

47. *D. gangeticum* DC. (FABACEAE)

Common & Regional Name: LN.- Sariban; S. & Bo.- Shalaparni; H.- Sarivan; B. - Salpani; Tel. - Gitanaram; Tam.- Pulladi.

Vegetative Character:-A slender sub-erect undershrub upto 1 m. tall. Stem - angular branches hairy. Leaves 1-foliate petiolate, stipules small linear, leaflet 10-15cm. ovate-oblong, rounded at base membranous under surface with minute hairs. Inflorescence - racemes copious 20-25” long, axillary & terminal, bracts minute. Flowers - numerous in fascicles. Calyx -5 small downy, toothed. Corolla – 5 small, white. Pod upto 2 cm. curved, deeply indented on lower suture, joints 6-8 indehiscent, clothed with minute hooked hairs. Occur- abundant throughout M.P. Flowering - during rainy season, Medicinal use- whole plant.

FF – Br, %, ♂, ♀, K₍₅₎, C₁₊₂₊₍₂₎, A₍₉₎₊₁, G₁.

Use- The root paste along with “Tulsi” (*Ocimum sanctum* L.) leaves, “Neem” (*Azadirachta indica* A. Juss.) leaves, is mixed together and ½ - 1 spoon is taken twice a day for 3-15 days to cure chronic fever and vomiting etc.

*The root paste is applied topically on snake bite and scorpion sting.

*Root powder 5 gm. along with “Adusa” (*Adhatoda vasica* Nees.) leaves; ½ spoon once a day for 4-5 month to cure asthma.

Biological Properties:-Roots is considered as- Anti inflammatory, Antidote, Aphrodisiac, Bitter, Carminative, Diuretic, Expectorant, Febrifuge,

Digestive, Demulcent, Haemostatic, Anthelmintic, Rejuvenator, Thermogenic, Tonic.

Chemical Substance:-*Plant contains – Alkaloids, Desmodin, Gangetin, Gengetinin, Genestein, Isoflavonoid, Isoflavones, Phytoalexins, and Pterocarpanoid.*

F – SAXIFRAGACEAE

48. *Saxifraga heterophyllus* L. syn. *S. lanceolate* L.(SAXIFRAGACEAE)

Common & Regional Name *LN. - Bask; H.-Basak.*

Vegetative Character:-An annual erect ½ m tall herb. Root – tap, branched. Stem – hairy smooth branched light greenish. Leaves – simple, sessile or smallest petiole, hairy whorled below stem 1-15 cm. long oblong, entire. Flowers- Raceme, actinomorphic, bisexual, bract. Calyx – 5 sepals green. Corolla – 5 petals, Gamopetalous white pale **blue**, separate adding 4 ovaries, hairy Androecium – 5, Gynoecium 1. Occur- in Amarkantak University campus. Flowering – Feb Mar. Medicinal use-root.

FF- Br, ⊕, ♀, K₅, C₅, A₅, G₁.

Use: Root is used in removing fever and prevails over a medicine that results in vomiting and leaves are applied for fever and vomiting.

Biological Properties:-Emetic, Febrifuge.

Chemical Substance:-*Root contains- two neutral compounds Dichrin A & Dichrin B and two Alkaloids. Roots and leaves – Alkaloid, Febrifuge.*

F – NYCTAGINACEAE

49. *Boerhaavia diffusa* (Linn.) syn. *B. repens* (Linn.) (NYCTAGINACEAE)

Common & Regional Name: *LN.* - *Patherchata*; *S.* – *Punarnava*; *H.* – *Sant*; *B* & *Tel.* – *Punarnava* . (Hog weed)

Vegetative Character:-A deep tap root – 10 -15cm. long. Stem - prostrate branching, perennial herb. Leaves- ovate, smooth, fleshy, whitish underside, unequal, in pairs. Flowers - small purple on an axillary stalk in panicle heads. Involucre- leaves reduced to scales, the parienth is folded into bud, Stamens– 3, persistant with the fruit. Fruit- club shaped with glands on the five ribs, one seeded, Flowering -throught year, Perpetuation by seed and cuttings. Occurs in Shahdol, common throught M.P. Medicinal use- root

FF – %, ♂, ♀, **P** ₍₅₎, **A**₃, **G**₁.

Use- The root paste; half spoon along with “Van Pyaj” (*Urginea indica*, Kunth.) tuber; ½ cup juice, taken once a day for 7-21 days to cure drop and stopped urine (Scanty urine.)

*The root paste; ½-1 spoon mixed with “Satavar” (*Asparagus racemosus* Willd.) roots given together orally; once a day for 15-21 days for relief in anaemia, jaundice and skin diseases etc.

*Powder of root; ½ spoon mixed with “Arjun” (*Terminalia arjuna* W. & A.) bark powder, ½ teaspoon is taken together twice a day for 2-3 months to cure heart disease.

*The root paste; one spoon along with “Mahua” (*Madhuca indica* J. F. Gmel.) flowers, Madira (liqueur,alcohol) ½ cup, taken in early morning before meals, once a drop a day for 3-9 days to cure MC disorder, gonorrhoea and leucorrhoea etc.

*Root powder mixed with honey is applied for eye diseases, once a day for 3-7 days and also root powder; ½ spoon is mixed with milk or water and taken before meals, once a day for 3-7 days to cure Spermatorrhoea.

*The leaf paste; one teaspoonful along with “Chirchira/Apamarga” (*Achyranthes aspera* Linn.) root, ½ teaspoon is given orally; empty stomach, once a day for 7-21 day to cure kidney stone.

Biological Properties:- These are Anti – Bacterial, Antiviral, Bitter, Anti-inflammatory, Astringent, Laxative, Diaphoretic, Cooling, Stimulant, and Stomachic.

Chemical Substance:- Hypoxanthin- 9 - L- arabinofuranosid (plant), Hentriacontane, β - Sitosterol, Ursolic acid, Triacontanol, β -boeravinone C and punarnavoisde (roots) and also Elentine, Stearic acid, Palmitic acid, Minerals, Potassium Nitrate, Sodium sulphate & Chloride. Important constituents of roots are Hentriacontane, β - Sitosterol, Ursolic acid, Xylose, Glucuronic acid, Galactose, L-arabinose and L-rhamnose, Ecdysone, Triacontanol, Hypoxanthine, Boeravinone, C and Punarnavoisde (root).

50. *Mirabilis Jalapa* (Linn.)(NYCTAGINACEAE)

Common & Regional Name: LN.- Gulbas, H. & Bo. - Gulabbas; Eng.- four o'clock plant; S. & B.- Krishnakeli; Tam.- Pattarashu; Mal.- Antimalari; Tel. - Chandrakanta.

Vegetative Character: -An annual herb. Root- tuber type, branched, Stem- herbaceous branched, Leaves- opposite, simple, exstipulate., Inflorescences- cymose, dichasial cyme involucre bracts. Flower- hermaphrodite and each flower is surrounded at the base by an involucre of five sepals- like bracts; perianth - 5 Gamophyllous, tubular with wide spreading lobes, Androecium -5, gynoecium one carpal, superior, unilocular with single basal ovule, style long simple. Fruit- dry one seeded, Taste – Bitter, Flowering throught year, Perpetuation by seed. Occurs in Shahdol common throught M.P. Medicinal use- root

FF- Br, $\oplus$, $\otimes$, P₍₅₎, A₍₅₎, G₁.

Use- The root paste; one spoon is taken once a day for 3 weeks for treatment of piles and also used for goiter, and leaves in- phlegmons and whitlow (wound in fingers).

*The root and leaf paste mixed with “Makoia” (*Solanum nigrum* L.) leaf is externally applied for foot inflammation and boils 2-3 times a day, for 3-7 days.

*The root powder with “Neem” leaf, (*Azadirachta indica*) dry zinger, long pepper and black pepper, in equal amount is mixed together and 1 spoon is taken with honey two times a day for 5-7 weeks to treat piles.

Biological Properties: - Plant Is considered as- Blood purifier, Cooling, Aphrodisiac.

Chemical Substance:- Plant has- Miraxanthins, I, II, III and IV, Indica xanthin and Vulgaxanthin I. Leaves – Alkaloid Trigonelline, Tricosan – 12 – 1, n – Hexacosanol, β – Sitosterol, Tetracosanoic acid, Tartaric acid, Citric acid, Tryptophan, Glycine, Leucine, Alanine. References: References: Lalramnghinglova,(1996).

F – CAPPARIDACEAE

51. *Cleome viscosa* Linn. (CAPPARIDACEAE)

Common & Regional Name: LN. - Hurhur; H. – Pila Hulhul; S. - Arkakanta; E. – Yellow-cleome; B. - Hurhuria; Tel. - Kukhavominta; Mal. - Ariavila; Tam. - Nayikkadugu.

Vegetative Character: -An erect, glandular, hairy, herb., Stem-weak, Leaves- palmately compound, often trifoliate., Inflorescence- raceme., Flower- actinomorphic, bisexual, showing distinct androphore and gynophore Petals 4, unequal, yellow in colour., Stamens - 12 to 24, Polyandrous., Ovary- bicarpillary, syncarpus, ridged and hairy. Seed small black,

numerous, perpetuating by seed. Flowering, Sept. to Nov. Occur all over M.P. Medicinal use- leaves.

FF – Br, Ebr, $\oplus$, φ , K_{2+2} , C_4 , A_∞ , $\underline{G}_{(2)}$.

Use- The leaves juice along with “Tulsi” leaf (*Ocimum sanctum* Linn.) is applied 4-5 drops, two times a day for 3-5 days to relief earache and also used topically for ulcer, blisters and wounds.

Biological Properties:-Root – Stimulant, Diaphoretic, Antiscorbutic, Stimulant, Vermifuge & Seeds – Digestive, Anthelmintic, Inflammatory, Stomachic, Acrid, Sudorific, Thermogenic, Cardiac, Stimulant, Carminative, Constipating, Febrifuge.

Chemical Substance:-Plant Contains- Essential Oil, Seed – Cleomine.

52. *Cleome chelidonii* (Linn.) f. (CAPPARIDACEAE)

Common & Regional Name: LN. - *Abhitalvan*

Vegetative Character:-Erect stem branched annual upto 2 - 3 ft., glabrous or sparsely hairy. Leaves 5-9 foliate, long petiole; leaflets, obovate or oblong., Flowers in racemes, afterwards corymbose, long pedicellate, about 2.5 cm in diameter, pink, Petals sessile, ovate, Stamens numerous. Capsule 2-4 in slender, tapering at both ends, glabrous. Seed rather large, pale brown. Found in Malwa & Bundelkhand regions of M.P. in moist places.

FF – Br, Ebr, $\oplus$, φ , K_{2+2} , C_4 , A_∞ , $\underline{G}_{(2)}$.

Use- Decoction of plants along with “Chakauda” (*Cassia tora* L.) plant, “Neem” (*Azadirachta indica* A. Juss.) leaf and “Bhui Neem” (*Andrographis paniculata* Nees.) plant is taken together ½ cup; once a day for 7-21 days for 4 weeks to treat gout, skin diseases, fever and also used in gingivitis.

Biological Properties: -Root – Vermifuge, Plant – Gingivitis.

53. *Gynandropsis gynandra* Linn. (CAPPARIDACEAE)

Common & Regional Name LN. - Hurhur, Safed Hurhur; S. - Surakarta; H. - Karalia; B. - Hurhuria; Tel. - Vaminia; Bo. - Tilavana; Mal.- Taivela; Tam.- Kadugu.

Vegetative Character:- An erect, glandular, pubescent, annual herb upto 2-3 ft. high. Leaves- palmately compound, five foliate, petiolate. Inflorescence- a raceme. Flower- regular, bisexual, hypogynous, thalamus elongated showing distinct nodes of androphore and gynophore, Petals- 4 free, white or light purplish. Sepal's four in two whorls, Stamens- 4-6 free, Gynoecium- bicarpillary, and syncarpus, superior. Fruit- stalked elongated capsule, 4-8 cm. long hairy, blackish. Perpetuating by seed, Part used – Root & Seeds., Flowering- Sep. -Dec. Occur- throughout M.P. Medicinal use- seeds & leaves.

FF – Br, $\oplus$, ϕ , K_{2+2} , C_4 , A_{4-6} , $\underline{G}_{(2)}$.

Use- The seeds powder $\frac{1}{2}$ teaspoon mixed with “Chiraita” (*Swertia chirata* Buch., Ham.) plant together given orally empty stomach once a day for 3-7 days to relieve intestine worms. (Extricate worms from intestines) and juice of leaves applied for 3-5 drops to cure earache and also scorpion sting, snake bite, skin eruption, leprosy, polyurea, genital disorder.

Biological Properties:- Root– Stimulant, Diaphoretic, Antiscorbutic, Stimulant, Vermifuge & Seeds – Digestive, Anthelmintic, Inflammatory, Stomachic, Acrid, Sudorific, Thermogenic, Cardiac, Stimulant, Carminative, Constipating, Febrifuge.

Chemical Substance: Plant Contains – Essential Oil, Seed – Cleomine.

54. *Capparis spinosa* Linn.(CAPPARIDACEAE)

Common & Regional Name: *LN.* -Baghnakhi; *H. & P.* - Kabara; *Tel.*- Kokila kshamu.

Vegetative Character:-A perennial climbing, Root- tap, branched., Stem- woody, 15 - 20 ft. tall, climber, branched, spinose., Leaf- alternate, simple, petiolate. Inflorescence- terminal racemes., Flower- pedicel regular, light violet., Calyx- 2 + 2, Corolla- 4, Androecium- 18-20, gynophores, Gynoecium- (2-6). Fruit- a berry, red colour when rip., Ovary superior, Flowering- Apr. to June. Occur - Shahdol, Jabalpur, Hoshangabad Sagar division. Medicinal use- leaves root.

FF – Br. $\oplus, \otimes$, K_{2+2} , C_4 , A_∞ , $\underline{G}_{(2-6)}$.

Use- The leaf paste topically used (anti-inflammatory medicine) on neck tumour swelling poultice bind two times a day for 3-7 days and same poultice bind in gout (on joints pain) for 7-21 days.

*The juice of root bark 2 spoonfuls mixed with “Vach” (*Acorus calamus* L.) rhizome (stem) 5 g. two times a day for 3 weeks to treat rheumatism and paralysis pain etc. and also root bark useful in tubercular glands and enlarged of spleen.

*The root powder half spoon and vinegar (Sirka) $\frac{1}{2}$ cup rubbed and onion extract 2 spoon together mixed with, given orally 3-4 times a day for a days to treat cholera.

Biological Properties: -Root bark – Aperients, Anthelmintic, Emmenagogue, Analgesic Diuretic, Expectorant, and Tonic.

Chemical Substance :-Flower Buds Is considered as- Glucoside, Rutin, 40% Eentosans on dry wet basis (Winton & Winton IV 285) and also contain Rutic acid, Petric acid a volatile, Emetic, Saponin etc.

F – CUCURBITACEAE

55. *Coccinia indica* (W. & A.) (CUCURBITACEAE)

Common & Regional Name: LN.- *Van kundru*; S.- *Bimba*; H.& P. - *Kanduri*; B.- *Telakucha*; Tel.- *dondakaya*; Tam.- *Kovaikai*, *Kovai*.

Vegetative Character: -A perennial climber, Roots – tuberous, Stem-week, ridged and herbaceous in nature. Leaves - lobed, tendrils simple, thin, shining. Flowers- diocious, axillary, Calyx- 5 fused sepals green. Corolla- white, campanulate, divided up to half. Stamens, 3 conduplicate or “S” shaped in male flowers., Ovary - trilocular, syncarpous in female flowers., Fruit- scarlet red on ripening, Perpetuation by underground parts and by seed., Flowering- Sept. Oct. Occurrence- A common plant of Gwalior, Bundelkhand, Jabalpur division and rare in Shahdol., Medicinal use- root.

FF – $\oplus$, σ , $K_{(5)}$, $C_{(5)}$, A_5 .

FF – $\oplus$, φ , $K_{(5)}$, $C_{(5)}$, $\overline{G}_3$.

Use- The root paste 1 spoonful along with “Gudmar” (*Gymnema sylvestre* R. Br.) leaves 4-5 “Gurij” (*Tinospora cordifolia* (Willd.) Miers.) Stem- 3-4 g. and “Bhui Neem”(*Andrographis paniculata* Nees.) 5g Whole plant together taken once a day daily to control of diabetes.

Biological Properties: -Roots – exhibit effective hypoglycaemic activities.

Chemical Substance: Plant Contain- *Amino acids*. β - Amyrin, Lupeol, (fruits), Taraxerone, Taraxerol, Cryptoxanthin, 24 (R)-24-ethylcholest-5-en-3 β - Glucoside, Lycopene, β - Carotene, β - Amyrin, Lupeol, Cucurbitacin B, (fruit), Cephalandrol, Tritriacontane, β - Sitosterol, Cephalandrine A, Cephalandrine B (Aerial parts), Oupeol Acetate, β - Amyrin as also Cucurbitan β - Glycoside, Caffeic Acid, Quercetin, Kaempferol, β - Sitosterol and Stigmasterol (roots). Seeds – A Fat rich in Palmitic, Oleic, Linoleic acids.

References: Asolkar et al., (1992); Bedi, (1978); Chopra et al., (1968); Das, (1976); Ghose and Das, (2000); Gopalan et al., (1974); Mukharjee, (1962); Ramachandran and Subramanian, (1983).

**56. *Diplocyclos palmatus* (L.) Jeffery., *Bryonia laciniosa* L., *B. palmata* L.,
Bryonopsis laciniosa (L.)Nadu. (CUCURBITACEAE)**

Common & Regional Name: LN. - *Pachguddu*; S.- *Bahupatra*; B. - *Mala*; Bo. *Kawala*; H. - *Gargumaru*, *Shivling*, *Bilanja*; Mal. - *Neohmaka*; Tel. - *Lingadonda*.

Vegetative Character:- An annual climber. Stem- angled, glabrous. Leaves - rough, 3 to 5 lobed, tendrils bifid. Flowers- greenish yellow, axillary dioecious, Calyx- 5 sepals fused. Corolla- 5 petals fused half way, companulate, Stamens- 3, conduplicate, anther straight. Ovary- tricarpyllary., Syncarpous- inferior. Fruit- small 1.5 cm in diameter, green with white strips. Flowering- Aug to Sept. Occurrence- a very common weed but found climbing on hedges all over M.P. Medicinal use- Fruits, seeds.

FF – $\oplus, \sigma, K_{(5)}, C_{(5)}, A_3$.

FF – $\oplus, \varphi, K_{(5)}, C_{(5)}, \overline{G}_3$.

Use- Frying of fruit 250 g. along with “Bans” (*Dendrocalamus strictus* Roxb.) tender shoot (same process crushed and frying) taken once a day for 3-7 days to create after sickness (arising hungry) appetite and it is also pasted leafs applied to hand and foot inflammation.

*Seeds powder one teaspoonful mixed with “Tulsi” (*Ocimum sanctum* Linn.) seeds ½ teaspoon after MC period (Womens) taken 7-14 days or next month in rewise same process to given for success of pregnancy (ladies) and also leaf use in tumours and inflammation.

*Seeds powder mixed with “Gurij” (*Tinospora cordifolia*, Willd.), “Chirchira” (*Achyranthes aspera*, L.) root, seed, “Neem” Bark (*Azadirachta indica* A. Juss.) powder, “Bhakrandi” Seeds crushed (*Jatropha curcas*, L.) 1 g., “Kevanch” (*Mucuna prurita*; Hook.) seed powder, root, “Saherua” (*Nyctanthes arbortristis*, L.) root stem, bark, flower, leaves, “Tulsi” (*Ocimum sanctum*, L.) leaves, root, seeds “Kosum” (*Schleichera oleosa* (Lour) Oken. seed powder “Chirayta” (*Swertia Chiraita*) and “Gokhru” (*Xanthium strumarium*, L.) root & fruit powder and “Adusa” (*Adhatoda vasica* Nees.) roots, leaves & flower are equal amount mixed and given orally 1.5 spoon two times daily for 5-9 months to prescribed for treatment of AIDS and Cancer disease. (Jatropha seed 1 g. used with a spoon total applied of above medicine).

Biological Properties:-Alterant, Acrid, Inflammatory, Depurative, Thermogenic, Better, Tonic.

Chemical Substance:-*Punic Acid, Seed Oil.*

57. *Melothria maderaspatana* (Linn.) Cong. (CUCURBITACEAE)

Common & Regional Name: LN - Ninma, H. - Agumaki, Tam. - Musimusikkayi, Tel. - Puttibudamu.

Vegetative Character: -An annual herbaceous. Stem - climber, branched, angled, tendrils simple, Leaves - cordate, petiolate, slightly lobed and hairy. Flowers - monoecious, actinomorphic, unisexual, male female flowers separate but clustered together in the axile of the leaf. Ovary - inferior, Fruit - scarlet red in the axile of the leaf, about 0.5 mm diameter. Flowering- Aug to Sept. rare in Shahdol common weed in Malva also found all over M.P.

FF – $\oplus$, ♂, K₍₅₎, C₍₅₎, A₅.

FF – $\oplus$, ♀, K₍₅₎, C₍₅₎, $\overline{G_3}$.

Use- The chewed of root 2-3 times a day for 2 days to cure toothache and it is also infusion of seeds or crushed and treats on aching bodies etc.

58. *Momordica dioica* Roxb. ex Willd. (CUCURBITACEAE)

Common & Regional Name: L.N. – *Padora*; H – *Kakoda*; Khikoda; Golkandra; S. – *Vahisi*; Eng. – *Spiny gourd*; Bo. – *Kurtoli*; Assam – *Batkarila*; Mal. – *Erimapasel*; P. – *Dharkarela*, Tam. – *Paluppakkary*; Tel. – *Agakara*.

Vegetative Character:- A climber herb, tendrils opposite to the leaf. Root – Tap root tuberous. Stem – weak, herbaceous. Leaf – Petiolet, simple inflorescence – Flower solitary, light yellow dioecious. Male – Calyx – sepals -5, Corolla – 5 petals volvate. Campanulate. Androecium – 5 stamens Female – Calyx and corolla as Male Flower Androecium – absent Gynoecium – ovary inferior. Fruit – Pepo around spiny hair & ripe in yellow pulp red. Seed – many.

FF – $\oplus, \sigma, K_{(5)}, C_{(5)}, A_5, G_0$.

$\oplus, \varphi, K_{(5)}, C_{(5)}, A_0, \overline{G}_3$.

Use - Male Plant – root tuber paste 20-25g., mixed with black pepper 3-5 pieces and “Vach” (*Acorus calamus*) rhizome 5 cm. long and taken 3-4 times a day for snake bite and **Female plant** – root tuber used for poisonous insect, snake, and scorpion sting

*Female – Pasted leaf mixed black pepper 3 pieces given orally 1-2 times a day for 3-5 weeks to treat piles, worms and T.V. etc., and plant fruit also used for leprosy, cough & bile diseases.

*The paste of male plant tuber 2-3 g. compound with 1 piece black pepper, 1 piece cloves (*Launga*) “Palas (Chhuela)” (*Butea monosperma* Lam.) and 2g. root “Safed (white) Ghumchi” (*Abrus sp.* L.) root given orally early morning in empty stomach once a day for 5-7 days after the

4 days of starting menstruation cycle to prescribed for treatment of permanent sterility and also paste used in snake bite.

*The cooked (browned) in fire of fresh tuberous root ½ spoon mixed with “Patal Kohnda” (*Pueraria tuberosa* DC.) root (tuber) paste one spoon “Tilli seed” (*Sesamum indicum* L.) ½ spoon, one spoon honey and “Bel” (*Aegle marmelos* Corr.) pulp of unripe fruit ½ spoon is given orally 2-3 times a day for daily to cure bleeding piles and also given together a spoon and smeared over the body in high fever with delirium.

Biological Properties:-Leaf contains Anthelmintic, Aphrodisiac, Fruit – Alexiteric, Bitter, Laxative, Stomachic, Pungent & also Expectorant, Anti-ulcer, Antidote, Appetizer.

Chemical Substance:-*Plant contains – Alkaloids, Manganese.*

59. *Citrullus colocynthis* Schrad. (CUCURBITACEAE)

Common & Regional Name: LN. - *Indraman*; S. - *Mahendra - varuni*; H., B. & Bo. - *Indrayan*; Tel.-*Etipuchchha*; Tam. - *Peyttumatti*; Mal.-*Peykommutti*.

Vegetative Character:- A perennial, scabrous herb with rather long trailing angular rough branches tendril simple or bifid. Leaves 5-6 cm. long with deeply divided lobes, middle lobe longest, leaves very rough beneath. Flowers monoecious, yellow, solitary axillary, Fruit globose variegated with raw green and white spotting ripe fruit is yellow colour, a rare weed of forest & waste lands in M.P.

FF – ♂, K₍₅₎ C₍₅₎ A₅.

FF – ♀, K₍₅₎ C₍₅₎ G₃.

Use- Extract of roots is taken ½ - 1 spoon daily once a day for 1-2 weeks to cure jaundice fever and gout.

*Roots juice or powder ½ spoons mixed with “Chiraita” (*Swertia chirata* Buch. Ham.), taken twice a day for 2-3 weeks to cure fever.

*Root powder 2-3 g. mixed with “Chirayta” (*Swertia chirata* Buch. Ham.) Plant 3 g. “Chhoti Dudhi” (*Euphorbia thymifolia* Linn.) plant ½ teaspoon together taken once a day for 2-3 weeks to treat jaundice, fever and gout etc.

*Crushed of fruit 5 mg. and root 5 mg. mixed with “Anantmoool” (*Hemidesmus indicus* R Br.) root ½ spoon taken orally 2-3 times a day to treat snake bite and fruit is also purgative.

Biological Properties:-Hypoglycaemic activity Positive in rabbits and Cooling, Bitter, Antibilious, Diuretic, Laxative, Anthelmintic, Anti-inflammatory.

Chemical Substance:-Root contains – Alpha – elaterin, Colosynthin, Colosynthotin and Saponins. Seeds – Fixed oil, Phytosterolin, Phytosterol, Alkaloid, Glycosides, Saponin, Tannins, Fatty acids. Ripe fruits yield elaterin (Cucurbitacin E), Citrullin, Citrullic acid, Glucose, Fructose, Manolic acid Elaterioin β - (Cucurbitacin I), Dihydroelatericin β (Cucurbitacin L) and Spinasterol.

References: Asolkar et al., (1992); Rajan et al., (2000).

60. *Trichosanthes cucumerina* Linn.(CUCURBITACEAE)

Common & Regional Name: LN. - Van chachedia; S. - Patola; H. - Jangli Chichonda; B. - Banpatol; Tam. - Pudol; Bo.- Ranparul; Tam.- Pudol; Tel.- Chetipotila; P.- Mohakri.

Vegetative Character: -An annual herb. Stem twining, pubescent and branched. Tendrils 2-3 ft. Leaves - 5-10 cm. in diameter, reniform in outline, 5 – lobed or angular, lobes denticulate, hairy. Male peduncles in pairs in young plants single. Calyx - narrow, teeth short hairy. Fruit - 2-5cm. long, avoid – conical, glucose, white streaked, on naturally turning

deep yellow. Pulp red seed 1.5 cm. corrugated compressed, Flowering – July & August. Occurs in Shahdol and all over M.P. Medicinal parts used stem and leaf.

FF – $\oplus$, ♂, $K_{(5)}$, $C_{(5)}$, A_5 .

FF – $\oplus$, ♀, $K_{(5)}$, $C_{(5)}$, $\overline{G}_3$.

Use- Infusion of stems and leaves taken one spoon once a day for 5-7 days to cure bilious disorder and also use in skin diseases. Fruit crushed $\frac{1}{2}$ -1 spoon are applied for laxative and seed also used for worm and leprosy.

Biological Properties: -Latex, Bitter (Fruit), Leaf Juice – Emetic. Root Juice – Cathartic, Seeds -Ant febrile, Anthelmintic.

Chemical Substance:- *Plant contains β -sitosterol, luteolin 7-glucoside (leaves) and Cucurbitacin β (fruits).*

References : Kar et al., (1999); Katewa et al., (2001).

61. *Trichosanthes palmata* (Roxb.) syn., *T. bracteata* (Lam.) Voigt. (CUCURBITACEAE)

Common & Regional Name: LN. – L.N. – Kauhari; H. – Lal indrayan; B. – Makal; Bo. – Kaundal; Tam. – Korattari; Tel. – Adaduta; Mad. – Kakatonti; Kan. – Avagudehannu.

Vegetative Character:- A climbing plant & prostrate. Root – tap. Stem – 5-10 ft., herbaceous, weak, tendrils present. Leaf – 2-5 inches diameter and palmately, petiolate. Flower – unisexual. Calyx – sepals 5, fused, corolla petals 5 connate, campanulate. Androecium – stamens 5. Gynoecium – ovary inferior Fruit – ripen red colour, Pulp – blackish. Flowering – Sept. & Oct. Occure in Shahdol and other regions.

FF – $\oplus$, ♂, $K_{(5)}$, $C_{(5)}$, A_5 , G_0 .

FF – $\oplus$, ♀, $K_{(5)}$, $C_{(5)}$, A_0 , $\overline{G}_3$.

Use- The crushed dry fruit mixed with “Bahera” leaf (*Terminalia belerica*, Roxb.) smoked separately as applied for asthma and Hydrogogue purgative

*The root paste with black pepper and “Neem” leaf (*Azadirachta indica*) & “Baghnakhi” (*Capparis spinosa* L.) leaves paste external used 5-7 times a day for 3 weeks to treat Jaharvat (*Carbuncle*)

*The lowest root not paste with “Indraman” (*Citrullus colocynthis* Schrad.) root, black pepper and “Vach” (*Acorus calamus*) half inches and equal amount locally applied to plague tumour 2-3 times a day for 7-15 days and a spoon given orally.

*Fruit and root cooked with mustard oil external used to headache, hemicrania and ozoena (Ulcer in the nostril.)

*The crushed fruit mixed with mustard oil or coconut oil boiled applied externally for skin diseases and boils.

Biological Properties: -Fruits contains – Hydrogogue, Cathartic, Gingelly oil, Carbuncles, Bitter.

F – POLYGALACEAE

62. *Polygala chinensis* Linn. (POLYGALACEAE)

Common & Regional Name:LN. - *Phutane*; H. - *Meradu*; Marathi - *Negli*; Guj. - *Pilibhonyasana*.

Vegetative Character:- An annual herb., Stem - prostrate and well branched, sometime erect., Leaves - ovate to oblong, sometime linear, smooth., Inflorescence- a raceme of 4-6 flowers. Flower small, yellowish fading to pink, having wings which are herbaceous, green, acute and glabrous (two inner sepals forms wings), sepals 5. Petals 3, the lower one keel shaped. Stamens-8, united in a sheath, hypogymous, Ovary-superior,

Syncarpous, 2-celled. Capsule-circular, narrowly winged, 2-chambered, and 2 seeded., Rare in Shahdol (M.P.).

FF – %, ♂, ♀, **K**₅ **C**₃, **A**₍₈₎, **G**₂.

Use- Powder roots ½ teaspoonful along with “Bel” leaf (*Aegle marmelos* Corr.) early morning empty stomach, together taken orally once a day for 5-7 days to relieve giddiness and also use in fever.

Biological Properties:- Root– relieve giddiness and also use in fever

F – CACTACEAE

63. *Opuntia dillenii* Haw. (CACTACEAE)

Common & Regional Name: *LN.* - Nagphani; *H. & B.* - Nagphana; *Bo.-* Samar; *Tel. & Tam.* - Nagadali.

Vegetative Character: - A plant spiny shrub, about 2 m. tall, growing in dry sandy places (xerophytic). Stem - flattened phylloclade, jointed, bluish green, covered with spines. Leaves - scale yellowish, caducous., Inflorescence – solitary, Flower bright orange or yellow, sessile, regular, bisexual., Calyx and Corolla - indefinite., Stamens numerous. Ovary - inferior, syncarpus, unilocular, style single, stigma 5-8 fid. Fruit berry, deep red or scarlet Seed many, Perpetuation by cuttings, a common waste land plant of M.P.

FF – %, ♂, ♀, **P** (∞), **A**_∞, **G**_{5-∞}.

Use- Paste flower 2 with “Chirchira” (*Achyranthes aspera* L.) 4 leaves and candy sugar (Mishri) 2 g. together once a day taken orally empty stomach for 7-21 days or again revise to cure leucorrhoea and gonorrhoea and also leaves cure boils. Cooked fruit in fire mashed and mixed with milk 20 - 50 g. taken once a day for 7-21 days to treat gonorrhoea and leucorrhoea.

Biological Properties:- Fruit – Refrigerant, Spasmodic, Cough, and Expectorant, Milk juice – Purgative, Leaf – Inflammatory.

F – MALVACEAE

64. *Abelmoschus crinitus* Wall.(MALVACEAE)

Common & Regional Name: LN.-Amru

Vegetative Character:- Plant 2-4 feet high. Stem – red colour, Leaves – simple. Flower – Calyx – red colour, epicalyx present and both are sour. Corolla - yellow, Androecium – indefinite another extrose, Gynoecium – Polycarpellary, syncarpus ovary superior, Seed – brown., Fruit – hairy blackish.

FF-Br, Brl $\oplus$, φ , Epik₇, K₍₅₎, C₅, A_(w)G₍₅₎.

Use- The powder of calyx 2 spoon mixed with “Kaitha” fruit pulp (*Feronia elephantum* Correa.) 3-4 spoon “Aam” fruit (*Mangifera indica*, L.) 2-3 spoon and “Amla” (*Emblica officinalis*, Gaertn.) 2 spoon together with water 2 glass (Gilas) given orally, 2-3 times a day for 2-3 days (in summer season) to treat colic, gas pain in cattle.

Biological Properties:- Calyx-to treatment for colic, gas pain in cattle.

65. *Abutilon indicum* (Linn.) G. Don. (MALVACEAE)

Common & Regional Name: LN.- Kakai; H. - Kanghi; Eng. – Indian mallow, B. - Potari; S. - Kankati; Tam - Paniyarattutti; Tel - Tutturubenda.

Vegetative Character:-An Annual small shrub like plant, finely tomentose, sometime perennial. Leaves simple with serrate margin, 2-5 cm. cordate, petiolate, stipulate, stipules bent downwards, Flowers in the axile of the leaf, solitary with long peduncle. Calyx - 5 fused. Corolla-Petals 5, orange or yellow. Stamens - numerous. Ovary - Syncarpus, Carples 5-

20, longer than the calyx, with spreading awns. Carpel - two many seeded. Fruit - a capsule. Seeds - endospermic and schizocarpic dark brown minutely hairy, Perpetuating by seed. Flowering - Nov-Dec. Occur in Shahdol rare in M.P.

FF-Br, Brl $\oplus$, ♂ , **Epik**₇, **K**₍₅₎, **C**₅, **A**_(u), **G**₍₅₎.

Use- The paste of either stem root bark or powder along with “Ramdatoon” (*Smilax prolifera* Roxb.) root, “Satavar” (*A. racemosus* Willd.) root, “Semal” (*Salmalia malabarica* Schott & Endl.) tap (Musla) root together, one spoon daily taken orally for 3-4 weeks as the chief ingredient and aphrodisiac. Root also used in fever and discharge of urine.

*The root paste and leaves a spoon; with black pepper given orally 2-3 times a day for snake bite.

*The paste of root with water; a spoon along with candy sugar and “Shirphonka” (*Tephrosia purpurea* L.) root, ½ spoon to given orally once a day; for 21 days to treat leucorrhoea (red) and seed powder also used for sterility.

*Infusion of root and leaves; 2 spoon mixed with candy sugar, a spoon given orally; twice a day for 2-3 days to treat inflammation of urine and also used in toothache.

*Infusion of root with “Zinger”, “Tulsi” (*Ocimum sanctum* L.) and “Gurij” (*Tinospora cordifolia* Willd.) stem given orally 2 spoons twice a day for 7-21 for alternate fever.

Biological Properties: -Root – Antipyretic, Astringent, Diuretic. Leaves – Demulcent, Diuretic, Emollient, Seed – Aphrodisiac, Demulcent, Laxative.

Chemical Substance:-Plant Contains – Gossypetin, Glycosides, Essential oil.
Root – Fatty acids, Asparagin, Rafinose, , Stem & Leaves – Alkanol, Beta

– Sitosterol, Vanillic acid, Fumaric acid, Fructose, Caffeic acid, Fructose, Glucose, Galactose, Leucin, Threonine, Glutamic acid, Serine, Hisidine & Aspartic acid β - Sitosterol, Tocopherol oil (0-31), Amino acids and fructose.

References: Asolkar et al. (1992); Chopra et al. (1968); Ghosh and Das, (2000); Sinha and Sinha, (2001); Upadhyea et al. (1994).

66. *A. graveolens* W. & A. (MALVACEAE)

Common & Regional Name: LN. - *Badi Kanghi*; H. & B. - *Barkhanghi*; M. - *Tulli*; Tam. - *Vadattuti*, Tel. - *Belabenda*.

Vegetative Character:- A well branched shrub about upto 2 m. high, covered with minute whitish glandular hairs., Leaves 5-8 cm long, some time lobed, velvety, stipulate, and cordate., Flower as of (*Abutilon indicum*) with a darker centre. Carples 20 or more rounded, hairy. The plant has an unpleasant smell, flowering during April to June, Rare in Shahdol & common in Sihor, Indore, Gwalior, and Jabalpur divisions.

FF-Br, BrI $\oplus$, $\oplus$, Epik₇, K₍₅₎, C₅, A_(u), G₍₅₎.

Use- Root powder; ½ tea spoon given orally once a day for 3-10 days for demulic and leaves also used for discharge of urine.

67. *Sida rhombifolia* Linn. (MALVACEAE)

Common & Regional Name: LN. - *Safed Bariyari*; S. - *Atibala*, H. & B. - *Swet- barela*; Tel. - *Gubatada*; Mal. - *Anakkuruntotti*; Tam. - *Tenacham*.

Vegetative Character: -A small erect under shrub covered with rough stellate hairs. Leaves 2-3" rhomboid-lanceolate or obovate acute, under surface stellate hairy, margin entire near base, dentate serrate above, Stipules linear longer than the petiole, Peduncles axillary or clustered at the ends

of branches., Flowers small, yellow or white, Carples 10th with short or long break. Found throughout M.P.

FF-Br, Brl $\oplus, \text{♂}$, **Epik**₇, **K**₍₅₎, **C**₅, **A**_(u) **G**₍₅₎.

Use - paste of leaves mixed with Makoia (*Solenum nigrum* L.) leaves used for swellings, twice a day for 3-7 days and its root also used in rheumatic pain.

Biological Properties:- Tonic Astringent, Blood – Purifier, Aphrodisiac, Astringent, Aphrodisiac diuretic.

Chemical Substance:- Plant Contains – Ephedrine, Cellulose, Lignin, Quanozoline, are: Vasicinol, Vasicinone, Vasicine, Alkaloids, Phenethylamines, Tryptomine, Sterculic acid, Malvalic acid Linoleic acid, Choline, Hypaphorin methylesters, Hypaphorine and Betaine.

References: Singh and Maheshwari, (1992).

68. *Sida cordifolia* Linn. (MALVACEAE)

Common & Regional Name: Biskhapri; H. - Kungyi; B. & S. - Brela; Tel. - Chirubenda; Mal.- Katturam; Tam. - Nilatutti; P. - Kharent; Bo.- Chikana.

Vegetative Character: - Annual or perennial hairy shrub like plant. Leaves cordate downy., Flowers as in case of *S. spinosa*, peduncles jointed at the base, yellow in colour Carples ten, awaned, Flowering June to December, and a most common weed of M.P.

FF-Br, Brl $\oplus, \text{♂}$, **Epik**₇, **K**₍₅₎, **C**₅, **A**_(u), **G**₍₅₎.

Use- Paste of roots along with satavar (*Asparagus racemosus* Willd.) roots, (Mishri sugar) given together in equal amount; one spoon 2 times a day before meal, taken orally for 21 days to cure impotency and also used in cardiac diseases.

*Paste of leaves mixed with Neem leaf (*A. indica* A. Juss.) and Methi Seeds (*Trigonella foenum-graecum* Linn.) applied topically on boils once a day for 2-4 days.

*The paste of leaves; ½ spoon mixed with “Neem” (*A. indica* A. Juss.) leaves and “Methi” (*Trigonella foenum-graecum* L.) seeds applied topically on (Baltod) boils once a day for 3-8 days and also used for healing wounds.

*Seeds powder ½ teaspoon, sugar (Mishri), “Satavar” (*Asparagus racemosus* Willd.) roots ½ spoon, and a glass (Gilas) of cow milk given together orally once a day; for 7-21 days to cure gonorrhoea, leucorrhoea and weakness.

*The root bark paste along with “Tilli” (*Sesamum indicum* L.) and “Nirgundi” (*Vitex negundo* Linn.) leaf given orally, a spoon twice a day; for 3-5 weeks to treat paralysis and mouth paralyses.

*The powder of seeds mixed with “Kali Musli” (*Curculigo orchioides* Gaertn.) rhizome and candy sugar given orally; once a day for 3-7 week to treat sexual disorder, increase sexual order and gonorrhoea and root paste with candy sugar milk and “Satavar” (*Asparagus racemosus* Willd.) tuber root powder taken orally, a spoon twice a day for 3-7 weeks to treat leucorrhoea.

*The crushed whole plant decoction mixed with black pepper 5 pieces and “Gataran apex” tender leaf extract; a spoon taken orally 1-2 times a day for 1-2 weeks to treat cold fever.

*Root mixed with Sesamum oil and milk, effective in curing cases of facial paralysis, sciatica and also root decoction with ginger used as febrifuge.

Biological Properties: -Aphrodisiac, Astringent, Emollient. Fruit – cooling, Digestive, Acrid, Aphrodisiac, and Astringent.

Chemical Substance:-Root contains – Beta – sitosterol, Choline & betaine, Alkaloids, Visicinone, Vasicine, and Vasicinol.

69. *S. spinosa* Linn.(MALVACEAE)

Common & Regional Name: LN. – Gudsakri, S.-Nagabala; H.-Gudsakari; Mal.&Tam.- Mayirmanikkam; B. - Bon methi; Tel. - Mayilumanikyam.

Vegetative Character:- An erect annual, hairy, somewhat shrub like plant., Leaves- cordate, downy, three spine tubercles below leaf base, petiolate. Flower - axillary, regular, bisexual, peduncle joined near the flower. Petals 5, yellow. Stamen - 5, epipetalous, Gynoecium- Syncarpous, 5-celled., ovary only one seeded, carpel with two erect rough breaks. Fruit a dry capsule with one schizocarpic seed. Flowering - during July-Aug. Perpetuation by Seeds., Most common weed of M.P.

FF-Br, Brl $\oplus$, ♂ , Epik₇, K₍₅₎, C₅, A_(u) $\overbrace{\text{G}}_{(5)}$.

Use- The root powder; ½ spoon along with “Chirchira” (*A. aspera* L.) leaves, sugar (mishri), Lajvanti seeds (*Mimosa pudica*) powder taken orally, 1 spoonful daily (empty stomach) for 7-21 days to cure gonorrhoea.

*Roots tonic, used in debility and fevers. Leaves used in case of gonorrhoea, Gleet (Pus) and scalding urine.

Biological Properties: -Root & bark – Demulcent, Diaphoretic, Leaves – Demulcent, Refrigerant.

70. *S. acuta* Burm. (MALVACEAE)

Common & Regional Name: LN. - Bariari; S. - Bala; H. - Bariari; M. - Palambasi; Tel. - Visaboddi; B. - Bon methi; Mal.- Malatanni; Bo – Jangli methi; Tam. – Vattatiruppi.

Vegetative Character:- A small branched under shrub about 20-30 cm. tall smooth or slightly rough, with minute hairs. Leaves-2-5 cm. long, lanceolate-oblong, rounded at base, obtuse or acute, Serrate or crenate serrate, glabrous, pale beneath., Stipules linear subulate, longer than petiole, veined, ciliate., Calyx-tube sub-globose, segments triangular, acute nearly glabrous, Corolla-twice the length of petals yellow, Carpals 5-10, Rogues 2-awned., Flowering-during **Sept. - Nov** or throughout year, and Common plant of waste land.

FF-Br, Brl $\oplus$, $\oplus$, **Epik**₇, **K**₍₅₎, **C**₅, **A**_(u), **G**₍₅₎.

Use- Decoction of roots (5-8 pieces) mixed with “Murra fruit powder”(*Helicteres isora* L.) 2 spoons, given orally; 2 times a day for 3-5 days for relief in colic pain.

*The root paste; ½ teaspoon along with 5 “Chirayta” (*Swertia chirata* Buch. Ham.) leaves provided orally; once a day for 3-7 days to cure alternate fever, blood disorders and leaf juice also used in curing pain and rheumatic.

The root paste along with “Tulsi” (*O. sanctum* L.) leaves and honey is given orally; once a day for 3-9 days to cure urinary disease and disorders of the bile.

Biological Properties: -Roots – Astrin, Cooling, Tonic, Bitter, Febrifuge, Aphrodisiac.

71. *Hibiscus ficulneus* Linn.(MALVACEAE)

Common & Regional Name: LN. - Ram Bhindi, Van Bhindi

Vegetative Character:- Annual under shrub 3-4 ft. tall, covered with minute glandular hairs, well branched. Leaves, alternate, petiolate, petiole covered, with hairs, simple, covered with glandular hairs, 3-7 palmately lobed, stipules pointed, ovate, obtuse, toothed., Flowers showy, white,

changing to pink, with red in the centre, regular, axillary, solitary., Epicalyx, six, sepals 5, and hairy. Petals 5, white or pink, united, at the base, Androecium infinite, Seed endospermic schizocarpic., Flowering Aug. to Oct. Common in Chhattisgarh, Malva, Rewa & Shahdol Division.

FF-Br, Brl $\oplus, \text{♂}$, **Epik**₇, **K**₍₅₎, **C**₅, $\overset{\curvearrowright}{\text{A}}_{(u)} \underline{\text{G}}_{(5)}$.

Use- Leaf powder mixed with “Shirphoka” (*Tephrosia purpurea* (L.) Pers. Root, “Satavar” (*Asparagus racemosus* Willd.) root given orally once a day, half spoon for 3-5 weeks to cure weakness and also the leaves are given as tonic.

72. *H. micranthus* Linn. f. (MALVACEAE)

Common & Regional Name: LN. – Van Bhindi; Guj. - Chanak bhindo; Tam. - Sittmutti; Tel. - Tuturubenda.

Vegetative Character:-An erect slender, 3-4 ft. in tall deep rooted herb. Stem-round covered with rough stellate hairs. Leaves - simple, alternate, stipulate, stipule pointed, petiole long in basal leaves and short in upper leaves, ovate, margin toothed, lamina covered with hairs on both sides, hairs rough stellate. Flower small, axillary, solitary, pedicellate, Bracteoles 6, Calyx-five lobed hairy. Corolla - whitish pink, 5, lobed. Ovary - superior, branched globose stigmas. Fruit - small, globose, 5 – celled, capsule, Flowering- Sept. to Oct. Found Shahdol, Jabalpur, Rewa Division, Hoshangabad and Malva areas.

FF-Br, Brl $\oplus, \text{♂}$, **Epik**₇, **K**₍₅₎, **C**₅, $\overset{\curvearrowright}{\text{A}}_{(u)} \underline{\text{G}}_{(5)}$.

Use- The root paste along with “Gurij” (*Tinospora cordifolia* (Willd.) Miers.) Leaf; stem ½ spoon administered orally once a day for 3-7 days for relief in fever.

Biological Properties: -Plant – Febrifuge

73. *Urena lobata* Linn.(MALVACEAE)

Common & Regional Name: H. - *Bachata*; B. - *Bonokra*; Bo. & Marathi - *Vanabendha*; S. - *Vanabhenda*; Tam. - *Ottatti*; Tel. - *Peddabenda*.

Vegetative Character:- An erect under shrubs upto 1 m. tall. Stem covered with stellate hairs. Leaves variable 5-10 cm. long, rounded ovate, cordate at base, 5-7 lobed, hairy, the 3-central nerve and mid rib provided with glandular pore stipules linear, bracteoles linear, equalling to sepals., Flowers about 3 cm across, pink with deep centre, carpel rounded on back, with many hooked hairs., Common in Shahdol and other parts MP.

FF-Br, Brl $\oplus$, σ , Epik₇, K₍₅₎, C₅, A_(a) G₍₅₎.

Use- Cooked oil of roots, with “Arandi” (*Ricinus communis* L.) oil, “Dhatuara” (*Datura metal* L.) seeds, leaf, administered externally for four weeks to get relief in gout & arthritis.

Biological Properties: -Roots – diuretic & seed contains – urease.

74. *U. sinuata* Linn.(MALVACEAE)

Common & Regional Name:H. - *Lotloti*; B. - *Kunjia*; Bo. - *Tapkote*; Tel. - *Piliyamankena*; Tam. - *Outtuttutti*; Mal. - *Uram*.

Vegetative Character:- An erect herb, annual and well branched. Similar in other characters to *U. lobata* except in the shape of leaves, which are deeply divided upto the mid rib, and the size of flowers which is smaller? Found growing in waste lands and common in Shahdol.

FF-Br, Brl $\oplus$, σ , Epik₇, K₍₅₎, C₅, A_(a) G₍₅₎.

Use- Roots cooked in “Arandi” (Castor oil) (*R. communis* L.) oil, “Batilha” (*Aristolochia indica* L.) roots, “Madar” (*Calotropis procera* (Ait.) R.

Br.) root, leaf, applied externally twice a day for 3-4 weeks to cure chest and waist pain.

75. *Malvastrum tricuspidatum* syn. *M. coromandalianum* Gracke (A. Gray) (MALVACEAE)

Common & Regional Name: LN. - Bariyari.

Vegetative Character:- Nearly all the year round., Common in cultivated field., Annual or perennial herb about 25-50 cm. tall. Stem-cylindrical, erect, branched, Leaves-petiolate, alternate, stipulate, ovate, irregularly dentate, acute, thin and smooth, Flower-complete yellow, small, axillary. Epicalyx hairy, Calyx-sepals 5 lobes triangular, acute, petals 5, yellow, Stamens-numerous., Ovary-syncarpus, carpals 8-12. Fruit-capsule of 8-12 locules

FF-Br, Br_l ⊕, ♂, Epik₇, K₍₅₎, C₅, A_(w) G₍₅₎.

Use- Powder of roots along with “*Ashwagandha*” (*Withania somnifera* Dunal.) roots, “*Shirphonka*” (*Tephrosia purpurea* Dunal.) roots, “*Safed mushli*” (*Chlorophytum tuberosum*) roots taken together; a spoon daily (orally) for 3-5 weeks to cure weakness.

Biological Properties: -Plant – considered, Emollient, Resolvent, Plant – Inflammation, Cooling, (Leave) & Pectoral, Diaphoretic.

76. *Malva sylvestris* Linn. (MALVACEAE)

Common & Regional Name: LN.-&H.– *Gul-khair*; Bo. - *Khubasi*; Kan.- *Sannabindigegida*; Patna- *Khatmi*; Urdu- *Khubaji*.

Vegetative Character:- Annual or perennial shrubby and hairy plant., Leaves, alternate, smooth, slightly serrated at margin., Flowers, axillary, bracteate, bracteoles 3 regular., Flowers-pedicellate, and bisexual. Petals pink, five, free., Calyx-persistent and five in number., Stamens,

numerous, jointed in one whorl at the tip of the style. Ovary - Syncarpous, 5-10 in number. Fruit - a capsule, Seed endospermic common in Gwalior, Rewa, Shahdol, Raipur and Malva tract.

FF-Br, Brl, $\oplus, \text{♂}$, Epik₇, K₍₅₎, C₅, A_(a), $\underline{\text{G}}$ ₍₅₎.

Use- Juice of crushed whole plant; 2 spoons twice a day, for 3-7 days to cure infections of urinary bladder (discharge of urine) and also poultice used topically in swelling or pain.

Biological Properties:-Plant is considered as- Demulcent, Emollient, Mucilaginous, Cooling, Febrifuge, Inflammatory L, Leaf contain – tannin.

F – TILIACEAE

77. *Triumfetta rhomboidea* Jacq. (TILIACEAE)

Common & Regional Name: LN. - Chirpat, Chiktim, Manduli; H.- Chikti; B.- Bunokra; M.- Adeiyotti; Marathi- Jhinhira; S.- Jhinhirita; Tam.- Puramutti; Tel.- Chirusitrika.

Vegetative Character: - The waste land herb upto 2-3 fit tall, with more or less stellately pubescent branches., Leaves, variable, upper leaves, lanceolate to ovate lower leaves 3 lobed, 5-7 cm in size., Margin serrate, apex acute. Lower leaves hairy on both sides., Flowers yellow in terminal or leaf opposite cymes, peduncles short, and bracts subulate. Sepals - five and Petals-five free, yellow, shorter than sepals. Stamens 5-15. Ovary superior, five celled. 2-ovule in each cell, style slender, and stigma 2 to 5 toothed, Capsule globose, with glabrous spines, Common in Malva, and plains of M.P.

FF – $\oplus, \text{♂}$ K₍₅₎, C₅, A_a, $\underline{\text{G}}$ _(2-a).

Use- Decoction of roots; ½ cup once a day given orally for relief in child birth.

*Paste of stem, bark and leaves along with “Badi Dudhi” (*Euphorbia hirta* L.), whole plants together one spoon given orally; twice a day for 2-5 days to cure dysentery.

*Roots batter, a hot infusion is taken to hasten child birth. Bark and fresh leaves used in diarrhoea and dysentery.

Biological Properties: -Mucilaginous, Demulcent, Astrin, Root – Bitter, Diuretic.

78. *Corchorus trilocularis* Linn. (TILIACEAE)

Common & Regional Name: LN. - *Chench Bhaji*; H.- *Kadu Kosta*; S. - *Dirghachanchu*; Bo - *Kaduchhunchh*; Guj. - *Kadvichhunchhdi*.

Vegetative Character:-Annual herb, some time perennial, 25-50 cm. tall leaves elliptical oblong, smooth. Slightly toothed, stipules linear pointed, margin slightly serrated, apex obtuse. Flower on short cymes opposite to leaves, yellow in colour, Flowers small- yellow, Sepals 4-5 Petals 4-5 without glands. Stamens many or definite, springing from a short torus. Ovary 2-5 celled, style short, stigma cup shaped. Ovules many Bracts filiform. Capsule, long slightly curved or straight, hairy, 3-4 angled, Perpetuation by seed. Flowering- from June to Dec. occurs in Amarkantak area and other part of M.P.

FF – $\oplus, \sigma$, **K** 4-5, **C** 4-5, **A** α **G** (2-5).

Use- Powder of seeds; ½ teaspoon “Tulsi” (*Ocimum sanctum* L.) leaves and Black pepper administered twice a day for 3-7 days to cure fever.

Biological Properties: -Seeds – Mucilage, Demulcent.

79. *C acutangulus* Lamk. (TILIACEAE)

Common & Regional Name: LN. – *Chech Bhaji*; B. - *Titapat*.

Vegetative Character:- Leaves large (sore) ovate, apex acute, smooth, serrated margin, simple, alternate and stipulate, Flowers- in cyme, Sepals 5, free Petals 5, free, yellow, Stamens numerous., Ovary- syncarpous, 3-4 celled superior, many ovules., Capsule short, 6-angled, scabrous, slender 5-8 cm. long, with short beak., Seeds small trigonous, black., Perpetuation by seed., Common weed.

FF – $\oplus, \text{♂}, \mathbf{K}_{(5)}, \mathbf{C}_5, \mathbf{A} \infty \mathbf{\underline{G}}_{(2-a)}.$

Use- The seeds powder; ½ teaspoon along with “Malin” (*Gardenia lucida* Roxb.) gum 3-5 mg, given orally once or twice a day for 3-5 days to cure (child) pneumonia and leaves eaten as vegetable.

80. *C. capsularis* Linn. (TILIACEAE)

Common & Regional Name: LN. - Chech bhaji, Jute, Harrawa, Chinchā; H. & B. - Narchatitapat; Assam - Titamara.

Vegetative Character:- Erect annual glabrous herb. Leaves 5-10 cm long, ovate, lanceolate, acuminate, serrate rounded at the base. The lowest serrate produced into filiform tails, petiolate, stipulate, stipules filiform as long as petiole. Flowers about 1 cm across, shortly stalked, capsule subglobose, depressed at apex about 1cm diameter, ridged, and muricated 5-celled, valves woolly. Seed few in each cell, wedge-shaped, smooth brown. Not a common in Shahdol. Not a common in M.P.

FF – $\oplus, \text{♂}, \mathbf{K}_{(5)}, \mathbf{C}_5, \mathbf{A} \alpha \mathbf{\underline{G}}_{(2-a)}.$

Use- Decoction of leaves along with “Bhuneem” (*Andrographis paniculata* Nees.) one spoonful taken orally; twice a day for 3-7 days to cure fever and seeds also used in dysentery.

*Decoction of root and unripe fruit leaves applied in diarrhoea and piles.

Biological Properties:-Leaves – demulcent, Stomachic, Laxative, Carminative, Stimulant, Bitter, Tonic, Corcorin, Capsularin, and Corcortin isolated from seeds, Glucoside Genies, Digitalis.

81. *C. facicularis* Lamk. (TILIACEAE)

Common & Regional Name: LN. - *Chicharia*, *Rajan*.

Vegetative Character:-An annual herb 40-50 cm tall branched from the base, stem round and slightly pubescent., Leaves oblong, lanceolate, and ovate on short petiole, margin slightly serrated, and apex acute., Flowers axillary, opposite the leaves two to three in peduncles, yellow in colour., Other characters as in (*C. acutangulus*). Capsules short clustered three valve and slightly breaked, Flowering July to Oct. Perpetuation by seed, not a common weed in Shahdol.

FF – $\oplus, \phi$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2-4)}$.

Use- Plants used for (weakness) power, renewing body strength and leaves also used as vegetable.

Biological Properties: -Plant – Mucilaginous, Astrin, Restorative.

82. *C. Olitorius* Linn.(TILIACEAE)

Common & Regional Name: LN. - Kusta; H. - Koshta, Bo. - Tankla; B. - Lalitapat; Tam. - Peratti; Tel. - Parintakura.

Vegetative Character: -An annual herb, 25-70 cm. Tall. Root – tap. Stem – woody. Leaves – oblong, alternate, smooth, slightly toothed simple stipulate, petiolate, Inflorescence – cymose coherent with a bract for half its length, Flower – regular, Calyx 5 sepals, Corolla - 5 petals, Androecium – stamens numerous, polyadepous, whorl of stamen,

Gynoecium – 25-7 carpel placentation axile, Fruit – capsule, dehiscent.
Seed – black colour.

FF – **Br**, $\oplus, \sigma$, **K**₍₅₎, **C**₅, **A** α **G**₍₅₎.

Use- The leaves juice or powder along with “Chirchira” (*A. aspera* L.) leaves or root and sugar (mishri), ½ cup once a day; to cure gonorrhoea and decoction of leaves applied for removing fever.

*The ash of whole plant; half tea spoon mixed with “Bahera” (*Terminalia belerica* Roxb.) fruit bark powder half tea spoon given orally, twice a day for 3-4 weeks to treat gas and increasing digestion.

Biological Properties: -Demulcent, Diuretic, Leaf tonic, Febrifuge, Seed – purgative.

83. *Grewia hirsuta* (Vahl.) var. *G. helicterifolia* (TILIACEAE)

Common & Regional Name: LN. - Gudsakri; H. - Kukurbicha; Bo. - Gowali; Marathi - Govli; Tel. - Jibilike.

Vegetative Character: -Perennial plant shrub root tat root. Stem – tall 1.5 mt. woody. Leaf – alternate or apposite entire stipulate dentate. Inflorescence-cymose Flower – regular, hermaphrodite Calyx – 5 sepals Corolla – 5 petals Androecium – α anther introce, Gynoecium – 2 – α Fruit – round.

FF – $\oplus, \sigma$, **K**₍₅₎, **C**₅, **A** α or polyadelphous, **G**₂ – α .

Use- The juice of crushed root along with water, “Baramasi” (*Tridax procumbens*, L.) plant and “Gurij” leaves (*Tinospora cordifolia*, Willd.) juice used externally for dressing (washing) wounds or cut and also used in dysentery and diarrhoea.

*The paste of root; local application 2-3 times a day for 5-10 days to treat measles and also used in boils.

F – ZYGOPHYLLACEAE

84. *Tribulus terrestris* Linn. (ZYGOPHYLLACEAE)

Common & Régional Name : LN. - Gukhru; S. - Gokshura; Eng. – Land catrops ; H. - Chhota gokhru; B.-Gokhru; Tam. - Nerunji; Tel. - Palleru; Bo.- Lahanagokhru; P.- Bhakhra; Mal.- Neringil; Kan.- Negalu.

Vegetative Character:- The plant is annual or biennial. Stem - branching prostrate, hairy herb, growing in uncultivated Lands, dry fields and pasture lands. Leaves-pinnately compound, pairs of leaflets unequal in size, 5-7 in number, Flowers-solitary in the axile of the leaf. Sepals 5, imbricate. Petals 5, yellow, spreading. Stamens - 10, united at the base. Ovary - five chambered style angular and bears a single terminal stigma. Fruit 4-5 angled with two pair of spines, one pair longer than the other, rare in Shahdol district.

FF – $\oplus, \otimes$, K₅, C₅, A₍₁₀₎, G₅.

Use- The seeds powder; half spoon mixed with “Chirchira” (*Achyranthes aspera* L.) root, 5 “Mehndi” (*Lawsonia inermis* L.) leaves, “Chhoti “Dudhi” (*Euphorbia thymifolia* L.) whole plant, ½ teaspoon taken together orally; once a day for 7-21 days to treat kidney-stone disease and also some formula used for stopping urine diseases (growth of prostate gland).

*Fruit, diuretic, tonic, aphrodisiac, used in painful menstruation, urinary discharges and impotency. Its also used in the form of infusion in gout, rheumatic pain and kidney troubles.

*The seeds powder mixed with sugar (mishri), “Shirphoka” (*Tephrosia purpurea* L.) roots, “Babul gum” (*Acacia arabica* Willd.) leaf, “Satavar” (*A. racemosus* Willd.) roots, “Ber” root bark (*Zizyphus*

nummularia W. A.) are made into a paste and taken 2 spoonful, orally; twice a day for 3-21 days to treat gonorrhoea, leucorrhoea etc.

Biological Properties: -Carminative, Anti – inflatory, Expectorant, Anodyne, Aphrodisiac, Alternative, Cooling, Appetiser, Fattening, Diuretic, Tonic.

Chemical Substance:- Fruits and leaves contain kaempferol, kaempferol-3-glucoside, kaempferol-3- retinoside, hecogenin, sapogenin, neotigogenin, diosgenin, gitogenin and chlorogenin. Alkaloid, Fixed oil, Essential oil, Resin, Steroids, Saponins, Vitamin C, Protein, NO₃.

References: Paranjpe, (2001).

F – SIMARUBIACEAE

85. *Balanites aegyptiaca* (Linn.) Delile syn. *B. Roxburghii* (planch.)(SIMARUBIACEAE)

Common & Regional Name:LN. - Hingot; H.- Hingan; S.- ingudi Bo.- Hinganbet; Tam.- Nanjunda; Tel.- Gari.

Vegetative Character: -It is grooving in the waste lands and on the bound of fields, Perennial spiny shrub, and plant having round purplish or green, Stem- woody, Leave-2-5 cm. in size, bifoliate, stipulate, and alternate, Flowers- solitary, axillary and pedicellate. Calyx-having 5 sepals, ovate and acute, Corolla-5petal, polypetalous, white. Andrecuim-10 stamens free, with long fine filaments and yellow anthers, Ovary- syncarpous superior having five locules, Fruit- drup green ovoid, woody and five grooves.

FF – $\oplus, \text{♂}, \text{♀}, \text{K}_5, \text{C}_5, \text{A}_{10}, \underline{\text{G}}_{(5)}$.

Use- The unripe fruit barks and leaves paste is given orally ½ -1 spoon two times a day for stomach upset and seeds also used for cough and

stomach. Its Stem is used for treating guinea-worm (white spot) and in hydrophobia etc.

Biological Properties: -Bitter, Heating, Anthelmintic, Expectorant.

Chemical Substance:-Fruits & Seeds – Oil of yellow colour and tasteless, pulp & Fruit contains, Saponin, Nitrogenin, Atura Glucoside of Sapogenin.

F – LORANTHACEAE

86. *Loranthus longiflorus* (Desr.) syn. *Dendrophthoe falcata* (Linn.f.),

***D. elástica* (Desr.) (Parasite Plant) (LORANTHACEAE)**

Common & Regional Name: LN. & H. - Banda; S.- Vanda; Eng. – Lonanthus; B.- Baramanda; Guj.- Vando; P.- Banda; Tam.- Pulluri; Tel.- Bandanka.

Vegetative Character:-The plant occur on the branch-parasite, bark grey smooth., Large, bushy, usually glabrous., Leaves-opposite, curvaceous, 10-15 cm long, very variable in shape and venation, ovate, elliptic or linear oblong, obtuse; midrib prominent, usually reddish, petiolet., Flowers in stout spreading axillary or supra-axillary, unilateral racemes, often 2, from an axil, pedicellate; bracts broadly ovate. Calyx-produced above the ovary, tube cylindrical, limb truncate 5-toothed. Corolla-glabrous, tube curved, split on back, red or orange, lobes 5, linear, reflexed, green or yellowish. Fruit avoid, oblong, crowned by the cup shaped calyx, black when ripe, albumen white with 5 linear teeth at the top. Common throughout M.P. specially growing on Mango and Mahua (*M. indica*) Neem trees, Flowering- during Nov. to Feb., A parasite weed. Occur in trees as Madhuca, mango, palas etc. M. P.

FF – Br, ⊕, ♂, ♀, K₅, C₅, A₅₋₈, G₁.

Use- Paste of leaves; 1 spoonful applied for checking (stopping) abortion once a day for 2-3 weeks and also used for menstrual troubles.

*The leaves paste is mixed with “Chirchira” (*A. aspera* L.) roots, Korea (*Holarrhena antidysenterica*) stem bark powder and given orally; one spoonful in empty stomach daily for 3-4 weeks to treat stone calculi.

*Hot leaf and juice applied for earache; used only 2-3 drops 2 times a day for 2-3 days.

Biological Properties: -Bark – Astringent, Narcotic, Expectorant, Carminative, Diuretic, Blood Purifier, Wound healing.

F – RHAMNACEAE

87. *Zizyphus rotundifolia* Lamk., *Z. nummularia* W. & A. (RHAMNACEAE)

Common & Regional Name: LN. – Jhadberi, Bair; H. - Jharberi; S. - Bhuvadari; Marathi - Jungleber; Eng. – Indian plum; Tam. - Korgodi; Tel. - Nelaregu; P.- Kokanber; Kan.- Purpalli.

Vegetative Character: -The plant shrub, woody, dense with thorny growth, stem bifariouly much branched, perennial. Stipules, twin prickles, one straight and other bent or hooked. Leaves-simple, alternate, and ovate, under surface covered with dense white hairs, Flowers-small, greenish, in axillary cyme, Sepals’ 4-6, Petals 4, Stamens 4, Ovary-superior, fleshy. Fruit - a drupe, red on ripening, Perpetuation through seed, Flowering-Aug.-Sept. Common in M.P.

FF – $\oplus, \text{♂}$ **K** ₍₄₋₅₎, **C**₄₋₅ **A**₅, **G** ₍₂₋₃₎.

Use- Paste of fresh root barks along with mishri/Candy 10 g, “Lajvanti” (*Mimosa pudica* L.) seeds powder, “Gokhru” (*Tribulus terrestris* L.) seeds powder, “Pipal” (*Ficus religiosa* L.) fruit powder, “Chhuela/Palas”

(*Butea monosperma* L.) gum and “Babul” (*Acacia arabica*, Willd.) gum are taken together one spoon orally; twice a day for 7-8 weeks to cure male sterility, gonorrhoea and leucorrhoea. Its fruit is also edible, aid in indigestion and medicinally good as blood purifier. Root is used as decoction in fever.

*Powder of roots along with “Ashwagandha” (*Withania somnifera* Dunal.) roots, “Semal” (*Bombax malabaricum* DC.) “Musla root (tap root)”, “Satavar” (*Asparagus racemosus* Willd.) roots, “Kali musli” (*Curculigo orchoides* Gaertn.) roots, “Ser Datoon” (Ram Datoon) (*Smilax prolifera* Roxb.) roots are taken orally; one spoon once a day for 7-21 days, to improve weakness and arise good strength of body and also used as blood purifier.

Biological Properties:- Root – bitter, Cooling, Leaf – antipyretic, Better, Fruit – aphrodisiac, Cooling, Indigestible, Laxative, Tonic, Plectra,.

Chemical Substance:-It Contains- Yuziphine, Yuzirin, Coclaurine, Isoboldine, Norisoboldine, Asimilobine, N-Octacosanol, Alphitolic acid, Lactones, Glucose, Arabinose and 6-Deoxy-1-Talose Isolated from Leaves, Sugar &Mucilaginous.

References: Kar et al., (1999).

88.Z. oenoplia Mill. (RHAMNACEAE)

Common & Regional Name: LN. – Makohra, Barari; S. – Srigalakoli; H. – Makoiya; B. – Siakul; Tel. – Paraki; Kan.- Purgi; Mal.- Kottavalli; Tam.- Suraimullu.

Vegetative Character:-A large perennial and woody in nature, climbing shrub., Leaves- about 2-6 cm. entire, ovate, lanceolate, simple, and smooth or slightly pubescent above and silky under-health, stipules, short prickles solitary straight or hooked, tomentere at base. Flowers - small, greenish, in axillary cyme, Calyx-sepals 4, Corolla- petals 4 in

number, Stamens 4, Ovary fleshy, superior,, black on ripen fruit - a drupe.

FF – $\oplus, \text{♂}$ **K** ₍₄₎, **C**₄, **A**₅, **G** ₍₂₋₃₎.

Use- Fresh root barks infusion along with “Arjun” (*Terminalia arjuna* W. & A.) bark powder; ½ spoon is applied to heal wounds.

*Powder of roots with “Ashwagandha” (*Withania somnifera* Dunal.), Musla root is used for sterility, gonorrhoea and leucorrhoea. Its fruit is edible, medicinally good as blood purifier and aid in indigestion. Roots are used as decoction in fever.

*Powder of roots along with “Ashwagandha” (*Withania somnifera* Dunal.), Musla root (tap roots), “Satavar” (*Asparagus racemosus* Willd.) roots, “kali musli” (*Curculigo orchoides* Gaertn.) roots, “Ser Datoon” (Ram Datoon) (*Smilax prolifera* Roxb.) roots are mixed together and one spoon is taken orally; once a day for 7-21 days to improve weakness and arise power of the body. Its also used as blood purifier.

Biological Properties: -Fruit – an ingredient, Stomachache.

Chemical Substance:-Yuziphine, Yuzirin, Coclaurine, Isoboldine, Norisoboldine, Asimilobine, N-Octacosanol, Alphitolic Acid, Lactene, Glucose, Arabinose and 6-Deoxy – 1 – Talose Isolated From Leaves.

References: Kar et al. (1999).

F – VITACEAE

89. *Vitis indica* W. & A. see *Ampelocissus arnottiana* Planch. (VITACEAE)

Common & Regional Name: LN. - Amrolla, Amal bel; H.- Jangali angur; B.- Amoluka; Marathi- Randraksha; Mal.- Semparavali; Tam.& Tel.- Sambaravalli.

Vegetative Character:-A glabrous Stem-smooth, slightly woody much angularly branched, tendril climber, young parts usually clothed with grey pubescence., Leaves petiolate, thick, and pubescent. Tendrils wire 3-5 rayed and branched, Flowers in terminal racemes, greenish white, and petals 4, distinct, Style conspicuous. Fruits a black berry on ripening, Flowering- **Aug, Sept.** Common in Shahdol and other parts of the State.

FF – $\oplus, \text{♂}, \text{K}_{(5)}, \text{C}_{(5)}, \text{A}_5, \underline{\text{G}}_{(2)}.$

Use- Leaves are made into poultice and mixed with “Neem” (*Azadirachta indica*) leaves, “Kali mushli” (*Curculigo orchioides*) root and tuber. It is applied to the bullock’s yoke sores on the neck. It is grounded with pepper and applied on boils.

Biological Properties:-Juice of roots - depurative, Diuretic, Aperients, Alterative & Blood purifier.

90. *Vitis trifolia* Wall. (VITACEAE)

Common & Regional Name: LN.- Amarbel, Amrolla

Vegetative Character:-A tendril climber glabrous much angularly branched. Young parts usually clothed with grey pubescence. Stem smooth, slightly woody, Leaves-petiolate, trifoliate, thick, end leaflet stalked, pubescent., leaflets, ovate, serrated, acute; stipules oblong. Tendrils wiry 3-5 rayed and branched, Flowers in terminal racemes, greenish white, petals 4, distinct, Style conspicuous., Fruits a berry black on ripening, Flowering Aug-Sept. Occur in Shahdol & common in Malva, Rewa, Gwalior rare in other parts of the State.

FF – $\oplus, \text{♂}, \text{K}_{(5)}, \text{C}_{(5)}, \text{A}_5, \underline{\text{G}}_{(2)}.$

Use- Leaves are made into poultice and applied to the bullock’s yoke sores on the neck. It is grinded with pepper and applied on boils. Its root is also used in astringent.

Biological Properties: -Leaves-yoke sores, boils and root also used in astringent.

F – SAPINDACEAE

91. *Cardiospermum halicacabum* Linn. (SAPINDACEAE)

Common & Regional Name:LN. - *Sirmola*; S. - *Karnasphota*; Eng. – *Ballon vine*; H.- *Kanphuti*; Tel.- *Buddakakara*; Tam.- *Mudukottan*; B.- *Buddakakara*.

Vegetative Character:-A herbaceous annual or perennial tendril climber plant. Leaves, palmately compound, trifoliate, having serrated margin and acute apex; exstipulate, Inflorescence, a dichotomous cyme of which the lowest flower's pedicels are modified into a pair of tendrils, Flowers-white, small, regular, and polygamous with oblique disk. Calyx-4 sepals, fused at base. Petals 4, white in colour, Androecium-10 free, inserted on the disk. Calyx- 4 fused at base, Corolla- 4. Gynoecium- carpel 3, ovary trilocular, and lobed. Fruit a three lobed berry, Root, Leaves & seeds are medicinal. Occur in Shahdol & common in Malwa, Bundelkhand and other parts of M.P. grow during rainy season., Flowering in Sept.-Oct.

FF – $\oplus, \otimes, K_{(4)}, C_4, A_{10}, \underline{G}_{(3)}$.

Use- Plant is used in stiffness of limbs and snake bite while leaf juice is used in ear ache.

*The root paste along with “Dhatura” (*Datura metel* L.) leaves and “Arandi oil” (*Ricinus communis* L.) are mixed and made into a poultice bind. Its used twice a day for 2-3 weeks for relief in gout, rheumatism etc.

Biological Properties: -Root – Diaphoretic, diuretic, Laxative, emetic, Leaf – rubefacient, Seeds – Activities – diaphoretic.

Chemical Substance:- *Cyanogenic Glycoside, Essential Oil, Saponin.*

F – PEDALIACEAE

92. *Martynia annua* Linn. (PEDALIACEAE)

Common & Regional Name LN. - Bichhi; H. - Buchu, Hathajori, Baghnoki; Bo. - Vinchu; Tel. - Garudamukku; P.- Bichhu.

Vegetative Character:- The plant erect densely glandular and hairy branching annual weed of 80-100 cm. height. Stem-round and hollow, densely hairy. Leaves-simple, opposite, exstipulate on long stout petioles, ovate, obtuse slightly lobed, cordate at base, covered with glandular hairs on both the sides, Flowers-ill smelling, about a dozen in the apical or axillary raceme., Bract one, ovate, clawed & pinkish, bracteoles two, small elliptical sessile, Calyx-5, unequal, oblong greenish white. Corolla-5 bell shaped 2 to 3 cm long, drooping and constricted at base, on the upper side it is 5 lobed which are unequal, and have dark purple spot at the base., Stamens- 5, 2-perfect, 3-staminodes, epipetalous. Ovary-superior, four celled and four ovules, style bifid. Fruit about 3-4 cm long, hard, woody and black, having two prominent hooks and furrowed. Common weed found all over two prominent hooks and furrowed. The waste lands during rainy season & occur in Shahdol and all over M.P.

FF – Br, Brl, $\oplus, \oplus^{\circ}$, K₅, C₅, A₅₍₂₊₃₎, G₄.

Use- Paste of leaves is applied for headache twice a day for 2-3 days. Juice of leaves are mixed with “Satavar” (*Asparagus racemosus* Willd.) root juice, “Vach” (*Acorus calamus* L.) juice, and “Dub ghass” (*Cynodon dactylon* Linn.) juice and taken orally; two spoon twice a day for 5-7 weeks, to gain relief in epilepsy. Leaf paste is externally used in tuberculosis and also juice can be used as gargle for sore throat.

*Crushed fruits administered externally for swelling or pain.

Biological Properties: -Fruit – alexiteric, inflammatory.

F – EUPHORBIACEAE

93. *Euphorbia hirta* Linn.(EUPHORBIACEAE)

Common & Regional Name: LN.- *Badi Dudhi*; H.- *Dudhi*; S.- *Pusitola*; Mal.- *Nelapalai*; Tam.- *Amampatchaiarisi*; Bo.- *Nayeti*; B.- *Baro-kheruie*.

Vegetative Character: -A prostrate, slender ascending annual or perennial clothed with long hairs, Leaves-elliptical and slightly oblique, opposite, short stalked reddish green and light green under. Involucre axillary, clustered, Inflorescence, a cyathium. Flowers-unisexual, male flowers more in number having a single stamen and centrally situated female flower with a long stalked pistil. Ovary-trilocular, with 3 – free styles, stigma bifid. Fruit a capsule, Flowering- throughout the year, more during Sept-Nov. A very common weed found all over the State.

FF – $\oplus, \sigma, P_0, A_1$ or 6.

FF – $\oplus, \varphi, P_3, \underline{G}_{(3)}$.

Use- The paste of plants is mixed with 2-3 pieces black pepper; ½ spoon is given orally twice a day for 2-5 days to cure dysentery, stool, skin disease and jaundice.

*The whole plant paste is used for curing black spots on face. (On cheek under eye & nose)

*Paste of plants; ½ spoon is mixed with black pepper 3 pieces, “Bahera” (*Terminalia belerica* Roxb.) fruit bark ½ spoon, “Ajwain” (*Trachyspermum ammi* L.) ½ teaspoon and black salt 1g given orally 2-3 times a day to treat dysentery.

*Infusion of 2-3 plant mixed with “Dambel” (*Tylophora indica* Burm. f.) leaves, “Tulsi” (*Ocimum sanctum* L.) leaves, “Adusa” (*Adhatoda vasica* Nees.) leaves and roots together is taken ½ cup; once a day for 2-6 months to cure asthma and also used in bronchial affection.

Biological Properties:- Plant is considered as- Astringent, diuretic, expectorant, Alcoholic, Hypogastric, Lactagogue, Quercetin, Palmitic, Oleic, Cathin, Phytosterol, Euphosterol, Resin, Tannins, Sugar, Mucilage, Ellagic acid.

Chemical Substance :- Various Important Substance are: Shikimic acid, L-Inositol, Sugars, Thexacosanol, Choline 24-Me-Enacycloartenol, Tenol, Cycloartendl, β - Sitosterol, Euphorbal, Hexacosanoate, β - Amyrin-OAC, Tinyatoxin, 2 Derivatives of Deoxy phorbol-OAC, Ingenol-Tri OAC, Hexacosanoate, β -Amyrin Acetate, 1-Hexa Cosnd, Tinyatoxin, 12-Deoxy- 4 - β - Hydroxy – Phorbol - 13 - Dodecanoate- 20 - Acetate, Thexacosanol, Tiny-Atoxin, 12- Deoxy- β -Hydroxyphorbol-13- Phenylacetate-20 Acetate Ingend Triacetate, (Stem), Hentriacontane, Myricyl Alc., Taraxerol (Flowers), 2 Derivatives of Deoxy phorbol-OAC, Ingenol-Tri-OAC, Taraxerone, Leucocyanidol, Quercitol, Camphol, Quercitrin and Quercitol Derivatives Containing Rhamnose and Chtorlphenolic acid (Roots).

References: Anonymous, (1968); Dhar et al., (1968); Singh and Shrivastava, (2000).

94. *E. microphylla* (Heyne) ex Roth. (EUPHORBIACEAE)

Common & Regional Name: LN.- Chhoti Dudhi; B.-Chhota karuee; Santhal-Dhudhiaphul.

Vegetative Character:- A prostrate much branched, annual or some time perennial hispid pubescent herb, Leaves obliquely, oblong, oval, minute, a bit fleshy equal in length and breadth, margins pink. Stipules elongate imbricate, Involucre- in the axil of the leaf, alone or 2-3 in number. Inflorescence a cyathium, male flowers more in number than female flowers., Ovary-trilocular, fruit a capsule, Perpetuation by seed or by the cuttings., Most common through M. P. Flowering – through the year.

FF – $\oplus, \sigma, P_0, A_1$ or 6.

FF – $\oplus, \varphi, P_3, \underline{G}_{(3)}$.

Use- Paste of plants is mixed with “Madar” (*Calotropis procera* (Ait.) R. Br.) Latex and used twice a day for 7-21 days to cure ring worm, Snake bite & skin disease.

*The plant paste, one spoon in empty stomach is useful for stopping M.C.

Biological Properties: -Galactagogue.

95. *E. rothiana* (Spreng.)(EUPHORBIACEAE)

Common & Regional Name: LN.- *Thuha* & *H.* – *Chakri*.

Vegetative Character: -An erect glabrous, annual herb, profusely branched above, no branching below. Leaves alternate, in whorls at the terminal portion, spatulate or obovate, obtuse at apex, finely toothed each branch ending into a cyathium which arise from the axil of the bract. Cyathium consists of greenish yellow cup shaped involucre. Ovary-protruding out, surrounded by number of yellow stamens, each stamen represent a small male flower, Ovary-trilocular, fruit a capsule, Flowering Sept – Nov Dec, Found in all over M.P.

FF – $\oplus, \sigma, P_0, A_1$ or 6.

FF – $\oplus, \varphi, P_3, \underline{G}_{(3)}$.

Use- Seed roasted with pepper given in cholera. Leaf juice can also be used as balm.

Biological Properties: -Juice – Acrid, Irritant.

96. *Pedilanthus tithymaloides* (Jew's.) *Slipper pedilanthus*; (EUPHORBIACEAE)

Common & Regional Name: *H.- Nagdauna.*

Vegetative Character:-Herbaceous, perennial, xerophytic form. Root – tap.

Stem- dark green erect cylindrical the stem perform photosynthesis, latex (milky) lea- alternate below in stem sometime above opposite, simple, ever green thick (succulent) sometime reddish purple colour., Inflorescence cymose type.

FF – $\oplus, \sigma, P_0, C_0, A_1 \text{ or } 6.$

FF – $\oplus, \varphi, P_3, C_0, \underline{G}_{(3)}.$

Use- Paste of leaves is mixed with 2-3 pieces black pepper and one spoon taken orally once a day; in empty stomach for 7-21 day to cure piles.

Biological Properties: -Leaves-stomach, piles.

97. *E. hypercifolia* Linn. (EUPHORBIACEAE)

Common & Regional Name: *H.- Dudhi, Hazardana; S. - Dugdhika; Bo. - Nayetti; P.- Hazardana.*

Vegetative Character:- An erect annual decumbent annual of 15-40 cm. height, branching from base, puberulent. Leaves - shortly stalked, opposite, 1 to 5 in long, hairy on both surface, stipules minute. Inflorescence- cyme-axillary, lax, few flowered or dense, shortly stalked. Involucres very small cup shaped glands orbicular or elliptic, bordered by white or pink limb, Capsule- minute glabrous or pubescent. Seed ellipsoid four angled, reddish brown, Abundant throughout M.P. in waste lands and field bunds.

FF – $\oplus, \sigma, P_0, A_1 \text{ or } 6.$

FF – $\oplus, \varphi, P_3, \underline{G}_{(3)}.$

Use- The paste of leaves; one spoonful along with 2-3 pieces black pepper, one spoon “Semal” (*Bombax malabaricum* DC.) bark, and one spoon “Mango” bark, ½ spoon “Ajwain” (*Trachyspermum ammi* L.) is given

orally twice a day for 3-7 days to cure dysentery diarrhoea, and also to treat menorrhagia and leucorrhoea.

Biological Properties: -Leave – Astringent, Diuretic, Dysentery, Menorrhagia & leucorrhoea.

Chemical Substance:-*Plant Contains – Phenolics Substance, Essential – Oil, Glycoside, Alkaloid.*

98. *E. thymifolia* Linn. (EUPHORBIACEAE)

Common & Regional Name: *H. - Chhoti Dudhi; S. - Laghududhika, Ractavinda chanda; B. - Dudhiya ; Bo.- Nayeti; Tam.- sittrapaladi; Tel.- Reddivari-manubala.*

Vegetative Character:- An annual small herb, hispid and whole plant often with a pale coppery tinge. Stem - divaricately branched, slender, cylindrical, prostrate or flattened on the ground., Leaves - very small, opposite, shortly stalked, obliquely oblong, obtuse, and slightly pubescent below. Stipules - elongate, imbricate, Involucres - minute, axillary, 2-3 together, Campanulate, shortly stalked, glands and limb absent or very minute, Capsule erect, obtusely keeled, pubescent. Seeds - 4- angled, pointed with 5-6 furrows. Occur in all over state.

FF – $\oplus, \sigma, P_0, A_1$.

FF – $\oplus, \ominus, P_3, \underline{G}_{(3)}$.

Use- Paste of whole plant mixed with 2-3 pieces black pepper, $\frac{1}{2}$ spoon “Cumin” Jeera seeds and 5 leaves “Mehndi” (*Lawsonia inermis*) juice is given orally; on alternate day for 7-21 days to cure jaundice.

*Paste of whole plant; one spoon mixed with “Badi Dudhi” (*E. hirta* L.) $\frac{1}{2}$ spoon, black pepper 2-3 pieces, “Bahera” (*Terminalia belerica* Roxb.) fruit bark powder 3g, “Amla” (*Emblica officinalis* Gaertn.) powder 3g

and black salt 2g, is given orally 2-3 times a day for 2 days to cure diarrhoea and its plant is used in ring worm, skin disease etc.

Biological Properties: -Plant Leaves & Seeds – Aromatic, Astrin, Laxative, Stimulant.

Chemical Substance:-Plants Contains-Essential Oil, Leaves and Stems – Contains – 4, 5, 7 – Try-Hydroxy Flavones – 7 Glycoside.

99.E. dracunculoides Lamk. (EUPHORBIACEAE)

Common & Regional Name: LN. - Titli; H. - Chagulputi; B. - Chhagulpututi; Tel. - Tilla-kada; P.- Kanghi.

Vegetative Character: - A winter weed of waste lands. Root- tap branched. Stem – weak, branched, slender, cylindrical, prostrate or flattened on the ground., Leaves - very small, opposite, shortly stalked, obliquely oblong, obtuse, and slightly pubescent below. Stipules - elongate, imbricate, Involucres - minute, axillary, 2-3 together, Campanulate, shortly stalked, glands and limb absent or very minute. Capsule erect, obtusely keeled pubescent. Seeds - 4 angled, pointed with 5-6 furrows. Occur in all over state.

FF – $\oplus, \sigma, P_3, A_1$.

FF – $\oplus, \varphi, P_3, \underline{G}_{(3)}$.

Use- Paste of fruits is mixed with “Tirdhara” (*E. antiquorum* L.) leaves and applied twice a day for 21 days to cure **wart** and skin diseases.

100. Phyllanthus maderaspatensis Linn. (EUPHORBIACEAE)

Common & Regional Name: LN. – Kanocha; H. - Kanocha; Gujrati - Kanochha; Tel. - Nalausereki.

Vegetative Character:- An annual herb erect, glabrous, about 30-40 cm. tall
 Leaves- two types, that of the main stem scattered, cuneate, obovate, 5” long while those on branches look like compound leaves, oval, elliptical.
 Flowers- small in umbel small stalked female flower surrounded by several smaller nearly sessile male flowers, stamens 3, Ovary tricarpyllary, styles 3, trifold. Fruit a capsule, a common weed in Gwalior and Malwa, Rare in other parts of M.P.

FF – $\oplus, \sigma, P_{3+3}, A_3$.

FF – $\oplus, \varphi, P_{3+3}, G_{(3)}$.

Use- Crushed leaves are mixed with “Bichhu” (*Martynia annua* L.) leaves and “Akrkha/Akarkra” (*Spilanthes acmella* Murr.) whole plant and meshed into paste and used on forehead 2-3 times a day for 2-3 days to cure headache.

Biological Properties: - to cure headache.

101. *P. simplex* Retz.(EUPHORBIACEAE)

Common & Regional Name:LN. - *Bhuamli*; Bo. & Marathi - *Bhuiavali*; Tel. - *Uchichiyusirika*.

Vegetative Character: - A perennial glabrous herb, with a large tap root, branches flattened. Leaves- many, distichous and often overlapping, sub-sessile, upto 1 cm long, linear-oblong and apendiculate Stipules, peltate, segittate, brownish., Flowers - solitary on slender stout pedicels, female larger than the male flowers. Sepals minute, oblong obtuse, in female flowers larger and persistent. Stamens-3 filaments free, anthers didynamous, Styles short, 2-fid, free or connate., Ovary tricarpyllary, styles 3, trifold, Capsule globose, 3-lobed, crustaceous, rough, Seed minute, trigonous, dark brown. Found throughout the state in waste land and field bunds.

FF – $\oplus, \sigma, P_{3+3}, A_3$.

FF – $\oplus, \varphi, P_{3+3}, \underline{G}_{(3)}$.

Use- Plants leaves and roots paste is mixed with “Neem” (*A. indica* A. Juss.) bark paste, “Tulsi” (*Ocimum sanctum* L.) leaves and “Biskhapri” (*Sida cordifolia* L.) and used topically for itches, scales. It can be externally applied for mammary gland (breast) abscess & gonorrhoea.

Biological Properties: - Mammary gland abscess, Gonorrhoea.

102. *P. niruri* Linn. (EUPHORBIACEAE)

Common & Regional Name: LN. - *Bhumi amla*; H. - *Jar amla*; S. - *Bhumyamalaki*; B. - *Bhui amla*; Bo. - *Bhui avala*; Tel. - *Nelavusari*; Tam. - *Kilkkaynelli*.

Vegetative Character: -An erect 15-40 cm. tall. Root- tap, smooth, spreading annual, with leaf bearing branches, Leaves - sessile, elliptical, oblong, obtuse, overlapping, branch, like a compound leaf, Stipules lanceolate, subulate, and acute. Flowers - small, axillary, clustered, minute, unisexual, greenish. Male flowers 3 to 4 in the axil of the lower leaves of the branch, sessile. Perianth 5-6, free in two whorls, stamens 3, female flowers borne singly in the leaf axil of upper leaves of the branch., Ovary tricarpy, styles 3, trifid., Fruit- schizocarpic regma, Flowering- Aug.-Oct., A very common weed. Medicinal use whole plant.

FF – $\oplus, \sigma, P_{5-6}, A_3, G_0$.

FF – $\oplus, \varphi, P_{5-6}, A_0, \underline{G}_{(3)}$.

Use- Decoction of plants; two spoonful mixed with “Madar” (*Calotropis gigantea* (L.) R. Br. ex Ait.) flowers, root bark powder ½ teaspoon, “Adusa” (*Adhatoda vasica* Nees.) roots powder ½ teaspoon is given orally once a day for 2 months to get relief in asthma.

*The plant paste ½ spoon mixed with 5 pieces “Gudmar” (*Gymnema sylvestre* R. Br.) leaves, ½ tea spoon “Chirata” (*Swertia chirata* Buch. Ham.) whole plant and taken orally in empty stomach to control diabetes and also used for jaundice and ulcer.

*The decoction of whole plant taken a cup twice a day for 1-2 weeks to treat dropsy and controlling over bleeding in M.C. period.

*Plant leaf and roots poultice is made with rice water and mixed with “Makoia” (*Solenum nigrum* L.) leaf. It is applied to lessen oedematous swelling.

Biological Properties: -Alexipharmic, Acrid, Bitter, Cooling sour, Diuretic, Anti-pyretic, Antiseptic, Astringent, Digestive, Stomachic.

Chemical Substance:-Leaves are Mainly Contain- Phyllanthin, Hypophyllanthin, Linetetralin, Phyltetralin and Hydroxyniranthin and also Bitter, Alkaloid, Lignas, Vitamin-C, Quercetin, Astrogan, Rutin, Quercitrin, Glucoflavon (Root), Linoleic & Lino-Lenic acid (Seed Oil).

References: Johnson, (1998); Kurian, (1995); Lalramnghinglova, (1996); Paranjpe, (2001); Ross, (1999); Sivarajan and Balachandran, (1994).

102. *B P. urinaria* Linn. (EUPHORBIACEAE)

Common & Regional Name: LN. – Hajardana; H.&B- Hajarmani; S. - Tamravalli /Bhumyamalaki; Bo. - Bhui avala; Mara.- Latmunda; Tam. – Shivappunelli; Tel. - Ettausirinka;

Vegetative Character: -An erect 20-35 cm. tall. Root- tap, smooth, spreading annual, with leaf bearing branches, Leaves - subsessile, elliptical, oblong, obtuse, overlapping, branch, like a compound leaf, Stipules lanceolate, subulate, and acute. Flowers - small, axillary, clustered, minute, unisexual, greenish. Male flowers 3 to 4 in the axil of the lower leaves of the branch, sessile. Perianth 5-6, free in two whorls, stamens 3, female flowers borned singly in the leaf axil of upper leaves of the

branch., Ovary tricarpyllary, styles 3, trifid., Fruit- schizocarpic regma, Flowering- Aug.-Oct., A very common weed. Medicinal use whole plant.

FF – $\oplus, \sigma, P_{3+3}, A_3, G_0$.

FF – $\oplus, \varphi, P_{3+3}, A_0, \underline{G}_{(3)}$.

Use- Paste of root; ½ tea spoon is given once to sleepless child, and plant is also used in dropsy, urinary trouble etc.

103. *Jatropha gossypifolia* Linn. (EUPHORBIACEAE)

Common & Regional Name: LN. – Bhakrendi, Andi; Branda; H. - Ratanjot; Mal. - Simayavanakku; Tel. - Nepalemu; Tam. - Kattamanakku; Kan.- Kariturukaharlu.

Vegetative Character: - An erect herbaceous plant, Stem-branched growing to a height of 1-3 m. with many spreading branches., Leaves- simple, palmately lobed, alternate, having two small deciduous stipules, petiole long, lamina radish when young. The margin of the leaf is closely set with short gland tipped hairs, Flowers monoecious in terminal branches reddish in colour. Calyx - five, minute ciliated and coloured. Corolla- consists of five minute petals, united at the base. Androecium, 10 stamens, united in one bundle. Ovary - superior, 3 celled, raised on glands. Fruit- a 3 lobed capsule seed resembling castor. Occur in Shahdol& found all over M.P. Medicinal part use, latex and minor seed.

FF – **Br, $\oplus, \sigma, K_5, C_5, A_{5+5}, G_0$.**

FF – **Br, $\oplus, \varphi, K_5, C_5, A_0, \underline{G}_{(3)}$.**

Use- Plants latex and twigs is applied for tooth brushing to ease swelling in gums and pain. Latex of the plant is used for skin diseases as scabies, eczema and ring worm etc.

* Crushed Seeds are used for cancer diseases and also juice of leaves ½ spoon given orally to treat piles.

* One tea spoon crushed fresh roots along with 5-7 black pepper, black salt and buttermilk (Matha) is taken orally twice a day for 2-3 days to cure diarrhoea.

Biological Properties: -Plant considers – Emetic, Purgative, Stimulant, and Root – astringent, Haemostatic. Digestive, Carminative, Wound healing.

Chemical Substance:-Root Contains – Jatrophales A & B. Plant contains – Grossly pibetelene, Leaves apigenin, Vitexin, Leucine, Linoleic acid, Oleic cid, Palitic acid, Valline., Methylsalicylate (oil), Jasmine, Jasminine, Kaempferol, Rutin, Lupeol, Alpha-amyrin, Betulin, Betulinic acid, Oleanic acid, Quercetin, Friedelin, Ursolic acid, Beta-sitosterol, Sambacin, Sambacolignoside, Sambacoside, Manitol & Sucrose.

104. *Chrozophora rottleri* (A. Juss ex Spreng.) syn *C. tinctoria* Hook.f. (EUPHORBIACEAE)

Common & Regional Name: LN. - Bothri; H. - Shadevi, Subali; S. - Suryavarta; P. - Kukronda.

Vegetative Character:- Annual herb erect, coarse, silvery with star shaped hairs, well branched. Leaves - alternate, toothed, wavy, ovate, and slightly lobed, Flowers- monoecious in axillary raceme, the male flowers crowned in the upper part, female solitary below. Petals present in both type of flowers. Stamens- 15 in two whorls, surrounded by a glandular disk at base. Ovary-3 celled with one ovule in each cell, Styles-3 and each of them bifid, red in colour. Fruit- densely hairy, dehiscent from 3 cocci. Seeds are black round., Flowering in summer. Occur in Shahdol & common weed of M.P., Medicinal part use, latex and minor seed.

FF – $\oplus, \nearrow, P_5, C_5, A_{15+15}, G_0$.

FF – $\oplus, \searrow, P_5, C_{(5)}, A_0, \underline{G}_{(3)}$.

Use- Plants used in case of vomiting.

105. *C. prostrata* (Dalz). (EUPHORBIACEAE)

Common & Regional Name: *LN&H.* - *Shadevi, Subali*; *B.- Khudickra*; *S.- Suryavart*; *P. - Nilakanthi*; *Tel. - Lingamiriyam.*

Vegetative Character:- Branches many spreading from the root, procumbent humifuse stellately woolly herb., Branches many spreading from the root, woody, tomentose. Leaves - 3 cm. long and about as broad, deeply crenate, purplish brown, finely pubescent above and woolly below, base glandular., Flower- in short axillary racemes, Bracts smalls linear, Male flowers. Calyx minute, petals linear smaller than sepals, Capsule woolly, without silvery scales. Plants occur throughout M.P. especially in the water logged areas when they are occurring dry or in dry ponds. Plant is an indicator of underground water, Medicinal part use, root, leaf and seeds.

FF – Br, $\oplus$, σ , K₅, C₍₅₎, A₈, G₀.

FF – Br, $\oplus$, φ , K₅, C₍₅₎, A₀, G₍₃₎.

Use- Ashes of root ¼ teaspoon; is mixed with “Tulsi” (*Ocimum sanctum* L.) leaves and honey ½ teaspoon taken orally 1-2 times a day for 2-3 days to cure cough in children. Seeds are also used for aperient.

Biological Properties:-Leaf – considered; Depurative, Seeds – Use as purgative.

**106. *Acalypha indica* Linn. Syn *A. Spicata* L. *A. Ciliata* L.
(EUPHORBIACEAE)**

Common & Regional Name: *LN.* - *Khokli, Kuppi*; *S. - Aritianunjayru*; *Eng. – Indian acalypha*; *H. & Bo. - Khekali*; *B. - Muktajari*; *Tam. - Kuppaimeni*; *Tel. - Kuppaichettu*; *Mal. - Kuppamani.*

Vegetative Character:- An annual erect herb 2-3 ft., tall. Stem - branches many, plant smooth or finely hairy. Leaves - ovate, crenate or serrate, three nerved, stipule minute, green when young. Petioles as long as 1 cm. and covered with bristled tipped clustered glands. Flowers - green in axillary spikes, monoecious. Female flowers are at the base of the spike in clusters of 3-5 which arise from the axils of leaf bracts., Male flowers small, crowded near the summit of the spike ebracteate. Volvate, perianth, 4 Sepaloid polyphyllous, Androecium 8, Stamens, polyandrous, green Female Syncarpus, 4 Sepaloid, Trilocular, axile placentation. Ovary superior 3 celled, 3 ovule, styles-3 or more, bifid. Fruit-3 celled, 3 lobed, glabrous, A Kharif weed find all over M.P. in fields and in waste places. Flowering- almost all the year Fruit- capsule. Medicinal use whole plant. Medicinal part use, root & leaf.

FF – Br, Ebr, $\oplus$, σ , P₃, A₈, G₀.

FF – Br, Ebr, $\oplus$, φ P₃₋₄, A₀ G₍₃₎

Use – Root paste is applied as purgative and leaves are also used in scabies, itchs and snakebite.

*Fresh leaves juice is used in case of vomiting and also used in pneumonia and rheumatism.

Biological Properties:-Plant– Anthelmintic, Diuretic, Emetic, Carminative, Laxative, Expectorant plant contains – Kaempferol, Acalyphamide, Sterols, Cyanogenic, Glyceride.

Chemical Substance:-Plant Contains-Amide, Acalyphamide, Aurantiamide, Succinimide, 2-Methylanthraquin One, B- Sitosterol, Stigmasterol and Acalyphol Isolated from Leaves.

References: Rana et al. (2000)

F - STERCULIACEAE

107. *Helicteres isora* (Linn.) (STERCULIACEAE)

Common & Regional Name: LN. - Aainthi, Murra; H. & P. - Marorphali; S. - Mriga-shinga; B. - Atemora; Eng. - East Indian Screw tree; Mal. – Valmpiri; Mava. – Kewan; Kan. – Yedamuri; Tel. - Valambiri; Bo. - Kevana; Tam. - Valumberi.

Vegetative Character:- A shrub, Root – tap. Stem – erect, branched. Leaf – simple, alternate. Inflorescence – Flower cymose, axillary buds, brown reddish Gynoecium 2-5 carpels usually superior ovary, Hypogyscrew. Flowering – Aug. – Sep. Found – Shahdol, Rewa & Jabalpur Division., Medicinal use – Root, stem bark, leaves, fruit, and seeds.

FF- $\oplus$, $\frac{\sigma}{+}$, K_{3-5} , C_5 , A_5 , staminodes + (5), $\underline{G}_{(2-5)}$.

Use- Powder of fruits one spoon compound with “Black” pepper $\frac{1}{2}$ spoon, “Black” salt one spoon, “Ajwain” (Cumin) one spoon, “Bahera” (*Terminalia belerica*, Roxb.) bark a spoon, “Harra” fruits bark (*T. chebula*, Retz.) $\frac{1}{2}$ spoon, $\frac{1}{2}$ spoon ginger and 3 glass water given orally; twice a day for 3-5 days to treat gas, colic pain, diarrhoea, dysentery, stomachic, diabetes. Plant fruit is considered in – colic pain, astringent, demulcent, expectorant.

*2 spoon root juice is mixed with “Ghumchi” (*Abrus precatorius* L.) seeds 1-2 pieces, “Anant mool” (*Hemidesmus indicus* R.Br.) root 2 spoons and taken 3 times a day to treatment snake bite and its also used in diabetes and anti-galactagogue etc.

Biological Properties:- Plant fruit is considered as- colic pain, Astringent, Demulcent, and Expectorant.

Chemical Substance:- Cucurbitacin B, Isocucurbitacin B, Isorin, Betulinicacid, Oleanolic acid, Daucosterol and B- Sitosterol Isolated from Roots.

References : Agarwal, (2003); Ambasta, (1986); Bhattacharjee, (1998); Ghose and Das, (2000); Roy and Chaturvedi, (1986); Sharma et al., (1979); Warriar et al., (1999).

F – ASCLE PIADACEAE

108. *Calotropis gigantea* Linn. R. Br. ex Ait.(ASCLE PIADACEAE)

Common & Regional Name: LN. - Madar; H. – AK, Akvan; Eng. – Giant milk weed; S. - Arka; Bo. & B. - Akanda; Tam. - Arkkam; Tel. - Jilledu; Mal. - Erikku.

Vegetative Character:- The much branching an erect, coarse, branching perennial shrub. About upto 2-5 mt tall, Stem- woody with milky juice, bark yellows pale, young stem woolly. Leaves- opposite, oval, sessile with amplexicaul base tomentose, woolly in the undersurface, simple, entire. Flowers- in a umbel inflorescence, regular, bisexual, with 5 sepals lobes, & 5 corolla lobes, purplish or white in colour, 2 cm broad. Stamens- 5, with filaments united into a tube around the two carpels and adhered above the combined stigmas, Fruit- a one chambered pod, splitting through one suture. Seed tufted with hairs. Flowering – Feb. – June., perpetuation by seed and the underground root., Very common weed of the State. Medicinal part use, root bark, leaf, flower and milk/latex.

FF-Br, Brl, $\oplus$, $\otimes$, K₅, C₍₅₎, $\overbrace{A_{(5)}}^{\curvearrowright}$ $\underline{G}_2$.

Use- Paste of 1g root bark with flower powder ½ teaspoon mixed with “Adusa” (*Adhatoda vasica* Nees.) leaves-root powder ½ teaspoon, “Dhatura” (*Datura metel* L.) leaves ½ teaspoon (2-3 seeds) is given orally once a day for 2-3 months to cure asthma, bronchitis and its paste is also used for elephantiasis.

*The root paste 1-2 g with 5 seeds of black pepper, ½ teaspoon turmeric and ½ glass milk is given orally on alternate days; once a day for 5-7 days to treat bone fracture.

*The little tender leaves or latex along with “Pan” (*Pepper betel* L.) leaf is taken orally in empty stomach early mornings; once a day for 3-7 days to cure jaundice.

*1-2g fresh root is given along with betel leaf twice a day for 21 days to treat leucorrhoea but during treatment fish, tea, and spicy food are avoided.

*Latex (milk) along with “Koraiya” (*Holarrhena antidysenterica* Wall.) stem-bark powder and black salt is externally applied on skin according to the requirement. It is rubbed 1-2 times a day for 7-9 days and later on it is used with garlic paste for 7-21 days or for 1-2 months to cure leucoderma and other skin disease.

Biological Properties: -Plant – Alexipharmic, Anthelmintic, Purgative, Root bark – diaphoretic. Flower – analgesic, Anthelmintic, bitter, Astringent, Sweet. Milk – bitter, Purgative – laxative, Depurative.

Chemical Substance:-Plant Contains – Akudarol, Calotropin Mudarol, Frugoside Calotroposides –A To G, Calotrop Lupenylacetate–A Leupeol Acetate B, Gigantiursenyl Acetate – A, Gigantursentyl Acetate – B.

109.C. procera (Ait.)R. Br.(ASCLE PIADACEAE)

Common & Regional Name: LN. - Madar, H. - Akavan; Eng. – Milk Weed; S. - Alarka; P. - AK; Marathi - Mandara; Tam. - Vellerukku.

Vegetative Character: - An erect, branched perennial shrub, upto 2.5 mt tall and Similar to (*C. gigantea*), flowers about 2 cm, across, scented., Corolla-light violet, with purple spots., Corona - lobes 0.48 mm long. Glabrous, equalling or exceeding the staminal column, straight or nearly so on the back, above the acute up curved spur, the apex bifid and without curricles, Follicle and seed as in (*C. gigantea*).Common throught M.P. Flowering throught the year.

FF-Br, Brl, $\oplus$, φ , K₅, C₍₅₎, A₍₅₎ $\overbrace{\quad}$ G₂.

Use- Two little tender leaves paste mixed with Guda (sugar) is taken early morning around 5-6 a.m. once a day for 2-3 days to cure one-sided headache.

*Crushed root; 1-2 g along with 2 pieces black pepper, “Anantmool” (*Hemidesmus indicus* R. Br.) roots paste, “Batilha” (*Aristolochia indica* L.) leaves and root, is mixed and given orally 2-3 times a day for snake bite and scorpion bite. Its latex is used on wound (bite and sting place) to get relief from poison, rheumatism and gout etc.

*Crushed root extract $\frac{1}{2}$ tea spoon mixed with “Gudmar” (*Gymnema sylvestre* (Retz.) R.Br.) leaves $\frac{1}{2}$ spoon, “Neem” (*Azadirachta indica* A. Juss.) bark, leaves, juice, “Bel” (*Aegle marmelos* (L.) Corr.) leaves $\frac{1}{2}$ spoon is taken orally in equal amount regularly to reduce blood sugar (control diabetes).

*According to requirement, latex of twigs with black salt & Castor oil can be externally applied for relief in sprain and swelling.

*Latex of plant applied 1-2 drop into tooth roots after sometime reduces pain and small part of root bark is used for toothache.

*Paste of root 10-15 gm. compound with “Gurij” (*Tinospora cordifolia* (Willd.) Miers.) a spoon and “Neem” leaf (*Azadirachta indica*, A. Juss.) a spoon; give orally twice a day for 5-7 days for Tillman (Galaghotu) Anthrax and also used in fever of cattles.

*The leaves alongwith 10 pieces “Bhelma” (*Semecarpus anacardium*.) nut is crushed is mixed in “Tilli” (*Sesame*) oil (300 gm, boiled) and filtered. Oil massage is recommended on pain affected area with exposure to sun twice a day for 5-7 days to control rheumatism.

Note- Bhelma, Seeds oil, may be allergic so a person should taste it beforehand & then use.

Paste of root with “Kanji” (*Pongamia pinnata* L.) bark and leaves and “Mahua” (*Madhuca indica*) Flower are used externally 1-2 times a day for 4-5 weeks to treat **elephant foot, hydrocele** and gout, swelling etc.

*The root bark powder along with 7g black pepper and “Kolha” (*Alangium salviifolium* L.) root 10g is mixed and pills are prepared (small 2g.). These are given orally with foenum juice 1-½ spoon; 2-3 times a day for 2-3 days to control cholera.

Biological Properties:- Plant considered – Anthelmintic, Analgesic, Anti-inflammatory, Depurative, Emetic, Expectorant laxative, Resolvent stomachic digestive.

Chemical Substance:- Cardiac Steroid, Glycoside – Terpenoids, Glycosides, Carbo-hydrates, Al, Fe, Mg, Na Etc. Plant Yields Benzoyllineolone and Benzoyliso-Lineolone (Root-Bark) and Quercetin-3-Rutinoside (Roots).

References: Singh and Pandey, (1998).

110. *Oxystelma esculentum* R. Br. (ASCLE PIADACEAE)

Common & Regional Name: LN. - Hiran Khuri; H. & B. - Dudhialata; S. - Dugdhika; Bo. - Dudhika; P. - Gharote; Tam. - Usippalai; Tel. - Dudipala.

Vegetative Character:- A root tap, branched glabrous climbing herb. Root – tap, branched Stem-many, slender a much branched., Leave-deciduous, thin, pale green upto 10 cm long, lanceolate linear, acute, acuminate, base rounded or cordate., Flower drooping 3 cm or more across, peduncle often exceeding leaves, Calyx- oblong lanceolate acute. Corolla-rotate rose coloured with purple, grey, veins, lobes with ciliate edges. Corona scales a cuminated, with incurved tips., Follicles glabrous.

Found throughout M. P. occurring in low lying fields.

FF – Br ⊕, ♀, K₅, C₅A₅ G₂.

Use- One spoon juice of root is mixed with “Bhui amla” (*Phyllanthus niruri* L.) whole plant and it is taken orally twice a day for 7-21 days to control jaundice. One spoon root paste is used for women lactation.

111. *Hemidesmus indicus* R. Br. (ASCLE PIADACEAE)

Common & Regional Name: LN- Dudhi, pasaran, H. - Magrabu; S. - Ananta; Eng.-Indian sarsaparilla; B. & Marathi - Anantamul; Tel. - Gadisugandhi; Tam. & Mal. - Nannari; Bo.- Uparsara; *Hemidesmus-indica* (R.Br).

Habit:- A perennial prostrate & climber herbs containing latex. Root-tat stem-weak, woody Leaf-Sessile, opposite and decussate, 2-3”long thick green simple, Inflorescence- cymose Flower-usually small, radish colour, regular, hypogynous pentamerous Calys-5 sepals 5, Corolla-petals 5, fused. Androecium-stamens 5, Gynoecium- carpels 2 superior, Fruit- An entering of two, seeds- flattened, long hairs.

FF – Br $\oplus, \text{♂}$, **K**₅, **C**₅ $\overline{\text{A}_5}$ **G**₂.

Use- ½ spoon root powder is mixed with “Vach” (*Acorus calamus* L.) root (rhizome) 3mm. long, “Gurij” (*Tinospora cordifolia* Willd.) stem ½ inch, “Adusa” (*Adhatoda vasica* Nees.) leaf powder ½ teaspoon is taken 1-2 times a day for 7-21 days to cure oesto-arthritis, rheumatic, gout and its also used in snake bite.

*2 spoon decoction of root is mixed with “Gurij, Giloe” (*Tinospora cordifolia* Willd.) stem 1 inch, “Chirchira” (*Achyranthes aspera* L.) root paste and Cuminum seeds ½ spoon. It is given orally once a day for 1-2 weeks to improve (nephritis) kidney pain and also used in asthma, skin diseases and stone.

*Powder of root ½ teaspoon along with “Punarnava” (*Boerhaavia diffusa* L.) root powder, “Satavar” (*Asparagus racemosus* Willd.) root

powder ½ spoon, “Baibidang” (*Embelia ribes* (Burm.) f.) dried fruit powder ½ teaspoon and honey is taken once a day for 7-21 days to cure weakness, anaemia, mouth blister and rickets diseases of children.

Biological Properties:- Alexiteric, Anti-diarrhoea, Antipyretic, Aphrodisiac antibacterial, Antifungal, Antiviral astringent bitter, Anti inflammatory cooling, Diuretic, Blood purifier demulcent, Alterative, Diaphoretic, Tonic sweet.

Chemical Substance:- Plant Contains- β -Sitosterol, and β - Amyrin, Lupeol, Tetracyclic, Triterpenes Alcohols, Resin, Fatty acids, Tannins, Saponins, A Glycoside and Ketone Constitute The Principle Ingredients of Roots., Essential Oil, Enzyme, Saponin, Hemidester, Hemidesmol Alcohol, Resin acid, Vasa acid, and Tannins.

References: Chopra et al., (1968); Jain, (1996); Sinha and Sinha, (2001).

112. *Tylophora indica* (Burm. f.) Merr. see *T. asthmatica* W.&A.

(ASCLE PIADACEAE)

Common & Regional Name: H. & B. – Damajari, Antamul; Indian Ipecacaunha; Bo. - Anthamul; Mal. - Vallippala; Tel. - Vetipala; Tam. - Nayppalai.

Vegetative Character:- Perennial climber herbs latex root tap and root stocks adventitious Stem - woody below herbaceous above Leaf - simple entire extipulate opposite soft hairy dense. Inflorescence- cymose flower small yellow complet regular bisexual hypogynous fruit 2 inch long seed tuft of silky hairs.

FF – Br $\oplus$, ♂ , K₅, C₅, A₅, G₂.

Use- 1/6 teaspoon leaf paste is mixed with “Vach” (*Acorus calamus* L.) rhizome 1g and “Audasa” (*Adhtoda vasica* Nees.) leaf juice a spoon is

given orally once a day for 2-3 months to cure asthma and two inch long root meshed in water given orally for vomiting in case of indigestion.

Biological Properties: -Anti – inflammatory, Blood purifier, Carminative, Diaphoretic, Expectorant.

Chemical Substance: *Leaves Contains – Triterpenes, Alpha-Amyrin, Alkaloids Tylophorine, Tylophoridine, Wax, Resin, Caoutchoue, Glucose, Calcium, Salts, Potassium, Chloride, Essential Oil, and Tylophorinidine (Anti – Tumour Alkaloid).*

113. *Gymnema sylvestre* (R. Br.) (ASCLE PIADACEAE)

Common & Regional Name: LN. - Fenia; H. - Gudmar, Merasingi; Indian Ipecacuanha; S. - Meshashringi; Tam.- Shirukurinja; Tel.- podapatri; Bo.- kavali.

Vegetative Character:- Perennial climber herbs latex root tap and root stocks adventitious Stem - woody below herbaceous above Leaf - simple entire extipulate opposite soft hairy dense. Inflorescence- cymose flower small yellow complet regular bisexual hypogynous fruit 2 inch long seed tuft of silky hairs.

FF- $\oplus, \text{♂}, \text{K}_5, \text{C}_{(5)}, \text{A}_{(5)}, \underline{\text{G}_2}$.

Use- The leaf juice ½ spoon is applied for cattle eye disease once a day for 3-7 days and juice is also applied for human eye diseases.

* ½ spoon crushed leaves are mixed with “Chiraita” (*Swertia chirata* Buch.) whole plant, “Bhui Amla” (*Phyllanthus niruri* L.) whole plant ½ tea spoon, Bhui Neem, “Kalmegh” (*Andrographis paniculata* Nees.) leaves ½ tea spoon, “Bel” leaves (*Aegle marmelos* Corr.) ½ tea spoon, “Jamun” (*Eugenia jambos* L.) seeds powder ½ tea spoon are taken once a day to control diabetes.

*Leaves paste ½ tea spoon along with “Chhoti Dudhi” (*Euphorbia thymifolia*, L.) whole plant ½ tea spoon, 3 pieces black pepper, “Neem” (*A. indica* A. Juss.) leaves ½ tea spoon should be taken 2-3 times a day for 2-3 days to cure diarrhoea, stool and dysentery.

*Root and leaves paste are locally applied for leucoderma along with “Chitrak leaves” (*Plumbago zeylanica* L.) juice and “Akvan” (*Calotropis gigantea* L.) latex (Milky) with black salt and rubbed on leucoderma and other skin diseases.

Biological Properties:- Astringent, Cardiotonic, Alterative, Acrid, Cooling, Bitter, Anthelmintic, Diuretic, Liver tonic, Uterine tonic.

Chemical Substance:- Quercitol, Anthraquinon, Saponin, Calcium Oxalate, Contain Gymnemic acid, Nonacosane, Hentriocontane, Tritriacontane, Gymnamine and Gymnemagenin.

References: Ambasta, (1986); Balu et al., (2000); Chopra et al., (1968); Duke, (1996); Johnson, (1998); Prakash and Merhotra, (1987); Ramachandran and Nair, (1981); Rosakutty et al.

114. *Cryptolepis buchanani* Roem. & Schult. (ASCLE PIADACEAE)

Common & Regional Name: LN. - Krishna Sariva, Anantmool; H. - Karanta; Tel. - Ad-avipalatige, Mal. - Kallpalvalli; Guj - Dhuribel; B. - Shyam lata, Dudhi.

Vegetative Character:- The perennial plant, Slender twiner, with milky (*Laticiferous*) wiry., Shrub (10-30 ft. in height). Leaf - simple same “Jamun” (*E. jambolana* Lam.) leaf like opposite (grow from both leaf opposite site.), Stem- woody, Flowering May-June. Fruit 2-2½ (inches) pointed. Occur in Rewa (Satna, Sidhi & Rewa), Shahdol and Jabalpur Division.

FF – $\oplus, \phi, K_5, C_5, A_5, G_2$.

Use- The root and stem powder; ½ spoon is mixed with “Guroo-bhaji” (*Alternanthera sessilis* (L.), R. br. ex D.C.) leaf juice ½ spoon and given orally twice a day for 3-5 weeks to cure rickets in children and also used in syphilis, anaemia & leucorrhoea.

*Plant powder; ½ spoon is given orally once a day for 21 days to treat cough, for Body strength, blood purifier, gout, and also for increased concentration of Semen etc. Root or stem paste or powder 1 spoon is mixed with “Anant mool” (*Hemidesmus indicus*, R. Br.) ½ spoon and given orally 2-3 times a day for snake bite and also used in vomiting.

*Root or stem powder 2-3 spoon compound with “Ishvarimul” (*Aristolochia indica*, L.) root 2 spoon, “Sugandhi” (*Hemidesmus indicus*, R. Br.) roots 2 spoon, Tulsi (*Ocimum sanctum*, L.) roots and leaves and black pepper given orally with 3-4 glass water 2-3 times a day for snake bite in man & cattle.

*Plant decoction along with “Punarnava” (*Boerhaavia diffusa* L.) Leaves, root and “Gurij” (*Tinospora cordifolia*) stem are given together two spoon; twice a day for 2 weeks to cure nephritis (to reduce pain and the inflammation).

Biological Properties: -Leaves – toxic, Plant contains – laxative.

115. *Pergularia daemia* (Forsk) syn. *Daemia extensa* (R. Br.)

(ASCLE PIADACEAE)

Common & Regional Name: LN. – Doodhibel; H. - Utran; Sans. - Yugaphala, B. - Chagulbanti; Bo. – Uarni; P. – Trotu; Mal. – Veliparuti; Tam. – Uttamani; Tel. – Guruti.

Vegetative Character:- A slender twining growing on hedges herb. Stem – latex much branched. Leave – cordate, deciduous, hairy, acute, Flower bunched cymose. Fruit-hairy, Flowering – May to July Seed – Tuft of

silky hairs, Flat. Occur – Shahdol Division, Rewa, Jabalpur, Sagar, and Hoshangabad Division.

FF – $\oplus, \text{♀}$, **K**₅, **C**₅, **A**₅, **G**₂.

Use- The root paste; ½ spoon given orally once a day for 7 days to improve milk secretion (*lactation*) in woman, cow, buffalo & She-goat. Root bark mixed with cow's milk is great for rheumatism & purgative (cathartic).

*Extract of leaf; ½ spoon mixed with “Dambel” (*Tylophora indica*) leaf juice ½ tea spoon and “Adusa” (*Adhatoda vasica*) leaf juice ½ spoon applied orally once a day for 2-3 months to control asthma, cough and ½ tea spoon juice given orally for infantile diarrhoea.

*The fresh crushed leaf mixed with “Neem” (*Azadirachta indica*) bark paste is applied as a poultice two times a day for 21 days to cure carbuncle (Jaharvat).

Biological Properties: -Plant – acrid, Antipyretic, Astringent, Anthelmintic, Root bark – purgative, Emetic, Expectorant, and Laxative Thermogenic.

Chemical Substance:-Plant contains – bitter, resin, two bitter principals & Glycoside, Sterol, Pitutarin.

F – RUBIACEAE

116. *Rubia cordifolia* L. syn. *R. munjista* Roxb.(RUBIACEAE)

Common & Regional NameLN. - *Majitha*; H., Bo & P -*Manjit*; Eng. – *Indian madder*; San. – *Manjistha*; Mal. – *Manjetti*; Mara. – *Manjestha*; Tam.- *Manjithi*; Tel. – *Manjisthatige*.

Vegetative Character:-A perennial herbaceous climber. Root – tap, branched. Stem – woody. Branched, four angled with minute, recurved prickles on the angles, Leaves – simple, ovate, whorls of 3-4, Ovate-oblong to

lanceolate, glabrous. Inflorescence – cymes. Flowers – greenish – yellow in cymes, Fruit – bluish black one seeded, glabrous. Flowering – Aug-Sep. occur Shahdol (Amarkantak). Root & stem for medicinal use., Taste – Bitter.

F F- Br. Brl. $\oplus, \text{♂}, \text{K}_{(5)}, \text{C}_{(5)} \text{A}_5 \text{G}_{(2)}$.

Use- The root powder; ½ tea spoon given orally once or twice a day for 21 days to treat jaundice, piles, leucoderma fever, uterus & vagina and also used for alterative, astringent etc. Stem is applied in snake (cobra) bite & also in case of other poisonous reptiles and insects bite.

Biological Properties: -Root – Acrid, Analgesic, Alexiteric, Anthelmintic antipyretic, Bitter, Sweet anti-dysentery and leaves also biliousness.

Chemical Substance:-Manjistin, Anthroquinones Fatty acid, Glucose Sucrose, Garacin, Purpurin, Purpuroxanthin-resin, Triterpenes, Lucidin.

117. *Spermacoce hispida* Linn. Syn. *Borreria hispida* (L.) K. Schum. (RUBIACEAE)

Common & Regional Name LN. – Gathani, Bhaji; H. & S. – Madamaghanti, Bo. – Ghantachibaji; Tam. – Nattaichwri; Tel. – Nadana.

Vegetative Character:-A procumbent herb., Stem- hispid hairy or sub glabrous. Leaf – sub sessile, 3 cm long obovate; spatulate or elliptic, margins ciliate or ciliate, stipules, scabrid above, membranous hispid. Flowers– 4-6 in whorls pink, bracteole as long as calyx, Filiform. Calyx – 2 small hispid 1 cm. blue or white, lobes oblong acute, bristly outside. Stigma – 2, short. Capsule rounded on the base, pubescent small, round with calyx a common used of M.P.

F F-Br., Brl. $\oplus, \text{♂}, \text{K}_{(4)}, \text{C}_{(5)} \text{A}_5 \text{G}_{(2)}$.

Use - Root applied as alterative (having the powder to alter) like “Anantmool” (*Hemidesmus indicus* R. Br.), snake bite, fever etc. & seeds are also used as stimulant & their vapour is inhaled to kill tooth worms.

Biological Properties: -Root – alterative. Seeds – Stimulants.

118. *Oldenlandia corymbosa* Linn. syn. *Hedyotis corymbosa* (L.) Lam. (RUBIACEAE)

Common & Regional Name: LN. – Daman papara; H. – Phulki, Daman papar; Eng. – Field parpat; S. - Parpata; Marathi - Papti; Guj. – Parpat; B. - Khet papra; Tam. – Parpadagam; Tel. – Verinellavemu.

Vegetative Character: -An erect herb slender, with round smooth Stem - and branching trichotomously from the base. Leaves - simple, opposite, whorled, sub-sessile, linear lanceolate, glabrous. Stipules interpetiolar, membranous, white, with 1-3 bristles., Flowers in terminal cyme of long peduncle, small, solitary or in pairs, sessile. Calyx - small, 4-toothed, pubescent. Corolla - tubular, white or light blue 4, stamens – 4, epipetalous, anther sessile. Ovary - 2 celled with numerous ovules. Fruit - a capsule with 4 persistent calyx teeth. Flowering Sept. – Oct. common weed in M.P. medicinal use for whole plant.

F F- Br, Brl, $\oplus, \oplus^{\circ}$, $K_{(4)}$, $C_{(4)}$, A_4 , $\overline{G}_{(2)}$.

Use- Plant juice with “Mehandi” (*Lawsonia inermis* L.) leaves juice are used 1-2 times a day for 7-10 days to cure burning sensation in palms (hand) and sole (feet). It is also used in jaundice and plant decoction is given orally 2-3 times a day; half cup for 2-3 days for cholera, dysentery.

*The leaves paste is externally applied for wound, cut and accidental wound etc.

Biological Properties :- Antipyretic, Anti-inflammatory, Cooling, Diuretic, Expectorant, Styptic and also the plant use for liver disorder, Measles, Malaria fever, Jaundice, Worms, Bronchitis etc.

Chemical Substance: *Caffein, Furaric acid, Olealic acid, Methylether, Ursolic acid. Plant Contains – Alkaloids, Biflorine and Biflorone; Na, Ca, K, Chloride;*

119. *O. umbellata* Linn.(RUBIACEAE)

Common & Regional Name: *H. - Chirval; B. - Surbuli; Mal. - Chayaver; Tam. - Saya; Tel. - Chiriveru.*

Vegetative Character:- Deeply rooted, Small, stiff, diffuse binnial or perennial herb, prostrate, and well branched plant. Leaves - simple, opposite on in dense clusters, sessile, linear, acute hispid. Flowers - small, white, 2-10 in cyme or stalked umbels, pedicle short. Corolla - tube short, 4-teethed, hairy inside, Stamens 4, Ovary-inferior, 2 celled and many ovule, Capsule-surrounded by 4 calyx teeths., Flowering-Sept. -Feb. A common weed in the light soils of Shahdol and also found in other parts of M.P.

F F- Br. Brl. $\oplus, \text{♂}, K_{(5)}, \overset{\frown}{C_{(5)}} A_5, \overline{G_{(2-\infty)}}$.

Use - The paste of root and leaves; ½ tea spoon mixed with “Sariva” (*Cryptolepis buchanani* Roem. & Schult.) root & stem bark powder ½ spoon, “Vach” (*Acorus calamus* L.) ½ tea spoon is taken orally once or twice a day for 2-3 months to control asthma and also for bronchial, catarrhal (cold) & bronchitis.

Biological Properties: -Root& Leaves - Expectorant, Bronchial, Catarrhal.

Chemical Substance: Alizarine.

F - VERBENACEAE

120. *Lantana camara* Linn. (VERBENACEAE)

Common & Regional Name: LN. - *Barmasia*; H. – *Kuri*; Eng. – *Wild sage*; Tel. - *pulikampa*; Mal. – *Arippu*; Kan. – *Nata hu gida, hesike*; Mar. – *Chanduramg, ghaneri*; Tam. – *Arippu*; Tel. – *Lantana, Pulikampa*.

Vegetative Character: -A perennial shrub with glandular strigose hairy plant. Root-tap, branched. Stem-woody, spiny, branched, Leaves- opposite, ovate, acute, serrated and pubescent. Flowers-sessile in axillary and terminal stalked heads, peduncles long, slender, hairy, bracts, ovate acute, hairy, Calyx- 4 small truncate, profusely hair. Corolla- 4 toothed 4-lobed, hairy tubes long, variable in colour, orange or red according to the age or the flower, unequal in size rounded above. Stamens-4, didynamous, attached to the corolla tube. Ovary-superior, two cell done ovule in each cell. Style short, stigma fleshy capitate. Fruit, a drupe, fleshy mesocarp and hard endocarp., Flowering all the year. Introduced as an ornamental plant, sometime used for hedging, perpetuation by cuttings.

FF – $\text{Br}, \oplus, \text{♂}, \text{K}_{(4)}, \text{C}_{(4)}, \text{A}_{4(2+2)}, \text{G}_{(2)}.$

Use- Infusion of leaves, two spoon taken twice a day for 7-21 days to treat tetanus and also used for reducing toxic of stomach abdominal viscera.

*Infusion of leaves mixed with “Chiraita” (*Swertia chirata* Buch.) whole plant, “Tulsi” (*O. Sanctum* L.) leaves in equal amount is used ¼ cup to effectively cure malaria fever twice a day for 7-21 days.

Biological Properties:-Anti-spasmodic, Carminative, Antiseptic, Diaphoretic, Laxative.

Chemical Substance:-*Plant – Essential oil, Leaves – Arachidic acid, Linoleic acid, Lantadene, Lantanine, Citral, Eugenol, Furfural, Geraniol,*

Linalool, Alpha – Amyrin, Beta – Sitosterol, Lantadene A & B. Verbascosides & Lantanane.

121. *Lippia nodiflora* Mich. (VERBENACEAE)

Common & Regional Name: LN. - Jalpipri; H. - Bhuiokra; S. - Vashira; P. - Bukan; Bo. - Ratolia; Tam. - Podutalei, Tel. - Bokkena; Mal. - Kattuttippali.

Vegetative Character:- A creeping much branched creeping perennial herb, branches rooting at the nodes, four-angled covered with minute hairs or glabrous. Leaves- upto 2 cm. long spatulate, crenate or entire at base: strigose. Flowers- sessile attached on dense globose spike like heads, axillary long stalked, Bracts minute, elliptic ovate. Calyx-very minute membranous, bilobed hairy. Corolla-pinkish white minute, upper lip bifid, lower three lobed. Fruit- very minute, dry, separating into two one seeded glabrous Pyrenes.

A weed or moist places, found all over M.P.

FF – Br, %, ♂, K₍₅₎, C₍₅₎, A₄₍₂₊₂₎, G₍₂₎.

Use- Decoction of leaves and tender stalk; 2 spoon mixed with “Satavar” (*Asparagus racemosus* Willd.) root powder is taken for indigestion, spermopoeitic, blood purifier and also used by women after delivery.

*The plant juice; 1 spoon mixed with “Murra” (East Indian Screw Tree) Seeds 2g, “Ajwain” (King’s cumin) seeds 3g is taken 1 or 2 times a day to treat diarrhoea, indigestion, polyurea, appetizer, dysentery, rheumatism, cardiac tonic & anthelmintic etc.

Biological Properties:- Astringent, Diuretic, Demulcent, Febrifuge, Refrigerant, Stomachic, Ophthalmic.

Chemical Substance:- Plant Yield Various Substances – Glucose, Glucosides of Beta –Sterol & Stigma Sterol, Fructose, Lactose, Linoleic acid, Linolenic Acid, Leaves has – Nodiflorins, A & B Nodifloridins. A & B Nepetin, Lippiflorin – A. Nodifloretin.

122. *Clerodendrum inerme* (Linn.) Gaertn (VERBENACEAE)

Common & Regional Name: LN. - Arni; H.-Lanjai; San. – Vanajal; Eng. – Garden quinine; Kan. – Kundali; Mar. – Vanajal; Tam. – Anjali; Tel. – Pisinika.

Vegetative Character:- A shrub glabrous shining. Root-tap, branched. Stem – Below woody branched. Leaves – Subsessile, variable in size. Inflorescence – umbel axillary cymes. Flower – white, purple-red. Fruit – Drup., Flowering- Aug. Sep. Occur Shahdol Division, Bhopla, Indore, Jabalpur Division medicinal use whole plant parts.

FF – Br, %, ♂, K₍₅₎, C₍₅₎, A₄₍₂₊₂₎, G₍₂₎.

Use - Root powder mixed with “Nirgundi” (*Vitex negundo* L.) leaves & “Vach” (*Acorus calamus* L.), Rhizomes (Underground stem) and ½ table spoon is given orally once a day for 3 weeks to get relief from gout, rheumatism & also used for venereal, alternate fever disease.

Biological Properties: -Plant – Mucilaginous, Bitter, Blood purifier, Fragrant, Nutritive.

Chemical Substance:- Stem & Leaf Contain – Betuli, Apigenin, Diterpenoid, Cleroinermin, Beta– Sitosterol, Clerodermic acid, Acacetin, Neolignan., Flower– Arginine, Glucose, Fructose, Lysine, Galactose, Protein, Serine, Threonin & L-Glutanic acid.

123. *Clerodendrum phlomidis* (Linn.) f.syn. *C. multiflorum* (Burm f.) O. Kuntze. (VERBENACEAE)

Common & Regional Name: LN. – Chhoti arni; H.-Arni; Sans. – Agnimata; Eng. – Clerodendron; Mar.- Arni; Kan. – Taggi; Tam. – Takkari; Tel. – Takkillaku.

Vegetative Character:-An erect bushy scandent shrubs. Root- tap, branched. Stem – pubescent, woody, solid., Leaves– opposite, simple rhomboid ovate. Inflorescence – cymes, Flower – fragrant, white, complete in panicles, Fruits – obovid. Flowering – Sep. Oct. Medicinal use root & leaves, Occure in Wasteland, Rewa, Shahdol, Sagar, Shivpuri, Indore.

FF – Br, %, ♂, K₍₅₎, C₍₅₎, A₄₍₂₊₂₎, G₍₂₎.

Use - The roots powder; half tea spoon is mixed with “Bhuneem” (*Andrographis paniculata*) whole plant powder and one tea spoon is given orally; twice a day for two weeks to control diabetes and also used for anaemia, piles & swelling.

Biological Properties:-Plant root– Alexi pharomic, Alternative, Astringent, Bitter, Demulcent, Anti-inflammatory, Glycosuria, Coryza, Heating laxative, pungent, Stomachic.

Chemical Substance: Plant contains – apigenin, clerostrol, cerolic acid, cerolic acid, clerodendrin, cholestrol, hispudilin, luteolin, cerolic acid, cerylalcohol, pectolinargenin, raffinose, scuttelarein, β-sitosterol.

124. *Clerodendrum serratum* (Linn.) Moon. syn. *C. Dentatum* Lam.(VERBENACEAE)

Common & Regional Name: H. – Bharangi, Agia; S. & Bo. - Bharangi; Tam. - Angaravalli; Eng. – Turbon; Tel. - Gantubarangi; Mal. - Cherutekku.1

Vegetative Character: - A large perennial, Stem-four angled, woody, young shoot soft hairy., Leaves-opposite, ovate, crenate or entire. Flower-in dichotomous axillary cymes white, Calyx-campanulate, limb truncate 5 toothed, or almost partite persistent, Corolla-with slender tube on 5

lobes, limb more or less oblique, spreading. Stamens much exerted didynamous, Ovary- imperfectly 4-celled, one ovule in each cell. Stigma bifid fruit 4 grooved drupe, obovoid, black when ripe. Common in waste places and fence rows. Flowering- through the year.

FF – Br, %, ♂, ♀ K₍₅₎, C₍₅₎, A₄, G₍₄₎.

Use - The paste of leaves mixed with “Biskhapri” (*Sida cordifolia* L.) leaves is externally applied twice a day for 3-7 days to ripening of wound, boils while juice of root & ginger, with 1 spoon black pepper is taken for cough and hiccups.

Biological Properties:- Antibiotic, Astringent, Blood purifier, Febrile, Carminative, Acrid, Anthelmintic, Antispasmodic, Anti-inflammatory, Bitter, Depurative, Digestive, Febrifuge, Stimulant, Stomachic, Sudorific, Expectorant.

Chemical Substance:-Roots & Leaves Contains – Glycosides, Manitol, Orange Coloured, Resinous Substance, Oil, Anolic acid, Querterioic acid, Starch, Serotonic acid, Saponins.

125. *Vitex negundo* (Linn.) syn. *V. arborea* (Desf); *V. bicolor* (Willd) (VERBENACEAE)

Common & Regional Name: LN. – Nirgudi; H.-S.-Bo.& B. - Niragundi; Eng. – Indian privet, Five leaved chaste; Tam & mal.- vennochi; Tel. - Nall avavili; Kan- Niragundi.

Vegetative Character: -A shrub with grey foliage leaves degitalety compound, the leaflets on the under surface and branches white and downy; flowers very small; lilac or light blue in panicles; berry black size of pea. Occur- Shahdol & Central India. Flowering – June July., Meditonal use whole plant

FF – Br, %, ♂, ♀, K₍₅₎, C₍₅₎, A₍₂₋₅₎, G₍₂₎.

Use- Decoction of leaf mixed with “Bakain Neem” (*Melia azadirachta* L.) leaf is applied twice a day for 3-4 weeks to get relief from gout & Rheumatic pain etc.

*Juice of leaves mixed with “Tulsi leaf” (*Ocimum sanctum* L.) and powder of “Ajwain” seed (*Trachyspermum ammi* L.) ½ spoon is taken orally ½ cup; once a day for 3 weeks to cure Rheumatic arthritis.

*Infusion of leaves along with “Pepper” (*Pepper longum* L.) & “Vach” (*Acorus calamus* L.) rhizome is given orally half cup or one spoonful daily for 3-21 days to cure pneumonitis, gout, neck pain (*pharyngitis*).

*The roots & leaves cooked in mustard oil is applied for skin diseases and eczema, leprosy & sinus problem.

*The crushed roots along with “Bakain Neem” (*Melia azadirachta* L.) leaf decoction and “Vach” (*A. calamus* L.) Rhizome used internally in equal amount once a day for minimum 21 days for relief in arthritis, gout & rheumatic pain.

*The plant root and leaves juice cooked in mustared and castor oil is mixed with “Akvan” (*Calotropis gigantea* L.) root bark and externally used in leprosy, joints pain and skin diseases.

*The leaves cooked in mustard oil are mixed with garlic for internal use in ear diseases, ear pain, old ear pus flow etc.

*Leaves juice; ½ spoon and “Mamri” (*Ocimum Sanctum* L.) leaves ½ spoon, cumin seed (*Jeera*) & “Kings Cumin” (*Ajwain*) powder are mixed together and taken orally; one spoon 1-2 times a day for 21 days to cure Rheumatic arthritis, gout, lumbago.

*The whole plant juice mixed with Ghee (*Cow fat*) and 2-3 pieces black pepper is given orally once a day for 3-4 weeks to cure cough and blood pressure.

*The powder of root mixed with “Neem” (*Azadirachta indica* A. Juss.) bark or Leaves, “Tulsi” (*Ocimum sanctum* L.) Leaves, one spoon “Gurij” (*Tinospora cordifolia* Willd.) stem along with cow urine in equal amount and 2-3 spoon taken orally twice a day for 3-4 months to treat leprosy, bone cancer, pain, spleen problems, ear sound and gonorrhoea.

Biological Properties: -Acrid, Aromatic, Analgesic, Astringent, Anti-inflammatory, Anthelmintic, Antipyretic, Bitter, Carminative, Cephalic, Heating, Diuretic, Expectorant, Stomachic, Rejuvenator, Emmenagogue Pungent, Vermifuge Thermogenic.

Chemical Substance:-Plant Contains– Alkaloids (*Negrundin* & *Hydrocotylon*), Carotene, Flavone, Hydroxy Benzoic acid, Mallic acid, Resin, Vitamin-C, Volatile Oil & also Leaves Afford *Nishindindaside* and *Negundoside*.

References : Ghose and Das, (2000).

F – MENISPERMACEAE

126. *Cissampelos pareira* L. (MENISPERMACEAE)

Common & Regional Name: L.N. – *Patha*; Eng. – *Velvet leaf*, H. & B. – *Akandi*; San. - *Ambashtha*; Mal. – *Kattuvalli*; Mar. - *Pharbel*; Tam.- *Appatta*; Tel. – *Adivibankatige*.

Vegetative Character:-A Climber plant, branches, grooved, pubiscent with peltate & Stem – Weak branched. Leaves – cordate, pubescent with peltate, orbicular, reniform. Inflorescence – cyme, axile. Flower – small & greenish, white, yellow. Fruit – sub globose drup, small, red on ripening, Flowering– Jul. Aug. Taste – bitter. Occure Shahdol, Jabalpur, Rewa & Sagar Division.

FF – $\oplus, \oplus^{\circ}, \mathbf{K}_{(5)}, \mathbf{C}_{(5)}, \mathbf{A}^{\infty} \mathbf{G}_4-$.

Use The root paste; ½ spoon given orally one or two times a day for cystitis, snake bite, lowering blood pressure, enlarged spleen, chronic-inflammation & ulcer etc.

*Leaves paste is externally applied for itch & other skin disease and also used in epilepsy.

Biological Properties: -Plant – Astringent, Antileprotic, Antipyretic, Blood purifier, Tonic, Anthelmintic, Expectorant, Diuretic, Galactagogue, Wound healing, Bitter, Purgative.

Chemical Substance:-*Root and Bark Contains – Alkaloids, Berberine, Cissampeline, Cissampareine, Hayantin, Hayatinin, Pelosine, Saponin, Berbeine, Ammonium Bases, Quercitol, and Sterol, Isolated from the Roots, Methochloride, and D-Tubocurarine.*

127. *Cocculus villosus* (DC.) syn. *C. hisutus* (L.) Diels; *Menispermum hirsutum* L. (MENISPERMACEAE)

Common & Regional Name: LN – Jamiti bel; H. – Jamti-ki-bel; S. – Patalagarudah, Garudi; Eng. – Broom creeper; Tam. - Kattukkodi; B. - Huyer; Bo. - Vasanvel; Tel. - Dusaraitige.

Vegetative Character:-A undershurb climbing perennial undershurb, covered with grayish hairs, leaves 5-8 cm long., Ovate to oblong, sometime three lobed, hairy., Male flowers in axillary panicles, females on separate plants in axillary clusters of 2-3., Drupes, dark purple., Common in Jwar millet fields, waste lands and on hedges. Occur in Amarkantak area. Flowering – Nov.-Dec.

FF – $\oplus, \text{♀}, \mathbf{K}_{(5)}, \mathbf{C}_{(5)}, \mathbf{A}^{\infty} \mathbf{G}_4-$.

Use- Infusion of leaves; two spoon taken twice a day for 7-21 days to treat tetanus and also used as toxin of stomach abdominal viscera.

*Useful in chronic rheumatism and venereal diseases. Juice of leaves when mixed with water fern jelly gives cooling effect in gonorrhoea and sometime in diarrhoea. Juice is also applied in eczema.

*The crushed roots along with “Bakain Neem” (*Media azadirachta* L.) leaf decoction and “Vach” (*Acorus calamus* L.) rhizome used internally in equal amount once a day for 21-30 days for arthritis, gout & rheumatic pain.

Biological Properties: -Root – Antipyretic, Acrid, Alexiteric, Alterant, Anodyne, Bitter, Aphrodisiac, Carminative, Digestive, Depurative, Diuretic, Demulcent, Emollient, Expectorant, Laxative, Tonic, Leaf – Expectorant, Demulcent, Anodyne, Cooling, Mucilaginous.

Chemical Substance: Root Contains – D – Trilobine, DL – Coclaurine. Stem – Beta-Sitosterol, Ginnol & Monomethyl Ether of Inositol. Leaf – Trilobine and Isotrilobine.

128. *Tinospora cordifolia* (Willd.) Miers. (MENISPERMACEAE)

Common & Regional Name: LN. - Gurij; H. & B. Giloe; S. - Guduchi; Bo. - Gulwel; P. - Gilo; Tam. - Sindal; Tel. - Somida; Mal. - Sittamrytu.

Vegetative Character:-Plant is perennial herbaceous climbers. Leaves alternate, deciduous, simple cordate, petiolate Stem – rough, brown, smooth, photosynthetic roots occur. Flower cymose, terminal, bisexual, minute, green colour actinomorphic, calyx 3+3 corolla 3-3 Androecium 3+3 Gynoecium 4 superior flowering May, June. Fruit – ripe red colour in bunched.

FF – $\oplus, \text{♀}, \text{K}_{3+3}, \text{C}_{3+3}, \text{A}_{3+3}, \underline{\text{G}}_4$.

Use - The decoction of stem mixed with “Tulsi” (*Ocimum sanctum* L.) is given orally $\frac{1}{2}$ cup; once a day for 21 days to treat leucorrhoea. It is mixed with “Brahmi” (*Centella asiatica* L.) whole plant,

“Shankhapushpi” (*Evolvulus alsinoides* L.) and “Vach” (*Acorus calamus* L.) rhizome 1g and given orally one spoon daily for 3-4 weeks to treat hyper heartbeat, madness (*Insanity*).

*The crushed stem; ½” “Tulsi” (*O. sanctum* L.), “Chiraita” (*Swertia chirata* Buch. Ham) whole plant, “Kalmegh” (*Andrographis paniculata* Nees.) leaves, “Vach” (*A. calamus* L.) ½” long, “Bel” (*Aegle marmelos*, *Corr.*) root bark and black pepper are given internally; one spoon twice a day for 3 – 7 days to cure alternate fever, common fever and typhoid, itches, rheumatism, dengue fever, Jaundice, acidity, vomiting and diabetes, leprosy etc.

*Powder of stem mixed with “Neem” leaves (*A. India* A. Juss.) powder, “Babool fruit” (*Pod*) (*Acacia nilotica* L.) and “Bajradanti” (*Barleria prionitis* L.) roots, leaves, is applied in equal amount as tooth powder twice a day to treat watery gums, tooth pain, and heart pain.

*Decoction of plants mixed with “Amaltas” leaf (*Cassia fistula* L.), “Adusa” (*Adhatoda vasica* Nees.) leaves and castor oil “Arandi” ½ tea spoon has external and internal application for leprosy and leucoderma.

*The stem paste; ½ spoon mixed with “Vach” (*Acorus calamus* L.) and cow urine; 2 spoons taken daily and applied by patient to treat elephantiasis.

Biological Properties:- Antidote, Anodyne, Anthelmintic, Astringent, Antipyretic, Bloodpurifier, Diuretic, Rejuvenator, Tonic, Antispasmodic, Bitter, Stimulant, Stomachache.

Chemical Substance:- Plant Contains – Starch, Glycoside, Tinosporic acid, Essential Oil, Proteins, Berberine, Ca, P, Gilosterol, Vasa Alcohol and also Chief Constituents are: Furanolactone, Furanolactone, Tinosporon, Tinosporol, Tinosporoside, Tinosporin, Tinosporindine, β -Sitosterol, (Stems), Cordifol, Heptacasanol and Octacosanol (Leaves).

References: Balu et al., (2000); Chauhan, (1999); Ghose and Das, (2000); Paranjpe, (2001); Qudrat et al., (1964); Sivarajan and Balachandran, (1994); Thomas and Britto, (1989).

F-ARISTOLOCHIACEAE

129. *Aristolochiaceae bracteata* (Retz.)ARISTOLOCHIACEAE

Common & Regional Name: *LN. Kirmar; H. - Kirmar; Eng. – Vorm Killer; S- Dhumra patra; Bo. – Kidmari; Tam. & Mal. – Aduthinapalai; Tel. – Adumutiada – Gida.*

Vegetative Character: - Mostly climbing herbs, Stem – woody Low herbs. Leaves – simple petiolate dark green. Flower- bisexual actinomorphic epigynous trimarous pedicillateepipetalous twisted bract, Calyx-2 Corollas-5 petals Androecium-5 Gynoecium 1 hypogynous 4 ovule Seed-round.

FF – Br, $\oplus, \text{♂}$, K $\overset{\curvearrowright}{2C_{(5)}}$, A₅, G₁.

Use- The mashed leaves mixed with castor oil, mustard oil, “Kamphor” (Kapur) is topically applied to treat skin diseases, eczema (on children’s legs), ring worms and decoction of root is used to drive out roundworms.

*The extract of leaves is given to cure ulcer and 25g bark, 5 g dry ginger, 15-20g Jaggery(Gud) are mixed together and decoction is prepared. It is for stopping M.C. or to start it again.

*About 21 leaves and five “Gurij” (*Tinospora cordifolia*) leaves are grinded with “Moong seeds” 250 g. (*Kidney bean*) and mixed well. It is then fried (as Pakoda) in ghee (Cow fat) and given orally before meals; once a day for 3-4 weeks to treat piles. But one must be careful towards other hard meals and spices.

Biological Properties: -Root & leaf – Anthelmintic, Anti-inflammatory, Acrid, Bitter, Appetizer, Antiperiodic, Vulnerary, Emmenagogue, Purgative.

Chemical Substance: Root & leaves contains – *volatile substance, alkaloid, aristolochic acid.*

130. *Aristolochia indica* Linn. (ARISTOLOCHIACEAE)

Common & Regional Name: LN. - Batilha; H.& B.- Isharmul; Eng. – Indian Birthwort; S.- Ishvari; Bo. & Marathi - Sapasan; Tam.. - Isuaramuli; Tel. - Eswaramuli; Mal.- Isvaramuli

Vegetative Character: -Plant is climbing herbs. Root-tap branched. Stem-weak branched. Leaves –pandurate (like violin) form, simple petiolate. Inflorescence- Racemes, Flower- bisexual, solitary, clustered. Fruit-carpal usually 6, septicidal capsule with basal dehiscence. Seeds – winged. Flowering – Aug. Sep.

FF. – Br, $\oplus$, $\otimes$, K₂, C₍₅₎, A₅, G₁.

Use- Root paste mixed with “Chirayata” (*Swertia chirata* Buch.) leaves are taken orally; ½ spoon once a day for 3-7 days to reduce fever and also used in gout, (Joints pain) and rheumatism. It also has use for amenorrhoea & flatulence.

*Root powder compound with “Madar” (*Calotropis gigantea* L.) root in equal amount and ½ tea spoon is ate once a day for 2-3 months to treat leucoderma. Leaves juice is also used for snake bite and scorpion sting.

Biological Properties:- Analgesic and Antidote, Antipyretic, Anthelmintic, Anti- inflammatory, Cardiotonic, Ebolic, Stomachic, Sudorific, Stimulant.

Chemical Substance:-Plant Contains – Root – Crystalline, Glucoside, Microcrystalline, Allantoin, Aristolochin, Essential Oil, Contaning,

Carbony Compound, Isoaristolochic acid, Alkaloid, Odourisovanillin, Nitrogenous acid, Volatile Oil, Borneol, Resin, Tannin & Starch and also Leaves- Contain Cheryl Alcohol, β -Sitosterol Aristalochic acid and K Cl.

References: Asolkar et al., (1992); Balu et al., (2000); Chopra et al., (1968); Kumar and Pullaiah, (2000); Rajendran et al., (2001).

F – PAPAVERACEAE

131. *Argemone mexicana* Linn “Pilikateli” (PAPAVERACEAE)

Common & Regional Name: LN. – *Katilli, Pili Katelli*; Eng. – *Mexican Poppy*; H. & B. - *Shialkanta*; S. - *Srigala - Kantak*; Mal. - *Ponnummattant*; Tam. - *Bramadandu*; Tel. - *Brahmadandi*.

Vegetative Character:- This is an Erect, prickly, annual herb with yellowish latex, 2-4 ft. high., Root–tap, branched, Stem-erect, cylindrical, glabrous, spiny, yellow latex., Leaf-sessile, 5-7 inches long, radical and cauline, simple and alternate, spiny-toothed, green and white., Inflorescence- solitary axillary or cyme., Flower- bracteate, complete, regular actinomorphic bisexual, golden yellow in colour 1 ^{1/2} to 2 inches in diameter hypogynous bracts leafy. Calyx-3 sepals, Corolla-6 petals in two whorls gynoecium- carpels 4-7 ovary 1 chambered., Fruit- capsule. Seeds-small, endospermic, numerous.

FF- $\oplus$, φ , K_3 , C_{3+3} , A^∞ , $\underline{G}_{(4-7)}$.

Use- The yellow latex; 1-2 drops is applied for conjunctivitis (eye) disease, jaundice, and it is also mixed with mustard oil for skin disease as itches, scabies etc.

*The crushed seeds and roots; ½ teaspoon with “Anantmula” (*Hemidesmus indicus* R. Br.) roots ½ spoon are taken and externally

applied for snake bite, scorpion sting and its root infusion is also used in regulating fertility.

*The powder of seeds 5-7 g. is mixed with “Neem” (*A. indica* A. Juss.) leaves ½ tablespoon and taken for psoriasis.

Biological Properties: -Root – Anthelmintic, Antileprotic, Anti-inflammatory, Laxative, demulcent, Rejuvenator, Skin disease, Seed – Diarrhoea, Dysentery.

Chemical Substance:-Root Contains – Allocryptopine, Berberine, Cerylalcohol, and B – Sitosterol, Fatty acids, and Protopine Nitrate. Leaves – Anthraquinone, Glucosides, Kampferin, Essential Oil & Chrysophanic acid. Flowers – Argemone Oil, Resin, Tannin. Seeds – Contains– Albumin, Tasteless Oil of Dark Brown Colour, Carbohydrates, Phosphate & Sulphate etc., and Perpetuation By Seed as Well as By Cuttings.

References: Asolkar et al., (1992); Balu et al., (2000); Chopra et al., (1968); Kumar and Pullaiah, (2000); Rajendran et al., (2001).

F – FUMARIACEAE

132. *Fumaria parviflora* Lam.(FUMARIACEAE)

Common & Regional Name: LN. - Papra H. - Pitpapara; S. - Parpataka; B. - Bansulpha; Bo. - Pit - Patra; Marathi - Pitpapda; Tam. - Tusa; Tel. - Chatarsi.

Vegetative Character: -A much branched annual spreading tender, glabrous, natisect segments linear oblanceolate herb with finely divided leaves., Flower- purplish in terminal or leaf opposed racemes., Fruits globose rough when dry, Sepals-2 Petals in 2 pairs., Stamens 6 in two bundles. Ovary one chambered. Common in winter., Found Shahdol, Rewa & all over M.P. Flowering – Dec. & Jan, use whole plant.

FF – $\oplus, \varphi, K_2, C_2, A_{6(3+3)} \underline{G}_1$.

Use- Plant powder; $\frac{1}{2}$ spoon mixed with “Gurij, Amrita” (*Tinospora cordifolia* Willd.) stem powder $\frac{1}{2}$ teaspoon is given orally 1-2 times a day for 7-21 days to cure anthelmintic, cutaneous diseases and is also used for leprosy tuberculosis & vertigo.

Biological Properties: -Aperient, Bitter, Astringent, Diaphoretic, Blood purifier, Anthelmintic, Diuretic Tonic.

Chemical Substance: Plant Considers- *Fumaric Acid & Fumaric, Alkaloid*.

F – FICOIDAE

133. *Trianthema portulacastrum* Linn. syn. *T. Monogyna* Linn. (FICOIDAE)

Common & Regional Name: LN. - Kaparkutti; H. - Lalsabuni; Bo. & P. - Bishkkapra; S. - punarnavi; Tel. - Galijeru; Tam. - Sharunnai; Marathi - Pundharighentuli.

Vegetative Character: -A prostrate annual herb, glabrous, Succulent. Leaf-variable in size $1\frac{1}{2}$ - 2 cm opposite, oval, unequal, with entire margins, and obtuse apex, petioles connected at the base, Flowers-Solitary in the axile of leaves. Calyx-tube like numerous, Corolla-white with spreading lobes, comprising the perianth. Androecium 15” calyx tube., Ovary-inferior, Fruit-a capsule with thick hard cap, circumscissile. Flowering-Jan.to march., Perpetuation by seed as well as by cuttings. Found all over state.

FF – $\oplus, \varphi, K_{(5)}, C_{(5)}, A_{\infty}, \overline{G}_1$.

Use- The root powder; 1 spoon mixed with “Chirchira” (*Achyranthes aspera* L.) root powder has internal application for abortifacient and also used in amenorrhoea.

*The leaf juice (white variety) is given internally for (Jalodar) dropsy and also used in kidney (condition) troubles.

Biological Properties:- Root – abortifacient, Cathartic, Bitter, Leave – diuretic.

Chemical Substance: *Saponin, Alkaloid, Punarnavin.*

134. *T. pentandra* Linn.(FICOIDAE)

Common & Regional Name: LN. - Bishkhapdi; Bo. - Bishkapra; P. - Itsit.

Vegetative Character:- An herb smooth, prostrate flesh Leave- opposite, oblong, entire. A diffuse prostrate perennial. Stem- papillose to glabrous. Leaves- 1.5-4.0 cm long, 0.6-2.7 cm broad, oblong to obovate, papillose; petiole 8-11 mm long, with a sheathing base. Flowers axillary, solitary or 2-5, sessile; bract solitary, ovate-lanceolate, c. 3 mm long; bracteoles 2-3, unequal, scarious. Calyx- persistent, papillose, sepals oblong ovate, 2 mm long, margin white. Stamens 5, alternating with the sepals, filaments, 2 mm long, dilated at the base. Ovary-2 mm long, ob-pyramidal, papillose; styles 2., 1-2 mm long, linear, slightly curved, persistent. Pygidium 1.4-5 mm long, 4-seeded, splitting longitudinally, lid mitre form, 2 mm broad, margin irregularly lobed; amphora 2 seeded. Seeds - 1.5 mm long, black, rugose.

Occurrence: It occurs in April-August in the Rare in Shahdol & found throughout in M.P, No information regarding substitute is currently available.

Chemical constituents:-Antidotes

FF – $\oplus$, φ , K_5 , A_5 , G_2 .

Use- The powder of plant; half spoon mixed with “Satavar” (*Asparagus racemosus* Willd.) half spoon is taken once a day for 5-7 weeks to cure weakness.

*Plant is used as astringent in abdominal diseases and as a cure for pain in the bladder and for snake bite.

Biological Properties: -Astringent, Abortifacient.

F – CARYOPHYLLACEAE

135. *Saponaria vaccaria* (Linn.) Medic. (CARYOPHYLLACEAE)

Common & Regional Name: LN. - Bada Tilja; H. - Musna; B. - Subuni; Eng. – Soapwort

Vegetative Character: -An annual herb robust, glabrous, annual herb 2-3 ft. tall., Leave- opposite, linear glabrous, and oblong., Inflorescence- a dichotomous cyme., Flower- regular, complete and bisexual. Sepal's small, green, and tubular. Petals, five, pink, regular. Stamens-ten free. Gynoecium- bicarpillary, syncarpous, styles two. Capsule- ovoid, opening by four valves. Seed large black many. Perpetuation through seed. Flowering during Jan. - Feb. Its flower occurs throughout the year. Rare in Shahdol & found throughout in M.P.

FF – $\oplus$, ♀ , K_5 , C_5 , A_{10} , $\underline{\text{G}_2}$.

Use- Plant extract mixed with black pepper 2-3 pieces and “Gurij Amrita” (*Tinospora cordifolia* Willd.) stems one spoon is taken twice a day for 3 weeks to improve fever, scabies and itches etc.

Biological Properties: -Febrifuge Tonic.

Chemical Substance:- Plant Contains-Saponin.

136. *Stellaria media*, Linn. (CARYOPHYLLACEAE)

Common & Regional Name: LN. – Taraia; Eng. – Stichwort.

Vegetative Character: -An annual slender herb, 2-3 ft high, much branched. Leave- 2 cm long, lower stalked, ovate, cordate, and upper sessile, lanceolate. Flower- small axillary or in terminal cymes, pedicellate. Sepal's free, hairy, gland dotted petals shorter than calyx. Stamens- 3-10. Styles 3 capsule avoid longer than the sepals. Seed - brown.

Not a very common weed, but found in Shahdol & all over M.P.

FF – $\oplus, \text{♂}, \text{♀}, \text{K}_5, \text{C}_5, \text{A}_{3-10}, \underline{\text{G}}_3$.

Use- The whole plant paste mixed with “Harjod” (*Equisetum debile* Roxb.) and “Koraiya” (*Holarrhena antidysenterica* Wall.) bark, is given orally and externally for plaster binding in broken bones and inflammation & also used as – vulnerary.

Biological Properties: -Cooling, Binding, Sapon, Resolvent, Astringent.

137. *Polycarpea corymbosa*. (Lam.) Bhisatu, (CARYOPHYLLACEAE)

Common & Regional Name: LN. – Bhistu; S.- Bhisatta; Tam.- Nilaisedachi; Tel. - Rajuma.

Vegetative Character: - An erect or procumbent annual or perennial herb, 1-3 ft long much dichotomously branched., Leaves- about 2 cm long sessile, linear, mucronate., Flowers many, small, on much branched cymes. Bracts scarious, bristles pointed. Sepals linear, lanceolate, acute, silvery, pink or red veined., Petals shorter than sepals. Capsule short shining brown. Common in sandy and rocky areas, found in throughout M.P.

FF – **Br**, $\oplus, \text{♂}, \text{♀}, \text{K}_5, \text{C}_5, \text{A}_{10}, \underline{\text{G}}_2$.

Use- The crushed leaves are heated and applied as poultice over swelling and given orally for “Varanus animal” (Tirichh/Reptile) bites, reptiles and jaundice.

Biological Properties: -Cooling & Inflammatory.

F – PORTOLACEAC

138. *Portulaca oleraceae* Linn. (PORTOLACEAC)

Common & Regional Name: LN. – *Lonia bhaji*; H. - *Khursa*, *Badi Kulfa*; S. - *Lonika*; Eng. – *Common purslane*; B. - *Baraloniya*; Bo. - *Kurfah*, *Mal.* - *Koricchira*; Tam. - *Pulikkirai*; Tel. - *Pappukura*.

Vegetative Character:- An annual stout succulent glabrous annual weed, Root-tap. Stem- herbaceous or ascending, branched, succulent., Leaf- alternate or sub-opposite $\frac{1}{4}$ to $1\frac{1}{2}$ in. oblong, very shortly-stalked, thick., Inflorescence- terminal cluster of sessile flowers, flower regular, bisexual, hypogynous, bright yellow. Calyx- 2 sepals, free, green, persistent, corolla- 5 petals free bright yellow. Androecium- stamens 8-12 free. Gynoecium carpels 3-5 syncarpus or half-inferior. Flowering throughout the year.

FF – $\oplus$, φ , K_2 , C_5 , A_{8-12} , $G_{(3-5)}$.

Use- Extract of plant is administered topically for prickly heat in feet and burning sensation in hand. It is also used for liver disease and also for anti-inflammatory cough, vomiting, diabetes, headache, cephalalgia, tumors, antidote & leprosy.

Biological Properties:- Plant–Anti-inflammatory, Appetizer, Alterative, Antiscorbutic, Anthelmintic & Diuretic, Blood purifier, Expectorant, Alexiteric, Sour, Stomachic, Refrigerant, Seed – Vermifuge.

Chemical Substance:-Plant Contains – Crude Fibres, Carbohydrates, Mucilage, Ca, Mg, P, Fe, Na, K, S, Cl & Cu.

139. *P. quadrifida* Linn. See. *P. Meridiana* L.(PORTOLACEAC)

Common & Regional Name: *LN.* - *Lonia*; *H. & B.* – *Chhota luniya*; *S.*- *Upadyki*; *Eng.* – *Small purslane*; *Bo.* - *Kota*; *Tam.* - *Passalaikkirai*; *Tel.* - *Goddupavili*.

Vegetative Character: -Similar to (*P. oleracea*.) only smaller in size., Rings of hairs at the nodes., Leaves lanceolate to ovate, small, fleshy, showing a reddish hue, flowers apical, solitary, sessile, yellowish and small. Petals 4 yellow. Stamens 8 or 12. Ovary- partially inferior, unilocular having branched styles. Fruit an apical transversally dehiscent capsule, having numerous small seeds, bigger than (*P. oleracea*.) Perpetuation by seed, or by stem cuttings. Rare in Shahdol & Commonly found all over the state. Flowering throughout the year. Whole plant has medicinal purpose.

FF – $\oplus$, $\ominus$, K_2 , C_4 A_8 , $\underline{\text{G}_4}$.

Use- Decoction of fresh leaves; ½ cup is used for irregular discharge of urine and (Dysurea) difficulty in passage of urine. Its also used for headache, burning, piles, stone & leprosy.

Biological Properties:-Alterative, Carminative, Diuretic, Lithotriptic, Laxative, Vermifuge, Bitter, Sour, Stomachic.

Chemical Substance:-*Plant Contains – Lignin, Mucilage, Starch, Saponin, and Tannin.*

F- POLYGONACEAE

140. *Polygonum plebejum* (R. Br) (POLYGONACEAE)

Common & Regional Name: *LN.* - *Rani phool*; *Santh.*- *Rani phul*.

Vegetative Character: -An annual herb prostrate, densely and diffusely, with a reddish hue, and with woody root stock, branches grooved. Leaves alternate, entire, oblong or linear, stipulate, stipules tubular, hyaline, covering the stem. Flowers - small, pink, axillary, solitary or in clusters

of 2-3. Calyx 4-5 uniform, perianth pink, free, 4-5 in number., Stamens-8, sometime 4, rudimentary, Pistil triangular, fruit a nutlet, trigonous, shining. Flower- Sept.-Jan. Very common in M.P. also found in other tracts in dry banks of river & moist place.

FF – $\oplus, \text{♀}$ $\text{K}_{4-5}, \text{P}_{4-5}, \text{A}_8, \underline{\text{G}}_4$.

Use- The plants powder and “Dekamali” (*Gardenia lucida* Roxb.) twigs apex, gum and black pepper (Kali Mirch) is given orally 2-3 times a day to cure pneumonia in children and root is also used for bowels.

141. *Polygonum glabrum* Willd. (POLYGONACEAE)

Common & Regional Name: LN. - Bihagna; Assam - Bihagni; Bo-Raktarohida; Tam. - Atalaria.

Vegetative Character: -A fairly large about upto 3-4 ft. high, erect glabrous herb with pinkish or purplish smooth and round stem. Leaves lanceolate long and thin, stipules sheathing the stem. Flowers pink, small, closely arranged on a terminal panicle. Perianth-4, sometime-5, stamens-5. Ovary superior style three, three lobed. Fruit a nutlet beaked at the tip. The plant occurs in moist places, channels & tank beds and in paddy fields, also along the banks of stream. Become red on drying. Flowering – Feb. to March. Found- on bank of river side all over M.P.

FF – $\oplus, \text{♀}$, $\text{P}_{4-5}, \text{A}_{3+3}, \underline{\text{G}}_3$.

Use- Decoction of fresh leaves; 1 spoon mixed with “Maror Phalli” (*Helicteres isora* L.) fruit seed powder is taken 2-3 times a day for stomach gripping and also use for febrifuge (removing fever).

Biological Properties: -Febrifuge.

142. *Rumex dentatus* Linn. (POLYGONACEAE)

Common & Regional Name: LN. - *Van palak*; S. - *Changeri*; H. - *Ambavati*.

Vegetative Character: -An erect 2-3 ft. tall green annual herb. Stem-grooved, glabrous, tinged with red. In young plants leaves oblong, radical, bright green, alternate, glabrous wrinkled and dentate. Flowers-bisexual, sessile, arranged in whorls, axillary, some time on long axis. Perianth – 6, 3 outer in changed 3 inner enlarged, each with smooth tubercle on its back, margins toothed. Stamens- 6, in three pairs. Ovary-triangular, styles, 3, stigma fringed. Fruit a nut enclosed in persistent perianth. Flowering during Nov.-Jan. Found all over in M.P. also cultivated in field & moist place.

FF – $\oplus, \text{♀}, \mathbf{P}_{3+3}, \mathbf{A}_6, \underline{\mathbf{G}}_3$.

Use- Extract of roots mixed with “Beshram” (*Ipomoea biloba* Forsk.) latex, is applied locally for itches and scabies and also in cutaneous disorders.

Biological Properties: -Root – used as astringent.

F – CHENOPODIACEAE

143. *Chenopodium album* Linn. (CHENOPODIACEAE)

Common & Regional Name: LN. - *Bhatua Bhaji*; H. - *Bathua sag*; B. - *Bethu Sag*; S. - *Vastuk*; P. - *Bathu*; Bo.- *Chakwit*; Tel. - *Pappukura*; Tam. - *Parupukkirai*; Eng. - *Goose foot*.

Vegetative Character:- An erect, smooth, 2-3½ ft. tall, without any smell, annual herb. Leaves fleshy, alternate, toothed or lobed, having whitish hairy growth, ovate, petiolate. Flowers in clusters, forming spikes, bisexual, apetalous, green. Stamens 5 opposite to the sepals. Fruit- one seeded enclosed in the enlarged calyx. Seed shiny black. Flowering- during Nov.-Jan.(winter). Common in Shahdol & wheat tracts, common in other parts of State.

FF – $\oplus, \text{♀}, \text{P}_{(5)}, \text{A}_5, \underline{\text{G}}_{(2)}$.

Use- 30-50 g cooked plant is given for one week to increase hunger (appetite).

*Tender leaves are cooked and eaten once a day for 3-5 days to increase hunger and cure indigestion, anthelmintic, laxative, anti-acid and cardiac disorder and for diabetes.

*Extract of plant is heated about 10 minutes; 2 spoons twice a day for 2-3 days to neutralize intestinal worm and it is also used as paste in joints pain with 1 spoon taken daily.

Biological Properties:- Aphrodisiac, Acrid, Anthelmintic, Carminative, Digestive, Diuretic, Laxative, Sweet, Tonic.

Chemical Substance:- Plant contains – AScaridol, Carotene, Mg, P, A Volatile oil, Vitamin – C and also β -Ecdysone, Polypodin B (Roots), Saponins (plant), Cryptomeridiol and 8a-Acetoxycriptomerdiol (Seeds).

References: Chaudhary and Neogi, (2000).

144. *C. murale* Linn. (CHENOPODIACEAE)

Common & Regional Name: LN. – Bada Bhathua; Eng. - Goose foot.

Vegetative Character: -An annual glabrous rather foetid herb. Root- tap, branched., Stem-20-70 cm. tall, branches erect or ascending, Leaves-stalked, bright green 2-8 cm long, rhombic, deltoid – ovate obtuse or acute, margins irregularly lobed and more or less sharply toothed, entire at the base., Flowers-clustered in lax or dense cymes, arranged in axillary racemes or panicles., The panicles shorter than *C. album* other characters as in above spp. Occur in cultivated land on Shahdol and other parts of M.P.

FF – $\oplus, \text{♀}, \text{P}_{(5)}, \text{A}_{2-5}, \underline{\text{G}}_{(2)}$.

Use- Whole plant is crushed & cooked for 15 minutes, its extract is given orally to oust intestinal worms.

F – AMARANTHACEAE

145. *Celosia argentea* Linn. (AMARANTHACEAE)

Common & Regional Name: LN. - *Silvari Sag*; H. - *Sufaid murga*; S. - *Vitunna*; P. - *Sarwali*; B. - *Swet murga*; Bo. - *Kurdu*; Tel. - *Gurugu*.

Vegetative Character: -An annual erect glabrous herb upto 2-3ft. tall. Leaves alternate, lanceolate, entire. Flowers on a long stalked spike, pink when young and becomes white later. Small scaly bracts, perianth dry, chaffy, 5 in number. Stamens 5; ovary bilocular, syncarpous. Fruit capsule like, many seeded, opening irregularly or by lids. Flowering Aug.-Nov. Common weed of M. P. A most dominant weed, grown in fields and also along river bank in Shahdol area.

FF – Br, Brl, $\oplus$, ♀ , P₅, A₅, G₍₂₎.

Use- Seeds powder mixed with “Tulsi” (*Ocimum sanctum* L.) leaves powder and black pepper “Satavar” (*A. racemosus* Willd.) leaves eaten once a day for 21 days to cure (eye diseases) or to get clear vision and also useful in low Haemoglobin. Crushed seeds are used for mouth sores.

Biological Properties: -Seeds – Aphrodisiac.

146. *Gomphrena celosiodes* Mart. syn. *Gomphrena indica* Linn.(AMARANTHACEAE)

Common & Regional Name: LN. – *Lal Silvari sag*, *Keshpatra*; H. - *Sufaid Murga*

Vegetative Character:- An annual prostrate branched annual hairy or sub-silky herbs of Kharif season. Leaves-shortly stalked pale green 4 to 8 cm. long, elliptic or obovate oblong. Heads large, globose or slightly elongated at the apex of ascending branched yellowish white., Bracts leafy, bracteoles scarious silvery white. Sepals-serious, densly woolly, shorter than the long staminal tube. Anthers - one celled, stigma bifid. Seed subordicular. Common in dry areas and on bunds specially

associated with paddy, Jwar millet & Maize crops fields. Flowering during Sept. – Oct.

FF – Br, ⊕, ♀, P₅, A₅, G₂.

Use- The leaves juice one spoonful compound with “Bariyari” (*Sida rhombifolia* L.) roots, is taken orally 1-2 times a day for 3-4 weeks to cure weakness.

147. *Digera muricata* Linn., Mart.syn *D. arvensis* (Fork.) (AMARANTHACEAE)

Common & Regional Name: H. - *Latmahuria*; Mar. - *S.- Manjirika*; B. - *Luta mahawaria*; P. - *Tartara*; Tam. - *Thoyyakeerai*; Tel. - *Chenchalikura*.

Vegetative Character: -An annual herb, 2-3 ft. tall, with slender prostrate or erect branches. Leaves glabrous, variable in size, margins some time tinged with red. Ovate- acute, entire, Flowers- on axillary spikes, sessile, bisexual in groups of three, the outer two looks like scales, middle one red. Bractioless dry, perianth dry and chaffy, in group of five. Fruit dry one chambered, usually one seeded. Flowering Aug.-Sept. A common weed of M. P. during rainy season.

FF – Br_l, ⊕, ♀, P₍₅₎, A₅, G₍₂₎.

Use- The powder of seeds; ½ teaspoon mixed with “Van piyaj” (*Urginia indica* Kunth. L.) is taken once a day for 3-7 days to cure (diuretic) discharge of urine.

*Flowers and seed are given in urinary discharges. Plant can also be laxative in large doses.

*The crushed seeds and flower; one spoon mixed with “Punarnava” (*Boerhaavia diffusa* L.), “Bhui amla” (*Phyllanthus niruri* L.) are given in equal amount and taken 1-2 spoons daily to cure urinary pain (trouble).

Biological Properties: -Plant – Laxative.

148. *Amaranthus viridis* Linn.(AMARANTHACEAE)

Common & Regional Name: *LN.* - *Chamrai Bhaji*; *H.* - *Chaulai Bhaji*; *S.* - *Tanduliya*; *Guj.*- *Dhimodo*; *Marathi* - *Lhanmat*.

Vegetative Character:- Annual pubescent. Root-tap branched. Stem – weak, branch, glabrous, succulent, erect upto 20 cm. tall herb. Leaves - alternate, ovate, petiolate, simple, with entire margin & acute apex. Flowers on terminal and axillary spikes like racemes, short stalked, green in colour and monoecious., Bracteate, perianth lobes 3-5, stamens 3-5, gynoecium (2-3) syncarpous monolocular ovary, with two to three stigmas. Fruit dry, one seeded. Flowering - during July to Nov. Common weed found throughout M.P.

FF – Br, $\oplus$, σ , P₃₋₅, A₃₋₅, G₀.

Br, $\oplus$, ϕ , P₃₋₅, A₀, G₍₂₋₃₎.

Use- Paste of roots and leaves; 2 spoons with black pepper 5 pieces applied externally and internally for snake bite and leaves paste are also used for burn and scorpion stings.

Biological Properties: -Leaves – emollient.

149. *A. Spinosus* Linn. (AMARANTHACEAE)

Common & Regional Name: *LN.*- *kanta chamrai* *H.* - *Kataili Chaulki*; *S.* - *Tanduliya*; *Eng.* – *Prickly amaranthus*; *B.* - *Kanta noiya*; *Tam.* - *Mulluk - Kirai*; *Tel.* - *Mullalola kara*; *Marathi* - *Kante math*.

Vegetative Character: -Annual herbs erect 20-40 cm. tall coarse and glabrous. Root- tap. Stem – weak, branched, spiny, green, Leaves-alternate, ovate, acute, with spines in the leaf axil. Flowers- in axillary and terminal

spikes, unisexual, small, male and female flowers separate. Bracteate, perianth 5, stamens 5 in male flowers., Gynoecium (2-3), toothed at the apex. Seed- orbicular, testa crustaceous and erect. Syncarpous-monocular pistil, with 2-3 stigmas. Fruit dry, one seeded. Flowering – Aug to Nov. common weeds of M.P. & other states.

FF – Br. Brl., ⊕, ♂, ♀, P₍₅₎, A₅, G₍₂₋₃₎.

Use- According to requirement, heated leaves are applied topically twice a day for a week to treatment boils and burns.

*The cooked leaves with “Bhui amla” (*P. niruri* L.), “Chhoti Dudhi” (*Euphorbia thymifolia* L.) and 2 piece black pepper together is given ½ cup for 3-7 days to cure jaundice and its leaves are also used for stomach ache.

*The boiled leaves and root; one spoon is given orally 2-3 times a day for 2 days as laxative and root paste is externally used for eczema and snake bite.

*The fresh leaves and root are applied to treat bladder inflammation.

*Root decoction mixed with “Mulaithi” (*Glycyrrhiza glabra* L.) “Chirchira” (*Achyranthes aspera* L.) and candy sugar; half cup once a day for 2-3 months cures gonorrhoea.

Biological Properties: -Antipyretic, Appetiser, Alexiteric, Cooling, Diuretic, Digestive, Laxative, Stomachic.

Chemical Substance:-*Proteins Plant Contains –, Carbohydrates, Minerals, Ca, Fe, Vitamin – A etc.*

150. *Aerva lanata* (Linn.) Juss. ex Schult. (AMARANTHACEAE)

Common & Regional Name: LN. - Astam; H. & B. - Chaya; P. - Buikallan; S. - Astamabayda; Tam. - Sirupulai; Tel. - Pindi kumda.

Vegetative Character: -An annual, erect woolly, about 30-45 cm. tall, herb, woody below. Leaves- all alternate, covered with soft white hairs, ovate, petiolate, whitish below. Flowers- axillary or in axillary spikes, white, apetalous, mono and bisexual. Fruit - dry one chambered and one seeded rotund. Flowering- during July.-Aug. The plant occur common as weed on waste lands.

FF – Br, Brl, $\oplus$, $\otimes$, P₍₅₎, A₅, G₁.

Use- According to the requirements; juice of one or two fresh plants is used locally on cuts, injury, wounds and roots are also used in the treatment of headache.

*The root powder; ½ spoon is mixed with “Punarnava” (*Boerhaavia diffusa* L.) leaves, and ½ cup is taken orally once a day for 3-9 days to cure discharge of urine and also fresh plant juice is applied twice a day for 3-5 days to heal cut and wounds.

Biological Properties: -Astringent, Diuretic, Bitter, Cooling, Emollient, Suppurative, Vermifuge.

Chemical Substance: Chief Constituents Of Plant are: Alpha – Amyrin, Beta-Sitosterol, Aervine, Aervoside, Aervolanine, Campesterol, Palmitic acid, Betuline, Feruloyltyramine, Methylervine, Syringic acid, Vanilic acid and also Present B-Sitasteryl, Palmitate, B-Amyrin and B-Sitosterol, four Flavonoid Glycosides (I, II, III, IV).

References: Ambasta, (1986); Asolkar et al., (1992); Jain et al., (1991).

151. *Achyranthes aspera* (Linn.) (AMARANTHACEAE)

Common & Regional Name: LN. - Chirchita; H. - Latjira; S. - Apamarga; Eng. – Prickly chaff-flower; Tam. - Nayurivi; Tel. - Uttareni; B. - Apang; P.- Kutri.

Vegetative Character: - Annual or perennial herb 2-3 ft. tall. Root-tap, Stem – angular, often woody below, branched, and erect. Leaves - 2-6 cm. long, elliptical ovate, obtuse, terminating into a very small tip, upper surface glabrous, hairy underneath, petiolate. Inflorescence - flowers on long spikes about 20-30 cm. long. Flowers -green, bracts &bracteoles short perianth 4-5 tipped. Stamens 5, Ovary- bicarpillary, syncarpous, monocular, style filiform. Fruits bent back against the axis, achenes enclosed in the persistent perianth. Flowering Sept.-Dec. on occur bunds & waste lands during Kharif & Rabi seasons., Common all over M.P. on bunds & waste lands during Kharif & Rabi seasons. Whole plant use for medicinal.

FF – Br, Brl, $\oplus$, ϕ , P 4-5 A₅₊₅ G(2).

Use- Powdered roots are mixed with 2-3 pieces black pepper; one spoon is given twice a day for 3-7 days to treat dysentery. Root powder; ½ spoon along with 5 leaves of “Mehandi” (*Lawsonia alba*, Lam.) is given once a day for 7-21 days to cure stone disease.

*The crushed roots; one teaspoonful or seeds powder mixed with 5 leaves “Mehandi” (*Lawsonia inermis* L.) and “Punarnava or Patharchata” (*Boerhaavia diffusa* L.) leaves juice are given orally one spoon once a day for 21-30 days to cure stone. Seeds with (mishri) Candy sugar are used for dog bite for 21 days and whole plant is applied internally for (sugar or) diabetes.

*The lower part of stem is used for brushing teeth to cure toothache.

*The fresh leaves juice with “Arandi” (*Ricinus communis* L.) oil is externally massaged on waist twice a day for 3-7 days to treat pain.

*The fresh leaves juice or root; 1-2 spoonful mixed with Candy sugar (mishri) 10g eaten once a day early morning empty stomach in cases of sexual disability spermatorrhoea and whole plant parts use for anti-diabetic.

*Decoction of roots is given orally with honey to pregnant ladies, for easy delivery of child and also root powder used in cholera.

*Plant ashes ½ teaspoon mixed with ½ spoon honey taken orally twice a day for 2-3 days to treat cough and also use in head for hair growth.

*Seeds powder 2-3g is given orally once a day for 3-7 days prescribed for wine, alcohol is avoided.

Biological Properties: -Expectorant, digestive, stomachic, Astringent, Anthelmintic, Bitter, Cooling, Diuretic, Carminative, Anodyne, Emetic, Depurative, Sudorific, Demulcent, Acrid, Anti-inflammatory.

Chemical Substance:-*The Plant Contains – Nitrogenous Compounds, Achranthine, Alkaloids, Hentriacontane, Saponin, Oleanolic Acid, Oligosaccharide, Saponin, Oleanolic acid (Whole Plant, Seeds), Betaine, Linoleic, Oleic, Palmitic, Stearic, Behenic, Arachidic, Myristic and Lauric Acids (Seed Oil), Saponine A & B, Ecdysterone (Polypodine A), Ecdysone (Roots), Maslinic Acid Saponin C & D, Two Oleanolic acid Based Saponins From (Fruits) and Dihydroxyketone, Contanol (Shoots).*

References: Anonymous, (1968); Chopra et al., (1968); Dhar et al., (1968); Bhattacharjee, (1998), Singh and Shrivastava, (2000).

152. *Alternanthera sessilis* (Linn.) R. Br. ex DC syn *A. triandra* Lam. (AMARANTHACEAE)

Common & Regional Name LN. - *Gathi ghas*; H. – *Saranti* ; San. – *Matsyaksi* ; Bo. - *Kanchari*; Mar. – *Kanchari* ; Tam. & Mal. - *Ponnanganni keeray*; Tel. - *Ponnaganta kura*.

Vegetative Character:- A prostrate, smooth, annual herb. Root- tap, branched s., Stem- having villous nodes, well branched, rooting from nodes. Leaves-opposite, entire lanceolate, somewhat fleshy, and short stalked.

Flowers-white, bisexual arranged in sessile axillary heads. Bracteoles ovate, scarious 5 calyx, ovate, acute, one nerved, scarious. Ovary-bicarpillary. Fruit small, one seeded, seed subordicular., Flowering Sept.-Nov and also through the year. Common in moist place of Shahdol and other parts of M. P. State. Medicinal use root and leaves.

FF – Br1, $\oplus$, $\otimes$, P₅, A₅, G₂.

Use- The leaves juice 2 spoonfuls along with 1-2 black pepper is given orally once a day for 7-21 days to treat liver disorder & diabetes.

*The paste of leaves ½ teaspoon along with “Bhui amla” (*Phyllanthus niruri* L.) plants ½ spoon taken orally twice a day for 3-7 days to cure jaundice and also used in leprosy.

*The powder of roots is mixed with “Anantmool” (*Hemidesmus indicus* L.) root and “Baibidang” (*Embelia ribes* Burm. f.) and mixed in equal amount. It is given orally ½ teaspoon daily for 3-5 weeks to cure rickets and also for snake bite.

Biological Properties: -Galactagogue, Cholagogue, Febrifuge, Dried plant in Sterols.

Chemical Substance :-Plant contain – Protein, Fe, Hydrocarbons and also occur Laxanthones I-III, Luteolin, Laxanthone I, Laxanthone II, Lawsone, β -Sitosterol glucoside isolated; Apigenin-7-Glucoside, Apigenin-4'-Glucoside; Luteolin-7-Glucoside, Luteolin-3' Glucoside, Fraxetin, Scopoletin, Esculetin, Lawsone, Laxanthone II, Luteolin, β - Sitosterol and its 3-O-Glucoside isolated from leaves.

References: Paranjpe, (2001).

F – LYTHRACEAE

153. *Ammannia baccifera* Linn. (LYTHRACEAE)

Common & Regional Name LN.- *Dhan Bhaji, Van Mehndi*; H. & B.- *Ammania, Dadmari*; S.- *Kurandika, Agnigarva*; Eng.- *Blistering*; Tam. - *Nirumel* - *Nerrippu*; Tel. - *Agni Vednapku*; P. - *Dederbuti*; P. - *Fauglimehndi*.

Vegetative Character: -An erect glabrous, erect, strong smelling annual herb.

Root- tap. Stem- four angled, erect, branched, smooth, slender, annual, more or less purplish herb 10 to 50 centimeters in height. The stems are somewhat 4-angled. Leaf- are opposite, sessile, entire, narrow at the base, obtuse at apex, 2-5 cm long., oblong, oblanceolate, or narrowly elliptic, about 3.5 centimeters long – those on the branches very numerous, small, and 1 to 1.5 centimeters long – with narrowed base and pointed or somewhat rounded tip. The flowers are small, about 1.2 millimeters long, greenish or purplish, and borne in dense axillary clusters. Flowers- in dense cluster, axillary, reddish brown, bracts filiform. Calyx- lobed, volvate, with four teeth. Petals absent, stamens 2-8 inserted on the calyx tube. Ovary- 2-6 chambered, superior, enclosed in calyx tubes. The capsules are nearly spherical, depressed, about 1.2 millimeters in diameter, purple, and irregularly circumscribes above the middle. Fruit a capsule, red in colour, membranous, globose. The seeds are black Flowering-Sept. Oct. Common weeds of the paddy field, and moist places. Found all over M.P. Medicinal use whole plant.

FF – Br, $\oplus$, $\overset{\curvearrowright}{\text{K}_{(4)}}$, A_{2-8} , $\underline{\text{G}_{(2-6)}}$.

Use- Crushed leaves along with 2-3 pieces black pepper; a table spoon is given orally twice a day for 15-21 days to treat rheumatism. Its paste is also used in local application for blisters and also used in diabetes, dyspepsia, seminal weakness.

Biological Properties: -Acrid, Appetizer, Aphrodisiac, Bitter, Cooling, Diuretic, Laxative, Rubefacient, Stomachic.

Chemical Substance : Plant contains – Betulinic acid, dotriacontanol, Ellagic acid, Hentriaconite, Quercetin, Lawsone and flower has - Ellagic acid, Polyphenols, Hecogenin, Gallic acid, Pelargonidin 3-5 Diglucoside, Cyanidin-3, 5 Diglucoside Octacosanol., β -Sitoserol and Chrysophanol 8-O- β -D, Glucopyranoside. Medicinal use leaf.

References: Paranjpe, (2001).

F – GENTIANACEAE

154. *Enicostemma littorale* (Blume) Syn. *E. axillare* (Lam.) Raynal. (GENTIANACEAE)

Common & Regional Name: LN.- Nau bhaji; H.- Chota Chirayata; S. & B. - Nagajivha; Tam. & Mal. - Vallari; Bo.- Kadavinayi; Mar.- Kadavinayi; Tel.- Chevvukurti.

Vegetative Character:- Perennial or annual herb, very leafy glabrous 15-20 cm. Stem- branched, 4 sided. Leaves - sessile, elliptical life lanceolate obtuse or linear., Flowers - regular in axillary clusters, on small with membranous margin. Corolla tubular or funnel shaped white. Anthers included. Ovary-one celled. Fruit a narrow capsule., Flowering - July – Jan. A common plant of moist places in Shahdol and other parts of M.P.

FF – $\oplus$, $\varnothing$, $K_{(4)}$, $C_{(4-5)}$, A_{4-5} , G_1 .

Use- Plant powder is mixed with honey and given once a day for 7-21 days to cure abdominal ulcer and also in hernia swellings.

*The powder of plant is mixed with 2-3 pieces black pepper, “Amla” (*Embllica officinalis*, Gaertn.) fruit, honey and “Anant mula” (*Hemidesmus indicus*, R. Br.) root and one spoon is given orally once a day for 4-5 weeks to treat hernia (Swelling), pain, dropsy, fever, as blood purifier and insect poisoning and also as antidiabetic.

*When Dried and powdered, it is given with honey as blood purifier and in dropsy, abdominal ulcers, hernia, swelling and insect poisoning.

Biological Properties: -Acrid, Anthelmintic, Antiperiodic, Anti-inflammatory, Bitter, Carminative, Digestive, Depurative, Stomachic, Thermogenic.

Chemical Substance: Plant yield – *gentianine, heptacosane, nonacosane, myristic acid, oleic acid, alkaloids and also found lactonic, enamina ketone, genticrucine, swertiamarin, betulin, swertisioside, apigenin, genkwanin, isovitexin, swetisin, saponarin and 5-0 glucoside derivatives of sylswertisin, soswertisin and swertiamarin.*

References: Asolkar et al., (1992); Bhatt et al., (1999); Bhatt and Mitaliya, (1999)

155. *Exacum tetragonum* (Roxb.) (GENTIANACEAE)

Common & Regional Name: LN. - *Choti chirata*; H. - *Ava – Chiretta*, *Deshi chiraitha*; B. - *Koochuri*; Assam - *Sher - ri - takti*.

Vegetative Character:- Root-tap, branched. Stem-erect, branched upto 2-3 ft. high, four angled. Leaves - sessile, about 2-8 cm long, lanceolate, acute, five nerved. Flowers - azure-blue, upto 2 cm across, tetramerous, arranged in many flowered terminal panicle. Calyx - upto 1 cm long ovate, acuminate, keeled, but hardly winged., Corolla-lobes upto 3 cm. long, elliptical acute. Style 1 cm long. Capsule sub-globose 1 cm long. Note: a common in Shahdol but occur Jabalpur, Bundelkhand, Hoshangabad, Satna area in damp & waste places.

FF – $\oplus, \varphi, K_{4-5}, C_{4-5}, A_5, G_2$.

Use- Crushed plant is mixed with black pepper and given orally for fever and also used in purification of blood.

*1 spoon Plant juice is mixed with 2-3 pieces black pepper, ½ spoon “Gurij” (*Tinospora cordifolia*, Willd) stem or leaves is internally applied 1-2 times a day for 5-7 days to cure fever and stomach worms.

Biological Properties: -Bitter, Tonic

156. *Swertia chirata* (Buch.-Ham.) (GENTIANACEAE)

Common & Regional Name: LN. - Chirayata, Chirayata; H. & B. - Chireta; S. - Kairata; Eng. – Chireta; Tam. & Tel. - Nilavembu; Mal. - Nelaveppa; Bo. - Chiraita.

Vegetative Character:- An annual or perennial herbaceous. Root-tap branched. Stem – weak, erect branched leaves opposite sessile stem 3-5 ft. high. Inflorescence– cymose type flower – regular bisexual and hypogynous. Calyx - 4-5 sepals imbricate Corolla-4-5 petals below tub, twisted, Androecium - 4-5 stamens alternate with petals anther two called. Gynoecium - two carpel syncarpus. Fruit leathery avoied Seed-endospermic 6-7 mm Flower- Sep-Dec. Medicinal use whole plant.

FF – $\oplus$, $\oplus$, $\mathbf{K}_{4-5}$, $\mathbf{C}_{4-5}$, $\mathbf{A}_5$, $\mathbf{G}_2$.

Use- Paste of whole plant mixed with “Tulsi” (*Ocimum sanctum* L.) leaves and “Gurij” (*Tinospora cordifolia* Miers.) stem is taken orally one teaspoonful daily for 3-7 days to treat malaria, viral fever, anthelmintic and also used in blood purifier, sugar, skin diseases and stomach worms and menorrhagia, neuro-muscular etc.

*Decoction of plant along with 2-3 pieces black pepper, “Tulsi” (*O. sanctum* L.) Leaves and “Gurij” (*Tinospora cordifolia*, Willd.) is given orally; 2 spoons 1-2 times a day for 7-15 days to cure Typhoid, Malaria, Leprosy, Jaundice, common fever, worms and also used in menstrual irregularity, heart diseases and anaemia.

*Powder of plant; ½ spoon mixed with ½ tea spoon “Koraya” bark (*Holarrhena antidysenterica*, Wall.), ½ tea spoon “Neem” leaves (*A. indica*, A. Juss.) and “Bhui Neem” plant (*Andrographis paniculata*, Nees.) 3 gm. is taken orally; once a day for 7-21 days to treat diabetes, constipation, dysentery, acidity and rheumatism etc.

Biological Properties: -Appetizer, Anthelmintic, Anticancer, Antibacterial, Stomachic, Febrifuge, Laxative, Diuretic, Increases, Thirst.

Chemical Substance:-Plant yield various compound – A bitter yellow acid (Ophelic acid), Glucoside (Chiraytin and Amarogenin) Tannin, Ca, K. Gum, Malic acid, Phenolics (Gentiopicrosin & Swertion) Oleic Acid, Palmitic acid, Stearic acid.

157. *Canscora decussate* (Roxb.) Roem. &Schult:(GENTIANACEAE)

Common & Regional Name: LN. - Shankhphul, Shankhia; H.- Shankhpushpi, San.- Sankhapushpi; B:- Dankuni; Mara.-Sankhvel

Vegetative Character:-Annual erect herb. Stem – weak, branched, 4 – winged. Leaves - sessile, ovate, lanceolate, 1.5 – 30 x 0.6 – 1.0 cm Flowers – leafy cymes, pedicellate. Calyx – lobes, ovate lanceolate, Corolla – white; lobes long. Fruit- capsule oblong – linear, 5 mm long. Flower- Sep- Oct.

Use- Paste of 15-20 plants is boiled in about 1 litre water till 8-10 minutes and the decoction is taken orally; twice a day for 2-3 days to treat fever and also used in epilepsy and for mental illness (derangement of mind).

*The whole plant is used in high fever and skin disease.

*Paste of plant is externally applied for skin diseases and also used in diabetes. One spoon paste of the whole plant is taken once a day (in morning) for 25-30 days to treat brain & as nerve tonic.

Biological Properties: -Plant – Alterative, Laxative, Nerve tonic.

F – (PRIMULACEAE)

158. *Anagallis arvensis* Linn.(PRIMULACEAE)

Common & Regional Name: LN. - Krishna Neel; H. - Jonkmari; P. - Dhabbar; Gujrati-Anagallide; Morgellina.

Vegetative Character:-An erect or procumbent, smooth annual herb, branching from base, Stem-4 angled. Leaves - opposite, ovate lanceolate, acute gland dotted, sessile, cordate & entire. Flowers - pentamerous bisexual, regular, complete. Calyx-5, lanceolate, green acuminate. Corolla - 5 cleft, wheel shaped, fused, purple. Stamens - 5 epipetalous, alternate to petals. Ovary- unilocular, syncarpous superior. Fruit a capsule, red in colour, dehiscing transversely at the middle. Flower- Nov-Jan. Common weeds.

FF – $\oplus, \text{♀}, K_5, C_5, \overbrace{A_5}, \underline{G}_1$.

Use- Crushed plant mixed with “Shankhapushpi” (*Evolvulus alsinoides* L.) plants, and “Jal Brahmi” (*Bacopa monieri* L.) plants, is given orally in equal amount i.e. about 2 spoons twice a day to cure epilepsy, cerebral infection and also used in hydrophobia, leprosy, snake bite and gout.

Biological Properties: -Dropsy, Hydrophobic, Anti - toxicity, Enzyme.

Chemical Substance: Plant contains – 2 Glucoside, Saponins. Root - on keeping develops, smell of valerian and contain cyclamen.

F – UMBELLIFERAE (APIACEAE)

159. *Centella asiatica* Linn.(APIACEAE)

Common & Regional Name: LN. - Brahmi; H.- Brahmi, Meghapati, Manduki; S. - Mandukparni; Eng.- Indian pennywort; B. - Tholkhuri; Bo. - Karivana; Guj. - Brami; Tel. - Brahmi; Tam. - Vallarai.

Vegetative Character: -A plant of damp and moist habitat. Stem - trailing (creeping) and striking roots at internode, round and smooth. Leaves - arising from the axil of scale leaves of the nodes, having long petioles, round, reniform and having repand margin., Upper surface smooth white sparsely hairy on the under surface. Flowers - small, sessile, red (pinkish), usually three in a small umbel are axillary on short peduncles, bracts ovate, two, Calyx-inconspicuous. Corolla- consists of 4-5 ovate, acute, imbricate petals, pinkish in colour. Anthers- 2-celled on short filaments., Ovary-inferior, 2-celled, having two lobed disk. Styles two, stigma simple. Fruit-small, breaking into two, having 7-9 ridges. A weed of lowlying most areas found all over M.P. Plants part – use whole plant.

FF – Br, $\oplus$, σ , K_2 , C₄₋₅, A₅, G₍₂₎.

Use- Plant juice; 1-2 teaspoonful mixed with 1-2 pieces black pepper, 1 glass cow milk is given orally once a day for 20-25 days to treat improving memory and also for leprosy, insomnia, (Andria, Sleeplessness) anaemia (increases blood protein, RBC) Hepatoprotective diseases and with honey it is used for high blood pressure.

*Juice of leaves; one spoon mixed with 3 pieces black pepper and “Vach” (*Acorus calamus* L.) 1-2 g. is taken orally 1-2 times a day for controlling diabetes and also internally and externally for skin diseases, hair growth, respiratory stimulant, asthma etc.

Biological Properties :- Acrid, Antiamaeobic, Antileprotic, Bitter, Brain tonic, Blood purifier, Diuretic, Insecticidal, Rejuvenator, Wound healing, Stimulant, Nervine tonic, Stomachic, Cooling, Sweet, Febrifuge, Carminative, Cardio tonic.

Chemical Substance: Plant yield – Brahmin, Herpestin and Bacosides A & B in Bacoside A, Arabnosilglucose, Becogenine, Betulic acid, Arabnose, D-manitol, Stigmasterol, Volatile oil. Dry parts of plants contain – β – Sitosterol & Tannins. Green leaves – Glucoside, Peptic acid, Resin,

Centoic acid, Centalic acid, Pectic acid, Ascorbic acid, Valerin and also chief constituents are 3-glucosylquercetin, 3-glucosylkaempferol and 7-glucosyl kaempferol.

References: Chopra et al., (1968); Sarin, (1996). Kumar and Pullaiah, (2000);

F – (SOLANACEAE)

160. *Solanum indicum* Linn. syn. *S. Violaceum* Ortega., *S. sodomenum* L.non. Ambig. *S. anguivi* Lam. (SOLANACEAE) :

Common & Regional Name: LN. - Van Bhata, Badi Bhatkataia; H. - Birhatta; Eng.-Indian Night; S. -Vanavrintaki; P. - Kandyari; B. - Byakura; Bo. - Ringani; Tam. - Papparamuli; Tel. - Chittimulaga; Mal. - Nilavalutina.

Vegetative Character:- The plant under shrub upto ½ – 1 m. tall. Stem - erect, woody, branched, cylindrical. Leaves - petiolate, simple, alternate lobed. Inflorescence – cymes, prickly oviparous, bracteate, pedicillate, complete bisexual, actinomorphic, hypogynous, pentamerous. Calyx - sepals 5 persistent, imbricate. Corolla - 5 petals gamopetalous, campanulate. Androecium- epipetalous basifixed. Gynoecium - bicarpellary, syncarpus, superior, fruit-yellow colour. Occur in Shahdol and other part of M.P. Medicinal parts – root, leaves and fruits.

FF $\oplus$, φ , $K_{(5)}$, C_5 , A_5 , $G_{(2)}$.

Use- Juice of plants along with 5-7 leaves “Tulsi” (*Ocimum sanctum* L.), ½ cm ginger and ½ cm long “Vach” (*Acorus calamus* L.) are given orally; twice a day for treatment of fever, cough & cold, vomiting and also used for skin diseases. Its seeds, roots and fruits are also used for toothache dysurea, leucoderma, asthma, bronchitis, vomiting and pruritus etc.

Biological Properties:- Plant Root & fruits is considered as- Astringent, Bitter, Anthelmintic, Digestive, and Pungent.

Chemical Substance:- Plant yield- Fruits Solanine, Diosgenin, Sacharase, Glycoalkaloids (Solamargine), Carbohydrates, Maltose, Melibiose, Fatty acid, Solamargine, Solasodine, Tometidenol. Leaves – Solasonine, Diosgenin, Beta – Sitosterol, Solasodine, Solamargine.

161. *S. nigrum* Linn. syn. *S. subrum* mill ex. Wight, *S. incertum*, Dunal. ex. Grahm. (SOLANACEAE)

Common & Regional Name: LN. - *Mukoia*; H. - *Makoi*; Eng. - *Black Night Shade*; B. - *Kakmachi*; S. - *Kakamachi*; Bo. & P. - *Mako*; Tam. - *Manattkkali*; Tel. - *Kamanchi*.

Vegetative Character: -Plant erect much branched annual herb 1-2 ft. high. Stem-round smooth purple., Leaves - smooth, simple, ovate, and sinuate., Flowers - in umbel like clusters in the leaf axil, pedicellate Calyx-5 sepals, united, persistent. Corolla-wheel shaped, petals 5, white, united. Stamens-5 epipetalous., Ovary - bicarpillary, syncarpous, superior, developing into a black or red berry., Flowering - Aug.-Dec. Very common weed of M.P. Medicinal, Part – Whole plant.

FF $-\oplus$, φ , $K_{(5)}$, C_5 , A_5 , $G_{(2)}$.

Use- Paste of plant along with “Arandi” (*Ricinus communis* L.) oil is made into poultice bind and used twice a day for 27 days to treat gout, oostoarthritis, boils, swelling, pain in testis and also in leprosy. This plant is also used for dysentery, heart disease, inflammation, leucoderma, piles, psoriasis, spermopoeitic, spleen and liver **megaly**, dropsy, otalgio.

*Paste of leaves with (tender leaves) 2-3 pieces black pepper is externally and internally applied daily; 1-2 times a day to treat psoriasis and also hot leaves juice, 1-2 drops is used in ear and eyes pain.

*Plant juice mixed with black pepper is given orally $\frac{1}{2}$ cup; once a day for 7-21 days to treat piles and dysentery. Its seed is used for dog bite.

Biological Properties: -Plant fruit – Aphrodisiac, Appetiser, Alterative, Bitter, Diuretic, Laxative, Pungent, Analgesic, Expectorant, Anthelmintic, Emollient, Anti inflammatory, Rejuvenator, Spermopoeitic, Hydrogogue and Demulcent.

Chemical Substance:-Plant contains various components are - *alkaloids, sugar, leutein, steroids, saponins, lycopene, glucose, fructose, caffeic – Solasodine, Vitamin – C, Solamargine, Solasomine, K, Fe, S, Ca, P, Tomatidenel, Trigogenin.*

162. *S. xanthocarpum* (Schrader & Wendl) syn. *S. surattense*, Burm. F. *S. Maccanni* Sant. *S.diffusum* Roxb. *S. armatum* Br. *S. virginianum* Jacq.(SOLANACEAE)

Common & Regional Name:LN. - *Bhatkataia*; H. - *Kateli*; S. & B. - *Kantakari*; Eng.- *Yellow berried*; P. - *Kandiari*; Bo. - *Bhuringni*; Tam. - *Kandangattiri*; Tel. - *Challamulaga*; Mal. - *Kantankattiri*.

Vegetative Character: -A prickly diffused perennial herb, young parts hairy older prickly and green. Leaves-pinnately lobed, alternate, exstipulate & spiny. Inflorescence - axillary or terminal cyme. Calyx - green, prickly, united. Corolla-deep purple, wheel shaped. Other characters typical solanaceous. Fruit yellowish berry about 1 cm. across. Flowering all the year round. A common weed of Shahdol and other parts of M.P. Medicinal Part use whole plant.

FF $-\oplus, \phi, K_{(5)}, C_5, A_5, G_{(2)}.$

Use- Decoction of (crushed) plants; ½ spoon added with 2-3 black peppers, “Vach” (*Acorus calamus* L.) ½ cm long is given orally twice a day for 3-5 days to cure cough and cold.

*Infusion of crushed plant mixed with 0.5 cm long “Pepper” (*Pepper longum* L.) fruit ginger and one spoon honey, is given half a teaspoon for all types of cough and fever.

*0.5 g Seeds powder is mixed with Mustard oil (Sarso) and massaged 2-3 times a day for 3-7 days for toothache and also scabies and itches.

*½ teaspoon Flower juice (yellow part) mixed with “Adusa” (*Adhatoda vasica* Nees.) tender leaves juice and honey is given orally twice a day for 7-10 days to cure whooping cough.

*Infusion of roots (crushed) mixed with “Tulsi” (*Ocimum sanctum* L.) leaves, “Gurij” (*T. cordifolia* Miers.) stem, crushed 2-3 black pepper; ¼ cup is given orally twice a day for 3-5 days to cure fever and also used with honey for asthma. Fruit is used for fever, heart diseases and pruritus.

*Root powder; ½ spoon mixed with 1 spoon “Uraii ghash” (Khas) (*Vetiveria zizanioides*) root powder & ½ cup curd is taken 2-3 times a day for 3-4 weeks is prescribed for stone in urinary bladder. Roots are use for asthma, lumbago, piles and strangury.

*Root is given in cough and pain in chest. Juice of berries is given in sore throat. Leaves are applied locally to relieve pain and juice with black pepper is given in rheumatism.

Biological Properties:-The plant root & fruits is considered as- Appetiser, Anthelmintic, Bitter, Laxative, Pungent, Stomachic, Carminative, Diuretic, Astringent, Expectorant, Antipyretic, An aphrodisiac, Digestive.

Chemical Substance:-*Plants Yield – Alkaloids (Solasonine), Diosgenin, Solacinine. Seeds – Essential Oil, Solanocarpine. Leaves Contains – Coumarine, Scopoline, Esculin, Esculetin and Flower Flavonol, Glycoside, Apigenin, Queretin, Sitosterol.*

163. *Physalis minima* Linn. Var. *Indica* C.B. Clark (SOLANACEAE)

Common & Regional Name: LN. - *Phutkainya*, *Bantipariya*, *Tipari*, *Rusbhari*;
H. - *Tulatipati*; Eng.- *Country (Ran) gooseberry*; S. - *Tankari*,
Lakshmipriya; Mal.- *Nottanotiyar*; Marathi - *Chirboti*; Bo.- *Thanmori*;
P.- *Habbikaknaji*; Tel.- *Kupantal*, *Kuppante*.

Vegetative Character: -Annual, erect, somewhat sticky pubescent herb. Leaves- petiolate, ovate, toothed or lobed. Flowers- solitary, within-axils on long deflexed stalks, yellow, Calyx-5 angled, fused sepals, base truncate, lobes triangular, acute acuminate. Corolla-clear yellow, pentamerous fused limbs with very short lobes. Berry enclosed in a large flattened cup-shaped persistent calyx. Flower – Aug. to Oct. A common weed found all over state. Medicinal part use leaves, fruit and seeds.

FF – $\oplus$, $\otimes$, $K_{(5)}$, $C_{(5)}$, A_5 , $\underline{G}_{(2)}$.

Use- Juice of fruits mixed with “Bel” (*Aegle marmelos*, Corr.) and black pepper is taken orally for diarrhoea two time a day for 2-3 days depending on patients’ condition.

*Crushed seed, fruits mixed with “Bhatkataiya” (*Solanum xanthocarpum*) seeds powder are used internally as smoke and prescribed for toothache 2-3 times a day for 3-5 days.

*Infusion of plants; $\frac{1}{2}$ cup mixed with black pepper is recommended twice a day for 3-5 days to treat discharge of urine and also as purgative.

*Juice of leaves mixed with “Tulsi” (*O. Sanctum* L.) leaves is used in earache and pruritus (itching) ulcer, cough, colic and bronchitis.

Biological Properties:- Plant is considered as- Appetizer, Bitter, Cooling, Diuretic, Expectorant. Fruits – Tonic, Diuretic, Laxative, Gastric, Stimulant.

Chemical Substance : Plant yield various constituents – *steroidal, physalin a, b & c. epaxyphysalin-b, oleic acid, linoleic acid, palmitic acid, hexadeconoid acid, epoxy and hydroxy fatty acid, stearic acid.*

164. *P. peruviana* Linn. (SOLANACEAE)

Common & Regional Name: LN. - *Chirpoti sag.*, H. - *Tipari*; San.- *Tankasi*; B.- *Tepuria*; Marathi - *Phopti*; Tel.- *Pambudda*.

Vegetative Character:- Annual, erect, somewhat sticky pubescent herb. Root-tap branched. Stem – below woody, Leaves- simple, green, petiolate. Inflorescence – Cymes upper side open, pentamerous. Corolla – white blue. Flower – Aug. to Sep. Occur in Amarkantak area. Medicinal part use for leaves & whole plant.

FF – $\oplus, \text{♀}, K_{(5)}, C_{(5)}, A_5, G_{(2)}.$

Use- Plant extract of leaf is applied in worms and bowel complaints (problem in lower part of stomach).

165. *Datura alba* (Nees) syn. *D. innoxia* *D. fastuosa* L.D. Metal (Linn) (SOLANACEAE)

Common & Regional Name: LN. – *Safed Dhatoor*; H. - *Dhatura*; B. - *Sada dhutura*; S. - *Dhattura*; P. - *Tattu dattura*; M. - *Umatai*.

Habit: Plant annual or biennial attaining and height upto 2-5 ft. Leaves and other characters as of *D. fastuosa*. Flowers-white or cream coloured erect, shortly stalked. Calyx-4 cm. deeply 5-side, capsule globose. Flowering – Aug. – Mar. Found throughout M.P. Medicinal part use root, leaf, fruit seeds etc. Taste – Bitter.

FF – $\text{Br.}, \oplus, \text{♀}, K_{(5)}, \overset{\curvearrowright}{C_5}, A_5, \underline{G}_{(2)}.$

Use- Crushed leaves, seeds or fruit are cooked in “Arandi” (*Ricinus communis* L.) and filtered; this oil is used for massage on gout pain, swelling and oesto-arthritis.

*Juice of leaves mixed with “Kapoor” (Camphora) and “Sita Phal” (*Annona asquamosa* L.) leave juice is externally applied for 2-3 days to treat lice. But for eye care and ear one does not require juice and the flower juice is used for earache.

* One spoon Leaf juice is mixed with 2-3 pieces chill “Madar” latex and externally used two times a day for 2-5 days for dog bite. The leaf paste is externally used for boils, scorpion sting.

Biological Properties: -Plant considers- Acrid, Anthelmintic, Bitter, Alexiteric, Emetic, Heating, and Febrifuge, Sharp taste tonic, Sedative, Antiseptic, Narcotic, Antipyretic, Anthelmintic and Anti leprotic.

Chemical Substance :Plant contains – *alkaliod, atropine, hyoscine, hysocamine, linoleic acid, lognoceric, myristic, palmitic acid, oleic acid, steric acid, beta – carbolines, compesterol, beta – sitosterol, beta – amyrine, datura oil, gramisterol, chloragenic acid, datugen, daturalactone, stramonolidetiglodin and also seeds β and β -scopodomies, hyoscyamine, scopolamine, meteloidine, daturadial, daturaolone, lectin 11 and lectin 12.*

References : Kumar and Pullaiah, (2000).

166. *D. stramonium* Linn. (SOLANACEAE)

Common & Regional Name: LN. -Kala dhatur; H. - Sadahdhatura; S. - Dhustura; Eng. -Thorn apple; Tam. - Vellummattai; Bo. - Dhatura; B. - Dhatura.

Vegetative Character: -An annual or perennial large, coarse shrubs, nearly smooth. Stem- cylindrical much branched, 3-4ft. tall. Leave - large

simple, entire, lobed and sinuate, ovate, with acute apex. Flower - solitary in the leaf axil and terminal. Calyx - long forming a tube, 5 united. Corolla - 5 cm. across, alternate two rows in arrange and 10-15 cm. long, funnel shaped, deep purple. Stamens - epipetalous, with long filaments and linear anthers. Ovary - bicarpillary, two chambered, superior. Fruit a four chambered capsule, covered with stout spines. Perpetuation by seed. Flowering Sept.-Dec. Common in the uncultivated fields. Throught M.P. sometime tri- petals corolla yellow or violet colour. It flowers like to lord Shiva Shankar Ji. Occur all over state. Medicinal parts use root, leaves and Fruits.

FF – Ebr., $\oplus$, φ , $K_{(5)}$, C_5 , A_5 $\underline{G}_{(2)}$.

Note The seed purification method by milk. Milk and seeds are mixed then both are heated again & again 3-4 times thereafter it is used.

Use- Mustard oil is applied on the surface of the green leaves and roasted (exposed to fire) leaf is used externally twice a day (in morning and evening) for 3 weeks to cure hydrocele. Seeds, leaves & roots can be used in psychosis (mental illness), fever and cerebral complication.

*The paste of seeds (2-3 parts) mixed with cloves, caraway (“Ajwain”) seeds and 2g cumin powder paste is filled in the teeth cavity 2-3 times a day for 3-5 days to treat toothache and fruits extract is used on scalp for treating dandruff and hair fall.

*Powder of leaves mixed with caraway (“Ajwain”), Cummins seeds, “Adusa” (*Adhatoda vasica* Nees.) leaves powder (dry) and Bahera (*T. belerica*) leaves (dry) are mixed together and its smoke is prescribed for asthma 2-3 times a day for a month. The root is externally applied for avoiding abortion.

*Powder of plant seeds $\frac{1}{2}$ - 1 g is mixed with 2-3 pieces black pepper, “Babul” fruit (*Acacia arabica* Willd.) powder, “Vach” (*Acorus calamus*

L.) and “Akarkra” (*Spilanthes acmella*, Murr.) is given orally thrice a day for 3-4 weeks to treat spermatorrhoea.

Biological Properties: -Plant considers – Antipyretic, Analgesic, Antiseptic, Anti cough, Anti inflammatory, Emetic, Intoxicant, Spasmolytic, Narcotic, Root – Anodyne, Narcotic, and Antispasmodic. Seed– Aphrodisiac, Antispasmodic, Narcotic.

Chemical Substance: Flower and seeds contains – *atropin*, *daturalone*, *daturad oil*, *fastusine*, *beta-sitosterol*, *hyosine*, *fatudin*, *hyoscyamine*, *fastudin*, *fastunine*, *fastusic acid*, *fastusidine*, *fastusinine*, *citrostadienol*, *caproic*, *beta-linolic*, *obtusifoliol*, *allantoin*, *linoleic acid*, *oteic*, *oteic acid*, *fixed oil*, *chlorogenic acid*, *datumetelin*, *datumetine*, and *vitamin-c*. *Sopolamine (seeds)*, *feroxolide*, (*aerial parts*), *lycium substance b*, β – *sitosterol*, *daturaol (seed oil)*, and *anolide-daturalactone-3 (leaves)*.

References : Anonymous, (1968); Dhar et al., (1968).

167. *Nicotiana plumbeginifolia* (Viv.) (SOLANACEAE)

Common & Regional Name: LN. - *Bhabhakur*; H. - *Van Tambakhu*.

Vegetative Character:- An annual viscid (sticky) herb covered with glandular hairs. Leaves- 5-9cm, long, alternate, simple, entire, short petiole, ovate, elongated. Inflorescence - a panicle. Flowers - bisexual, regular, complete. Calyx-5 fused, 5-toothed, Corolla - petals 5, fused, funnel shaped, light purple. Stamens - 5, epipetalous having long filaments. Ovary-bisexual, syncarpus. two chambered, style slender stigma capitate. Fruit - 2 celled capsule, splitting from walls. Seed - minute blackish brown. Flowering from Aug. - Dec. Common in Shahdol and other parts M.P.

FF – Br., $\oplus$, $\oint$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2)}$.

Use- Hot juice of plant leaves along with 2-3 pieces black pepper; is given orally 2 spoonfuls twice a day for 2-3 days to cure cough, cold and also used in rheumatic pain, and skin diseases. Plant juice is useful for scorpion sting.

F – CONVULVACEAE

168. *Ipomoea aquatica* (Forsk.)

Common & Regional Name: *LN.* - *Kalmi sag*; *H. & B.* - *Kalmisak*; *S.* - *Kalambi*; *Bo.* - *Nali chibaji*; *Tam.* - *Sarkareivalli*; *Tel.* - *Tutikura*; *P.* - *Ganthian*.

Vegetative Character:- Plant Annual or perennial trailing aquatic herb. Stem - glabrous, weak rooting at noded, hollow and floating. Leaves - 4 to 10cm. long elliptic oblong or sub-deltoid, cordate or hastate with acute apex, petiole long. Inflorescence – 1 to 5 flowered, bracts small., Sepals- 5 mm. long unequal, oblong lanceolate, membranous, glabrous. Corolla - about 5cm long, funnel shaped pale rose coloured, throat dull purple., Filaments unequal, woolly below. Capsule 0.75 cm. long ovoid glabrous. Seed hairy. Not a common in Shahdol and other part of state. It occur in founts. Flowering – Sep. - Dec. Medicinal part use whole plant.

FF – Br., Brl., $\oplus$, $\frac{\sigma}{\text{♀}}$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2)}$.

Use- The plant juice - half or one cup; is prescribed 2-3 times a day for the man who takes high doses of opium & wine (alcohol) as purgative and also for vomiting.

*Tender leaves and twigs of vegetables are taken orally for treatment of weakness.

Biological Properties:-Plant antidote, Purgative, Emetic to opium and arsenical poisoning.

169. *I. pes-tigridis* Linn. (CONVOLVULACEAE)

Common & Regional Name: LN. - *Bolukaja*; H.- *Langulilata*; Eng. - *Tiger Foot*, B. - *Langulilata*.; Mal. - *pulichuvatu*; Tel. – *Mekamaduga*; Tam.- *Pulichovadi*.

Vegetative Character: -An annual weak climber or prostrate plant., Stem-covered with brown hairs, sometime a twiner. Leaves-simple, palmately partite, hairy on both the surfaces, petiolate. Inflorescence - a peduncle axillary head of 3 or more sessile flowers. Calyx - Sepals 5, fused, lanceolate, hairy. Corolla - petals 5, fused, white or light pink. Stamens - 5, epipetalous. Ovary-two chambered, superior Bracts present which are profusely hairy. Capsule enclosed in the calyx tube. Flowering Aug.- Oct. A common weed occur throughout State.

FF – Br., Brl., $\oplus$, $\ominus$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2)}$.

Use - Paste of roots; one spoon along with 1 spoon "Kolha" root bark (*Alangium salviifolium* L. f.) and black pepper is externally and internally applied for dog bite, boils and carbuncle (a malignant tumor).

Biological Properties: -Roots are used as Antidote and Purgative.

170. *I. hederacea* Linn. Jacq.(CONVOLVULACEAE)

Common & Regional Name: LN.- *Khutlaiya*; H., B. & Bo. - *Kala danah*, *Nilkalmi*; S. - *Krishna bija*; Eng.- *Morning glory*; Mal.- *Taliyari*; Mara. - *Nilyel*; Tam. - *Kakkattan*; Tel.- *Jirki*.

Vegetative Character:- An annual, prostrate climbing plant profusely covered with minute hair. Stem-weak branched. Leaves – simple, cordate, petiole two lobed deeply out, alternate, and covered with hairs about 4-8 cm. long. Inflorescence- Cymes., Flowers-funnel shaped, white or purplish blue singly in the axil of the leaves on long hairy stalk or an long 1-5 flowered peduncles which are axillary bracts short, linear, close

to Calyx - sepals 1-2 cm. long sub-equal, linear upward, hirsute near the base. Corolla - 2-5 cm. long, tubular, funnel shaped, blue tinged pink, glabrous outside. Ovary-3-celled capsule, 3- celled, 6 ovules. Seed - egg shaped, partly covered with bristly calyx, usually 4 to 6 seeded, seed dark brown of which one side more or less flat glabrous. Flowering Sept.- Dec. Occur in Shahdol and other parts of M.P state. Medicinal part use seed.

FF – Br., $\oplus$, ♀ , **K**₍₅₎, **C**₍₅₎, **A**₅, **G**₍₂₎.

Use - Plant seeds powder, about one tea spoon is used for purgative once a day for 2 days.

*The seed paste mixed with Madar (*Calotropis procera* Ait.) latex and Garlic is locally applied for 2-3 months to treat leucoderma.

* 1-2 g fried Seeds are mixed with dry ginger and half tea spoon is given orally twice a day for purgative (aperient).

Biological Properties:-Anti-inflammatory, Acrid, Carminative, Depurative, Purgative, Sweet. Substitute, Extract, Hypoglycaemic in rats.

Chemical Substance:-Alkaloids, Chanoclavine, Elymoclavine, Glucosides, Isopeniclavine, Lysergol, Resin, Penniclavine, Palmitic, Staeric, Arachidic, Oleic, Linoleic, Linolenic acids, Galactose, Xylose, Arabinose, Lysergol, Chanoclavine (seeds), Peonidin glycoside (I) and Peonidin-3 Sophorosido-5-glucoside (flowers).

References:- Asolkar et al., (1992).

171. *I. biloba* (Forsk)(CONVOLVULACEAE)

Common & Regional Name: LN. - Besharam; H. - Do-patilata; Mal. - Atampa; S. - Sagaramekhala; Tel. - Chivulapillitige; Tam. - Attukkal; B. - Chhagulkuri; Bo. - Marjavel.

Vegetative Character:- A perennial erect shrub. Stem- glabrous, round, woody. Leaves- simple, cordate, acute, margin entire. Flowers-axillary, solitary or in cymes, bell shaped, light pinkish, purple, complete, regular, bisexual, Calyx- sepals 5 and Corolla-petals 5 fused. Stamens-5, epipetalous. Ovary-2, superior. Flowering throughout the year. Perpetuation by seed as well as by stem cuttings. Initially- introduced as a green manuring plant but now become a weed. Most common throughout India.

FF – Br., $\oplus$, φ , $K_{(5)}$, $\overset{\curvearrowright}{C_{(5)}}$, A_5 , $\underline{G}_{(2)}$.

Use- Latex of apex shoot, and leaves are topically used in boils, Scabies, itches and bio-pesticide.

172. *Argyreia speciosa* (Sweet.) syn. *A. nervosa* (Burn. f.) Bojer. (CONVOLVULACEAE)

Common & Regional Name: LN. - Bidhara; H. - Samandar ka-pat; S. - Samundra palaka; Eng.- Elephant creeper; B. - Bichtarak, Guj.- Samundarasosh; Mar.- Samundrasoka; Bo. - Guguli, Mal. & Tel.- Samudrapala; Tam.- Samutrapachai.

Vegetative Character:- The plant is perennial, climber, woody Root-tap, Leaf- simple Pedicillate, cordate 4-12 inch long, broadly, leaf hairy white shining flower - bell shape. Calyx-white. Corolla – pinkish. Flowering in night cymose pentamerous bisexual regular, hypogynous with nectar gland present. Fruit - 0.5 inch long green; brown colour, in ripening fruit self burst and 3 angled white brown seed outed. Flowering Sep. – Nov. Rare occur in Shahdol and other parts of M.P. Medicinal part use roots, leaves and seeds.

FF – Br., $\oplus$, φ , $K_{(5)}$, $\overset{\curvearrowright}{C_{(5)}}$, A_5 , $\underline{G}_{(2)}$.

Use - Paste of leaves is locally applied for boils, wound & cut twice a day for 5-7 days.

*Powder of root; 1 tea spoon along with "Satavar" roots (*A. racemosus*, Willd.), half spoon "Ashwagandha" (*Withania somnifera*, Dunal.) roots and 2-3 pieces black pepper is give orally once a day for 7-21 days for high blood pressure, Osteo-arthritis, sugar (diabetes) & asthma.

*Paste of leaves as hot poultice is bind on joints to get relief from gout, oesteo-arthritis. Root, leaves, stem and flower seed powder along with (*Withania Somnifera* Dunal.) root powder in equal amount is given orally for 3-5 weeks to cure leucorrhoea & weakness.

*Root decoction; two spoons with little amount of "Vach" (*Acorus calamus*) is taken orally, two times a day for 3 weeks to treat Rheumatic pain and gout. The leaves extract is also used for ringworms.

*The leaf; hairy side is tied on boils and used for ripening of wounds and clean of pus. The smooth side of leaf is tied on boil and wounds for healing and leaves are also used externally for skin diseases- eczema, ringworm, itching and psoriasis.

Biological Properties :- Plant is considered as- Root – Alterative, Bitter, Diuretic, Leaf– emollient, Plant – Aphrodisiac, Anti-inflammatory, Nervine tonic, Rejuvenator, Hypotensive, Spasmolytic, Emollient, Rubifacient, Digestive, Aperient, Carminative.

Chemical Substance:-Plant yield various components – Argoclavine, Arginine, Behenic acid, Linlic acid, Linolenic acid, Lycine, Oleic acid, Clano clavine – I & II, Ergine, Elymoclavine, Ergometrine, Isoergine, Isoetoclavine, Lysergine, Lysergol, Lysergic acid, Cumarine, Anthocyanin, Caffeic acid, Flavonoids, Kaempferol, Quercetine, Beta-Setosterol, Fastuclavine, Valine, Palmitic acid, Stearic acid, Setoclavine. And also obtain Quercetin, Karmmpferol, 3-O-rhamnoside,

5-O-β-rhamnoside and 5-O-β-glucoside of 7,8, 3,4, 5 Pentahydroxy Flavone.

References: Rana *et al.*, (1999).

173. *Ipomoea reniformis*. (Chois.)(CONVOLVULACEAE)

Common & Regional Name: LN. - Khotlaiya; H. - Musakani; S. - Mushakarni; Tel. - Toinnuatali; B. - Undirakanipana; Bo. - Undirkani; Tam. - Perattaikkiray.

Vegetative Character: -A glabrous herb, Stem-prostrate or climber, glabrous, rooting at nodes. Leaf-entire, alternate, reniform, obtuse, crenate with emarginate apex, Flower - small, yellow solitary and pairs of 2-3 together on axillary peduncles. Bract, pedicels short. Calyx-5 Shilightly hairy on the back. Margins ciliated, 3 outer and inner. Corolla-5- lobed 5 mm. long campanulate, Androcium-5, Overy superior, 4 ovular, style filiform stigma two Fruit- a globose, smooth, capsule, 2- celled, Surrounded by ciliated Calyx. Seeds- brown glabrous. Flowering-Sep-Oct. plant is often red. Common in field. Medicinal parts leaf, stem and seeds.

FF – Br., $\oplus$, σ , $K_{(5)}$, $C_{(5)}$, A_5 , $\underline{G}_{(4)}$.

Use- Plant extract; one spoon is mixed with 2-3 pieces black pepper 2-3 times a day for 2-3 days to cure rheumatism, neuralgia (Nervous pain) and also used in discharge of urine.

*The plant seeds are fried in Ghee (Cow fat) and one seed is given once a day for 3-5 days to cure Jaundice.

Biological Properties: -Plant is considered as- Alterative, Diuretic, and Deobstruent.

174. *Operculina turpethum* (Linn.) Silva manso syn. *Ipomoea turpethum* R. Br. (CONVOLVULACEAE)

Common & Regional Name: LN. &H. - Nisoth; S. - Triputa; Eng.- Indian Jalpa; Mal. - Rochani; Mar.- Nishottar; P. - Nisot; Bo. - Nishotar; B. - Dudh kalmi; Tel. - Tellategadda; Tam. - Sivadai.

Vegetative Character: -Annual, climber grows in gardens, Root - tap branched, fleshy. Stem - hairy, wood white, Leaves - simple alternate, cordiac like, latex, 2-4 inch long and broad 2-3 inch petiole 1-1.25 inch long. Flowering - Aug., Sept white, colour blue they are bell shape solitary, cymose pentamerous, bisexual. Corolla- gamopetalous. Fruit - rounded $\frac{1}{2}$ to 0.75 diametre 4 smooth black seeds fruit burst centre. Flowering – Feb.-Mar. Rare occur in Shahdol and other part of M.P. Medicinal parts root, stem, leaf and flower.

FF – Br., $\oplus$, $\varnothing$, K₅, $\overset{\curvearrowright}{C}_{(5)}$, A₅, $\underline{G}_{(2)}$.

Use - Paste of root is mixed with "Jarber" (*Zizyphus nummularia* W. & A) root bark and locally applied 2-3 times a day for scorpion sting and also for constipation.

*2-3 gm Crushed root along with $\frac{1}{2}$ spoons "Madar" (*Calotropis procera* (Ait.) R.Br. root bark and 1 spoon "Anant Mool" (*Hemidesmus indica*) root is given orally 2-3 times a day for snake bite and also given in paralysis and Jaundice.

Root powder should be locally applied once a day for 2-3 days on head for lice treatment.

*Root powder; 2-3 gm with "Gurij" (*Tinospora cordifolia* Willd.) stem, "Amla" (*Emblica officinalis* Gaertn.) fruit, "Bahera" (*Terminalia belerica* Roxb.) fruit, "Harra" (*Terminalia chebula* Retz.) fruit and "Arjun" (*Terminalia arjuna* W. & A.) in equal amount is given orally one spoon twice a day for piles & dropsy. During treatment patient should take only milk diet.

Stem bark powder; ½ tea spoon along with 2-3 pieces black pepper is given orally 2-3 times a day for 2-3 days to cure rheumatism and also root powder is used for stone, cough and fever.

Biological Properties:-Plant considers roots – Acrid, Astringent, Antipyretic, Anthelmintic, Bitter, Expectorant, Inflammatory, Purgative, Carminative, Sweet, and Thermogenic.

Chemical Substance:-*Root Contains – Convolvulin, Jalapine, Lignin & Salt, Terpethin Which Is Glycoside, Solable Resin; Volatile Oil.*

175. *Convolvulus arvensis* Linn. (CONVOLVULACEAE)

Common & Regional Name: LN. - Chandbel, Hiran khuri; H. - Hiranpadi; S. - Bhadrabala; Eng.- Deer foot; B. - Gondal; Bo. - Hiranpag; P. - Hiranpaddi.

Vegetative Character: -A glabrous, climbing or creeping, some time perennial herb, rooting at the nodes. Leaves- petiolate, sagittate or ovate lanceolate with hastate base. Flowers - axillary, solitary on slender peduncles, having 2 linear bracts. Calyx - sepals 5 fused, ovate or acute. Corolla - whitish pink, funnel shaped 5 fused yellow in the centre. Stamens - 5, epipetalous. Ovary - superior two chambered stigma linear, Flowering- Sept. Dec. Occur in all over M.P. Medicinal part use whole plant.

FF – Br., ⊕, ♂, K₅, $\overbrace{C_5}^{\quad}$, A₅, G₍₂₎.

Use - Crushed root; ½ tea spoon mixed with ½ tea spoon “Indraman” (*Citrullus colocynthis* Schrad.) root is given orally twice a day for 2-3 days for purgative.

Biological Properties: -Root – Purgative.

Chemical Substance:-*Plant contains – Convolvulin, Resin.*

**176. *Evolvulus alsinoides* Linn. syn. *E. hirsuta* Lam.
(CONVOLVULACEAE)**

Common & Regional Name: LN- Shankhphuli; H. - Sankhapushpi; S. - Vishnugandhi; Bo. - Shankhavalli; Guj.- Jhinkiphudari; Mar.- Vishnukrant; Tam. - Vishnukarandi; Tel. - Vishnukaranta; Mal. - Vistnaclandi.

Vegetative Character:- Perennial, prostrate, spreading herb. Root – tap branched. Stem-weak branched; silky pubescent, well branching from the crown of the tap root radiating all side, in nature., Leaves -simple, alternate, shortly stalked, elliptical oblong, obtuse, silky hairy on both the sides. Flowers- small, whitish blue, axillary, solitary or in pairs on long peduncle. Bracts small leaf like. Calyx- sepals 5, villous on back. Corolla - 5 fused, wheel shaped, with short tube. Stamens-5, epipetalous. Ovary- superior, capsule. Flowering- all the year round. Occur in Shahdol other parts of M.P. Medicinal parts whole plant.

FF – Br., $\oplus$, φ , K_5 , $C_{(5)}$, A_5 , $\underline{G}_{(2)}$.

Use - Leaves powder; ½ tea spoon along with ½ tea spoon “Adusa” leaves (*Adhatoda vasica* Nees.), ½ cm long “Vach” rhizome powder (*Acorus calamus* L.) and “Dambel” leaves (*Tylophora asthmatica* W. & A.) 2-3 gm. 1 spoon honey together given orally 1-2 times a day for 7-8 weeks for asthma, chronic bronchitis.

*Paste of plants mixed with black pepper is locally applied twice a day for 7-21days to cure skin disease. Plant cooked with “Bhringraj” (*Eclipta alba* Hassk.) plant in “Tilli” oil (*Sesamum indicum* L.) cures hair falling (hair care).

*Powder of plant; ½ tea spoon along with ½ spoon honey, 1-2 pieces black pepper is given orally once a day for 4-5 weeks for memory growth, insomnia and also used for children who urinate on bed and for

epilepsy, blood vomiting, haemorrhage, sexual debility, dysurea & chronic cough.

Biological Properties: -Plant is considered as- Alterative, Anthelmintic, Alexiteric, Bitter, Pungent, Brain tonic, Appetizing, Rejuvenator, Stomachic.

Chemical Substance:-*Plant Yield – Yellow Fatty Elements, Minerals, Organic Acid.*

177. *Cuscuta reflexa* (Roxb.)(CONVOLVULACEAE)

Common & Regional Name: *LN. - Amarbel; H. - Akasbel; S. - Amaravela; Eng.- Dodder; B.- Swarnalata, Algusi; Mal.- Akasavalli; Mar. - Nirmuli.; P. - Amil; Tam. – Kadiyaguandal; Tel. - Sitamma pogu nalu.*

Vegetative Character: -The plant is leafless yellowish smooth. Stem - twiner, immensely branched, which becomes parasite by inducing absorbing roots in the stem of the host plant. Leaves-reduced to minute scales. Flowers -pentamerous, solitary or more in the axils of the scale leaves, complete, bisexual regular, funnel shaped. Bracts small fleshy. Calyx-sepals 5. Corolla - petals 5, fused, white, deciduous, lobes triangular, reflexed Stamens - 5, epipetalous. Ovary - 2 chambered, superior, style short, stigma large, diverging. Capsule globose, depressed. The seed germinate on the soil, the seedling soon twine the nearby plant and loses its connection from the soil. Flowering - Sept.-Dec. Common on The herbs, shrubs & trees in M.P and India. Medicinal part whole plant.

FF – Br., Brl., ⊕, ♀, K₅, C₍₅₎, A₅, G₍₂₎.

Use- Plant paste; one spoon mixed with 1-1½ g lime is taken orally before meals, once in the morning for 3-5 days to induce abortion at the early stage of pregnancy (less than 2-3 months).

*The paste of plant; one tea spoonful taken orally once a day for 3-4 weeks for Jaundice and it is also used in fever, swelling etc.

*The juice of plant mixed with “Neem” (*A. indica* A. Juss.) leaves is taken one spoon twice a day for 1-2 weeks to kill worm and used for skin disease such as itches.

*Whole plants is softened in hot water for about 10 minutes and made into paste. It is then applied on affected parts as bandage in case of swelling due to wound and sprain.

*Paste of plant mixed with “Neem” Leaves (*A. indica* A. Juss.) and cow urine is externally used daily till one week for scabies & itch.

*Juice of plant; 2 spoon mixed with 1-2 pieces black pepper is given orally once a day for 5-7 days to cure Jaundice.

*Infusion of plant; 1-2 spoon mixed with “Gurij” (*Tinospora cordifolia* Willd.), ½ inch long stem is taken orally twice a day for 3-7 days to treat stomach worm.

*Juice of plant mixed with “Chirchira” (*Aspera* L.) leaves, 1 spoon candy sugar (*Mishri*) is prescribed two times a day for 4-5 weeks for gonorrhoea.

*Infusion (Decoction) of plant; 1-2 spoon mixed with ½ spoon “Bhuneem” (*Andrographis paniculata* Nees.) is prescribed 2 times a day for 2-3 weeks as blood purifier and its also used for wound healing and sores wash.

*Cooked in “Mastard oil” (*Sarso*) & “Tilli Oil” (*Sesamum indicum* L.) along “Bhringraj” (*Eclipta alba* Hassk.) and “Mehandi” (*Lawsonia alba* Lam.) leaves, it is locally applied twice a day for 2-3 months to advance hair growth of bald.

*Juice of plant mixed with 2-3 pieces black pepper and “Vach” (*Acorus calamus* L.) rhizome 1-2 gm., “Adusa” root (*Adhatoda vasica* Nees.) is

given orally twice a day for 3-4 weeks to treat Rheumatism gout and fever.

Biological Properties:- Plant is considered as- Anthelmintic, Astringent, Aphrodisiac, Bitter, Diuretic, Expectorant, Sweet, Carminative, Purgative, Liver stimulant, Stomachic.

Chemical Substance:- Plant contain various composition – Alkaloids, Cuscutin, Cuscatalin, Reducing sugars, Carbohydrates, Glycosides, Flavonoids, Resin, Protein tannins, Dulcitol, Luteolin, Quercetin and a Glycoside of Luteolin isolated from stem.

References: Ghose and Das, (2000).

F- ASTERACEAE (COMPOSITAE)

178. *Ageratum conyzoides* Linn. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Chheria chara, Osdi; Eng. - Goat weed; Bo. - Osari; B.- Dochuntyl, Uchunti; Guj.- Ajgandha; Mal.- Appa; Mara.- Ghaneraosadi; Kan.- Nayitulasi; Tam. - Pum.- pillu.

Vegetative Character:- An annual erect, hairy, glandular herb., Root - tab, branched. Stem – weak, branched, 1-3 ft. tall. Leaves - petiolate, ovate margins serrate, with acute apex, lower leaves opposite. Heads dense much flowered in terminal corymbs. Involucre bracts linear and acute, flowers are all tubular, corolla pale bluish or purplish white. Fruits achenes, angled, black with five scaly pappus. Flowering July to Oct. Perpetuation by seeds. Common throughout M.P. This weed is difficult to iradicate as it is profilie. Flowering throughout the year. Medicinal part use whole plant.

$$FF - \oplus, \overset{\curvearrowright}{+}, K_0 (\text{Pappus}), \overset{\curvearrowright}{C}_{(5)}, A_{(5)}, \overline{G}_{(2)}.$$

Use- The leaves are squeezed between the palms and this juice is applied topically (locally) on common sore, injury, cut and wounds to stop bleeding.

*Decoction of roots is applied in the treatment of gall bladder and kidney stones.

*Crushed leaf juice is mixed with “Gudmar” leaves (*Gymnema sylvestre* R. Br.) and 2-4 pieces black pepper which are then locally applied twice a day for 3-7 days to cure ring worm and itches.

*Mashed leaf juice mixed with “Baramasi” (*Tridax procumbens* L.) leaves is externally used for cut, injury and wound (stop bleeding), it also prevent tetanus.

*Leaves applied to sores and cuts externally. Seeds have little dormancy.

*Hot stem and leave is applied in leprosy and skin diseases.

Biological Properties: -Plant leaves – Styptic. Root – Antilithic.

Chemical Substance:- Plant yield 6-Demethoxy Ageratochromene, Ageratochromene, Demethoxy Ageratochromene (60.66), Beta-Caryophyllene (14.52) d-eugenol, d-Beta-pinene (6.62). Ocimene (5.3), d-cardinene (4.25) Eugenol (4.42) and Methyl Eugenol (1.82%) Isolated from Essential oil., Saponins, Flavonoids, Alkaloids, Amino acid; Sugar, Vitamin – A & B.

References :Johnson, (1998).

179. *Centratherum anthelminticum* Willd. Kuntze see *Vernonia anthelmintica* Willd. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Vanjeer; H. & B. - Somraj; S.- Aranyajirkam, Somraji; Bo. - Kalijiri; Mal. - Kattu jirakam; Mar.- Kala jira; Tam. - Kattu Shiragum; Tel.- Adavijilakara, Nelavavili.

Vegetative Character:- An Annual 3-5 ft. tall. Root-tap, branched. Stem – erect, hairy. Leaf - petiolate, simple, ovate, unicostate and reticulate acute. Inflorescence – a head. Flower – light, purple or white, homogamous, all ligulate. Calyx – pappus, united at the base. Corolla – 5 ligulate. Androecium – 5 stamen. Gynoecium – bicarpellary, stigma bifid. Fruit – achene. Flowering – Oct. Nov. Found Shahdol and some parts of M.P. Medicinal Part use seeds.

FF – $\oplus$, $\otimes$, $\mathbf{K}_0$ (Pappus), $\mathbf{C}_{(5)}$, $\mathbf{A}_{(5)}$, $\mathbf{G}_{(2)}$.

Use- The seeds powder; 2-3 spoon mixed with “Gurij” (*Tinospora cordifolia*, Willd.) one spoon, “Baines’” (*Andrographis paniculata*, Nees.) one spoon and “Neem” (*A. indica* A. Juss.) leaves one spoon and 2-3 glass water is given orally 2-3 times a day for 3-7 days to treat worms in cattles and common fever, malaria, skin disease, leucoderma, ringworm, jaundice, gastric troubles, sugar and leprosy.

*10g Seeds; 50% heated and 50% raw are both powdered and along with “Koraiya” (*Holarrhena antidysenterica* Roxb.) seeds 3g, bark 3g taken once a day for 21 days to treat piles.

*The crushed seed; $\frac{1}{2}$ spoon “Vach” (*Acorus calamus* L.) 2-3 gm. Rhizome, black salt 2-3 gm, One spoon cow urine and ginger 2-3 gm is taken twice a day for 3-7 days for stomach ache, gastric problems and also used in Jaundice.

*The powder of seeds $\frac{1}{2}$ tea spoon along with $\frac{1}{2}$ tea spoon “Indraman” fruit (*Citrullus colocynthis* Schrad.) is given orally twice a day for 3-9 days to treat stomach worms and its paste is also used in scorpion sting.

*Seeds of powder mixed with “Neem” bark (*Azadirachta indica* A. Juss.), “Tulsi” leaves (*O. sanctum* L.), “Chitrak” (*Plumbago zeylanica* L.) root and black pepper is taken orally and mixed with coconut oil. It is externally applied, daily for skin diseases, eczema and leprosy and also destroying lice clousy.

Biological Properties: -Plant seeds –Acrid, Anthelmintic, Astringent, Bitter, Sharp taste.

Chemical Substance:-Seed yield various substances – *Caryophyllene*, *Flavinoids*, *Glycosides*, *Saponine*, *Isolimonene*, *Selinene*, *Beta-sitosterol*, *Terpineols*, *Vernolic acid*, *A trivernolin*, *Vernodolol*.

180. *Elephantopus scaber* (Linn.)(ASTERACEAE /COMPOSITAE)

Common & Regional Name:B. & LN. - *Gojibha*; H. - *Gobhi*; S. -*Gojihva*; Bo. - *Hastipata*; Tam. & Mal, - *Anashovadi*.

Vegetative Character:- Plant 2 ft. erect, rigid, terete, scabrid strigose and villous., Leaves - mostly radical 10-15 cm. long, obovate-oblong, tapering towards the base, margin crenate, sessile or nearly so, scabrous, ciliate at margin with prominent midrib. Heads many, sessile, forming a terminal flat-topped inflorescence, about 2-5 cm. across, surrounded by 3 cordate leaf like bracts. Bracts of involucre 8 in two rows, linear acuminate, pungent, inner scarious. Flower - violet or purple. Achenes slightly hairy. Pappus 4-5 bristles like. Not a common weed in Shahdol division. Medicinal part use root and leaves etc.

FF – Br., ⊕, ♂, K₀ (Pappus), C₅, A₍₅₎, G₍₂₎.

Use - The infusion of roots and leaves; 1-2 spoon is taken orally once a day daily for difficulty in passing urine and also used in diarrhoea, dysentery and swellings pain and plant use for snake bite.

*Juice of root mixed with 2-3 pieces black pepper is given orally 2-3 times a day for stopping vomiting and its powder is used for toothache.

*Mashed leaves are boiled in “Sarso” (*Mustard oil*) and mixed with “Kapoor” (*Camphor*) for curing ulcers, eczema, itches and scabies twice or thrice a day for daily use.

Biological Properties: -Plant - Alterative, Febrifuge, Emollient, Skin disease.

Chemical Substance: Plant contains - *Astrin, Cardiac tonic, Antibiotic activity, Alcoholic.*

181. *Gnaphalium lutea-album* Linn. (ASTERACEAE / COMPOSITAE)

Common & Regional Name: *LN. H. & P. - Balraksha.*

Vegetative Character:- An annual much variable more or less woolly prostrate 2-3ft. Stem- simple or corymbose branched above. Leaves - sessile 2-5 cm. long & 0.5 cm. broad, oblong spatulate, obtuse, usually woolly, upper lanceolate, acute partly amplexicaul, Heads leafless, whitish yellow or brownish, arranged in dense corymbose glistering clusters., Involucre, bracts oblong, obtuse, hyaline, except near the base. Achenes papillose Pappus shorter than the involucre. A badly spreading weed of waste land cultivated areas. During rainy season. Common weed found all over M.P. Flowering – Oct. to April. Medicinal part use leaves.

FF – Br., $\oplus$, ϕ , K_0 (Pappus), $C_{(5)}$, $A_{(5)}$, $\overline{G}_{(2)}$.

Use- Crushed leaves with castor oil is externally used for allay pain and paste of leaves are also used for constipative.

*The paste of leaves is useful in healing wounds twice a day daily.

*The paste of leaves is useful in healing wounds and is mixed with 2-3 pieces of black pepper and “Neem” leaves (*A. indica*, A. Juss.) for itches and also leaves are valued for their anodyne properties.

Chemical Substance:- Leaf contains – Astringent, Vulnerary.

182. *Pluchea lanceolata* (Oliver. & Hiren.) (ASTERACEAE / COMPOSITAE)

Common & Regional Name: LN. - *Chhoti kalia*, *Venseroi*; S. - *Rasna*;
Gujarati - *Rashana*; P. - *Marinandai*; Bo. - *Kura Sanna*.

Vegetative Character: -An erect perennial, shrub whitish pubescent in appearance. Stem – weak, branched, and Leaves - sessile, oblong, or lanceolate, entire, obtuse, pilose leathery. Heads in compound corymb, purple., Outer bracts short, obtuse, usually tinged with purple, inner bracts linear, involucre contracted at the mouth. Achenes minute. Pappus hairy connate at the base. Flowering - Oct. Dec. Not a common weed of M.P. but found in Shahdol Division and some parts of the Bundelkhand area very deep rooted herb and difficult to eradicate. Medicinal part use leaf.

FF – Br., $\oplus$, φ , K_0 (Pappus), $C_{(5)}$, $A_{(5)}$, $\overline{G}_{(2)}$.

Use - The paste of leaves ½ spoon mixed with black pippur 2-3 pieces is given orally twice a day for 1-2 days to treat aperients. Patient must avoid spices for relief in various disease.

Biological Properties: -Leaves - Aperient.

183. *Sphaeranthus indicus* (Linn.)(ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - *Bhuimundi*; H. – *Gorakh mundi*; S. - *Mundirika*; B. - *Murmuria*; Tel. - *Bodasoram*; Tam. - *Kottakkarandai*; Mal. - *Attakkamanni*.

Vegetative Character:- An annual Small, glandular, prostrate, hairy herb with typical terpenine like sweet smell. Stem - round woolly. Leaves - sessile, obovate, oblong, toothed, teeth's incisions pointed leaves covered with minute hairs. Heads small, terminal, solitary, globose and oblong., Outer flowers on the heads female but not ligulate, disk flowers bisexual fertile, tubular stamens five, syngenaceous. Style filiform or connate. Pappus nil, ovary inferior, one celled. Achenes angular and

glabrous. Flowering- Sept.- Nov. Common in wet places, as in fields and other rice tracts. Common weed of M.P. and C.G. Medicinal part use whole plant.

FF – Br., $\oplus$, $\otimes$, K_0 (Pappus), C_5 , $\text{A}_{(5)}$, $\overline{\text{G}}_{(2)}$.

Use -Powder of flower; $\frac{1}{2}$ spoon mixed with 3 black pepper, sugar 1 spoon is given orally twice a day for 2-3 days for stomachic and also used in summer for gas problems and also plant powder used as blood purifier.

*The 2-4 pieces of flower head with 2 pieces banana is taken orally once a day for 2-3 weeks to cure continuous flow of eye tears and other use is as fish poison and mosquito larvicides.

*Whole plant decoction is applied as a diuretic in urethral discharges and root and seeds are used as anthelmintic.

*The powder of flower is mixed with “Phitkiri” (Potash Alum) and given for massage of teeth and gums twice a day for 3-7 weeks for **pyorrhoea** (bleeding of teeth- gums).

Biological Properties: -Plant considers – Alterative, Aphrodisiac, and Deobstruent., Root and seeds – Anthelmintic. Flowers – Cooling, Alterative and Tonic.

Chemical Substance : *The plant contains various componets these are: α -Terpinene, Citral, Geraniol, Gerany Acetate β -ionone, Sphaerene, Indicusense, Sphaeranthal, β -sitosterol, n-triacontanol, Phenylurethan-n-pentacosane frorr (oil), and Eudesmenolide-7- α -hdroxyeudesm 4-en-6, 12-olide (I) (7-hydroxytrullanolide)-siolate (flowers) and Plant tonic, Essential oil, Alkaloids (leaf).*

References: Warriar et al., (1996).

184. *Blumea lacera* (Burm. f.) DC. Syn. *B. balsamífera* DC.;

***B. Densiflora* Hook f. (ASTERACEAE /COMPOSITAE)**

Common & Regional Name: LN. - Gandhela; H. - Kakranda; S. - Kukuradru;
Eng.- Blumea; B. - Kukursunga; Bo. - Nimrudi; Guj.- Chandhadmari;
Mal.- Kukkuravrksam; Mar.- Burando; Tel. - Karu pogaku; Tam. -
Narakkarandai

Vegetative Character:- An annual erect, pubescent 2-3 ft. tall with glands giving repulsing smell of turpentine. Root- tap branched., Stem - very leafy, margin serrated, rough & silky hairy. Heads in short cymes in the axil of the leaf, and also on the apical panicles. Involucre bracts linear, lanceolate, acuminate, glandular hairy. All flowers of the head tubular, outer neutral, inner bisexual, yellow in colour. Fruit – crowned with white pappus hairs achenes glabrate. Flowering – Oct. Jan. found Shahdol and all over M.P. Medicinal use whole plant.

FF – Br., $\oplus$, σ , K_0 (Pappus), $C_{(5)}$, $A_{(5)}$, $\overline{G}_{(2)}$.

Use - Juice of leaves one spoon with 2-3 pieces black pepper is applied internally 1-2 times a day for 3-5 days for curing abdominal worm and root is used in cholera diseases. The plant is used for inflammation, liver disorder, wounds, burning sensation.

*The leaves are mashed in palm and used for headache.

Biological Properties:-Plant is considered as- Acrid, Bitter, Astringent, Anthelmintic, Anti-inflammatory, Diuretic, Digestive, Expectorant, Febrifuge, Styptic, and Thermogenic.

Chemical Substance :-The plant yield – α -amyrin and its acetate, Acetylenic, Compounds, Diseter of coniferal alcohol, Compesterol, Hentriacontane, Hentriacontanol, Lupeol and its acetate, β -sitosterol, Thiophenen-derivatives.

185. *Eclipta alba* Hassk. syn *E. prostrata* Roxb. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - *Ghamira*; H. - *Bhangra*; S. - *Bhringaraja*, *Kesaraja*; Eng.- *Trailing eclipta*; B. - *Kesuti*; Marathi - *Maka*; Tam. - *Garuga*; Tel. - *Galagara*.

Vegetative Character:- An annual, binnial or perennial herb. Root-tap branched. Stem-rough slender strigose ascending or prostrate, rooting at the nodes. Leaves-variable in shape and size, strigose on the surface, sessile, oblong, sometime linear. Heads, solitary or in pair, axillary and terminal on unequal stalks, enclosed in large soft involucre bracts acuter. Ray florets female white, linear, disc florets bisexual, tubular brownish, pappus absent. Achenes 3 angled and two winged. Pappus or a few minute teeth. Flowering July-Feb. Perpetuating by seeds. A common weed occur all over state. Medicinal use whole plant.

FF – Br., %, ♀, K_0 (Pappus), $C_{(5)}$, A_0 , $\overline{G}_0$.(Ray Florets).

FF – Br., ⊕, ♂, K_0 (Pappus), $\overbrace{C_{(5)}}^{\quad\quad\quad}$, $A_{(4)}$, $\overline{G}_{(2)}$.(Disc Florets).

Use– The plant boiled in "Tilli" (*Sesamum indicum* L.) oil is mixed with "Mehandi" leaves, (*Lawsonia inermis* L.) "Brahmi" (*Centella asiatica* L.) plant and "Akarkra" (*Spilanthes acmella* Murr.) and externally used on head to generate hair growth.

*The powder of plants; 2-3 gm mixed with "Shankhapushpi" plants (*Evolvulus alsinoides* L.) ½ tea spoon, "Brahmi" (*Centella asiatica* L.) plant ½ tea spoon is given orally once a day for 7-8 weeks for improving memory and also used in skin diseases and hiccup.

*Plants mashed and applied as antiseptic externally on affected area i.e. cut and wound.

*The paste of leaves along with "Bhui amla" (*Phyllanthus niruri* L.) plant ½ tea spoon, "Chhoti Dudhi" (*Euphorbia thymifolia* L.) plants ½

tea spoon is given orally twice a day for 7-10 days to treat Jaundice and useful for cooling in fire burn.

*The crushed plant mixed with "Genda" marigold leaf and "Akarkra" (*Spilanthus acmella* Murr.) leaves is locally applied two times a day on affected area to get relief in headache and also used in scorpion sting.

*The mashed plant juice; 2-3 spoon mixed with "Mung" leaf juice (*Moringa oleifera* Lam.) half cup and black pepper 2-3 pieces is given orally 1-2 times a day for 7-8 weeks for relief in high blood pressure and patient must avoid spices and oil.

*Root paste along with "Baramasi" (*Tridax procumbens* L.) plants is externally applied as antiseptic to ulcer and wounds.

*Plant juice in combination with aromatics is used in cold (catarrhal) and jaundice and also leaves are given in Scorpion sting, roots as purgative, applied externally as antiseptic on ulcers and wounds of cattles.

*Plant juice mixed with coconut oil is used as black hair restorative.

Biological Properties :- Plant consider - Antiseptic, Analgesic, Antiviral, Alternative, Anthelmintic, Bitter, Blood purifier, Hepatoprotective, Digestive, Carminative, Haematinic, Anti-inflammatory, Spasmogenic, Stomachic, Emetic, Depurative, Diuretic, Febrifuge, Thermogenic, Aphrodisiac.

Chemical Substance:- Plant Contains – Beta – Amyrin, Ampliptene, Alkaloid, Fatty Acid, Ecliptine & Resin, Glucoside – Phytosterol – A, Luteoline, Palmitic Acid, Oleic Acid, Linolic Acid, Nicotine, Triterpenic Acid, Wedelolactone.

186. *Glossocardia linearifolia*; (Cass.) see; *G. bosvallia* (DC.) (ASTERACEAE /COMPOSITAE)

Common & Regional Name: H. - *Seri*; S. - *Pithari*; Bo. - *Phatusruwa*; Tel. - *Parapalanamu*; Mra.- *Patharsuva*.

Vegetative Character:- A prostrate annual herb, branches grooved. Stem – weak. Leaves - slender petioles 1-5 cm. long bipinnatiset, multi-segments usually linear, apiculate. Heads 0.6-0.8 cm. long outer involucre of bracts small usually 3, with membranous ciliate margins. Achenes ½-1 cm. long bearded on the edges with stiff hairs. Flowers during Oct. – Nov. The plant emit fennel like sent; rare occur in Shahdol tract. Medicinal use leaves.

FF – Br., $\oplus, \text{♀}, \text{♂}, K_0$ (Pappus), $\overbrace{C_{(5)}}$, $A_{(4)}$, $\overline{G_{(2)}}$.

Use- Plant juice mixed with black pepper 2-3 pieces and "Shirphoka" (*Tephrosia purpurea* L.) root powder is useful for syphilis and also used in fever.

Biological Properties: -Plant is considered as -Emmenagogue.

187. *Bidens pilosa* Linn.(ASTERACEAE /COMPOSITAE)

Common & Regional Name:LN. - *Phuttima*; H. - *Phutima*; Gujrati - *Phutium*.

Vegetative Character:- An erect annual herb 3-5 ft. tall. Stem - glabrous or slightly pubescent, quadrangular. Leaves - opposite, variable, entire, lobed, trifoliate or 1-2 pinnatisect, sub opposite, pairs of leaflets and a deeply three lobed terminal leaflet, leaflet ovate acute, dentate sheathing at base. Heads with or without ray florets, yellow. Pappus or 2-4 rigid diverging awns. Not a common weed. But found in Shahdol, Rewa Malva tract and other parts of M.P. Flowering – Sep. to Dec.

FF – Br., $\oplus, \text{♀}, \text{♂}, K_0$ (Pappus), $\overbrace{C_{(5)}}$, $A_{(4)}$, $\overline{G_{(2)}}$.

Use - The crushed leaves mixed with "Akarkra" leaves juice (*Spilenthesis acmella* Murr.) is applied for cut, injury and wound to stop bleeding and also used for ulcer and swelling glands.

*The Leaves extract is used to cure ear or eye troubles and also given in cough.

Biological Properties: -Vulnerary, Swollen.

188. *Spilenthesis acmella* Murr.(ASTERACEAE /COMPOSITAE)

Common & Regional Name:LN. - Akalkarha; Tel. - Maratitige; Bo. - Akarkara; Assam - pirazha; P. - Akarkarha.

Vegetative Character: -Planterect 2-3 ft. tall annual, shade loving, slightly hairy herb Stem – weak branched, Leaves-opposite, petiolate, simple, irregularly crenate.,Serrate or dentate. Inflorescence- cymose heads usually on long peduncles axillary or terminal, ovoid, with all disc flower, yellow and tubular., Bracts sub-2 serrate, receptacle, Convex, elongated., Style arm truncate., Pappus absent. Flowering Sept.-Dec.

FF – Br., $\oplus$, ϕ , K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use- Powder of plants mixed with black pepper, "Kapoor" (*Camphora*) and Mastard oil is given for massage on teeth or gum twice a day, daily to get relief in toothache and other problems.

*Powder of plants; ½ tea spoon mixed with "Mulaithi" root (*Glycyrrhiza glabra* L.) ½ tea spoon, "Vach" (*Acorus calamus* L.) rhizome 2 gm and black pepper 2 parts are given orally twice a day for 2-3 months for good voice (clear voice and improved fluency).

*Seeds powder mixed with black pepper in equal amount 2-3 gm is given orally to produce salivation when mouth is dry.

*The crushed plant mixed with "Renja" (Safed Babool) root (*Acacia leucophloea* Willd.) and bark paste is used for good insecticide and mosquito larvicides.

*Flowers made into tincture are used to relieve toothache. Powerful mosquito larvicides used as fish poison.

Biological Properties:-Flower - Tincture, Pain, Salivation, Anaesthetic action.

Chemical Substance:-Flower contains – Spilanthol, Sterol, and Polysaccharide.

189. *Acmella oleracea* C.B. Clark syn. *Spilanthus* Oleraceae Jacq. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - *Rashania*; H.& B. - *Roshunia*, Bo.- *Akra*; Mar.- *Ukra*.

Vegetative Character:-Plant erect 2-3 ft. tall annual, shade loving, slightly hairy herb. Stem – weak and branched. Leaves-opposite, petiolate, simple, irregularly crenate., Serrate or dentate. Inflorescence – cymose heads usually on long peduncles axillary or terminal, ovoid, with all disk flower, pale white, light small blackish tip and tubular. Bracts sub-2 serrate, receptacle. Convex, elongated. Style arm truncate. Pappus absent. Flowering Sept.-Dec.

FF – Br., $\oplus$, ϕ , K_0 (Pappus), $\overline{C}_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use -The flower head paste; ½ tea spoon mixed with “Ratti” (*Abrus precatorius* L.) ½ seed part is given orally once or twice a day for 3-4 weeks to cure paralysis of mouth & tongue and also used for toothache, infection etc.

Biological Properties: -Flower – Stimulant, Sialogogue, Paralysis, Stammer.

Chemical Substance:- *Spilanthol*.

190. *Echinops echinatus* (Roxb.)(ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - *Safed Kateri*; H. - *Utakanta, Gokru*; Eng.- *Thistle*; B.- *Thakurkanta*; S. - *Kantalu, Utati*; Guj.- *Shuliyo*; Marathi - *Utanti*.

Vegetative Character: -An annual or sometime biennial erect much branched 30-60 cm. tall spreading. Root – tap branched. Stem – branched round with profuse cottony hairs, spines., Leaves-sessile, pinnatifid, the lobes ending in spines, glabrous upper surface and woolly underneath. Heads one flowered, arranged in a white globular mass. Involucre of each head surrounded by white pappus like bristles, consisting of 6-8 bracts, 1 or 2 of which modified into long white spines. Pappus short, silky. Achenes obconical, silky. A weed of waste lands and field bund. Occur Abundant in Chhattisgarh, Gwalior, Shahdol & Bundelkhand flower Oct.-Dec. A very common weed in light soils. Medicinal part use root and flower head.

FF – Br., $\oplus$, $\frac{\sigma}{\pi}$, K_0 (Pappus), $\overset{\curvearrowright}{C}_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use - Powder of roots mixed with 2-3 pieces black pepper, is given ½ tea spoon two times a day for 2-3 day for pneumonia and fever.

*The powder of roots along with "Satavar" (*Asparagus racemosus* Willd.) roots, "Talmakhana" seeds (*Asteracantha longifolia* Nees.) powder in equal amount with "sugar candy" (*Mishri*) is given one spoon orally once a day for 7-21 days to treat weakness.

*The paste of roots mixed with "Tobacco" leaf powder is externally applied on affected area for wound of cattles to destroy maggots and mixed with "Renja" (*Acacia leucophloea* Willd.) roots, barks, juice or gum and "Custard Apple" "Sita Phal" (*Annona squamosa*)leaves juice prescribed for hair to destroy lice in men and cattles.

*Powered root is applied to wounds of cattle to destroy maggots.

Biological Properties: -Aphrodisiac, Abortifacient, Bitter, Cooling, Pungent, Alterative, Diuretic, Maggots, Nerve tonic, Wounds.

191. *Glossogyne pinnatifida* DC. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Bhangra; Gujrati - Pardesibhangro; Santh - Barangom- bir - barangom.

Vegetative Character:- An erect or ascending 10-25 cm high., Root fusiform & woody. Stem - branches forked and many form the root., Leaves - mostly radical 3-5 cm. pinnatifid, triangular segments few, linear, acute, and glabrous. Flowering - branches 15-30 cm. long with small pinnatisect leaf at each fork, stiff and grooved., Heads few, long peduncle 1.5-2 cm. across., Involucre-bracts 3mm across, linear, obtuse, smooth. Achenes 4-6 mm. deeply grooved. Rare in Shahdol common in Bundelkhand & Gwalior region., Flowering during Sept.-Oct.

FF – Br., $\oplus$, σ , K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$ (Disc Florets).

Use - The crushed roots mixed with "Semi" (*Dolichos lablab* L.) roots is locally applied on affected area as poultice and tied over scorpion sting.

*The root decoction is said to cure snake bite and scorpion sting.

Biological Properties: -Plant curer of poison.

192. *Amberboa divaricata* Kuntze syn. *Volutarella divaricata*. Benth. & Hook. f. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Brahmadani; H. & Bo. - Badaward; Marathi - Sakayi

Vegetative Character: -An annual stiff straggling. Stem - dichotomously branched, smooth herb. Leaves - variable oblong or obovate, entire toothed or pinnatifid, sessile. Involucre of bract ovate, with protruding

spines. Receptacle bears bristle. Corolla purple with linear lobes, all flowers tubular lobes linear acute, outer neutral, inner bisexual. Achens angled top truncate. Pappus of silvery brown hairs. Flowering Aug. to Dec. A common weed occur all over M.P.

FF – Br., $\oplus$, φ , **K₀** (Pappus), $\overbrace{C_{(5)}}$, **A₍₄₎**, $\overline{G}_{(2)}$.(Disc Florets).

Use- Plant is medicinally used in the treatment of cough, bronchitis and as a blood purifier.

Biological Properties:- Plant contain- Aperients, Deobstruent, Febrifuge, Slightly – Mucilaginous.

193. *Sonchus oleraceus* (Linn.)(ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN.- Kanphul, Bada tara; Bo. - Mahatara; Patana - Titaliya; P. - Dodak; Tel. - Ratrinta.

Vegetative Character: - An annual erect, fleshy, robust milky herb 2-3 ft. tall abundant in sandy and hilly regions. Root – tap branched. Stem - glabrous erect, sparsely glandular, striate sparingly branched above, hollow filled with milky juice. Ground leaves upto 30cm. form rosette, while those on stem are sessile, clasping at base, oblong, pinnately lobed, toothed or spinescent, lobed, top leaves narrower. Heads many flowered in umbellate panicles at the top of branches, bracts narrow in many series. Corolla - strap shaped 5 toothed. Pappus white silky hairs. Flowering – Oct. to Feb. Found all over M.P. Medicinal use plant root.

FF – Br., $\oplus$, φ , **K₀** (Pappus), $\overbrace{C_{(5)}}$, **A₍₄₎**, $\overline{G}_{(2)}$.

Use - 1 spoon Decoction of root mixed with "Gurij" (*Tinospora cordifolia* Willd.) Stem - ½ cm long, and "Bhui Neem" (*Andrographis paniculata* Nees.) ½ spoon is together given orally twice a day for 7-9 days to cure fever and plant juice vapour is used for purgative.

*The decoction of root and leaf tonic is used for febrifuge.

Biological Properties: -Root & leaves – Febrifuge, Tonic, Gum, Cathartic.

194. *S. arvensis* Linn.(ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN.- *Badi Kanphul* , *pater*, H. - *Sahadevibari*;
Eng. - *Sow Thistle*; B. - *Banpalang*; P. - *Bhangra*; Tel. - *Nallatapata*.

Vegetative Character: -An erect, fleshy, robust annual or perennial herb, 2-3 ft. high. Stem- glabrous, angular striate, slightly branched full of juice. Ground leaves are large, 15-25 cm. long and form a whorl the leaves in the stem are sessile auriculate, dentate, provided with spines. Heads, 2-3cm across, many flowered, rayed in a terminal corymbose umbel. Involucre of bracts glandular hispid. Corolla - yellowish, 5 toothed stamens 5 attached with the corolla, anthers united. Ovary - inferior, one celled one ovule, Fruit obovate achenes, with ridges, attached with it the silky white pappus. Flowering – Sep. to Feb. Common weed of M.P. Medicinal part use root.

FF – Br., $\oplus$, $\otimes$, K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use- The paste of root mixed with "Bhui amla" plant (*Phyllanthus niruri* L.) Juice and "Ghamira" leaves (*Eclipta alba* Hassk.) juice in equal amount 2 spoon is given orally once a day for 7-15 days for Jaundice.

Biological Properties: -Root- Bitter.

195. *Cichorium intybus* (L.) (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. -*Kashi*, *Van gobhi*; H., B. & Bo. - *Kasni*;
Eng.- *Chikory*; Tam. - *Kashni*; Tel. - *Kasini*.

Vegetative Character:- An erect, branched, perennial and hispid herb. Stem – weak, branched 2-4 ft. tall. Leaves – simple, hyrate, rosette at base,

deeply lobed sessile or short stacked. Flowers - blue large, borne in cluster in axil of the leaves on a scape. Flowering during March – April., Rare in Shahdol and very common in barseem fields.

FF – Br., $\oplus$, ♀ , K_0 (Pappus), $\text{C}_{(5)}$, $\text{A}_{(4)}$, $\overline{\text{G}}_{(2)}$.

Use - Plant extract mixed with 2-3 pieces black pepper, 2-3 "Bel" leaves is given orally two or thrice a day for 2 days to treat vomiting.

Used as tonic, in fever, vomiting and enlargement of spleen. Mixed with coffee for taste, also given in the treatment of sandice of hepatic erregulator.

Biological Properties: -Plant considers – Diarrhoea, Tonic, Emmenagogue and Alexiteric. Root – Diuretic, Stomachic.

Chemical Substance:-*Plant yield-Glucoside, Cichoriin, Bitter, Lactucin, Intybin.*

196. *Lagascea mollis* Cav. (ASTERACEAE /COMPOSITAE)

Common & Regional Name:LN. - *Kala jeera, kadu jeera.*

Vegetative Character:-A branched rough hairy 2 - 3 ft tall gregarious herb. leaves silky, simple, opposite, or alternate above, ovate, acute, 4 - 5 cm heads in clusters on long stalk. Involucre tubular, 5-7 cleft, pappus, a toothed cup of rings. Flowers white arranged in a compound head, each flower is surrounded at its base by an involucre, of five hairy connate bracts resembling calyx. Stamens - 5, filaments free anthers black united in the tube. Fruit- achens. Flowering Sept.- Nov. found in all over M.P. Medicinal part use whole plant.

Use- The paste of leaves mixed with “Neem” leaves (*A. indica*, A. Juss.) and fresh cow urine is externally applied to affected area for scabies and itches.

197. *Launaea aspleniifolia* Hook. f. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN.- Kanphul; B. - Tikchana.

Vegetative Character: - An annual glabrous herb with yellow juice, upto 1-2ft. tall. Stem - weak branched. Leaves - all radical, sessile, forming a rosette on the soil surface, sinuate, toothed, heads on a long leafless stalk, umbel, 2-3 flowers in the inflorescence. Flower - all strap shaped yellow pappus of soft minute hairs. Achenes angled and ribbed. Flowering Oct. - Mar. Occur all over M.P. Medicinal part use whole plant.

FF – Br., $\oplus$, φ , K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use- The paste of roots mixed with "Bhakrandi" (*Jatropha curcas* L.) leaves as poultice is tied over affected area to mammary gland as rubefacient for mammary gland (lactagogue) diseases.

Biological Properties: -Lactagogue.

198. *Centipeda minima* Linn. - A. Br. et. Aschers syn. *C. orbicularis* Lour. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Chhikni; H. & Bo. - Nakchhikni; S. - Chhikika; B. - Mechitta

Vegetative Character:- An annual, rough slender herb ascending or prostrate Root-tap. Stem-weak branched. Leaves- sessil, oblong Flower- disc, yellow, bisexual Flowering- Jan-Feb common weed in agriculture field as like *Sphaeranthus* habit. Occur in moist place of Shahdol. Medicinal plant use root and leaf.

FF – Br., $\oplus$, φ , K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use Squeeze leaves and snuff twice or thrice a day so as to start sneezing for coryza cold and headache.

*The paste of plants mixed with black pepper and “Akarkra” plant paste is used for massaging tooth gums twice a day for toothache. Seed powder mixed with “Vanjeer” (*Centratherum anthelminticum* Willd.) seeds powder is given orally twice a day for 2-3 days to treat stomach worms.

Biological Properties:-Leaves & seeds – Indicate, Sneezing, Cold, Ophthalmia, Vermifuge.

Chemical Substance:-Plant contains – Alkaloids, Essential oil, Bitter, Acidic, Amorphous, Glycoside, Trace of Saponin, Myriogynin.

199. *Tridax procumbens* Linn. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Baramasi Ghamira, Ghav chara.

Vegetative Character: -An annual or perennial strongly hairy. Stem - prostrate straggling herb. Leaves - a few opposite, petiolate, ovate or lanceolate, dentate covered on both side with hairs. Flower - petiole 10-15 cm. long, heads solitary terminal on very long hairy procumbent stalk, bracts oval, outer hairy & inner membranous. Ray florets ligulate, yellow three toothed disk florets tubular, brownish, Achenes brown pappus of feathery bristles. Flowering through year., A common weed of M.P. Medicinal part use leaf.

FF – Br., $\oplus$, σ , K_0 (Pappus), $C_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use- Fresh leaf juice is applied 2-3 times a day for 2-7 days to cure injury, cut and wounds.

*Fresh whole plant juice is applied (*Rubbed*) for fungal disease.

*The fresh plant is chewed and plant juice is given to increase strength of teeth.

*Plants juice is applied on cut, injury and wounds as antiseptic and its combination with “Chitchtia” (*Peristrophe bicalyculata* Retz.) is used for fungal diseases.

*Powder of leaves; ½ tea spoon mixed with “Gudmar” leaves (*Gymnema sylvestre* R. Br.) ½ tea spoon, “Gurij” stem ½ spoon (*Tinospora cordifolia* Willd.) is given orally once a day for diabetes.

Biological Properties: -wound healer, Antiseptic, Anti-diabetic.

Chemical Substance:-Plant Contains Various Substances - B- Amyrin, B- Ayrone, Fucosterol, Sitosterol, Arachidic, Benenic, Lauric, Linoleic, Linolenic, Myristic, Plamitic, Palmitoleic, Stearicacids And Stigmasterol.

References: Katewa and Arora, (1977).

200. *Vernonia cinérea* (L). Less. syn. *Conyza cinerea* L. (ASTERACEAE /COMPOSITAE)

Common & Regional Name: LN. - Kala jeera; S.H. & Tam. - Sahadevi; B. - Kuksim; Bo. & Marathi- Sadodi; Mal. - Puvankuruntal; Tel. - Gharitika mini.

Vegetative Character: -An annual or perennial erect, struggling, slightly pubescent herb, 1 ft. tall. Stem - round slightly branched. Leaves - variable ovate or lanceolate, toothed margin. Inflorescence- heads in a terminal corymb, flat or rounded top, involucre of bracts, bracts linear lanceolate fringed or awaned, silky. Corolla - bluish purple, lobed pubescent. Stamens 5, anthers united in the tube of corolla. Ovary - inferior one celled, placentation basal, style slender, stigma bifid. Fruit - achene. Which are cylindrical white and hairy., Flowering – Oct - March. Common weed of Shahdol and all over state. Medicinal part use whole plant.

FF – Br., ⊕, ♂, ♀, K₀ (Pappus), C₍₅₎, A₍₄₎, -G₍₂₎.

Use - The powder of seeds; ½ tea spoon mixed with black pepper, 2-4 pieces “Akarkra” (*Spilenthos acmella* Murr.) seeds 2-3 gm and “Gurij” (*Tinospora cordifolia* Miers.) ½ cm long stem is given orally twice a day to cure worms and the extract of plant 1-2 spoon is given for piles.

*The paste of leaves; ½ spoon combined with “Gokhuru” (*Tribulus terrestris* L.) seeds powder 35 gm and “Korea” bark (*Holarrhena antidysenterica* Wall.) powder ½ tea spoon is given orally once a day for 3-7 weeks for calculus (stone) and also flower is applied for ophthalmic disease as like conjunctivities.

*The powder of roots ½ to 2 gm mixed with “Chirchira” (*Achyranthes aspera*) root 1-2g and mustard oil is taken orally to ease delivery of child in abnormal position and root is given for dropsy and also used in malarial fever and skin disease.

Biological Properties: -Plant is considered as- Astringent, Cold, Sweet, Stomachic, Tonic, Diaphoretics, Anthelmintic, and Anti-inflammatory.

Chemical Substance: -Plant contains various constituents- β - amyrin, Acetate, Glucoside, Potassium, Chloride, Lupeol, Lupeol acetate, Quercetin, Beta- sosterol, Stigma sterol, β - Spinasterol, Flower - Leutelin, Iso-orientin, Chrysoeriol, Chrysoeriol.

201. *Xanthium strumarium* Linn. (COMPOSITAE)

Common & Regional Name: LN. - Litingi, Khuthua; H. - Chhota gokhru; S. - Arishta; Eng.- Burweed; B.- Banokra; Guj.- Gadriyun, Mal.- Marulumatti; Mar.- Dutuudi; P. - Sungiu; Tel. - Marulutige; Tam. - Marlumutta; Bo. - Shankeshvara.

Vegetative Character: - A annual coarse erect herb upto 1-4 ft. tall. Root – tap branched. Stem - cylindrical rough and black spotted, covered with

stinging glandular hairs. Leaves 4-10cm. long triangularly cordate hispid, petiolate and lobed, lobes toothed., Heads in terminal and axillary raceme, male flowers above and the female clustering at base, tubular, male flowers in different heads, corolla tubular, filaments united, anthers free. The involucre united into two beaked but covered with hooks of prickles. Flowering Sept. to Dec. perpetuation by seed. Most common weed of the waste lands of the state. The seed undergo dormancy and many survive several years. Medicinal Use whole plant.

FF – Br., $\oplus$, φ , K_0 (Pappus), $\overset{\frown}{C}_{(5)}$, $A_{(4)}$, $\overline{G}_{(2)}$.

Use- Juice mixed with “Kachnar” (*Bauhinia variegata* L.) Bark juice, a spoon is taken orally once a day for 5-7 weeks for scrofula disease.

*Fruit juice and mixed root juice, “Chirchira” root 5 g. (*Achyranthes aspera* L.) Seed 2 g., “Neem” bark juice $\frac{1}{2}$ spoon (*A. indica* A. Juss) “Kemach” (*Mucuna prurita*, Hook.) powder of seeds, “Tulsi” leaves (*Ocimum sanctum* L.) $\frac{1}{2}$ spoon “Kosam” seeds powder (*Schleichera oleosa*, Lour.) 3-5 gm and “Saherua” (*Nyctanthes arborescens* L.) Leaves bark, roots and flower “Jal Bhata” (*Eichhornia crassipes* Solms.) Flower is taken orally in equal amount twice a day for 2-3 months for cancer disease.

*Fruit powder mixed with Mustard oil or Coconut oil and “Camphora” (*Kapoor*) is topically used for itchy skin, small pox, eczema and root powder is cooked in “Cow Ghee” (*Butter*) is given orally 2-3 times a day for snake bite.

Biological Properties: -Plant is considered as- Acrid, Alterative, Anthelmintic, Antipyretic, Alexiteric, Appetiser, Cooling, Digestive, Fattening, Laxative, Plant tonic, Malaria, Demulcent, Root – Anti cancerous, Fruit – Anti small pox and viral.

Chemical Substance:-Plant contains- Seed- Glucoside, Oxalic acid, Xanthostrumarin, Fruits- Strumaroside, Stimasterol, Xanthin, Xanthanol, and Xanthumin.

F - VALERIANACEAE

202. *Nardostachys jatamansi* DC. (VALERIANACEAE)

Common & Regional Name: LN. -Balchad, Jatamasi; H. S. & B. - Jatamansi;

Eng.- Spikenard; Bo.- Bala charaea; Mal.- Jetamanshi ; Tam. - Jatamashi; Tel.- Jatamashi.

Vegetative Character:- Plant perennial erect, herbaceous. Root – Rhizome branched woody, Root stock covered with fibrous petides. Stem – woody, branched fibrous. Leaves- petioles, simple, heary. Inflorescence – cymose. Flower – white blue or pink solitary, small branched and aromatic, actinomorphic. Calyx – 5, regular teeth there also reduction in the androecium out of 5 stamens 1, 3 or at the most 4 are present. Corolla – 5 tubes is spurred, bilabiate, epigynous. Occur in Amarkantak region. Medicinal use root and leaves.

FF- $\oplus, \text{♀}, K_{(5)}, C_{(2+3)}, A_{5(2+3)}, \overline{G}_3$.

Use- The root powder 1.2g mixed with “Patherchata” (*Boerhaavia diffusa* L.) root, leaves 5g. candy sugar & zinger (Adrak) 2-3g together given orally 1-2 times a day for 1-3 weeks to treat epilepsy, hysteria, heart beet (Throbbing heart) and stomach ache.

*The plant tender leave juice is used in eye (for light increasing power).

*The root is used for many ailments such as stimulant, antiseptic and convulsive affections.

Biological Properties:- Plant is considered as- Anti-bacterial, Hypotensive, Antipyretic, Heart tonic, Anti-histaminic, Anti spasmodic, Stomachic, Stimulant, Antipyretic, Laxative, Carminative, diuretic.

Chemical Substance:- Plant contains – Root (Rizome) Alkaloid, Alcohol, Jatamanson, Jata mansic acid, Jatamansin, Leupeol, Essential oil, Terpene.

F - OROBANCHACEAE

203. *Orobanche aegyptica* (Pers.)(OROBANCHACEAE)

Common & Regional Name: LN.- Chhoti Babhakul, Eng. - Orobanki.

Vegetative Character:- An annual erect, brownish fleshy leafless herb., Attaching in self with the roots of hosts plant. Total parasite on the plants of Solanaceae family., Stem- simple or slightly branched. Flowers - sessile or short stalked, light purple forming a lax spike, bracts ovate or lanceolate, bracteoles filiform. Calyx - small, four toothed, campanulate, pubescent, shortly nerved down the middle. Corolla - 1-1.5 cm hairy outside, upper portion blue or lilac whitish below, upper lip two lobed, lower equally three lobed, tube slightly curved above. Androecium - four, two long and two short, filaments long, anthers woolly. Ovary- bilocular. Capsule - oblong, seed minute, numerous, brownish black. Flowering- Sept to Nov Occur in Amarkantak region and other parts of Madhyapredesh. Medicinal use stem.

FF – Br, Brl, %, ♀, K₄, C₅₍₂₊₃₎, A₄, G₂.

Use - The paste of stem part mixed with “Biskhapri” (*Sida cordifolia*, L.) leaves is applied locally to treat boils in cattle.

F – SCROPHULARIACEAE

204. *Bacopa monnieri* Linn. Pennel syn. *B. monniera* Wettst. *Herpestis monniera* Linn. H. B. & K. *Monniera cuneifolia* Michx; *Grahiola Monniera* L.(SCROPHULARIACEAE)

Common & Regional Name: LN. - *Jal brahmi, Jal neem*; H. - *Brahmi*; S. - *Nira - Brahmi*; Eng. - *Thyme leaved - Gratiola*; B. - *Brihmi sak*; Mar & Mal. - *Neerbrahim*; Tam. - *Nirbrahmi*.

Vegetative Character: - The plant is herbs and near moist soils and test bitter like. Stem - herbaceous creeping, branched. Leaf- simple exstipulate, opposite, obtusifolia., Inflorescence - cymose, or occasionally solitary and axillary. Flower - colour white, violet bisexual zygomorphic, hypogynous, pentamerous, Calyx - sepals 5, persistent., Corolla - 5 petals Androecium - usually. Fruit ovule pointed smooth. It is a not common herb. Found Shahdol, Jabalpur, Sagar & Hoshangabad Division in marshy and swampy moist bank of river. Flowering – Aug to April. Medicinal use whole plant.

FF – %, ♂, K₍₅₎, C₍₅₎ A₍₅₎, G₍₂₎.

Use -Plant paste one spoon mixed with “Badi Dudhi” (*Euphorbia hirta*) half spoon and “Methi” (Fenugreek) ½ tea spoon together given (need condition of patient) orally 2-3 times a day for 2-3 days to cure bleeding dysentery, diarrhoea and stool and leaf also used in insect bite boils injury, sprain etc.

*The whole plant extract 2 spoon mixed with “Brahmi” (Indian pennywort) whole plant two spoon taken once a day for two month to cure nervous disorder, improvement of memory, leprosy, T. B., anaemia, blood purifier, hoariness of voice, epilepsy respiratory stimulant, asthma, insomnia and dyspepsia.

*Hot paste of leaves mixed with “Baramasi” (*Tridax procumbens*) leaf has external application on wounds and cut.

*Plant paste with black pepper 3-5 seeds given orally 1-2 spoon 3-4 times a day to treat snake bite.

Biological Properties: -Plant is considered as- Anti-inflammatory, blood purifier, laxative, plant tonic, diuretic.

Chemical Substance:-Plant contains – *Alkaloids, Brahmine and Herpestine, Saponins, Becogenin-A, K, Na, Ca, Fe, palmitic acid, Oleic acid and Bacoside A and B, Betulic acid, d-monitol, Stmasterol, Nicotine, Luteolin and Bacogenin A.*

References: Asolkar et al., (1992); Shivranjan and Balachandran, (1994).

205. *Celsia coromandeliana* Vahl.(SCROPHULARIACEAE)

Common & Regional Name: LN. - Ketki; H. - Gadartambaku; Kokshima; Bo. - Kolhal; S. - Bhutakeshi; B. - Kukshima.

Vegetative Character: - An annual erect, hairy herb, 3-4 ft. high, glandular above. Root – tap branched. Stem – branched. Leave - cauline sessile, alternate, crenate or incised. Radical- leaves petiolate, crowded, lyrate, pinnatifid, 5-9cm long. Flower - in terminal raceme or panicle, reaching upto 50-60cm. Calyx - 4-5 lobed, imbricate, and serrulate. Corolla - 1cm across, yellow. Stamens - 4, 2 long 2 short, filaments bearded. Capsule globose., Seed - oblong, truncate, Flowering - Aug. Sept. weed of Rabi season often seen agriculture bunds & gardens Shahdol division and other parts of M.P. Medicinal use leaves.

FF – $\oplus$, φ , $K_{(4-5)}$, C_5 , $A_{4(2+2)}$ $\underline{G}_{(2)}$.

Use - Juice of leaves 1 spoon mixed with black pepper 2-3 pieces and “Badi Dudhi” (*Euphorbia hirta* L.) $\frac{1}{2}$ spoon paste given orally 2-3 times day for 5-7 days for relief in dysentery and also plant juice used in skin eruption.

Biological Properties: -Leaves – Sedative, Asteringent, Diarrhoea, and Dysentery& Fevers.

206. *Lindenbergia urticaefolia* Lehm. see *L. indica* (L.) Kuntze. (SCROPHULARIACEAE)

Common & Regional Name: LN. - Dhol; Bo. - Gazdar; Guj.- Bhintachati.

Vegetative Character:- An annual, more or less glandular hairy. Root – tap branched. Stem- 1-1.5ft tall, simple or branched, often tufted, brittle when dry. Leaves - 2-5 cm. long, broadly ovate, crenate-serrate, usually gland dotted on both sides., Flower - unilateral, shortly-pedicelled, solitary or in pairs in the axils of large leaves, sometimes forming axillary or terminal leafy raceme. Calyx - densely gland-villous, lobes triangular-oblong, obtuse. Corolla - yellow, hairy outside, tube tinged with purple or red, mid-lobe of lower lip narrow. Ovary - pubescent round at apex. Capsule - 2 mm. long, hairy above field bunds and near walls., A perennial herb common in Shahdol and other parts of state. Medicinal parts use plant.

FF – Br. Brl., %, ♀, $\overset{\curvearrowright}{K_{(5), C_{(5), A_4}}, \underline{G}_{(2)}}$.

Use - Plant juice 1 spoon combined with honey ½ spoon “Adusa” leave (*Adhatoda vasica* Ness.) roots one spoon and “Vach” (*Acorus calamus* Linn.) rhizome 2-3 gm. Applied orally twice a day and prescribed in chronic bronchitis and asthma.

*The leaves juice mixed with “Dhania” (*Coriandrum sativum*) used for skin eruptions.

Biological Properties: -Leaves – Chronic bronchitis, Cough, Skin eruptions.

207. *Verbascum thapsus* Linn. (SCROPHULARIACEAE)

Common & Regional Name: *LN.* -*Van tamakhu*; *H.* - *Gidar - tamaku*; *P.* - *Bantamaku*; *Urdu* - *Jangli Tamaku*.

Vegetative Character: -Plant erect herb, clothed with grayish yellow hairs.

Root – tap branched. Stem - stout. Leaves - entire or crenate, radical 15-35 cm. long ovate lanceolate, upper oblong acute. Flowers crowded in a simple terminal woolly spike, 10-25 cm long., yellow; bracts longer than the flowers. Calyx - 5-lobed. Corolla - about 2.5 cm across, wooly outside. Stamens - 5, three of the filaments clothed with white hairs, the other two longer and glabrous style dilated towards apex stigma simple. Capsule - ovoid, tomentose. Flowering - during Oct-Nov. Occur in Shahdol and other parts of M.P. Medicinal use leave.

FF – Br, $\oplus$, $\otimes$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2)}$.

Use- Juice of leaves and flower one spoon along with black pepper 2-3 pieces, hone, “Vach” (*Acorus calamus* Nees.) rhizome powder 2-3 gm and “Dambel” (*Tylophora asthmatica* W. & A.) leaves 2-3 gm applied orally twice a day for 2-3 month to treat bleeding of the lungs (TB) coughs and asthma.

*The leaves warmed and rubbed alongwith oil used as local application on inflamed part.

*One can use waste land but require fertile soils. The plant has narcotic properties; seed are used for stupefying fish.

Biological Properties: -Leaf is considered as- Astringent, Inflammatory, Demulcent, Consumption, Bleeding of the lungs and bowels. Pulmonary diseases. Seed - Aphrodisiac narcotic, Root – febrifuge.

Chemical Substance :- *Leaves contains – Bitter, Saponins, Crocetin.*

208. *Striga lutea* Lour. (SCROPHULARIACEAE)

Common & Regional Name: LN. - Agiya; S. - Kuranti; Gujrati - Agiyo; Marathi - Laghukurandika.

Vegetative Character:- An annual slender, erect, scabrid 20 to 30cm. tall herb. Root - parasite of sorghum etc., Leaves - linear, rough, sessile, opposite below, alternate above very narrow with small prickles like out growth at their bases. Flower on elongated spikes, many, sessile bracteoles-2, linear, pointed and rough. Calyx - narrow, tubular, 5-toothed, 10characteristic ribs on the calyx, 5 of them and in teeth. Corolla - 6 mm. long, white, 2-lipped, rarely yellow or reddish, tubular. Stamens - 4, didynamous, attached to the corolla tube. Ovary - superior, I celled with numerous ovules. Fruit oblong cylindric 0.5 cm. long., Flowering Sept.-Nov. Occur in Shahdol division, Bundelkhand, Rewa, Jabalpur, Sagar &Hoshangabad. It is a rare plant. Taste- Bitter. Medicinal parts use leaf.

FF – Br., $\oplus$, $\frac{\sigma}{\rho}$, $K_{(5)}$, $\overset{\curvearrowright}{C_5}$, A_4 , $\underline{G}_{(2)}$.

Use - Plant juice one tea spoon along with “Bahera” fruit powder (*Terminalia belerica*, Roxb.) 2-3 g. And black salt given orally 2-3 times a day for 10-15 days to cure and improve appetite and also applied in dysurea (strangury) diseases.

Biological Properties:-Plant yield – Bitter, Improves appetite, Strangury (Urin passes with difficulty or in drops) & blood disease.

209. *S.orobanchioides* Benth; see *S. gesneroides* Willd. (SOLANACEAE)

Common & Regional Name: LN. - Agiya; H - Lalagia; Gujrati - Ratoagio; Marathi - Tambadikarichagvat; S. - *gesneroides* (willd.)

Vegetative Character: -A glabrous or slightly pubescent small herb 1-2 ft. high, generally a parasite. Root - stock tuberous. Stem - stout, slender, simple or branched red in colour. Leaves scale like, ovate, oblong, acute,

reddish brown, passing in the floral bracts. Flowers - sessile, arranged in erect dense spikes; bracts smaller than the calyx, ovate lanceolate ciliate. Calyx - 5 or 4 ribbed, teeth 4-5, shorter than the tube, acuminate and bristle tipped; Corolla - pink with a white spot at the base of each lobe, hairy at the throat limb about 0.5 cm. across, Stamens - didynamous, included; anthers one celled, vertical, dorsifixed. Ovary - 2 celled, style thickened upwards, stigma simple. Fruit - oblong or subglobose capsule, pestiferous, separating from the placenta. Seeds many, reticulated. Flowering Aug.-Sept. It is a not common weed. Taste – Bitter. Medicinal use stem and leaf.

FF – Br., $\oplus$, ♂ , $K_{(5)}$, $\overset{\curvearrowright}{C_5}$, A_4 , $\underline{G}_{(2)}$.

Use- Plant powder $\frac{1}{2}$ tea spoon mixed with “Gurij” stem (*Tinospor cordifolia* Miers.) $\frac{1}{2}$ tea spoon, “Gudmar” leaves (*Gymnema sylvestre* R. Br.) is taken orally once a day to treat diabetes. Patient must avoid high starch, fat, sweets and spicy food.

210. *Stemodia viscosa*, Roxb.(SCROPHULARIACEAE)

Common & Regional Name: LN. - *Kethria*; B. - *Nukachuni*; Tel. - *Bodasarum*, *Guntakaminamu*.

Vegetative Character:- A sticky, pubescent herb, 20-30 cm tall, well branched from the base. Stem - erect, four angled glandular. Leaves - simple, opposite, sometime whorled, oblong, clasping, margin serrate. The basal leaves are larger, than the upper leaves. Flowers - violet, axillary, solitary, but at the terminal they are arranged in a sort of raceme. Bracts leaf like. Calyx – 5 lobed, linear, imbricate, hairy. Corolla – 2 lipped, upper lip notched, lower 3 – lobed, tubular, double in size then calyx, 5-lobed. Stamens - 4, didynamous, attached with corolla, Ovary - superior, 2-celled, style filiform, stigma 2-lobed. Fruit - a capsule 1 cm. long,

having persistent calyx. Seed many minute. It is a not common in Shahdol. Taste- Bitter. Medicinal parts use plant.

FF – Br., $\oplus$, $\frac{\sigma}{\text{f}}$, $K_{(5)}$, $\overset{\curvearrowright}{C_5}$, A_4 , $\underline{G}_{(2)}$.

Use- Decoction of plant mixed with “Tulsi” leaves (*Ocimum sanctum* L.) and candy sugar 1 spoon given orally twice a day for demulcent (soothing or softening, medicine).

Biological Properties: -Demulcent.

211. *Scoparia dulcis* Linn. (SCROPHULARIACEAE)

Common & Regional Name: LN.- *Phulia*.

Vegetative Character: -A glabrous leafy undershurb upto 2-4 ft. tall, branches many, erect or ascending. Root – tap branched. Stem – Tetraangular weak. Leaves - opposite or 2-5 cm. long, lanceolate, elliptical, shortly petiole, margins serrate. Flowers - many, white on terminal panicle, pedicellate. Calyx – 4 partite, segments oblong, imbricate. Corolla - rotate, 4-fid, throat densely bearded, lobes obtuse, subequal. Stamens-4, subequal filaments filiform, anthers sub-segittate, cells distinct, parallel or diverging. Ovary- 2 celled, style subclavate, stigma notched. Fruit - a small globose or ovoid septicidal capsule. Seeds - many, obovoid, angled. A common weed of moist place. Flowering during March-June. Taste- Sweet. Medicinal use whole plant.

FF – Br., $\oplus$, $\frac{\sigma}{\text{f}}$, $K_{(4)}$, $\overset{\curvearrowright}{C_5}$, A_4 , $\underline{G}_{(2)}$.

Use- Juice of plant mixed with “Bhui Neem” (*Andrographis paniculata* Nees.) plant “Gurij” (*Tinospora cordifolia* Miers.) and “Tulsi” leaves (*O. sanctum* L.) is given orally equal amount twice a day for 7-21 days to cure shivering fever and sugar, piles, strength in tooth.

*The plant leave 5-7 and “Shisham” (*Dalbergia sissoo* Roxb.) leave 5 chewed empty stomachs taken for 15-21 days to cure gonorrhoea and leucorrhoea.

*The plant root paste ½ spoon alongwith black pepper 2-3 pieces given orally once a day for 2 weeks to cure piles.

Biological Properties:-Plant considers – Piles, Gonorrhoea, Leucorrhoea, Toothache, Emetic, Guiana, and Ague.

Chemical Substance:*Leaves and Stems Contain- Amellin (An Antidiabetic Compound) and Alkaloid.*

References:-Agarwal, (2003); Ambasta, (1986); Ghose and Das, (2000); Johnson, (1998).

F – LAMIACEAE (LABIATAE)

212. *Leonotis nepetaefolia*, R. Br.(LAMIACEAE)

Common & Regional Name: LN. - Bada Guma, Gathva; H. & B. - Hejurchei; Bo. - Matijer; Tel. - Ranabheri.

Vegetative Character: - An annual erect 1-2 M. tall. Root – tap branched. Stem - start, pubescent, 4-angled. Leaves - membranous 6-15 cm. long ovate, acute, crenate-serrate, pubescent on both surfaces, petiolate., Whorls axillary, dense, globose, many-flowered, 3-6 cm. in diameter. Floral leaves lanceolate, deflexed, bracts linear, spine pointed. Calyx - 2 cm long, ribbed, upper part villous, teeth unequal, spine tipped, ovate, acute. Corolla - orange scarlet, tube 1.5 cm. long, upper part hairy; upper lip 1.5 cm. long, lower half of upper lip. Nutlets obliquely truncate. Flowering – Sept to Dec., It is a common weed of M.P. Medicinal use leaf and root.

FF – Br., %, ♂, K₍₅₎, or (10) C_(2/3), A₂₊₂, G₍₂₎.

Use- Flower head crushed and “Nirgundi” (*Vitex negundo* L.) leaves mixed as poultice, tied and slow hot foment (cow dung cake burnet) topically applied on painful area to treat gout and rheumatic during treatment of patient must avoid pickles, curd, whey and Tamarind etc.

*Ashes of flower – heads mixed with mustard oil, camphora and black pepper useful for scabies and itches and used in ringworm.

*Squeezed flower mixed with honey, 1g “Pepper” (*Pepper longum* L.) and “Alsi” seeds (*Linum usitatissimum* L.) given orally half spoon twice a day daily to control asthma.

*The paste of roots mixed with “Neem” leaves (*A. indica* A. Juss.) high massage on the mammary glands affected area when due to swelling milk does not pass through the nipples.

Biological Properties: -Roots are used as Inlactation, Flower head – to burns and scalds, Skin diseases., Leaves – tonic, bitter.

213. *Anisomeles malabarica* R. Br. (LAMIACEAE)

Common & Regional Name: LN. - Mahabar; S. - Vaikuntha; Tam. - Peyameratti; Tel. - Mogabiraku; Mal. - Karithumba; Bo. - Chodhara.

Vegetative Character:- An erect much branched annual or perennial, about 2-3 ft. tall herb. Root – tap branched. Stem – branched below solid. Leaves - crenate margins and acute apex, opposite, having long petioles and covered with minute hairs. Flowers - in dense whorls of short spikes, terminal as well as axillary. Bracts 2, about 1 cm. long, covered with hairs. Calyx - 2-12 mm, five lobed. Corolla - purple, about 2 cm. long, 2-lipped, upper bilobed, lower broad & 3-lobed, the mid lobe bifid. Stamens- 4, didynamous, exerted., Ovary- superior 2-celled, 4 partite, style slender bifid. Fruit of four nutlets. Flowers during rains and also in

February. Occur in Shahdol and other parts of M.P. Medicinal use leaves.

FF – Br., %, ♂, **K**_{(5), or (10)} **C**_(2/3), **A**₂₊₂, **G**₍₂₎.

Use- The crushed leaves juice one spoon, mixed with “Murra” (*Helicteres isora* L.) fruit powder ½ spoon and black pepper 1-2 pieces twice or thrice a day for treatment of griping stomach and also leaves decoction with 2-3 black pepper used in coryza, cough etc.

*Decoction of plant applied externally in rheumatism and intermittent fever.

Biological Properties:-Leaves – Colic, Dyspepsia, Cathartic, Intermittent fever, Anti poisons.

Chemical Substance:-*Plant contains – Alkaloid, Essential oil.*

214. *Leucas cephalotes* Spreng. (LAMIACEAE)

Common & Regional Name: LN. - *Dhurpi Bhaji, Khumbha*; H.- *Gumi sag*, S. - *Drona pushpin*; B. - *Barahalkasa*; Mar.- *Tumba, Deokhumba*; Tel. - *Tumni p*; Tam.- *Peddatumni*; P.- *Maldoda*.

Vegetative Character: -A wild pubescent or scaberulous annual 3-4 ft. high. Root – tap branched. Stem - branched angular, clothed with spreading hairs. Leaves - 4-10 cm. long, ovate or ovate-lanceolate, subacute, crenate serrate, membranous, pubescent, tapering to the base. Flowers - sessile in large, dense globose terminal whorls, 2-5 cm. floral leaves similar to cauline; bracts imbricate, leaflike, acute, awaned, ciliate. Calyx - tubular slightly curved, pubescent, teeth minute, triangular. Corolla – 5 gamopetalous 2 cm long lower lip longer. Nutlets 2 mm., obovoid – oblong, smooth, brown. Found all over M.P. in cultivated fields during Kharif. Flowering – Sep-Dec. Medicinal use whole plant.

FF – Br., %, ♂, ♀, K₍₅₎, or (10) C_(2/3), A₂₊₂, G₍₂₎.

Use- Juice of leaves ½ cup alongwith 2-3 black pepper and “Anantmool” root (*Hemidesmus indicus* R. Br.) juice is given orally 2-3 times a day prescribed for snake bite and also used in itches skin and flower used in cough

*The fresh leaves 30-40 gm. With 100 ml water juice used in Leucorrhoea and the plant is used for relief in asthma, cough, cold, bronchitis, dyspepsia, eruptions, headache, Jaundice, leucoderma, paralysis.

*Plant extract a tea spoon mixed with “Tulsi” (*Ocimum sanctum*) one spoon and black pepper 3 pieces together given orally twice a day for 3-4 months to treat asthma, piles and leucoderma.

Biological Properties: -Plant considers – Antiseptic, Anthelmintic, Appetiser, Antispasmodic, Carminative, Cathretic, Diaphoretic, Expectorant, Healing, Laxative, Indigestible, and Stimulant.

Chemical Substance:-Plant contains various constituents – Alkaloids, Aromatic, Beta – Sitosterol, Baballenic acid, Glycosides, Glucose, Flavonoids.

215. *L. utricaefolia* R. Br.(LAMIACEAE)

Common & Regional Name: LN. - Gumi, Khumbha, Gujrati - Kubo.

Vegetative Character: -An annual tomentose herb. Root – tap branched. Stem 4 – angled, hairy, erect. Leaves - rather thin, ovate acute, coarsely serrate. Flowers - in dense distant globose whorls, bracts shortly stalked, narrowly lanceolate, ciliate. Calyx - cylindric, pubescent, mouth very oblique, about 10-toothed, upper lip small lower lip large. Corolla - white, villous outside, mid lobe of lower lip 2-fid., Nutlets very small,

obovoid-oblong, trigonous, brown in colour. Common weeds. Flower-during Aug. – Oct. Found all over M.P. Medicinally used whole plant.

FF – Br., %, ♀, K_{(5), or (10)} C_(2/3), A₂₊₂, G₍₂₎.

Use- Juice of leaves mixed with black pepper 2-3 pieces and “Tulsi” leaves (*O. sanctum* L.) is given orally twice a day for 3-7 days to cure fever and cough.

Biological Properties: -Plant -Antipyretic.

216. *L. aspera* Spreng. syn. *L. mollisima*, Wall. (LAMIACEAE)

Common & Regional Name: LN. - Goomi Bhaji; H. & B. - Chota halkusa; Bo. - Tamba; Tam. - Tumbai; Tel. - Tummachettu.

Vegetative Character: - An erect, wild, rough, hairy 20-25 cm. tall, annual herb. Root – tap branched. Stem - four angled, branched & hispid. Leaves – linear lanceolate, entire, or serrate, subsessile, obtuse more or less pubescent. Flowers arranged on a crowded rounded head (crown), subtended by reduced leaves, which form an involucre bracts as long as calyx. Flowers- whitish in colour and in whorls, Calyx-10 nerved, calyx mouth projected forward, teeth small, bristle tipped. Corolla-1 cm. long 2 lipped, upper lip erect concave, hairy outside, lower lip spreading three lobed, middle lobes large., Stamens - 4, 2 long, 2 short., Ovary- 4 locular, lobes surrounding the style. Fruit - one seeded nut-let. Flowering - Sept.-Nov. Common all over M.P. Medicinal use whole plant.

FF – Br., %, ♀, K_{(5), or (10)} C_{2/3}, A₄, G₍₄₎.

Use- The leaf extract 2 spoons mixed with “Tulsi” (*O. sanctum*) leaves, “Neem” (*Azadirachta indica*) leaves 2 spoons and “Chitrak” (*Plumbago zeylanica* L.) Root bark 3g together give orally once a day for 4-5 weeks to treat psoriasis, chronic skin irruption and plant leaves applied in rheumatism, insecticide and preventing fever (febrifuge).

Biological Properties: -Plant considers – Antipyretic, Insecticide, and cold.

Chemical Substance:-Leaves contains – Glucoside.

**217. *Napeta hindostana* (Roth.), Haines syn. *N. ruderalis* (Hook.) f.
(LAMIACEAE)**

Common & Regional Name: LN.- *Badranga*; P.- *Badrang boya*, *Billilotan*.

Vegetative Character:- A annual or perennial shrub. Root – tap branched. Stem – below woody upper weak, violet colour, tetra angular, branched, opposite. Leaf – simple petiolet, opposite, oblong, decussate. Inflorescence – condensed cymose., Flower – unisexual pistillate. Calyx – 5 gamosepalous. Corolla – 5 gamopetalous, Androecium – 4. Gynoecium – bicarpellary syncarpus. Flowering – Aug. Oct. Found all M.P. Medicinal use leave & root. .

FF – Br., %, ♂, $K_{(5)}$, $\overbrace{C_{(5)}}^{\quad}$, A_{2+2} , G_0 .

FF – Br., %, ♀, $K_{(5)}$, $C_{(5)}$, A_{2+2} , $\underline{G}_{(2)}$.

Use- Plant mostly used in fever and also used in cardiac tonic, cough and plant decoction used for gargle in sore throat.

218. *Hyptis suaveolens* (Poit.)O. *basilicum*Linn.(LAMIACEAE)

Common & Regional Name: LN. – *Van Tulsi* ; *Uriya* : *Gangatulsi*, *Damna*.

Vegetative Character: -An annual or binnial herb, hairy 1-3 mts. tall aromatic plant. Root – tap branched. Stem – erect, branched, hairy quadrangular, woody below, Leaf – opposite, exstipulate, simple petiolate, ovate, serrate, hairy. Flower – complete, bisexual, zygomorphic, hypogynous, and pentamerous. Calyx – 5 gamosepalous bilabiate. Corolla – 5 gamopetalous. Androecium – 2 + 2, epipetalous. Gynoecium – bicarpellary syncarpus, superior, gynobasic, stigma bifid. Fruit –

carcerulus. Flowering Sept.-Jan. Occur in all over M.P. Medicinal use root, leaves and Seeds.

FF – Br., %, ♀, **K**₍₅₎, **C**₄, **A**₄, **G**₄.

Use- The plant 8-10 leaves are rubbed and extract between palm of hands is used topically twice a day for 15-21 days to cure injury, cut and wounds and plant use for treatment of curing flatulence & sweet producing, cough, cold.

*The mashed leaves mixed with “Baramasi” (*Tridax procumbens* L.) leaves juice is used topically 2-3 times a day for 37 day to treat injury, cut and wound.

*Plants tender stem & leaves are crushed and mixed with “Madar” latex (*Calotropis gigantea* L.) and mustard oil is rubbed on affected area of skin disease in itches & scabies etc.

*The extract of leaves with “Baramasi” (*Tridax procumbens* L.) leaves extract is used on wounds and cuts and also use in antiseptic as blood coagulant.

Biological Properties: -Plant is considered as- Carminative, Sudorific, Catarrhal condition.

Chemical Substance:-Plant Contains - Important Ingredients of Aerial Parts are: Aromatic oil, Suaveolic acid, Suavelol a New Triterpene 3-Beta-Hydroxylup-20 (29) - En-27-Oic Acid (II), Isolated Along with Hepta Cosanone, Sitosterol 1Beta-D-Glucoside, Ursolic acid, Betulinic Acid and Urs-12 En-3Beta-01-29-Oic acid,

References: Singh and Srivastava, (2000).

219. *Ocimum basilicum* Linn. syn. *O. caryophyllanthum* Roxb.; *O. pilosum* Willd.; *O. anisatum* L. (LAMIACEAE)

Common & Regional Name:LN. - *Damna, Marua*; H. & B. - *Babuitulsi*; S. - *Munjariki*; Eng.- *Sweet basil*; Bo. & Marathi - *Sabza*; Guj.- *Damaro*; Mal.- *Tirunitru*; Tam. - *Tirnutpatchi*; Tel. - *Bhutulasi*; P. - *Babri*.

Vegetative Character:- A tall 1-2 ft. herbaceous, annual or perennial, aromatic. Root-tap branched, Stem – erect, quadrangular, hairy, branched woody below., Leaf – ramal and cauline, opposite purplish green and decussate, simple, ovate, serrate. Inflorescence – flower in axillary cymose clusters arranged in a racemose manner. The two opposite cluster together are known as verticellaster. Flower – Pink or purplish, Embricteate, Zygomorphic, complete. Calyx – bilabiate, upper lip 1- lobed, lower 4 lobed tuber. Corolla – five pink, bilabiate upper lip 4 Androeciumfour, didynamous polyandrous, epipetalous. Gynoecium – bicarpellary syncarpus ovary superior 4 locular., Seed – ex-albuminous. Flowering – Aug. – Sept. Occure in Shahdol and other parts of M.P. Medicinal use whole plant.

FF – Ebr., %, $\frac{\phi}{\psi}$, $K_{(1/4)}$, $\overset{\curvearrowright}{C_{4/1}}$, A_{2+2} , $\underline{G}_{(4)}$.

Use- Squeeze leaves between palms of hands and this juice is applied externally 2-3 times a day for 2-3 day to relief headache.

*Squeeze leaves juice $\frac{1}{2}$ spoon and mix with black pepper and honey $\frac{1}{2}$ spoon is applied orally once or twice a day for 2-3 day for inflammation, diseases of throat.

*Mashed leaves juice applied internally 2-3 times a day for 3-7 day to treat pus in ear.

*Seeds powder half spoon mixed with “Tulsi” seeds (*O. sanctum* L.) $\frac{1}{2}$ tea spoon “Chirchira” 5 leaves (*Achyranthes aspera* L.) and 1 spoon candy sugar is taken orally once a day for 5-7 weeks to treat leucorrhoea.

Biological Properties:-Plant is considered as- Anodyne, Anthelmintic, Acrid, Antibacterial, Antiemetic, Anti-inflammatory, Ant diarrhoeal,

Antipyretic, Antispasmodic, Appetiser, Aromatic, Carminative digestive, Depurative digestive, Diuretic, Expectorant, Insecticidal, Pectoral, Stimulating, Stomachic, Thermogenic, Diaphoretic.

Chemical Substance:-Plant yield – Ceneol, Methyle Chavicol, Linoalool, Aromatic oil. Pinene, Camphortrpin hydrate.

220. *Salvia plebeian* R. Br. (LAMIACEAE)

Common & Regional Name: LN - Kamarkaso; B. - Kokaburadi; Bo. - Kamarkas; P. - Sathi.

Vegetative Character:- An erect, annual or perennial, pubescent herb. Root-tap branched. Stem - slightly woody, hairy four angled, fast agitatedly branched pubescent. Leaves- opposite oblong, lanceolate, crenate obtuse, often decurrent, petiolate. Inflorescence- Verticellaster. Flowers in panicle compact raceme. Calyx- pedicelled, gamosepalous hairy, and 5 cleft or lipped enlarging in fruit. Corolla - bluish& pinkish, white, gamopetalous, petals 5, bilabiate 2/3 lower lip often three lobed, middle one large. Stamens - 2 long. Ovary four locular. Nutlets minute, ovoid, brown. Flowering - during Sept. to April. Found common in Shahdol and all over M.P. Medicinal use leafs and seeds.

FF – Br, %, ♂, ♀, $K_{(3/2)}$, $C_{(2/3)}$, A_{2+2} (Staminodes), $\underline{G}_{(2)}$.

Use - Seeds powder half tea spoon along with “Tulsi” seeds half spoon (*O. sanctum* L.) “Shisham” 5 leaves (*Dalbergia sissoo* Roxb.) and “Babool” gum, fruits (*Acacia arabica* Willd.) half spoon and “Punarnava” (*Boerhaavia diffusa* L.) root one tea spoon is taken once a day for 2 month, prescribed for haemorrhoids, gonorrhoea, and menorrhoea and also used in leucorrhoea.

*The seeds power one tea spoon mixed with “Lajvanti” (*Mimosa pudica* L.) seeds ½ spoon and “Babool” (*Acacia arabica* Willd.) seeds, gum and

bark powder ½ spoon with candy sugar ½ spoon eaten once a day for 2-3 months to cure postnatal diseases, gonorrhoea, Menorrhagia, Haemohoids of ladies problem and also used in diarrhoea.

Note: Careful to spice & sour food etc.

221. *Ocimum americanum* Linn syn *O.canum* Sims.(LAMIACEAE)

Common & Regional Name: LN. - Mamri; H. & B.- Van tulsi; S. - Ajaka; Mal.- Katturama tulsi; Tam. - Ganjamkorai; Tel. - Kukka tulsi.

Vegetative Character:- Plant erect annual or perennial branching herb, upto 1m height, glabrous or slightly hispid. Root – tap branched. Stem - branches green. Leaves - 2-5 cm, ovate, acute, entire or toothed; petiolate, whorls densely racemose, the terminal raceme usually much longer than the lateral ones ovate, acute. Calyx- small enlarging in fruit. Corolla- white, glabrous or pubescent, Stamens - exerted, upper filaments toothed at the base. Nutlets ellipsoid, black & pitted. Flowering – Aug. Sept. Occur all over M.P. Medicinal use whole plant.

FF – Br., %, ♂, ♀, $K_{(1/4)}$, $\overbrace{C_{(4/1)}}$, A_{2+2} , $\underline{G}_{(2)}$.

Use – The paste of leaves applied 1-2 times a days for 1-2 days to treat headache and also used in parasitical skin diseases.

*Extract of leaves along with 1-2 gm. of “Pepper” (*Pepper longum*L.) given orally 2-3 times a day for 1-2 days to prescribe for cold & chilliness of children.

*One gram seeds pounded mixed with Gangajal and “Tulsi” seeds (*O. sanctum* L.) one g. taken in empty stomach and after taking this material, water from a copper (*Tamba*) Jug kept overnight should be taken daily in morning for 3-7 weeks for gonorrhoea and spermatorrhoea.

*Plant leaves mixed with “Rama & Shyama Tulsi” (*Ocimum sanctum* L.) leaves 5 or 5, “Pudina” whole plants (*Mentha spicata* L.) black pepper 3 seeds “Gurij” (*Tinospora cordifolia* (Willd.) Mi.), and candy sugar given orally in empty stomach 1-2 times a day for 15-21 days to treat typhoid (Motijhira) and also used in malaria fever and the leaves are used as flavouring agents and the seed forms jelly in water which is used for different remedies.

Biological Properties: -Plant is considered as- Demulcent, Expectorant, Stomachic and stimulant, Camphor.

Chemical Substance:-Plant contains various substance-Alkaloids, Glycosides, Aldehydes, Calculated as citral, Mythyl heptenone, Tannins, Savonin, Volatile Oil, Essential Oil, Vitamin - C and Carotene, Seed are contains- Fatty acid, Oleic acids, Linoleic acid, Green coloured oil, Systosterol, Palmatic acid, Mucilae, Citronellal, Linalool, Geraniol, Citronellol, Dipentene, Terpinolene, Crithmene, Limonene, d- α - pinene, Sabinene, Camphene, Caryphyllene, Phenol and acetic acid.

222. *Colebrookea oppositifolia* Sm. (LAMIACEAE)

Common & Regional Name: LN . - Benda; H - Binda, Pansara; Bo.- Dasari; P.- Shakardan.

Vegetative Character:-A shrub perennial, green plant. Root- tap branch. Stem- woody, branched, 4-5 ft tall, 4 angled. Leaves- simple, petiolet, opposite. Inflorescence- Verticillaster, Cymose. Occur hilly parts of Shahdol Division.

FF – %, ♂, K₍₅₎, C₍₅₎, A₂₊₂, G₍₂₎.

Use – The root applied for epilepsy and leaves also used wounds healing.

F – GERANIACEAE (OXALIDACEAE)

223. *Biophytum sensitivum* D.C. syn. *Oxalis sensitive* L. (OXALIDACEAE)

Common & Regional Name: LN. - Lakshana; H. - Lajalu; S. - Lajjaluka;

Eng.: Sensitive wood- sorrel; B. - Jhalai; Guj. & Marathi- Jharera;

Mal.- Mukkuti; Tam.- Mukkutti; Tel.- Jalapushpamu.

Vegetative Character:- An annual erect, hispidly pubescent, sometimes a perennial herb. Root – tap branched. Stem - simple or branched. Leaves - sensitive to touch, crowded on the top of the stem like a rosette, pinnately compound, 6-12 pairs of leaflets, petiole short smaller at the base, leaflets oblong, round at the apex. Flowers - dimorphic yellow, peduncle long, bracteate, regular bisexual. Calyx - sepals 5, free, imbricate, lanceolate. Corolla - petals 5, yellow, spreading and larger than the sepals. Stamens 10, free, in two groups. Ovary - superior, 5 celled, styled 5, few ovules in each cell. Fruit - a loculicidal capsule, dehiscing from all the five valves. Seeds - ovoid. Very common in Shahdol and also abundant in Malwa and Bastar tracts of the M.P., Perpetuation by seeds. Medicinal use whole plant.

FF – Br, $\oplus, \oplus^{\circ}$, K₅, C₅ A₁₀₍₅₊₅₎, $\underline{G}_{(5)}$.

Use - Juice of leaves 1 spoon taken orally 1-2 times a day for 3-5 days for proper discharge of urine and also seeds powder used for cut and wounds (stop the pus).

*The infusion of roots mixed with “Bhu amala” (*Phyllanthus niruri*) whole plant given 2 spoon for 21 days to cure bladder stone and gonorrhoea.

Biological Properties: -Plant is considered as- Antiseptic, Astringent, Anthelmintic, Bitter, Cooling, Diuretic, Styptic, Tonic, Stimulant.

224. *Oxalis corniculata* Linn. (OXALIDACEAE)

Common & Regional Name: *LN. - Amti bhaji, Khatbuti, Tinpatia, H. & B. - Amrul; S. & P. - Amlika; Eng.- Indian sorrel; Bo. - Ambuti; Tam.- Paliakiri; Tel. - Pulichinta; Mal. - Poliyarala.*

Vegetative Character: -An annual or perennial creeping herb, rooting at the nodes, forming underground fleshy bulbs or tubers. Root – adventitious. Stem - weak, round slightly pubescent and herbaceous. Leaves - alternate, on long stalks compound, having 3 obcordate leaflets. Stipules regular. Flower - bisexual, on long peduncles. Bracts setaceous. Calyx - sepals 5, Corolla - petals 5 obcordate, yellow. Stamens - 10, united at the base. Ovary - syncarpous, 5 chambered. Fruits - an elongated prismatic, five angled 2-6 capsule, bursting from the sutures., Perpetuation by seed and underground tubers. Common in moist places. Found all over M.P. Medicinal use leaves.

FF – $\oplus$, φ , K_5 , C_5 , $A_{(10)}$, $\underline{G}_{(5)}$.

Use- Plant paste used for antidote, antibacterial, antipyretic, anti-inflammatory, menstrual cycle disorder, use in fertility, hypotensive and piles.

*The whole plant extract is taken orally $\frac{1}{2}$ spoons once a day for 21 days to control anaemia and also used as liver tonic. The plant paste 1 spoon, mixed with black pepper 4-5 pieces and cow milk 1 glass (cow red or black colour) taken twice a day for 2-3 months to treat paralysis.

*Plant used as a cure for surfeit. Leaves cooling refrigerant, relieves stomachic and diarrhoea, Coagulate blood, treat fresh wounds & normal bleeding.

*The mesh of leaves $\frac{1}{2}$ spoon useful for over secretion of bile (biliousness) and mixed with salt and Turmeric Powder a few amount and heat (two leaf between in keep pack and cooked open fire) taken orally twice a day for 2 days to treat cold and coryza.

*The paste of leaf ½ spoon and mixed cumin ½ tea spoon given orally 2-3 time a day for 3-5 days to treat dysentery and also used in diagection.

Biological Properties: -Plant considers – Antibacterial, Anodyne, Antiseptic, Anti-inflammatory, Astringent, Constipating, Diuretic, Febrifuge, Sour, Vermifuge, Thermogenic, Cooling, Analgesic, Appetizer, Stomachic, and Digestive.

Chemical Substance:-Plant contains – Malic acid, Tarteric acid, Citric acid, Potassium oxalate.

225. *Oxalis acetosella* Linn. (OXALIDACEAE)

Common & Regional Name: LN. - Khattibuti, Khattsag.

Vegetative Character: -It is an annual or sometime perennial, slightly fleshy, and a week prostrate herb. Similar to that of (*O. corniculata* L.)except, the leaves are larger in size. It taste sour, and is very common in the green house pots and moist shady places. Flower yellow colour. Flowering – Oct. Nov. Distribution all over M.P. Medicinal use whole plant.

FF- $\oplus$, $\ominus$, $\mathbf{K}_5$, $\mathbf{C}_5$, $\mathbf{A}_5$, $\mathbf{G}_{(5)}$.

Use- The whole 7-8 plant mixed with salt, turmeric powder, according to test, packed into two “Palas” (forest flame) leaves and cooked in hot ashes for 25 minutes, given once a day for 2-3 day to cure cold and cough coryza in summer season.

*The fresh leaves juice ½ cup taken for 2-3 times a day to treat poison of “Dhatur” (*Datura stramonium* L.) seeds.

*The fresh leave paste one spoon with black salt given orally to treat less digestion power and hunger and also treating scurvy (antiscorbutic) and cooling (refrigerant).

Biological Properties: -Plant – Antiscorbutic, Cooling.

Chemical Substance:-*Oxalic acid.*

F – BORAGINACEAE

226. *Heliotropium strigosum* Willd. (BORAGINACEAE)

Common & Regional Name: LN.- *Chitphul*, *Safed bhangra*; H.- *Chitiphul*; P. - *Tindu*.

Vegetative Character: - An annual or perennial small stiff hairy, procumbent herb., Stem-pubescent, which become woody at the base. Leaves - linear, about 1-2.5 cm. long, alternate, without stipules. Flowers - minute, white in a dichotomously branched cyme, regular. Bracts small leaf like. Calyx – 5 sepals, lobed, ovate or acute, enlarging in fruit. Corolla – 5 petals, lobed, salver shaped. Stamens - 5, epipetalous. Ovary - superior, 4-locular, stigma conical. Fruit - of four glabrous nutlets. A common weed of Gwalior, Malwa & Jabalpur division, not common in Shahdol and other region of the M.P. Medicinal use whole plant

FF- $\oplus$, φ , $K_{(5)}$, $C_{(5)}$, A_5 , $\underline{G}_{(2)}$.

Use - The paste of plant with “Ishwar mula” (*Aristolochia indica* L.) roots & leaves juice given orally 2 spoonful 2-3 times a day for snake bite and also used for sore eyes, laxative (tending to loose the bowels) and diurative (discharge of urine), gumboils and boils suppuration.

Biological Properties: -Plant – Laxative, Diurative, Sores, Suppuration.

227. *Heliotropium indicum* Linn. (BORAGINACEAE)

Common & Regional Name: LN. - *Hathisund*; H. & B. - *Hatisura*; S. - *Hastisunda*; Tam. - *Telkodukki*; Bo. - *Burundi*.

Vegetative Character: -The plant is annual or biennial, scout, succulent and woody at base, branches spreading pubescent. Root – tap branched.

Stem – weak branched green and Leaves - alternate, or sub-opposite, petiolate, 1-2 ft. tall, ovate-oblong, sparsely hairy above, pilose below, margin undulate, base cordate or decurrent into petiole. Spike 5-15 cm. long extra axillary, ebracteate hispid. Flowers- pale violet, sessile, 2-ranked. Calyx- 5-partite, very minute, segments unequal, lanceolate. Corolla - white, funnel shaped 2 mm. long, hairy outside, lobes small, rounded reflexed. Stigma shorter than the style, with an annular frill at the base. Seed - small, two lobed, 4 ribbed with 2 angular beaks, one seeded pyreness. Seed white sub-quadrate. Flowering in Oct.-Nov. Found in Pandavnagar and moist place of Shahdol and other part of state. Medicinal use leaves.

FF- Ebr, $\oplus$, ♀ , $\text{K}_{(5)}$, $\text{C}_{(5)}$, A_5 , $\text{G}_{(2)}$.

Use - Paste of leaves mixed with “Biskhapri” (*Sida cordifolia* L.) leaves and black pepper used externally for boils, ulcers, injury, wounds, cut and also used in bites of reptiles (Varanus sp.) and snake and in sting of scorpion (Nettles) insect etc.

*Plant infusion used internally or paste externally for cleaning and healing ulcer and also used as antifugal, antibacterial, anticancer, antiviral etc. (Note : high dose for abortifacient)

Biological Properties: -Plant leaves – Antifugal, Antibacterial, Antiviral, Anticancer & Antiprotozoa, Ulcer, Boils, Diuretic, and Anti-poisons.

Chemical Substance: *Alkaloids, Heiotrine, Lasio carpine* (Suri et al. 1975).

228. *Heliotropium ovalifolium* Forsk.(BORAGINACEAE)

Common & Regional Name: LN. - Chitiphul.

Vegetative Character: - The plant is erect decumbent or almost prostrate herb, clothed with white appressed hairs. Root – tap branched. Stem - woody bellow branched. Leaves - 6-15 cm. long, elliptic, obovate

mucornate narrow are 5-10 cm. long; bracts minute persistent. Flower- Calyx sepals 5, hairy on both surfaces, unequal segments, bristle pointed and ciliate. Corolla - small, cylindric, hairy outside lobes small ovate oblong. Ovary - glabrous, style short stigma conical, stigmatic ring not clear. Nutlets four, 2 mm. long subacute, silky on the back, one - seeded found in moist place. Flowering- April to June. Occure in Jabalpur, Malva and Rewa Division. Medicinal use leaves.

FF- Ebr, $\oplus$, φ , $K_{(5)}$, $C_{(5)}$, A_5 , $\underline{G}_{(2)}$.

Use – Chrused tender leaves or stem are mixed with “Neem” leaves (*A. indica* A. Juss.) there decoction is applied for washing the wounds, cut and injury.

229. *Trichodesma indicum* R. Br. (BORAGINACEAE)

Common & Regional Name: LN. & H. - Chhotakulfa; S. - Surasa; B. - Choto kulpa; Bo. & Marathi- Lahana-kalpa; Tam. - Kalhudaitumbai; Tel. - Guvvagutti; Kash - Ratisurkh.

Vegetative Character: - A perennial, rare plant, erect, stiff haired, rough herb, silvery in appearance and bushy in nature. Root – tap branched. Stem – hairy branched and Leaves - sessile, ovate or lanceolate with cordate base, hispid above and villous beneath. Flowers - purple about 2 cm. across, axillary or in terminal racemes. Calyx - clothed with stiff hairs, hastate. Corolla - 5, tray (salver) shaped, with ovate acuminate obese. Stamens - 5, on corolla tube. Ovary - superior 2-4 chambered, deeply lobed. Flowering – Oct. - Dec. Occur Jabalpur Division, Amarkantak, Shahdol Division, Sagar & Rewa. Medicinal parts use leave & root.

FF- $\oplus$, φ , $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2-4)}$.

Use- Leaves decoction considered depurative (cleansing) in colds and chrused root paste applied to joints swelling & juice in dysentery to children.

The paste of root alongwith castor oil is made into poultice and tied at affected joints or swelling for a week.

Biological Properties: -Plant – Diuretic, Emollient, Depurative, Swelling etc.

230. *T. zeylanicum* R. Br.(BORAGINACEAE)

Common & Regional Name:LN.- Hatmura; H.- Hetemuria; S. - Jhingi; Marathi- Jalashirasi.

Vegetative Character:- An erect, annual herb, much branched, covered with stiff glandular hairs often tinged with purple. Root – tap branched. Stem – hairy branched. Leaves - pubescent below, covered with stiff hairs above sessile or shortly stalked, 5-10 cm. oblong lanceolate. Flowers - in the axil of upper leaves or in the terminal bracteate racemes complete, regular and bisexual. Bracts leaf like. Calyx - ovate, with prominent midribs, hairy. Corolla - large, pale lilac, wheel shaped. Fruit - pyramidal, 4 angled nut-lets. Flowering June-Dec. Common in Malwa and Jabalpur, not common in Shahdol rare in other parts of M.P. Medicinal use leave.

FF- $\oplus$, $\oplus$, $K_{(5)}$, C_5 , A_5 , $\underline{G}_{(2-4)}$.

Use- Juice of leaves mixed with “Tulsi” leaves (*O. sanctum* L.) given orally a table spoon once a day for 5-10 days to improve properly discharge of urine and also useful as a medicine.

F- PLUMBAGINACEAE

231. *Plumbago zeylanica* Linn.PLUMBAGINACEAE

Common & Regional Name:LN.- Chitabar; H.- Chitrak, Chita, Chitaur; S.- Chitrak, Eng.- White leadwort; Bo.- Chitra; Kan.- Chtiramula, Mal.

Tumpu kotuveli; Mara.- Chitramula; Tam.- Chithiramulam, Sittragam, Tel.- Chitramulamu.

Vegetative Character:- Anannual or perennial herbs. Root- tap branched woody. Stem- branched weak. Leaves - alternate simple. Flower- actinomorphic bisexual, pentamerous and hypogynous. Inflorescences- racemes, spike heads. Calyx – tubular, sepals - 5 united in 5 lobed, often membranous and persistent covering. The fruit- valvate in bud the odd sepal is posterior. Seed – oblong, smooth. Occur rare in Shahdol & other part of M.P. Flowering – Aug. Sept. Medicinal use whole plant.

FF- $\oplus$, $\ominus$, K_5 , C_5 , A_5 , $\underline{\text{G}}_{(5)}$.

Use- The leaf decoction about 8- 10 leaves one spoon is taken orally 2-3 times a day for 3-5 days to cure stomach pain and leucoderma and also milky extract used in unhealthy ulcer, scabies and itching.

*The powdered of roots $\frac{1}{4}$ tea spoon mixed with “Bahera” fruit bark (*Terminalia belerica*, Roxb.) powder $\frac{1}{4}$ spoon eaten twice a day for 3-7 days to treat indigestion, dysentery and also used in stool, diarrhoea and also used in root bark anaemia, bronchitis, hepatic- protective cardiac stimulant.

*The whole plant cooked with “Arandi” (*Ricinus communis* L.) oil externally use thrice a day for 1-2 month to relief arthritis , gout and also use for paralysis pain.

*Powdered roots bark $\frac{1}{2}$ - 1 g. mixed with honey 1-2 times a day given orally for 15- 21 days to cure weakness and leucoderma, liver, diseases, piles inflammation, leprosy, uterotonic and anti cancerous.

Biological Properties:- Root bark – Anthelmintic, Antiseptic, Alternative, Astringent, Antileprotic, Bitter, Carminative, Hot, Dry, Stomachic, Anti bacterial, Anti-fungal, Diaphoretic, Wound healing.

Chemical Substance : Plant contain various substances – α & β Amyring, Amino acid, Chitranone, Chloroplumbagin, Catechol, Elliptinone, Droserone, Fructose, Glucose, Invertase, Lupeol, Meritone, Taraxasterol, Tannin, Catechol, Plumbagic acid, Volatile oil, Zeylanone, Zeylinone. Root - Acrid plumbgin alkaloids.

F – ACANTHACEAE

232. *Barleria prionitis* Linn. (ACANTHACEAE)

Common & Regional Name: LN. - Karhanti; H. - Katsareya; S.- Karunta, Saireyaka; Bo. - Vajradanti; B. - Kantajati; Tam. & Mal. - Shemmuli; Tel.- Kanakam-baram, Mullugoranta.

Vegetative Character: -A perennial prickly, under shrub 3-4 ft. tall. Root - tap branched. Stem - branches terete and 4-angled below wooday, glabrous, bark white. Leaves- simple, large lanceolate, 5-10 cm. long, entire, acute, spine tipped. Flowers- in terminal spikes, yellow, in clusters. Calyx- nearly divided upto base in two groups of 2. spine tipped. Corolla- somewhat 2-lipied, sparingly hairy, upper lip with 4-lobes, lower lip short. Androecium, 5, 2-fertile, 2 staminode one rudimentary. Ovary- 2 ovules. Fruit a capsule, 2 seeded. Found wild in Shahdol, Jabalpur, Malva, Bundelkhand and also other parts of M.P. Flowers- during Sep.-Oct. rains and in March. Medicinal use roots and leaves.

FF- Br, Brl, %, $\frac{\sigma}{\tau}$, $K_{(5)}$, $C_{(4+1)}$, A_5 , $\underline{G}_{(2)}$.

Use- Seed powder with “Tulsi” (*O. sanctum*L.) leaves Sahad (Honey) given for bronchitis, cough and also colic, fever, worms, lumbago, leprosy, dysmenorrhoea, skin disease syphilis, stranguary and ulcer etc.

*Crusted leaf by mortar and pestle juice one spoon is taken orally twice a day for 21 days to get relief from bronchial asthma and bronchitis and also their stick use for toothache.

*Powder of whole plant mixed with “Neem” leaves (*A. indica* A. Juss.) and “Gudmar” leaves (*Gymnema sylvestre* R.Br.) is given orally one spoon once a day daily empty stomach to control diabetes patient avoided as more starch, sugar, sweets spices and fats.

*Leaves juice ½ spoon “Tulsi” leaves ½ spoon (*O. sanctum* L.) mixed with booths given orally twice a day for 2-3 days to treat cough and cold fever and chewed leaves to cure toothache and leaf paste used in skin diseases.

*Root paste mixed with black pepper 2-3 pieces locally application twice a day for 3-5 days to cure glandular swellings and boils.

Biological Properties: Plant is considered as- Antiseptic, antidote, anti - inflammatory, wound healing, diuretic, diaphoretic, expectorant.

Chemical Substance: -Plant Contains - Scutellarein-7-Rhamnosylg-Lucoside (Flower), Barlerin, Acetylbarlerin (Leaves and Stems) and Plant also Contain β -Sitosterol, Iridoids and K.

References: Anonymous, (1968); Asolkar et al., (1992); Dhar et al., (1968); Sinha and Sinha, (2001).

233. *Barleria cristata* Linn. (ACANTHACEAE)

Common & Regional Name: LN. - Janti; S. - Jhinti, Fhinti; B.- Sada- jati; Ori. - Koileka; P. - Tadrelu.

Vegetative Character:- A perennial prickly, under shrub 3-4 ft. tall. Root- tap branched. Stem -branches terete and 4-angled below Woody, glabrous, bark white and Leaves- simple, large lanceolate, 5-10 cm. long, entire, acute, spines tipped. Flowers - in terminal spikes, yellow, in clusters. Calyx - nearly divided upto base in two groups of 2. spine tipped. Corolla - somewhat 2-lipied, sparingly hairy, upper lip with 4-lobes, lower lip short. Androecium, 5, 2-fertile, 2 staminode one rudimentary.

Ovary – 2 ovules. Fruit a capsule, 2 seeded. Found wild in Shahdol, Jabalpur, Malva, Bundelkhand and also other parts of M.P. Flowers during Sep.-Oct. rains and in March. Medicinal use roots and leaves.

FF- Br, Brl, %, ♂, ♀, K₍₂₊₂₎, C₍₄₊₁₎, A₅, G₍₂₎.

Use- The whole plant is used for control of diabetes and plant root used for swelling and snake bite.

Biological Properties:- Plant is considered as- Alc. Ext. of the entire plant exhibits hypoglycaemic activity in albino rats.

Chemical Substance:- Plant contains – The barlacristone, Cristabarlone (roots) Apigenin, Naringenin and Apigenin, Glucoronide.

References: Anonymous, (1968); Asolkar et al., (1992); Dhar et al., (1968); Sinha and Shrivastava, (2001).

334. *Blepharis maderaspatensis* Linn Heyme. ex Roth. *B. molluginifolia*; Pers. (ACANTHACEAE)

Common & Regional Name: LN. - Koreta.

Vegetative Character: - An annual some time biennial, prostrate much branched hairy, about 1-2 ft. tall. Root - tap branched. Stem - branched. Leaves - about 1-2. 5 cm long in whorls of four, unequal, sessile, somewhat fleshy, and oblong obtuse & hairy. Flower - axillary, solitary and sessile, having 10 bristly bracts, Calyx - deeply four lobed, having somewhat membranous margins and Corolla - blue, lower lip nearly absent, corolla tube short and horny. Stamens four didynamous. Fruit - a small oblong ellipsoid, capsule smooth has two seeds. The capsule remain enclosed by the persistant calyx and bracts, generally 2 seeded. Seed - obtusely echinate. Flowering July – December (winter season). A weed occur in Shahdol, Jabalpur, Malva, Rewa and Gwalior Division of

waste lands and well drained soils like bunds etc. Medicinal use whole plant.

FF- Br, Brl, %, ♂, K₍₂₊₂₎, C₍₄₊₁₎, A₅, G₍₂₎.

Use : The plant use is medicinal.

235. *Andrographis paniculata* (Burm.F.) wall. ex Nees. syn. *A. Subspathulata* Clarke; *Justicia paniculata* Burm. (ACANTHACEAE)

Common & Regional Name: LN. - Bhui neem; H. - Kiryat, Kirayat; S. - Bhunimba; Eng. - Creat; B. - Kalmegh; Tam. & Tel. - Nilavemu; Mal. - Nelavepu; Mar.- Oilkiryata, Pelairaiet.

Vegetative Character:- An annual erect, 2-3 ft tall Root- adventitious. Stem- branches 4-angeled or winged; Leaves - 5-7 cm. long, lanceolate, acute, tapering to the base, short stalked or sessile. Flowers – white, small, solitary, arranged in lax spreading axillary or terminal racemes, forming a paniculate inflorescence; bracts 1 mm. lanceolate, bracteoles small or none. Calyx - minute, segments equal, lanceolate, gland pubescent. Corolla - white, 2 lipped, hairy outside, tube 3-4 mm. long, dilated below the limb. Filaments hairy upward, anthers bearded at the base capsule 7-8 mm long, is tapering at both ends. Seeds several, sub-quadrant, glabrous. Flowering during Sept.-Nov. Occur in Shahdol other parts of M.P. Medicinal use whole plant.

FF- Br, Brl, %, ♂, K₍₅₎, C₍₅₎, A₂, G₍₂₎.

Use- Plant powder ½ spoon along with one spoon “Jamun” seeds (*Eugenia jambolana* Lam.) and “Gudmar” leaves (*Gymnema sylvestre* R.Br.) ½ tea spoon is taken once a day empty stomach to control diabetes, fever, worms, constipation and also used in dyspepsia, anorexia and Hepatomegally.

*Powder of plant mixed with “Gurij” (*Tinospora cordifolia* Willd.) stem, “Chiraita” (*Swertia chirata* Buch.) plants, “Koraya” (*Holarrhena antidysenterica* Wall.) bark and “Tulsi” (*O. sanctum* L.) leaves and 2-3 pieces of black pepper is taken orally equal amount a table spoon once a day for 3-21 days is prescribed for alternate fever, dysentery stomach worm and also used in skin diseases, hepatic disorders, oedema, blood purifier.

Biological Properties:-Plant – Leprotic, Antiperiodic, Hepatic, Digestive, Nutritive, Stomachic, Stimulant.

Chemical Substance:-Plant Contains - Anhydroxytuberosin, β - Sitosterol, Andrographolide, Panicalide, Polyphenols, Caffeic and Chlorogenic Acids, Mixture Of Dicafeoylquinic (Leaves), 14-Deoxy-11 Oxoandra-Grapholide And 14- Deoxy-11, 14-Didehydroandra Grapholide And 14-Deoxy Andrographolide, Neoandrograra-Pholide; 14-Deoxy-11-Oxoandrographolide, 14-Deoxy-11, 12, Dehydroandrographolide and 14-Deoxy Androrapholide (Plant) and also Plant Contain Kalmeghin, Tannic acid, Na, K etc.

References: Ambasta, (1986); Asolkar et al., (1992); Balu et al., (2000); Ghosh and Das (2000); Jain et al., (1991); Johnson, (1998).

236. *Dipteracanthus prostratus* Nees syn.*Ruellia prostrata* Poir.(ACANTHACEAE)

Common & Regional Name: LN. - Koreta; Guj. - Kalighavani; Mal. - Upudali; Tam. - Pottoanchi.

Vegetative Character: -An annual prostrate or sub-erect herb., Root-adventitious. Stem - much branched, with ascending branches, and Leaves - ovate or elliptical, acute, sparsely hairy, entire and petiolate. Flowers - sessile, solitary, axillary or terminal, bracteoles similar to leaves but smaller. Calyx – 5, deeply divided, lobes linear, acute, hairy.

Corolla - pale blue or violet long, pubescent outside, lobes 5, sub-equal, ovate oblong rounded at apex. Stamens - 4, didynamous, anthers 2 celled ovary superior, 2-celled, style pubescent. Fruit - a clavate capsule, slightly pubescent. Seed - 16-20 sub-glabrous. This is common weed., Flowering- Aug. to Sept. Occur throughout M.P.

FF- Br, Brl, %, ♀, K₅, C₅ A₄, G₍₂₎.

Use- Juice of leaves applied as remedy of ear diseases 1-2 times a day for 2-3 days to treat earache and leaves juice given with liquid copal (resin) as diseases for gonorrhoea and leucorrhoea.

*The paste of leaves is used as ointment on boils.

237. *Hygrophila spinosa* T. anders., *Asteracantha longifolia* (Nees.)syn. *H. auriculata* (Sch.) Heine. *A. auriculata* Nees. (ACANTHACEAE)

Common & Regional Name:LN. - Talmakhana; S.- Bajrakanta, Kakilakshya; B. - Kuliakhara; Bo. - Talim-khana; Guj. - Gokhru; M. - Nirmalli; Mar. - Kolshind; Mal. - Vayalchlli; Tel. - Nirguviveru.

Vegetative Character: - An Annual or perennial moisture loving herb, erect, 3-4 ft. tall. Root – tap branched. Stem – branched, slightly woody, hairy, violet in colour, stiff hairs especially present at the nodes and Leaves - simple 12-15 cm long, opposite, sessile, lanceolate, in whorls of six, two outer large, each leaf with a long sharp straight yellow spine in its axil. Flowers - in a whorl of eight at each node, bluish purple 4cm. long, bracteate, bracts narrow, hairy., Calyx - deeply four partite, the upper sepal larger than the other three. Corolla - narrow, tubular, with two lips, upper lip to lobed, lower lip three lobed, and ventricose, with two orange streaks. Stamens 4, attached to corolla in two unequal pairs, anthers two lobed. Ovary - superior, two celled, with 4 ovules in each cells. Style elongated hairy and stigma simple. Fruit - a capsule. Occur - common

weed in the moist places in Shahdol and other parts of M.P. Flowering – Sep. – Nov. Medicinal use of root, leaves and seeds.

FF- Br, %, ♀, K₄, C₅ A₄, G₍₂₎.

Use- Infusion of roots leaf and 2 pounded seeds mixed with black pepper 6-8 pieces and honey is given orally once a day for 5-21 days to treat Jaundice, gout and properly discharge of urine and diuretic.

*Seeds powder ½ spoon mixed with candy sugar one spoon “Tulsi” seeds (*O. sanctum* L.) ½ tea spoon and “Shivlingi” seeds (*Diplocyclos palmatus* L.) seeds is given orally once a day for 2 months to prescribed for gonorrhoea and spermatorrhoea and also used in dropsy.

*Plant part root leaves and seeds mixed equal amount together use for disease of rheumatism, dropsy, urinogenital tract and anasarca, stone (calculi) liver disorder, oedema and gout etc.

Biological Properties: -Seed – Acrid, Aphrodisiac, Bitter, Constipating, Cooling, Tonic, Diuretic, Sweet, Spermopoeitic, **Galactagogue.**

Chemical Substance : *Plant Contains These are - Xylose, Uronic acid, Jupeol, Stigmasterol, Straight Chain, Hydrocarbons (Seed-Oil), Jupeol, Betulin And Stigmasterol (Plant) and also Seen Yellow Color, Lipase, Protease, K Salt, Mucilage, Diastase.*

References: Ghose and Das, (2000); Subramaniam, (2000).

238. *Ecobolium linneanum* Kurz. *E. viride* (Forsk.) Merrill.

(ACANTHACEAE)

Common & Regional Name : LN.- Udjati; H.- Udajati; Marathi - Dhaktaadulsa; Tam. - Nilambari; Tel. - Chikatiquuratappa; Mal. - Odiyamadantha.

Vegetative Character: - An Annual or perennial moisture loving herb, erect, 3-4 ft. tall. Root – tap branched. Stem – below woody branched internodes, nodes. Leaves – simple, opposite, decussate, petiolate, lanceolate. Blue Fox Tail is a shrubby plant, with 4-sided flower-spikes at the end of branches. Bracts are oval, entire, and mucronate. Leaves are elliptic-oblong, narrowed at both ends, velvety. Flowers are large, greenish blue. Upper lip of the flower is linear, reflexed. Blue Fox Tail is found in Amarkantak, Shahdol, Jabalpur and Mandla. Medicinal use whole plant.

FF- Br, %, ♀, K₄, C₅, A₄, G₍₂₎.

Use- Paste of root ½ spoon along with “Chhoti” Dudhi (*Euphorbia thymifolia* L.) whole plant one tea spoonful and black pepper 2-3 pieces given orally twice a day for 7-15 days to treat Jaundice and also used in gout and rheumatism.

*Plant juice 1 spoon and mixed with “Agiya” (*Striga lutea* Lour.) leaves juice one spoon is given orally once a day for 3-7 days.

Biological Properties:- Plant treat – Gout, Rheumatism, Dysurea, Menorrhoea, Stricture.

239. *Lepidagathis hamiltoniana* Wall. (ACANTHACEAE)

Common & Regional Name: LN.& H. - Kumbha; Mundari- Gharia; Bo.- Kolichechutar, M.- Karappanpundu; Mar.- Bhuyaterada; Santh.- Otdhompo.

Vegetative Character:- The perennial herb. Root – tap branched. Stems - leaves 1-1.5ft long, oblongate, flagelliform, leafy upward, linear oblong, glabrous., Spikes in globose heads, arising from base of stem, bracts upto 1 cm. long, lanceolate, spinescent, margins ciliate white. Calyx-segments membranous, rough, acuminate, and spinescent. Corolla - strigose outside with white hairs, spotted with brown colour. Capsule – 2

seeded, conical, scarious on back, seed ovate, covered with hairs. Occur on the field of Shahdol. Flowering – in Sept. – Oct. Medicinal use root and leaves.

FF- Br, %, ♀, K₅, C₅, A₂, G₍₂₎.

Use- Paste of root along with “Dubi ghass” plants (*Cynodon dactylon* L.) mustard oil and Turmeric is applied locally twice a day for 2-3 days to treat swelling and sore.

Biological Properties:-Plant- Bitter, Fever, Itchy affections of Skin and Sores.

240. *Peristrophe bicalyculata* Nees. (ACANTHACEAE)

Common & Regional Name: LN. - *Chitchitia*; H. - *Atrilal*; B. - *Nasabhanga*; Bo. - *Pitpapra*; Tel. - *Chebira*.

Vegetative Character:- An erect, branching annual herb, upto 1 mtr. tall, slightly hairy. Root - tap branched., Stem- weak and branches angular hexagonal. Leaves- opposite ovate tapering towards the apex, margin entire, short stalked, exstipulate. Flowers on loose axillary 3-chotomous cymes forming large lax divaricates hairy panicle; bracts 2, unequal opposite cymes, complete, bisexual. Calyx - short with ciliated margins. Corolla - white or purple slender, hairy ciliated margins. hairy outside, upper lip entire, obtuse, lower lip with 2-3 acute lobes. Stamens- 2 in two pairs. Ovary - superior 2 chambered, capsule pointed. Seed papillose. A common weed of the waste places. Flowering – Sep. – Oct. Occur Shahdol, Dindori, Mandla, Rewa, Jabalpur and all over M.P. Medicinal use of whole plant.

FF- Br, Brl, %, ♀, K₍₅₎, C₅ A₂, G₍₂₎.

Use - Pounded roots mixed with “Dhatūra” leaves (*Datura metel* L.) and “Ishwar mula” (*Aristolochia indica* L.) root, leaves and castor oil made into poultice and tied on joints and slightly warmed applied locally as

liniment 1-2 times a day for 7-21 days prescribed for Rheumatism oestro-arthritis gout etc.

*Whole plants paste alongwith black pepper 3-5 pieces, candy sugar “Lampati” (*Vernonia roxburghii*, Less.) root and “Kolha” (*Alangium salviifolium*, L.) roots equal amount ½ cup given orally once a day for 8-15 days to cure dog bite patient avoided sour, chillies, salt, oil spices etc.

*Plant crushed juice mixed with “Hathi Sund” (*Heliotropium indicum* L.) leaves “Gudmar” leaves (*Gymnema sylvestre* R. Br.) and “Anantmool” (*Hemidesmus indicus*, R. Br.) root together equal amount given orally 2 spoon full 2-3 times a day to treat in case of snake bite and leaf juice used in deafness.

Biological Properties: -Antidot, Ear deafness, Anti-rabies (Hydrophobia) & Rheumatism.

241. *Rungia repens* Nees. (ACANTHACEAE)

Common & Regional Name: LN. - Parpat chara; H. - Kharmor; S. - Parpatha; Gujarati - Khatsalio; Tam. - Kodagasalai; Bo. - Ghatipitpada.

Vegetative Character: -Anannual diffuse herb found in moist places, about 2-3ft. tall. Root - tap branched. Stem- branched angular, sparsely hairy, rooting at the nodes. Leaves - simple, opposite, exstipulate, short stalked, oblong, glabrous. Bracts white, membranous, ciliated, only two rows of bracts bear flowers and other two are without flowers, bracteoles 2, membranous, white, and hairy. Flowers - on a long spike. Calyx - linear, deeply cut. Corolla - two lipped, light pink with dark spots on corrugated three lobed lip. Stamens - 2. Ovary superior. Fruit - 2 celled capsule, Seeds - brown. Occur - common in all over M.P. Flowering – Aug. – Sept. Medicinal use whole plant

FF- Br, Brl, %, ♀, K₅, C₂₊₃, A₂, G₍₂₎.

Use - Plant dried and pulverized given in cough and fever, considered vermiform.

*The powder of plant mixed with black pepper 2-3 pieces “Tulsi” leaves (*O. sanctum* L.) and “Gurij” (*Tinospora cordifolia*, Willd.) stem leaves together given orally equal amount a table spoon or ½ tea spoon (children) 1-2 times a day for 3-7 days to cure cough fever and stomach worm (vermifuge).

Biological Properties: -Plant considers – Cough, Fever, Vermifuge, Tinea capitis.

242. *R. parviflora* Nees.(ACANTHACEAE)

Common & Regional Name: LN. - *Pendi chara*; S. - *Pindi*; Gujrati - *Mothokhadsalio*; Tel. - *Pindikunda*; Tam. - *Punakapundu*.

Vegetative Character:- An annual much branches procumbent. Root - tap branched. Stem- weak branched. Leaves - 1-5 cm. long, oblong-lanceolate, acute or sub obtuse, glabrous or slightly hairy, base acute, petiole small. Flowering - spikes 0.5 to 3 cm. long, often two or three at the end of branches., Bracts dimorphic, barren ones in two rows, lanceolate, cuspidate, pubescent, margins scarious, fertile bracts bracteoles smaller than the bracts, margins serious and ciliate. Calyx - linear lanceolate. Corolla - white with blue lines, hairy outside, upper lip acuminate not emarginate. Anthers - superposed, lower stamens white failed. Capsule minute, ovoid, acute & compressed, hairy at apex. Seed - minute echinulate. Common throughout M.P. grows during rainy season. Medicinal use root and leaves.

FF- Br, Brl, %, ♀, K₅, C₂₊₃, A₂, G₍₂₎.

Use - Fresh leaves juice a table spoon is mixed with black pepper, 3-5 pieces, turmeric powder 3-4 gm. given orally 2-3 time a day for 3-7 days to relief (injure without breaking skin a bruise (internal) pain and also used as leaves decoction for cooling effect and small pox.

Biological Properties:- Leaf juice - Cooling, Aperient, Viral (Small pox), Root-pain and Diminish and Swelling.

243. *R. pectinata* Linn. (ACANTHACEAE)

Common & Regional Name: LN. - *Ukchi jhar, Pindi.*

Vegetative Character:- An annual herb a much branches. Root – tap branched.

Stem – weak branched. Leaves - 1-5 cm long, oblong lanceolate, glabrous or sub obtuse glabrus, slightly hairy, flowering spikes 0.5 to 2.5 cm bracts dimorphic, barren once in two rows cuspidate pubescent margins scarious fertile bracts and Calyx-linear lanceolate. Corolla - white with blue lines hairy outside upper lip acuminate anthers superposed, lower stamens white capsule minute Seed - minute. Flowering – Aug. Sep. occur common plant of M.P. Medicinal use leafs.

Use- Paste of 2-3 leaf branches of fresh plant is used topically according to wounds and cut twice a day for 3-7 days.

*Paste of tender leaves and stem mixed with “Baramasi” (*Tridax procumbens* L.) leaves juice is externally applied 2-3 times a day for 3-5 days to cure injury wounds and cut.

Biological Properties: - Plant – cut and Wound.

244. *Adhatoda vasica* Neessyn. *A. zeylanica* Medic. *Adenantha vasica* L. *Justica adhatoda* L. (ACANTHACEAE)

Common & Regional Name: LN. - *Adusa*; H. & Bo. - *Adulasa*; S. - *Vasaka*; B. - *Bakas*; Tam. - *Adadodai*; Tel. - *Adasaramu*.

Vegetative Character:- A perennial shrub. Root- tap branched. Stem- woody, branched cylindrical and Leave-opposite, simple, exstipulate, usually entire. Inflorescence- Spike. Flower- bracteate, bracteoles, Zygomorphic, Hermaphrodite, complete, hypogynous., Calyx- 5 sepals, Gamosepalous. Corolla- 5 petals, gamopetalous. Androecium - Polyandrous, epipetalous, Gynoecium- bicarpellary, bilocular. Fruit- capsule. Flowering- Oct. Nov. Medicinal use root and stem, leaves, flower.

FF- Br, Ebr, %, ♀, K₍₅₎, C₂₊₃, A₂, G₍₂₎.

Use- Infusion of leaves and flower mixed with black pepper 2-3 pieces “Bhatkataiya” (*Solanum xanthocarpum*) flowers or plants. Dry zinger 2-3 gm. “Harra” (*T. Chhebula*) fruit bark and “Nagarmoth” tuber (*Cyperus rotundus* L.), “Vach” (*Acorus calamus* L.) rhizome, honey 1 spoon together given orally 2 spoons twice a day for 2-3 months to relief for chronic asthma, cough and primary T.B. etc.

*Pulverized of dry leaves mixed with black pepper 2-3 pieces “Dhatur” (*Datura metal* L.) leaves “Bahera” (*Terminalia belerica* Roxb.) “Bhatkataiya” flower (*Solanum xanthocarpum*, Schrad.) together used smoked in cigarette form twice or thrice a day for 2-3 months to prescribe for asthma.

*The crush of root and made infusion (40 g.) boiled in 100 ml milk she goat or cow “Kanji” flower powder (*Pongamia pinnata* L.) and black pepper 2-3 pieces given orally 2 spoon twice a day for a week to control diabetes.

*2Chewed leaves mixed with “Jamun” leaves (*Eugenia jambolana* Lam.) juice taken orally twice a day for 2-3 days to cure mouth ulcer (blister)

*Powder of root or stem mixed with black pepper, “Tulsi” leaves (*O. sanctum* L.) “Chirchira” root, stem (*Achyranthes aspera* L.) and “Akarkra” (*Spilanthes acmella* Murr.) taken brush daily to treat toothache and other disease and also root infusion two spoons is used for children having cough.

*Infusion of leaves mixed with black pepper, 2-3 pieces, Zinger 2 g. “Bakain Neem” (*Melia azadirachta* A. Juss.) leaves taken orally 2 spoon 1-2 times a day for 7-21 days to relief in rheumatism, gout and also used in skin diseases itchy skin scabies and worms in regular menstruation and in heart diseases.

*Decoction of root and leaves used internally 1-2 spoons daily a fortnight for Jaundice and indigestion and flower juice useful in eye diseases.

*The paste of leaves and mixed with “Biskhapri” leaves (*Sida cordifolia* L.) and “Methi” (*Fenugreek*) seeds together made poultice and tied on boils twice a day to stop growth of boils or ripening condition to out pus in boils.

*Juice of leaves mixed with “Neem” leaves and “Gurij” (*Tinospora cordifolia* Willd.) leaves and stem together used in well water four times a week to treat mosquito larva and other insects.

Biological Properties:-Plant is considered as- Acrid, Anthelmintic, Anti-leprotic, Anti-inflammatory, Anti-periodic, Antiseptic, Anti-spasmodic, Bitter, Bronchodilator, Cooling, Diuretic, Expectorant, Pungent, Stimulant.

Chemical Substance :-Roots Yield Various Substances - 9-Acetamido-3, 4, Dihydropyrid [3,4- β] Indole (I), O-Ethyl- β -D Galactoside – along with Sitosterol - β - D Glucoside, Galactose, Deoxy Vasicinone and Vasicinone and Leaves Contains – Adhatodic acid, Bitter, Vasicine, Volatile Oil, Vasa, Resin Gum, Sugar & Yellow Pigment. Plant-

Alkaloids (Vasicollin, Adhatodine, Vasicolinine, Anisolin) Vasicine and Vasicinone.

References: Asolkar et al., (1992); Dutta and Nath, (2000).

F – RANUNCULACEAE

245. *Ranunculus sceleratus* Linn. (RANUNCULACEAE)

Common & Regional Name: LN. - *Jal Dhania*; Kumaon - *Shimi*.

Vegetative Character:- An annual herb, swampy, aquatic. Root – adventitious. Stem – Mostly herbaceous branched. Leaf – alternate, cauline, petiolate, leaf lamina dissected, multicostate reticulate venation. Inflorescence- biporous cyme. Flower – pedicellate, bracteate, actinomorphic complet. Calyx – 5 sepals. Corolla – 5 petals, Androecium -indefinite, spiral, polyandrous. Gynoecium – apocarpus, superior, unilocular basal placentation. Fruit – etaerio of achens. Flowering – Sept. – Jan. Occure in moist, damping river side all over M.P. Medicinal use tender, stem & leafs.

FF- Br, Brl, $\oplus$, ♀ , K_5 , C_5 , A_∞ , G_∞ .

Use - Infusion of tender stem leaves 250 gm is mixed with “Ghamira” (*Eclipta alba*, Hassk.) leaves is used externally on head twice a day for 7-8 weeks to prescribed for bold and it is also used in diuretic.

*The paste of leave external application twice a day for 2-3 days to treat tumour boil and also used an affected area in toothache and goiter.

*The 2-3 leaves mashed along with water is taken orally 1 to 2 times a day for 2-3 days to prescribed for plague fever (*Mahamari Roga*) (from over dose of plant leaves) to given orally one glass of cow milk, curd and butter 50 g. (Ghee) to cure problem for over doses).

***When** Patient gets relief from fever, sago or wheat is given with slightly hot milk to maintain a keen appetite, till 2-3 days.

Biological Properties:- Plant- Emmenagogue, Galactos, Poisonous, Skin Diseases.

Chemical Substance:- Plant contains- Anemonine, Protoanemonin. Flower – considered most deadly poison.

F – NYMPHAEACEAE

246. *Nymphaea alba* Linn. (NYMPHAEACEAE)

Common & Regional Name: LN. - Kuri Phul; H.- Kumudni; Eng. – Indian white water lily; S. - Nilotpala; Marathi - Krishna Kamal; B. - Nil - Sapla; Bo. - Upliakamal; Tel. - Nitikulava; Eng. - White lily; Kash. - Brimposh, Nilofar; Bo. - Pandharen-kamal.

Vegetative Character: -Aperennial aquatic herbs, Root – adventitious, attached to root-stocks (rhizomes). Stem – large horizontal root stocks rooted in the mud at the bottom of the shallow ponds. Leaf – long – petiole leaves arise from the root stock and possess large broad and simple floating lamina cordate exstipulate, Inflorescence solitary terminal cymose, long (1-2m) pedicels. Flower – pedicellate, bisexual actinomorphic complete. Calyx – 3.5 light green. Corolla 5-20 white blue free, Androecium – Indefinite, Gynoecium – Indefinite, superior. Flowering – Sep. – Jan. Occur in still water pond, dam, river of all over M.P.

FF- $\oplus$, $\otimes$, $\mathbf{K}_5$, $\mathbf{C}_{-5\infty}$, $\mathbf{A}_{-\infty}$, $\mathbf{G}_{(\infty)}$.

Use - Root stock (rhizome) powder $\frac{1}{2}$ spoon mixed with “Tulsi” seeds (*O. sanctum* L.) 2-3 gm and “Satavar” root powder (*Asparagus racemosus* Willd.) $\frac{1}{2}$ spoon given orally 1-2 times a day for 5-7 weeks to treat strength (body) and also used in piles and discharge of urine.

*The powder of flower $\frac{1}{2}$ spoon mixed with “Punarnava” (*Boerhaaviadiffusa* L.) roots $\frac{1}{2}$ spoon and “Arjun” (*Terminalia arjuna*

W. & A.) is ½ tea spoon is given orally once a day for 4-5 weeks to prescribed for palpitate of heart.

*The powder of root stocks (rhizome) a spoon mixed “amla” (*Phyllanthus emblica*, L.) fruit ½ spoon and “Harra” (*Terminalia chebula* Retz.) unripe fruit ¼ tea spoon given orally once a day for 3-4 weeks to treat piles and flower decoction also used in heart beat.

Biological Properties:- Plant root stock – Astringent, Slightly, Narcotic, Dysentery. Flower – anti-aphrodisiac, Diarrhoea, Diaphoretic.

Chemical Substance:-Plant Contains these are: Oleic, Linolenic, Palmitic, Lauric, Eicosenoic, Linoleic, Ricinoleic and Myristic acids Detected In Seed-Oil and also Alkaloids, Nupharine, Nymphaenine, Toxic With Affinity for Nervous System. Flower – Cardiac Glucoside, Nymphalin, Nupharine Apply to Rat, Mice Frogs, Pigeons Produce Paralysis of The Cerebrum, Caus Dath By Respiratory Poisining.

References: Balu et al., (2000).

247. *N. pubescens* Willd. (NYMPHAEACEAE)

Common & Regional Name: LN.- Lal Kunri; H.- Rakta Kamal; S.- Kumuda; Eng.- Indian Red water lily; B.- Shaluk; Guj.- Kanval; M. - Alli; Mal. - Periambal; Mar.- Lal Kamal; Tam.- Vell ambal; Tel.- Allikada.

Vegetative Character: -Aperennial aquitic herbs, Root – adventitious, attached to root-stocks (rhizomes). Stem – large horizontal root stocks rooted in the mud at the bottom of the shallow ponds. Leaf – long 15-25 cm. across, orbicular, toothed, densly, tomentose beneath, petiole leaves aised from the root stock and possess large broad and simple floating lamina cordate exstipulate, Inflorescence solitary terminal cymose, long (1-2m) pedicels. Flower – red, pedicillate, bisexual actinomorphic complete. Calyx – 3.5 light green. Corolla 5-2 white blue free, Androecium – Indefinite, Gynoecium – Indefinite, superior. Flowering –

Sep. – Jan. Occur in still water pond, dam, river of all over M.P.
Medicinal use Rhizome flowers and seeds.

FF- $\oplus, \phi$, K_5 , $C^{-5\infty}$, A_{∞} , $\underline{G}_{(\infty)}$.

Use - Plant rhizome paste given for dysentery, diarrhoea, debility, dyspepsia, leucorrhoea, gonorrhoea & spermatorrhoea etc.

*Root power used for piles and flower has use for cardio tonic and astringent etc.

Biological Properties:-Plant root stock – Bitter, Cooling, Tonic, Sweet.
Flower- Astringent, Cardio tonic. Seeds- Aphrodisiac, Cooling, Stomachic, Diarrhoea.

248. *N. Speciosum* Willd. (NYMPHAEACEAE)

Common & Regional Name: LN.-Kamal gatta; H.-Kaval/ Kamal; S.- Kumuda; Eng.- Indian lotus; B.- Shaluk; Guj.- Kanval; M. - Alli; Mal. - Periambal; Mar.- Lal Kamal; Tam.- Vell ambal; Tel.- Allikada.

Vegetative Character:- A perennial aquatic herbs, Root – adventitious, attached to root-stocks (rhizomes). Stem – large horizontal root stocks rooted in the mud at the bottom of the shallow ponds. Leaf – 2-3 ft.in diameter, Petiole smooth or with scattered prickles, petiole leaves arise from the root stock and possess large broad and simple floating lamina cordate exstipulate, Inflorescence solitary terminal cymose, long (1.5mt) pedicels. Flower – white/pink, pedicillate, bisexual actinomorphic complete caducous. Calyx – 3.5 light green. Corolla 5-2 white blue free, Androecium – Indefinite, Gynoecium – hypogynous Indefinite, superior. Ovary- superior, apocarpous carpels are not fused the wall of the pit ; style short, carpel one seeded. Flowering – May. – June. Occur in still water pond, dam, river of all over M.P. Medicinal use Rhizome flowers and seeds.

FF- $\oplus$, $\frac{\sigma}{\tau}$, K_5 , $C_{-5\infty}$, $A_{-\infty}$, $\underline{G}_{(\infty)}$.

Use - Plant rhizome paste given for heart disease, dysentery, diarrhoea, debility, dyspepsia, leucorrhoea, gonorrhoea & spermatorrhoea etc.

*Root power used for piles and flower is used for cardio tonic and astringent etc.

Biological Properties:- Plant root stock – Bitter, Cooling, Tonic, Sweet.
Flower- Astringent, Cardio tonic. Seeds- Aphrodisiac, Cooling, Stomachic, Diarrhoea.

F – APOCYNACEAE

249. *Carissa opaca* Stapf. (APOCYNACEAE)

Common & Regional Name : LN. - Vankaraunda; H. & B. - Karaunda; S. - karamadika; P. - Garna; Tel. - Kalivi; Tam. - Chiru; Kash. - Garunda.

Vegetative Character:-A perennial shrub with latex. Root - tap, branched. Stem – spiny, woody branched. Leaf - simple opposite exstipulate. Inflorescence – Cymose. Flower - regular, bisexual hypogynous, actinomorphic pentamerous Calyx – 5 sepals. Corolla – 5 petals gamopetalous Androecium 4-5 epipetalous, Gynoecium – Carpal 2 Flowering - Aug. – Sept. Occur - common in Shahdol and other part of M.P. Medicinal use for root & fruits.

FF- Br, $\oplus$, $\frac{\sigma}{\tau}$, $K_{(5)}$, $C_{(5)}$, $A_{(5)}$, $\underline{G}_{(2)}$.

*The roots paste is used topically as poultice for treatment or healing of cuts and wounds and also used for protecting the wound from poisonous insects and parasite attacks.

Biological Properties:- Roots are used as Worms infested. Sore, Purgative, Maggots.

Chemical Substance:- Roots yield - Carrisone, Sitosterol, β - Adoroside H, Digit Oxigenin, D-digitalose, Digitoxigenin, D- digitalose, Sitosterol, Ursoli acid and Methyl ursolate β - lupeol,

References: Asolkar et al., (1992).

F- BALSAMINACEAE

250. *Impatiens balsamina* Linn. (BALSAMINACEAE)

Common & Regional Name: LN. - *Turuia phul*; H. - *Gulmendi*; P. - *Bontil*; B. - *Dupati*; Bo. - *Terada*.

Vegetative Character:- Annual herbs. Root– tap branched. Stem – weak, watery translucent and succulent and Leaves- simple exstipulate, alternate, opposite. Flower- bisexual, zygomorphic hypogynous pentamerous. Common in Shahdol and other parts of State. Flowering – Aug. – Sept. Medicinal use for flower, seeds etc.

FF- $\oplus$, ϕ , K_5 , $C_{(5)}$, A_5 , $\underline{G}_{(5)}$.

Use- The flower paste used for burn and scalds. Plants also used for pain in the joints, internally acts as emetic etc.

*The seed paste locally applied on anus daily twice a day for 3-4 months to cure prodruding portion of rectum.

*The cooked flower $\frac{1}{2}$ spoon mixed with “Satavar” (*Asparagus racemosus* Willd.) root powder one spoon, “Shirphonka” (*Tephrosia purpurea* L.) root powder $\frac{1}{2}$ spoon eaten once a day for 21 days to cure weakness and also used in piles and gout.

Biological Properties:- Plant – Pains (Joints), internally acts as emetic, Cathretic, Diuretic and Flower – Cooling tonic.

F – CELASTRACEAE

251. *Celastrus paniculatus* Willd. syn. *C. montana* Roth.; *C. multiflora* Roxb. (CELASTRACEAE)

Common & Regional Name: LN. - *Khurkhundan*; Eng.- *Climbing staff plant*; Bo & S. - *Kanguni*; H. & B. - *Malkangni*; Guj.- *Malkangana*; Mal. - *Palulavam*; Tam. - *Valuluvai*.

Vegetative Character:- Perennial climber. Root – woody, tap branched. Stem - woody, spine branched white (spot) dotted. Leaves - simple, alternate. Inflorescence- cymose. Flower - yellow greenish bisexual slightly perigynous. Androecium - 4-5 and Gynoecium - hypogynous superior ovary. Occur rare found in Shahdol and other part of M.P. Flowering - Nov. - Dec. Medicinal use root, bark, leaves seeds and oil.

FF – $\oplus, \ominus$, K_{4-5} , C_5 , A_{4-5} , $\underline{\text{G}}_2$.

Use : Seeds oil taken orally 5-7 drops in “Batase” (*Bread-sugar*) once a day for 15-21 days to cure dropsy like diseases and 5-10 drops oil mixed with “Koraya” bark powder (*Holarrhena antidysenterica* Wall.) “Gurij” (*Tinospora cordifolia*, Willd.) stem given orally a table spoon once a day for 7-15 day to cure malaria fever, leucoderma, leprosy, paralysis, dysmenorrhoea, amenorrhoea, anti-viral.

*The root powder used in itches and leaves paste mixed with “Neem” leave (*A. indica*, A. Juss.) local application used for scabies & itches’ etc.

*The oil of seeds mixed with “Arandi” (Castor) oil together in cooked of “Dhatoor” (*Datura metal* L.) leaves, seeds, “Vach” (*Acorus calamus* L.) rhizome “Nirgundi” leaves (*Vitex negundo* L.) and “Madar” leave (*Calotropis gigantea* L.) is massage 2-3 times a day for 7-8 weeks to prescribed for paralysis gout and arthritis and seed powder mixed with “Adusa” (*A. vasica* Nees.) leave “Vach” (*A. calamus* L.) rhizome and black pepper, honey taken orally are spoon once a day for 2-3 month to cure asthma, inflammation and rheumatism.

*The half spoon seed oil mixed with sugar is given orally twice a day for 2-3 days to treat stomachache.

Biological Properties: -Stem barks is considered as- Abortifacient, Depurative. Leaves – Antidote. Seed – Acrid, Aphrodisiac, Appetiser, Diuretic, Digestive, Emollient, Emetic, Expectorant, Febrifuge, Intellect, Laxative, Promoting, Stimulant, Thermogenic, Anti-inflammatory, Stomachic, Carminative, Brain tonic, Emmenagogue.

Chemical Substance: Plant contains - Pristimerin, Celeastrol, Zeylasterone and Zeylasteral Isolated from root-bark and also Seed – Bitter, Pungent oil, Resin, Concentrate, Reddish, Brownish, Celastrin and Paniculatin, Tannin.

References: Bhandary and Chandrashekar, (2002).

F- DROSERACEAE

252. *Drosera indica* (Linn.) (DROSERACEAE)

Common & Regional Name: LN. - Kitphasana ghas, Kidmar; H. - Mukha jaili; Eng. - Sundue; Keet-bhakshi; P. - Chitra.

Vegetative Character:- An Annual or perennial insectivorous herb marshy places. Root- adventitious, Stem – underground. Leaves – alternate, lamina covered with tentacles glands, stipules mostly present, membranous. Primary root does not develop usually instead, numerous root adventitious, are formed Flowers – solitary or in spike or cymose like inflorescence bisexual actinomorphic, pentamerous and hypogynous. Sepals imbricate, persistent. Petals – imbricate stamens as many., Anthers extrose, pollen in threshold. Carpal 3 united in superior one called ovary stigma free 3-5 ovule numerous seldom few anatropous on parietal placenta fruit capsule. Occur in Shahdol and also some part of M.P.

FF – $\oplus, \varnothing, K_5, C_5, A_{5(3+2)}, \underline{G}_3$.

Use- A maceration of the plant is applied topically to (Gokhru) corns and also crushed leaves used externally once a day for 3 weeks to cure blister.

*Paste of plant $\frac{1}{2}$ tea spoons mixed with castor oil $\frac{1}{2}$ spoon “Vanpiaz” (*Narcissus tazetta*, Linn.) tuber $\frac{1}{2}$ spoon together made into poultice and tide on few deep cut affected area of (Gokhru) corns.

Biological Properties: -Plant – Corns, Blister.

F – MYRSINACEAE

253. *Embelia ribes* (Burm.f.) syn. *E. glandulifera* Wt. (MYRSINACEAE)

Common & Regional Name: LN. - Baibiring; S. - Vidanga, H. - Baberang; Eng. – Barbreng; B. - Biranga; Bo. - Baivarang; Mar. – Kakannie; Mal. – Vizhal; Tam., Tel.& Kan.- Vayuvilanga.

Vegetative Character: - Plant shrub, perennial. Root – tap branched, woody., Stem- woody, grey colour, bark, rough, branched, long internodes and Leaf- simple, 3-4 inch long, reticulate venation. Inflorescence – racemes. Flower- White, bracteolate, bisexual, hypogynous, actinomorphic or yellow light green. Calyx-5 sepals. Corolla – 5 petals free. Androecium- 5 stamens, epipetalous. Gynoecium - carpal 4-6, superior ovary. Ovary- Unilocular. Flowering- Feb. to April. Occur in Shahdol, Jabalpur, Hoshangabad, Rewa Division and Malva. Medicinal use for root and fruit.

FF- **Br, $\oplus, \varnothing, K_5, C_5, A_5, \underline{G}_{(4-6)}$.**

Use - The fruits powder; $\frac{1}{2}$ spoon mixed with “Amarbel” (*Cuscuta reflexa* Roxb.) seeds powder $\frac{1}{2}$ tea spoon eaten together twice a day for 7 days to treat stomach worms (anthelmintic), as astringent and also given for snake bite & insect bite etc.

*The root decoction is useful for coughs and promoting discharges of urine. The plant tuber infusion is eaten 2 spoons before meals twice a day for 20-25 days to control diabetes.

Biological Properties:- Plant considers – Alterative, Blood purifier, Anthelmintic, Rejuvenator, Stomachic and Tonic.

Chemical Substance:-Plant yield these are - Methylenbis- (2-5- dihydroxy-4-undecyl-3,6- benzoquinone) and also Fruit has Embelinn, Alkaloid, Embelic acid, Christembrins, Resinoid, Tannins and Volatile oil.

References: Paranjpe, (2001).

[MONOCOTYLEDONOUS WEEDS]

F - DIOSCOREACEAE

254. *Dioscorea bulbifera* (Linn.) (DIOSCOREACEAE)

Common & Regional Name: LN. - *Gitora kanda; Gethi kanda*; H. - *Ratalu, pitalu*; S.- *Varahi*; Eng.- *Yam*; B. - *Banalu, Kukuralu*; Marathi - *Korukarinda*; Mal.- *Kaltu kanchil*; Tam. - *Kodikilangu*; Tel. - *Chedupaddu - dumpa*.

Vegetative Character:- A slender climbing, herbs with rarely procumbent. Root- adventitious, Stems - tuber solitary, large, underground elongated. Leaves - alternate, ovate-cordate, entire, many nerved which are convergent. Flowers- unisexual and usually dioecious. Male flowers, in spike perianth campanulate, rotate, lobes short, spreading stamens inserted at their bases, filaments free, flowers perianth segments 6, free. Staminodes 6, 3 or none. Ovary - inferior, 3 celled, stigmas reflexed above the style bifid, ovules-2 in each cell. Fruit - a berry or a 3 valved capsule, seeds with the wings developed all round. $A_{6(3+3)}$ staminodes (3) fertile (3) filaments are adnate to perianth actinomorphic racemose flower. Flowering- Sep. Oct. Occur in Shahdol and all over M.P. Medicinal use for tuber and stem tuber (bulbils / fruit).

FF – Male: $\oplus$, ♂, $P_6(3+3)$, $A_6(3+3)$.

FF - Female: $\oplus$, ♀, P_6 , G_3 .

Use- Tubers cooked in cows dung fire are taken orally 1-2 times a day for 15-21 days to treat piles and also used in anthelmintic worms and blood dysentery, piles, improves sperms, polyurea, and dysurea.

*Tuber of plant 2-3 spoon chewed twice a day for 3-4 weeks for relief in diabetes and crushed tuber also used as poultice in hot fomentation, externally used for hydrocele and leprosy, biliousness, leucoderma, piles, syphilis, haemorrhoids.

*The tuber cooked in cow (*Dung*) cake fire or raw with “Gurij” (*Tinospora cordifolia*) stem $\frac{1}{2}$ spoon is taken orally before meals daily to treat piles, stone, hydrocele and diabetes.

Biological Properties: -Plant is considered as- Acrid, Alternative, Anthelmintic, Aphrodisiac, Appetiser, Bitter, Fattening, Stomach, Tonic, Billious, Purgative, Deflatuent, Thermogenic, Sweet, Rejuvenator, Spermatopiotic.

Chemical Substance:-The plant contains- Steroid sapagenins, Saponin and Dioscorine (glucoside), Tuber- starch, Vitamin- B, Calcium oxalate, Protein, Fe.

References: Chopra et al., (1968); Johnson, (1998).

255. *D. Hispida* Dennst. syn *D. daemona* Roxb.; *D. hirsuta* Dennst. *D. triphylla* L. (DIOSCOREACEAE)

Common & Regional Name: LN. - Baichandi; H. - Karukand; Marathi - Baichandi; Tam. - Peiperendai; Tel.- Tella – giniged dalu.

Vegetative Character:- A slender climbing, herbs with rarely procumbent. Root- adventitious, Stems - tuber solitary, large, underground elongated. Leaves - alternate, ovate-cordate, entire, many nerved which are convergent. Flowers- unisexual and usually dioecious. Male flowers, in

spike perianth campanulate, rotate, lobes short, spreading stamens inserted at their bases, filaments free, flowers perianth segments 6, free. Staminodes 6, 3 or none. Ovary - inferior, 3 celled, stigmas reflexed above the style bifid, ovules-2 in each cell. Fruit - a berry or a 3 valved capsule, seeds with the wings developed all round. $A_{6(3+3)}$ staminodes (3) fertile (3) filaments are adnate to perianth actinomorphic racemose flower. Flowering – Sep. – Oct. Occur in Shahdol and all over M.P. Medicinal use for tuber and stem tuber (bulbils / fruit).

FF – Male: $\oplus$, ♂, $P_{6(3+3)}$, $A_{6(3+3)}$.

FF - Female: $\oplus$, ♀, P_6 , G_3 .

Use- The milky extract of tubers “Valkal” (*Antiaris toxicaria* Pers.) and “Haldi” (Turmeric) rhizome powder is used in swelling, wound, injury and arrow poison.

Biological Properties: -The tuber – Wound healing, Arrow poisonous.

Chemical Substance: -*Plant contains-Dioscorine.*

256. *D. alata* L. syn. *D. atropurpurea* Roxb. *D. purpurea* Roxb. *D. rubella* Roxb.; *D. globosa* Roxb.(DIOSCOREACEAE)

Common & Regional Name: LN. - *Khanima Kanda*; H. & B. - *Chupri alu*; Bo.- *Chopri alu*; Tam.- *Perumvalli- Kizhangu*. Tel.- *Pendalamu*.

Vegetative Character: -A slender climbing, herbs with rarely procumbent. Root- adventitious, Stems - tuber solitary, large, underground elongated. Leaves - alternate, ovate-cordate, entire, many nerved which are convergent. Flowers- unisexual and usually dioecious. Male flowers, in spike perianth campanulate, rotate, lobes short, spreading stamens inserted at their bases, filaments free, flowers perianth segments 6, free Staminodes 6, 3 or none. Ovary - inferior, 3 celled, stigmas reflexed above the style bifid, ovules-2 in each cell. Fruit - a berry or a 3 valved

capsule, seeds with the wings developed all round. $A_{6(3+3)}$ staminodes (3) fertile (3) filaments are adnate to perianth actinomorphic racemose flower. Flowering – Sep. – Oct. Occur in Shahdol and all over M.P. Medicinal use for tuber and stem tuber (bulbils / fruit).

FF - Male: $\oplus$, ♂, $P_{6(3+3)}$, $A_{6(3+3)}$.

FF - Female: $\oplus$, ♀, P_6 , G_3 .

Use- The tubers cooked (in cow dung cack fire) and taken orally once a day for 1-3 weeks for treatment of piles, syphilis, gonorrhoea, anthelmintic and also used in leprosy.

Biological Properties:- Tuber – Leprosy, Anthelmintic, Piles, Gonorrhoea, Syphilis.

Chemical Substance:- *Plantain contains Dioscorine.*

F – PONTEDERACEAE

257. *Eichhornia crassipes* Solms. (PONTEDERACEAE)

Common & Regional Name: *LN. - Jalbhata; B. - kachuri pana; Mal. - Kalavazha; Tam. - Akas, thamarai; Tel. - pisachithamara.*

Vegetative Character: -A perennial water (aquatic) plant freely floating and rooting at nodes and fixing in the soil., Root- adventitious fibrous. Stem - 6” to 9” long covered with leaf bases, roots having numerous rootlets having prominent root caps. Leaves - 15 to 30 cm long, broadly ovate, fleshy and shining green, petiole long and swollen in the middle which helps in floating. Flowers - are about 2.5 cm. across, light blue or lilac in colour, arranged in dense spike on long stalk, bracts leaf like, perianth and six lobed. Stamens - 6, attached with the perianth tube, three short & three long. Ovary - three celled, superior, style long and bent at the tip fruit on oblong capsule, splitting into three parts. Seeds - minute grayish yellow. Occur - a very common weed of the fresh water in all over M.P.

The plant helps in clearingstamen water sometime given to cattles after chaffing alongwith dry stem. Flowering- Oct.-April. Medicinal use whole plant.

FF – Br, $\oplus$, σ , P₍₆₎, A₍₆₎, G₍₃₎.

Use- Paste of roots and leaves mixed with “Gudsakri” (*Grevia hirsute* Vahl.) roots and “Baghnakhi” (*Capparis spinosa* L.) leaves used externally twice a day for 3-5 weeks as bandage for wound, boils (Sore) to treat cancer like disease Carbuncle.

Paste of flowers mixed with “Neem” (*Azadirachta indica* A. Juss.) bark powder is applied externally twice a day for minimum 21 days to cure skin of horses.

Biological Properties: -Plant considers – Skin (diseases) of horse, Flower – Carbuncle.

Chemical Substance:-Plant contains-Carotene.

F – COMMELINACEAE

258. *Commelina benghalensis* Linn. (COMMELINACEAE)

Common & Regional Name: LN. - Kankaua Bhaji; S. - Khanchata; H. & B. - Kanchara; Eng.- Spiderwort; Tam. - Kanavazhai, Kanagakarai; Tel. - Vennadevikura.

Vegetative Character: -An annual sub-erect, spreading herbs., Root – adventitious. Stem - joined dichotomously branching from base rooting at the nodes, about 1-1.5 ft. tall. Leaves - sessile, ovate or oblong having parallel venation, leaf margins ciliated, sheaths hairy. Flowers - two in the axil of each funnel like bracts or spathe. Perianth - sepals minute 3, petals 3, blue (one large two small). Stamens - 6, ovary 2-3 chambered, superior. Capsule - pyriform membranous. Seed - pitted. Flowering -

Sept. Oct. A most common weed growing in moist (pond, dam) and shady places of all over state. Medicinal use whole plant.

FF – Br, $\oplus$, ♀ , P_{3+3} , A_{3+3} , $\underline{G}_{(3)}$.

Use- One spoon Plant juice is taken orally twice a day for 3-7 days for cooling effect on the body and also to control fever.

*Paste of whole plant mixed with “Neem” leaves (*Azadirachta indica* A. Juss.) externally applied for itches and scabies.

Biological Properties: -Plant is considered as- Bitter, Emollient (Softening a medicine), Demulcent (Soothing), Refrigerant (Cooling), Laxative (loosen the bowels) leprosy.

259. *C. nudiflora* (Linn.) (COMMELINACEAE)

Common & Regional Name: LN. - *Kankaua*; H. - *Kanshura*; S. - *Koshapushpi*; M. - *Vazhapazhathi*.

Vegetative Character:- Similar as *C. benghalensis*, except it is much more branched leaves a bit-smaller, acute or acuminate at apex. Flowers - pale blue or white. Capsule broadly oblong acuminate, coriaceous. Seed oblong cylindric, brown, tubercled and reticulate. Rainy season annual. Common in moist & shady places. Leaves - small flowers axillary and terminal scorpioid cymes, formed of large imbricate 2-seriate second foliaceous falcate bracteoles, stamens alone exerted, rarely with the corolla tube exerted; flowers sometime in exposed racemes of fascicled in the ochreate leaf-sheath. Perianth - sepals 3, subequal hypogynous or epigynous, filaments usually bearded often inflated towards the apex, anthers oblong. Ovary - 3-celled, ovules 2 in each cell, collateral, one erect and the other pendulous. Fruit - a 3 – celled loculicidal capsule. Seeds - usually 2 in each cell. Superposed, cubical or pyramidal, usually

rugose. Flowering - Aug.-Sept. Occur in rainy season all over state.
Medicinal use whole plant.

FF – Brl, $\oplus$, σ , P₃₊₃, A₃₊₃, G₍₃₎.

Use- Mashed leaves mixed with “Mehndi” leaves (*Lawsonia alba*, Lam.) has local application for burn and boil.

Biological Properties:- Plant considers – Inflammation (burn) and Sores, Itches, Boils.

260. *Cyanotis axillaries* Roem & Schulf. F. (COMMELINACEAE)

Common & Regional Name: LN. - Sutraj; H. - Soltraj; Bo. - Itsaka; Tam. - Nirpulli; Tel. - Golagandi.

Vegetative Character:- An annual sub-erect fleshy herb., Root- adventitious. Stem – weak branched. Leaves - simple, narrow, 8 cm. long, fleshy, alternate, sheathing, at the base ciliated. Flowers - blue, axillary cyme, clustered. Bracteoles - 2 short membranous, keeled. Perianth, Calyx- smooth 3 lobed, anthers yellow 2 celled. Ovary - superior 3 – celled, style erect, stigma fusiform & acute. Fruit a loculicidal capsule, beaked at top. Flowering - during rainy season. A common weed of the moist lands in Malva, not common in other parts of M.P. Medicinal use leaves.

FF – Brl, $\oplus$, σ , P₃₊₃, A₃₊₃, G₍₃₎.

Use - The plant leaves are mixed with Vangeer (*Centratherum anthelminticum* Willd.) seeds, “Ajwain” (*King’s cumin*) and black salt is used twice a day for 2-3 days to treat swelling of abdomen and also used in tympanitis.

Biological Properties: -Plant – Tympanitis, External use as in as cites.

F – LILIACEAE

261. *Asphodelus teunifolius* Cav. (LILIACEAE)

Common & Regional Name: LN. - *Ban piaz*; H.- *Bokal, Ban Pyaj*; Gujrati - *Dungru*.

Vegetative Character: - Annual herb with short rhizome like bulbs., Root – adventitious. Stem – underground. Leaves - radical, cylindrical, escapes several, much branched above. Petals, white free or connate at the base, one nerved. Sepals are similar to petals, each 3 in number. Stamens 6, filaments shorter than the petal, wide based, bent. Ovary - 3 celled and 2 ovule. Seeds - black, triangled. Capsule - leathery. Flowering – Oct. – Dec. Occur in the wheat fields in Jabalpur, Gwalior & Shahdol, and Rewa division. Medicinal parts use for seeds.

FF – $\oplus, \text{♀}, \text{P}_{(3+3)}, \text{A}_{3+3}, \underline{\text{G}}_{(3)}$.

Use- Seeds paste along with “Dubghass” (*Cynodon dactylon* L.) and Turmeric are used externally in blister and seeds also used as diuretic.

Biological Properties: -Plant seeds -Diuretic, Skin disease.

262. *Asparagus racemosus* Willd. syn. *A. javanica* Kunth; *A. sarmentosus* Grahm. (LILIACEAE)

Common & Regional Name: LN. & H.- *Satawar*; Eng.- *Asparagus*; S. & B.- *Shatamuli*; Bo.- *Satavari*; Tam.- *Shimai shadavari*; Tel.- *Challangadda*; Mal. - *Shatavali*.

Vegetative Character: -Perennial climbing prickly under shrub prickles ¼ inches long. Root – adventitious, tuberous, leaves – reduced to scales, branched, needle like green leaves (Cladodes). Flower– White, Fruit – berry. Flowering Aug. Sept. Found – Shahdol, Rewa, Jabalpur, Hoshangabad, Sagar division. Medicinal parts use root and leave.

FF – $\oplus, \text{♀}, \text{P}_{(3+3)}, \text{A}_{3+3}, \underline{\text{G}}_{(3)}$.

Use- Powdered roots 2-3 spoon is taken orally twice a day for 7-21 days to treat urinary troubles.

*Decoction of roots is taken orally by women once a day for 21 days after delivery to treat weakness.

*Root powder $\frac{1}{2}$ spoon mixed with “Kali musli” (*Curculigo orchioides* Nees.) root $\frac{1}{2}$ tea spoon “Tikhur” (*Curcuma angustifolia*, Roxb.) rhizome, $\frac{1}{2}$ tea spoon, “Amla” (*Embllica officinalis*, Gaertn.) $\frac{1}{2}$ tea spoon with milk are given orally once a day for 7-21 days to prescribed for weakness (strength) , leucorrhoea syphilis, hysteria and milk secretion (Galactagogue).

*Juice of root 2 spoon mixed with “Gurij” (*Tinospora cordifolia*, Willd.) stem, black pepper 2-3 pieces and “Gud” (*Molasses*) are give orally once a day for 5-15 days to treat rheumatic fever and common fever.

*Roots powder and mixed “Chhuimui” (*Mimosa pudica* L.) seeds, “Phulchuhiya” (*Woodfordia fruticosa*, L.) Flower and “Imli” (*Tamarindus indicus*, L.) seed (cotyledons) candy sugar are eaten once a day for 15-21 day to prescribed for aphrodisiac (sexual medicine) and also used in dysurea (difficulty in passing urine).

*The tender leave of plant cooked in Cow butter (Ghee fat) and mixed with candy sugar together taken orally one spoon once a day for 21 days to treat night blindness and immature root juice with milk used in diarrhoea with blood.

*The powder of root mess $\frac{1}{2}$ spoon mixed with “Punarnava” (*Boerhaavia diffusa* L.) rootand leaves, “Lajvanti” (*Mimosa pudica*, L.) root & seeds and “Gokhru” (*Tribulus terrestris* L.) is taken orally thrice a day for 3-7 days to treat blood with urine.

Biological Properties: -Plant is considered as- Aphrodisiac, Alternative, Astringent, Appetiser, Diuretic, Cooling, Indigestion, Stomachic, Sweet, Heart tonic, Nervine tonic, Galactagogue, Spermopoeitic.

Chemical Substance:- Plant contains - Sarsapogenin (saponins or sapogenins), Shatavarin I, Shatavarin IV, Sitosterol, 4-6 Dihydroxy-2-O-(2'-Hydroxy iso Butyl) Benzaldehyde, Undecanyl Cetanoate, Asparagamine A-Isolated Mucilage, Sugar, from roots, Leaf (Cladodes) Diosenin, 4-Saponins, Glycosides, Rhamnase and Glucose.

References: Asolkar et al., (1992); Balu et al., (2000); Chopra et al., (1968); Kar et al., (1999); Rajan, (2000); Rana et al., (1999).

263. *Smilax prolifera* Roxb (LILIACEAE)

Common & Regional Name: LN. - Sher Tatoon; H. - Ram datoon; Sing.- Mahakabarasa.

Vegetative Character: -Perennial wild or cultivated root thick (tuber) adventitious. Stem yellowish spiny and branched climbing by means of stipular tendrils Leaves – petiolate, simple, and large. Inflorescence, cymose, large flower umbel. Fruit – berry seed, Albuminous. Flowering – Oct. – Nov. Found in Shahdol, Jabalpur, Hoshangabad, Rewa, Sagar division. Medicinal use root & stem (stick).

FF – $\oplus, \text{♀}, \overset{\curvearrowright}{\mathbf{P}_{(3+3)}, \mathbf{A}_{3+3}, \underline{\mathbf{G}}_{(3)}}.$

Use- Root decoction and mixed with “Satawar” (*Asparagus racemosus* Willd.) is taken orally ½ cup once a day for 7-21 days to treat weakness improve, rheumatism and also used in Haematuria (urine is reddish colour).

*Root powder one spoon alongwith “Sarai” (*Shorea robusta*, Gaertn. f.) resin (gum) ½ tea spoon and “Semal” bark pest (*Bombax malabaricum* D.C.) 1 spoon & milk a cup together eaten orally once a day for 3-7 days to cure blood mixed stools in dysentery and root powder in mixed curd a cup given orally twice a day for 3-4 do cure dysentery.

*The plant stick used in tooth brush and along with “Bhatkataiya” seed powder (*Solanum xanthocarpum*, Schrad.) “Chirchira” stem & seed powder (*Achyranthes aspera* L.) and “Akarkra” (*Spilanthes acmella* Murr.) flower head and black pepper is administered twice a day to daily for ailment of toothache and also used in snake bite and skin diseases.

*Root powder mixed with “Talmakhana” (*Asteracantha longifolia* Nees.) root, seeds and “Satavar” (*Asparagus racemosus* Willd.) root are eaten once a day for 7-21 days to cure reddish colour of urine and dysurea.

Biological Properties: -Plant root is considered as- Urinary complaint, Aphrodisiac, Haematuria, Poisonous, Toothache, Dysurea, Anti-leprotic, Rejuvenator, Syphilis, Carminative.

Chemical Substance:-Plant tuber (root) yield – Fat, Glucoside, Gum, Resin, Sugar, Starch, Saponin and Tannins.

264. *Smilax zeylanica* Linn. syn. *S. microphylla* Roxb. (LILIACEAE)

Common & Regional Name: LN.- Sher datoon; H.- Jangali aushbah; B.- Kumarica; Bo & Marathi- Guti; Tam.- Malaittamarai; Tel.- Kondatamara; Mal.- Kal - Tamara.

Vegetative Character: - An annual climber. Root- adventitious. Stem – woody, aerial, thorny greenish, yellow colour; Leaf – parallel venation petiole in leaf base pamtly 6” long and 4” broad 3 lobes. Inflorescence racemose., Flower- regular, actinomorphic hermaphrodite, trimarous, perianth six in two whorls. Androecium – six in two whorls. Gynoecium tricarpellary syncarpus, ovary superior. Flowering – Oct. Nov. Occur in Shahdol, Jabalpur, Hoshangabad, Sagar, Rewa Division. Medicinal use root & stem.

$$FF - \oplus, \text{♀}, \text{P}_{(3+3)}, \text{A}_{3+3}, \text{G}_{(3)}.$$

Use- Meshed Root powder; ½ spoon mixed with Gum (resin), “Sarai” (Sal) ½ tea spoon (*Shorea robusta* Gaertn. f.) and curd ½ cup given orally twice a day for 3-5 days to treat dysentery and also used in venereal diseases.

Biological Properties: -Plant root is considered as- Venereal diseases, rheumatism & pain in the lower extremities and dysentery.

265. *Gloriosa superba* Linn.syn. *Methonia superba* Lam. (LILIACEAE)

Common & Regional Name: LN. - Karihari; S. - Shakrapushpi; H. - Kalihari; Eng.- Glory lily; P. - Kariari; B. - Bishalanguli; Bo. - Karianag; Guj. - Dudhi ovachhnag; Mal.- Mallattamara; Mar.- Kariannag; Tel. - Agnisikahha; Tam. - Akkinichilam.

Vegetative Character: - Anannual herb climber. Root - thick. Stem - weak 3-5 ft. tall, greenish. Leaves - tip tendrillar 6-9 inch long. Flower - large, orange red, yellows. Inflorescence - cymose, perianth six, two whorls polyphyllous, Androecium- in 2 whorls polyandrous, epiphyllous anther oblong 2 celled opening longitudinal slits. Gynoecium- tricarpellary, Ovary - syncarpus superior fruit a septicidal. Oblong capsule. Flowering - Aug. Sept. Occur - Shahdol, Rewa, Jabalpur, Hoshangabad, Sagar division. Medicinal use root & rhizome.

FF – $\oplus, \varphi, \overset{\curvearrowright}{P}_{(3+3)}, A_{3+3}, \underline{G}_{(3)}.$

Use- The crushed root juice; one spoon mixed with “Tulsi” (*Ocimum sanctum* L.) seeds, ½ spoon “Talmakhana” (*Asteracantha longifolia* Nees.) root, seed ½ spoon and candy sugar eaten once a day for 5-7 weeks toprescribed for gonorrhoea leucorrhoea, don’t give pregnant ladies.

*The powder of root ½ spoon mixed with “Ishwar Bhata” (*Aristolochia Indica* L.) root “Ghumchi” (*Abrus precatorius* L.) seed “Nirgundi” (*Citrullus colocynthis* Schrad) root equal amount given orally 1 one spoon, with honey 1-2 times a day for 5-7 weeks to treat paralysis,

rheumatism, spleenomegally, tumours, erysipelas, sores and syphilis Osteoarthritis and joints pain.

*The tuber use for anthelmintic but it is abortifacient (don't use pregnant ladies.)

*Paste of root one spoon keep on novel and vaginal massage is two times a day for 2-3 days for abortion and also used in leprosy. Leaf juice along with “Kagji Nibu” (*Citrus aurantifolia*, Christm.) juice 2-3 drops applied internally twice a day for 2-3 day to treat ear pus and tuber pest also used in snake scorpion and “ Khankhajura” scolopendra bite.

*The whole plant juice applied for leprosy, piles, (grip) spasmodic-ulcer and dermatitis etc.

Biological Properties: -Plant tuber is considered as- Acrid, Alexiteric, Anti-leprotic, Febrifuge, Antibiotic, Abortifacient, Anthelmintic, Heating, Laxative, Pungent, Cholagogue, Stomachic, Purgative and Anti-inflammatory.

Chemical Substance:-Plant tuber (Rhizome) yield various contain – Alkaloid, Benzoic acid, Colchicine; Glorisine, Glucosides, Resins, Sitosterol, Superbine.

266. *Urginea indica* Kunth. syn. *Drimia indica* (Roxb.) Jessop. (LILIACEAE)

Common & Regional Name:LN.- Van piaj; H. & B. - Jangli piyaz; S. - Vana - plandam; Eng.- Indian suill; Guj.- Rankando; Mal. - Kanthanga; Mar.- Jangli Pyajha; Tel. - Nakkavalligadda; Tam. - Narivengayam; Bo. - Jangli kanda.

Vegetative Character: -Anannual or perennial herbs. Root – adventitious. Stem – underground 250 – 500 g. weight leaf radical, long simple, cylindrical acute, sheathing at the base, fistular. Inflorescence – raceme.

Flower – pale brown bisexual bracteate, pedicillate, complete trimerous, actinomorphic, hypogynous Perianth – 6 tepals 3+3 two whorl gametapalous, Androecium – 6 Anther 3+3 of two whorl epipetalous fruit – capsule long, ellipsoid. Seed – elliptic black. Flowering– Nov. – Dec. Occur – Shahdol, Rewa, Jabalpur, Hoshangabad, Sagar division. Medicinal parts use bulb.

FF – $\oplus, \text{♀}, \text{P}_{(3+3)}, \text{A}_{3+3}, \underline{\text{G}}_{(3)}$.

Use- Paste of root; ½ tea spoon mixed with “Satavar” (*Asparagus racemosus*, Willd.) root, “Ram Datoon” (*Smilax prolifera*, Roxb.) root and “Punarnava” (*Boerhaavia diffusa* L.) root are taken orally in equal amount once a day for 7-15 days for dysurea and also used in sole and fingers.

*The plant tuber used for various ailments as asthma, blood pressure, menorrhagia, paralysis etc.

*Tuber powder ½ tea spoon; mixed with “Punarnava” root one spoon (*Boerhaavia diffusa* L.) and “Mahua” liqueur (*Madhuca indica* J. F. Gmel.) is taken orally in empty stomach, early morning once a day for 3-5 days to treat regulation of menstruation (M.C.), injury, cuts, wounds, dropsy and bulb also used in whooping cough, skin diseases calculi (stone) heart diseases.

*Powder of tuber ½ spoon mixed with “Punarnava” root and leaves (*Boerhaavia diffusa* L.) ½ spoon, “Mulsajivan Kahua” (*Terminalia arjuna*, W. & A.) ½ spoon and Shisham (*Dalbergia sissoo*, Roxb.) 5 leaf juice and “Pipal” (*Ficus religiosa*, L.) 5 leaves juice are given orally once a day for day 21 to 2 months to treat heart diseases and also used in kidney diseases and also pneumonia.

Biological Properties: -Plant bulb is considered as- Anthelmintic, Cardio tonic, Diuretic, Diphoretic, Expectorant, Laxative.

Chemical Substance:-*Bulb-various constituents these are – Glucoside, Mucilage, Scillain, Scillitin, Sugar, Scillipicrin.*

F – ZINGIBERACEAE

267. *Costus speciosus* (Koen.) Smith; syn. *Banksea speciosa* Koen. (ZINGIBERACEAE)

Common & Regional Name: LN. - *Sikta kanda, Sikta mauri*; H. & B. - *Keu kand*; Eng.- *Kosht*; Mal.- *Anappu, Pushkaramulam*; Mar- *Pushkaramula*; S. - *Kushtha*; Tam. - *Kuravam*; Tel. & Kan. - *Chengalvakoshtu*.

Vegetative Character: -An annual or perennial herb. Root – adventitious. Stem – root stocks (rhizome) Leaf – simple sessile sheathing entire lanceolate broad Inflorescence – solitary in heads, bracteat spikes flower red, White Zygomorphic bisexual calyx – tubular 3 toothed corolla – tubular 3-lobed. Androecium – stamens 6 in two whorls, gynoecium – carpal 3 Syncarpus ovary inferior seeds endospermic. Flowering – Aug. Sept. Occur in all over M.P. Medicinal use Rhizome.

FF – $\%, \text{♀}, K_{(3)}, C_3, \overset{\curvearrowright}{A_{3+3}}, \overline{G_{(3)}}$.

Use- Juice of rhizome one spoon mixed with black pepper 2-3 pieces is useful for cut and wounds.

*Juice or powder of rhizome ½ spoon mixed with “Chirchira” seeds (*Achyranthes aspera*, L.) are given orally ½ tea spoon once a day for 3-5 days is prescribed for abstaining liquor (Alcohol) drinks and also used in Anthelmintic (to extricate) worms from intestines.

*Paste of rhizome ½ tea spoon mixed with “Tikhur” (*Curcuma angustifolia* Roxb.) rhizome ½ tea spoon “Vach” (*Acorus calamus* L.) ½ seeds are eaten 1-2 times a day for 8-21 days for Rheumatisms, oesteo-arthritis, and snake bite and also mixed with ½ tea spoon bark powder of

“Saherua” (*Nyctanthes arbor-tristis* L.) honey used in asthma, anaemia, constipation, bronchitis, leprosy, Inflammation.

*Rhizome boiled and mixed with “Tulsi” leaves juice (*O. sanctum* L.) is useful for ear drops, twice a day for 2-3 days to treat earache and cleaning (dressing) pus and also used in skin diseases, leprosy, burning sensation and flatulence.

Biological Properties:-Plant rhizome – Acrid, Bitter, Anthelmintic, Astringent, Aphrodisiac, Cooling, Depurative, Expectorant, Febrifuge, Purgative, Anti-spasmodic, Anti-viral, Blood purifier, Anti-inflammatory, Digestive, and Spermpoeitic.

Chemical Substance:-Rhizome contains – Alkaloids, Diosgenine, β - sterol, Blucoside, Startch, Gigogenin. Leaves – α - amyrin stearate, β - amyrin lupeol and palmitates.

268. *Hedychium coronarium* Koenig.(ZINGIBERACEAE)

Common & Regional Name:LN. - Gul bakavli; S. - Karchura; Karpur, H. - Sitruti; Eng.- Butterfly lily, Spiked ginger lily; B. - Gandhashati; P. - Sheduri, khor; Tam. - Shimaikkichilik-kilhangu.

Vegetative Character: -It is perennial herbs. It is found in moist (Marshy) land. Root- adventitious. Stem- creeping (Rhizome) Leaf- simple; petiolate or sessile sheathing, entire, linear, lanceolate or broader, ligule prominent inflorescence- solitary, in hands bracteate spikes. Flower- zygomorphic bisexual, white colour, epigynous. Perianth- 6 in two whorls (3+3) Calyx- tuber. Corolla- tubular white. Androecium - 6 (3+3) Fruit- capsule. Seed- endospermic. Flowering Aug. – Sep. Occur in Amarkantak. Medicinal use rhizome.

FF- Br, %, ♂, K₍₃₎, C₍₃₎, A₃₊₃, G₍₃₎.

Use- The fresh flower or rhizome is crushed and its juice is applied on a fresh or chronic eye disease, conjunctivitis, and also used in crocodiles tears twice a day 2-3 drops for 1-4 weeks to cure many eye diseases.

*Rhizome decoction is taken orally; twice a day a spoon daily for 1-5 weeks to cure bronchitis, tuberculosis and also used in mouth wash.

References: Asolkar et al., (1992).

269. *Curcuma angustifolia* (Roxb.)(ZINGIBERACEAE)

Common & Regional NameLN. - H. & B. - Tikhur; S. - Tavakshira - Tam. - Kua; Bo. - Tickar; Tel. - Ararutgaddalu.

Vegetative Character: - Perennial herbs., Root – adventitious. Stem – rhizome. Leaf – simple sessile sheathing lanceolate. Inflorescence – solitary. Flower – zygomorphic bisexual epigynous perianth – 6 (3+3). Calyx – tubular 3 Corolla – 3 lobed. Androecium – 6, 3+3 stamens. Gynoecium – syncarpus carpal 3 ovary inferior. Flowering– Sep. Dec., Occur in Amarkantak, Panchmarhi. Medicinal use rhizome.

FF- Br, %, ♀, K₍₃₎, C₍₃₎, A₃₊₃, G₍₃₎.

Use- Juice of rhizome mixed with “Chhoti Dudhi” (*Euphorbia thymifolia*, L.) plant and “Bhumiamla” (*Phyllanthus niruri*, L.) plant are given orally in equal amount; a table spoon 1-2 times according to needs for 5-7 days to cure Jaundice and also used in gonorrhoea and leucorrhoea.

*Paste of rhizome mixed with “Ishwar Bhata” (*Aristolochia indica*, L.) root, “Vach” (*Acorus calamus*, L.) rhizome and black pepper 2-3 pieces Garlic and honey together given orally equal amount one spoon once a day for 5-7 weeks to applied for gout, Osteo – arthritis, paralysis and rheumatism. Patient avoided Curd, Whey, pickle spices etc.

Biological Properties:-Plant rhizome – Demulcent (Soothing medicine), Nutrition.

Chemical Substance:-Starch.

270. *C. Curcumaaromatica* Salisb. (ZINGIBERACEAE)

Common & Regional Name: LN. & H. - *Jangli haldi*; S. - *Van haridra*, B. - *Banhalud*; Bo. - *Ran hald*; Tam. - *Kasturi- Manjal*; Tel. - *Kasturi - Manjal*.

Vegetative Character:- Perennial herbs. Root – adventitious. Stem – rhizome. Leaf – simple sessile sheathing lanceolate. Inflorescence- solitary. Flower – zygomorphic bisexual epigynous. Perianth – 6 (3+3). Calyx – tubular 3. Corolla – 3 lobed. Androecium – 6, 3+3 stamens. Gynoecium – syncarpus carpel 3 ovary inferior. Flowering – Sep. Oct. Occur in Amarkantak & Panchmarhi. Medicinal part use rhizome.

FF- Br, %, ♀, K₍₃₎, C₍₃₎, A₃₊₃, G₍₃₎.

Use- Powder of rhizome mixed with “Harra” (*Terminalia chebula* Retz.) fruit and “Bahera” fruit (*Terminalia belerica*, Roxb.) and black salt is eaten once a day for 3-7 days to cure flatulence (*Gas & Rheumatic*) disease.

*Powder or paste of rhizome along with “SitkaPhul” (*Costus speciosus*, Koen.) “Tikhur” (*Curcuma angustifolia*, Roxb.) rhizome, “Anantmool” (*Hemidesmus indica* R. Br.) is given orally in equal amount; 2-3 times a day for snake bite and also used in fever. Rhizome paste is used for leprosy.

Biological Properties: -Plant rhizome – Astringents (constipative), Bitter, Carminative, and Tonic.

271. *C. amada* Roxb. (ZINGIBERACEAE)

Common & Regional Name: LN. - *Amahaldi*; H. - *Amahaldi*; S. - *Karpura haridra*, *Ambragandhi haridra*; Eng.- *Mango ginger*; B. - *Amada*; Gujrati - *Amba - haldara*; Tam. - *Mangai inji*; Tel. - *Mamidi allam*.

Vegetative Character:- Perennial herbs., Root – adventitious. Stem – rhizome.

Leaf – simple sessile sheathing lanceolate. Inflorescence – solitary.

Flower – zygomorphic bisexual epigynous. Perianth – 6 (3+3). Calyx – tubular 3. Corolla – 3 lobed. Androecium – 6, 3+3 stamens. Gynoecium – syncarpus carpal 3 ovary inferior. Flowering – Sep. Oct. Occur in Amarkantak & Panchmarhi. Medicinal parts use rhizome.

FF- Br, %, ♀, K₍₃₎, C₍₃₎, A₃₊₃, $\overline{G}_{(3)}$.

Use- The paste of rhizome mixed with Onion, “Doobighas” (*Cynodon dactylon*, L.) and castor oil applied locally and rubbed on affected area for pain, sprains, inflammation, wound and cut (Hot fomentation slightly fire to cow dung cake) for two-three days.

*The rhizome is also used for rheumatism, gout, skin diseases, ulcer and bronchitis etc.

Biological Properties: -Plant rhizome – Anti-inflammatory, Anti-pyretic, Appetizer, Aphrodisiac, Astringent, Aromatic, Carminative, Cooling, Digestive, Diuretic, Expectorant, Febrifuge, Laxative, Sour, Stomachic, and Sweet.

Chemical Substance:-*Rhizome contains – Albuminoids, Crude fibers, Essential oil, d-α pinene, linalool, Linalyl acetate, Ocimene, Safrol, Gum, Organic acid, Phytosterol, Camphor, Curcumene, Resin, Sugar, Turmerone. Volatile.*

272. C. caesia Roxb. (ZINGIBERACEAE)

Common & Regional Name:LN. - Kalahardi; H. - Kalihaldi; Narkachura; B. - Kalahaldi; Bo. - Narkachura; Tel - Manupasupu.

Vegetative Character: -Perennial herbs. Root– adventitious. Stem – rhizome.

Leaf – simple sessile sheathing lanceolate. Inflorescence – solitary.

Flower – zygomorphic bisexual epigynous. Perianth – 6 (3+3). Calyx –

tubular 3. Corolla – 3 lobed. Androecium – 6, 3+3 stamens. Gynoecium – syncarpus carpal 3 ovary inferior. Flowering – Sep. Oct. Occur in Amarkantak & Panchmarhi. Medicinal use rhizome.

FF- **Br**, %, ♂, ♀, $K_{(3)}$, $C_{(3)}$, A_{3+3} , $\overline{G_{(3)}}$.

Use- The paste of rhizome mixed with “Amahaldi” (*C. amada*, Roxb.) onion, mustard oil is used externally in case of injury and sprains (Hot fomentation to cow dung cake slightly fire) for 2-3 days.

*The rhizome powder mixed with “Satavar” (*Asparagus racemosus*) root, Dry ginger, Jaggery (*Gud*) and cow ghee (*Fat*) and prepared as laddu. It is given orally daily two times a day for 3 weeks after delivery to treat weakness, tooth ache; and headache.

Biological Properties: -Rhizome – Aromatic, Stimulant, Carminative.

Chemical Substance: Dry rhizome contains – Essential oil, D- camphor.

F – ORCHIDIACEAE

273. *Vanda roxburghii* R.Br. syn. *V. tessellate* Hook.ex.G.Don. (ORCHIDIACEAE)

Common & Regional Name: LN. - *Vanda*; S.,H.,B.&Bo. - *Rasna*; Kan. - *Bandanike*; Tel. - *Kanapabadanika*.

Vegetative Character: -A perennial epiphyte herb. Root – supporting, arial unitting many thick white fleshy. Stem - climbing, 1-2 ft. tall. Leaves - succulent, 15-20 cm, long, linear, recurved, complicate. bifarious, about 15 to 20 cm. long, narrow complicate, keeled, apex praemorse. Inflorescence - racemes longer than the leaves, peduncle 15 to 25 cm. long. Flowers - 2 to 2.5 cm. across. Sepal - and petals subequal, spreading cleavet, obovate undulate, yellowish (rarely bluish). Tessellated - with brown, their claws and outer surface white lip bluish streaked with purple, ovate, acute, erect, terminal lobe penduriform; with

a purple dilated truncate 2-lobed apex margins deflexed, disk convex, within. Column - short capsule 7.5-9 cm long, narrowly clavate-oblong with acute ribs . Shortly stalked. Flowering – June- July. Occur in Shahdol and other part of M.P. Medicinal use root.

FF- $\%, \text{♀}, \text{P}_{3+3}, \quad \overset{\curvearrowright}{\text{A}_1}, \quad \overline{\text{G}_{(3)}}.$

Use- The paste of roots along with “Arjun” (*Terminalia arjuna* W&A.) eaten 1 spoon and applied topically as poultice bind on affected area (bone fracture) once a day for a week; to improve fracture and also leaf juice 2 drops useful for ear pain & cleaning. The leave paste is used on body during fever, febrifuge and juice is used for ear diseases (Otitis).

*Decoction of root; 2 spoons (250 gm. roots) mixed with “Ghumchi” (*Abrus precatorius*) $\frac{1}{2}$ seed powder and black pepper 2-3 pieces and honey taken orally twice a day for 5-7 weeks to treat paralysis and joint pain, rheumatism and root cooked in castor oil used externally for massage to cure nervous system diseases.

* The roots are useful in dyspepsia, alexiteric, antipyretic; bronchitis, inflammations, piles and hiccup. Topically the root is used in rheumatism and allied disorders and diseases of the nervous system. It is also employed as a remedy in secondary syphilis and scorpion stings.

Biological Properties: -Plant root is considered as- Rheumatic, Paralysis, Nervous disorder and Leaves – Fever and Ear disease.

Chemical Substance:-Plant contains – Alkaloids, Glucoside, a glucoside, tannins, β -sitosterol, γ -sitosterol and a long chain aliphatic compound, fatty oils, resins and colouring matters. Roots contain tetracosyl ferrulate and β -sitosterol-D-glucoside.

F – CYPERACEAE

274. *Cyperus rotundus* Linn. (CYPERACEAE)

Common & Regional Name: LN. - Nagar motha, Gangaura; S. & Bo. - Musta; H. & B. - Motha; Tam. - Korai; Tel. - Tunga muste.

Vegetative Character: -Perennial herb., Root – adventitious. Stem - triangular solid. Leaves towards the base of the stem, radical, leaves three ranked, linear, glossy- green, sheath surrounding the stem. Flowers - bisexual in spikelets in the axil of the glumes empty, upper bears bisexual flowers, upper most glum sterile or empty., Stamens- 3. Style 3 fid., Ovary - compressed. Fruit - a trigonous nut., A most common weed of M.P. A most difficult perennial weed and is associated with most of the crops river side. Perpetuation through, underground rhizomes. Flowering – Sept-Dec. Occur through M.P. Agriculture field and river side. Medicinal parts use underground rhizome (Tuber).

FF – $\oplus, \text{♂}, \text{♀}$, **P** $_{3+3}$, **A**₃, **G**₍₃₎.

Use – Infusion of rhizome (tuber) and roots mixed with black pepper 2-3 pieces, mashed ginger ½ tea spoon and honey is given 1-2spoons 2-3 times a day for diarrhoea and cholera and amoebiasis.

*Power of rhizome (tuber) compound with “Safed musli” (*Chlorophytumarundinaceum* Baker.) root, “Ashvagandha” (*Withania somnifera* Dunal) root, “Kali mushli” (*Curculigo orchoides*, Gaertn.) are taken orally in equal amount; a table spoon once a day for 21 days to improve weakness and gain strength. Root paste in water has local application for galactagogue wounds and ulcer.

*Powder of rhizome (tuber); ½ spoon with black pepper and honey one spoon applied internally twice a day for 7-21 day to cure insomnia diseases, and also useful in the disorders of the stomach and irritation of the bowels.

Biological Properties:- Plant is considered as- Acrid, Bitter, Anthelmintic, Anti-inflammatory, Antiperiodic, Astringent, Blood purifier, Cooling,

Constipating, Carminative, Depurative, Diuretic, Digestive, Expectorant, Febrifuge, Repulsive, Galactagogue, Nervine tonic.

Chemical Substance:-*Plant yield – Essential oil which contains; Cineol penene, Fatty oil it is contain Linoleic acid, Oleic acid, Myristic acid, Stearic; Glycerol, Glycoside, Cyperen, Cyperenone, Sugar, Gum, Carbohydrates and leaf – has Luteolin.*

275. *C. esculentus* Linn. (CYPERACEAE)

Common & Regional Name:*LN.- Gangaura, Gondaila; H.- Chichoda, Cicada; S.- Bhandramusta, Kaseruka; Mal.- Kalimuttanna; P. -Kaseru; Tel. Musta.*

Vegetative Character: -An annual of perennial glabrous, erect, grass like sedges, 2-3 ft tall., Root – adventitious. Stem – slender, subterranean stolen ending in ovoid, Cylindrical, edible rhizome (tuber). Leaves – the leaves are found in three rows. The posses narrow blade and closed, sheath. Inflorescence – it is either spike of spikiest or panicle. Flower – sessile, bracteates hermaphrodite. The flower is born in the exile of glume, Androecium rarely, Stamens – arranged in two whorls of the each. Gynoecium – it consists of three carpels. Fruit – achene. Seed – albuminous. Flowering – Aug. – Sep. is common moist and agriculture fields of M.P. Medicinal use rhizome.

FF – Br., ⊕, ♂, P₃₊₃, A₃, G₍₃₎.

Use – The rhizome paste; ½ spoon given orally once a day for a week to cure helminthiasis, leprosy, diarrhoea, dysentery or colic pain.

Biological Properties:-Plant rhizome – Acrid, Anthelmintic, Aphrodisiac, Astringent, Bitter, Carminative, Cooling, Digestive, Febrifuge, and Stimulent.

Chemical Substance:-*Rhizome contains – Oil, pleasant taste and flavor, high calories food.*

276. *Scirpus kysoor* Roxb. (CYPERACEAE)

Common & Regional Name: LN.- *Ghoda gad*; H. & B. - *Kasuru*; S.- *Kaseruka*; Bo.- *Kachera*; Tel.- *Gundatungagadd*; P. - *Kaseru*

Vegetative Character:- Perennial herbs grows in takes or ponds, underground rhizome. Root – Fibrous adventitious Stem – Hollow leaf – like and bearing cluster of spikelets. Flower – at the axil of a glum bisexual flower Flowering – Aug. – Sep. is common moist and agricultures fields of M.P. Medicinal use rhizome.

FF – $\oplus, \text{♀}$, P₁₋₃, A₃, G₍₃₎.

Use – Tubers paste; half tea spoon with black pepper 2-3 pieces and a spoon honey given 2-3 times a day for curing diarrhoea and vomiting.

*Rhizome powder; ½ tea spoon alongwith “Vach” (*Acorus calamus*) 5cm. long, black pepper 2 and a spoon honey given together orally; 2-3 times a day for 3-5 days to treat dry cough.

Biological Properties: -Rhizome – Diuretic, Cough, Vomiting.

277. *Scirpus articulatus* Linn. (CYPERACEAE)

Common & Regional Name: LN. - *Chhichora*; S. & H.- *Chichora*.

Vegetative Character:- Herbs, perennial in nature, smooth, slightly hairy. Stem - ½ to 2 ft. tall, terate, sheaths loose, membranous, spikes, spikelets, ¼-½” long brown in a single dense lateral head situated below the middle of the stem and often close to the base. Glumes - lowest & upper most empty 1/6” long, ovate, acute, membranous, keeled. Bristles, stamens 1-3 style trifid Nut 1/15” long obovoid apiculate, rugose black.

Flowering – Dec. – Jan. is common moist and agriculture fields of M.P.
Medicinal use rhizome.

FF – $\oplus, \sigma, P_{3+3}, A_3, \underline{G}_{(2)}$.

Use- Plant paste; $\frac{1}{2}$ tea spoon mixed with “Gorakh Mundi” (*Sphaeranthus indicus*, L.) root and flower $\frac{1}{2}$ tea spoon and “Bhakrandi” seed 1-2 g. (*Jatropha curcas* L.) given orally 1-2 times a day for purgative (act of cleaning Bowel).

*Paste of plant; $\frac{1}{2}$ tea spoon and mixed with “Sehunda” leaves juice a spoon (*Euphorbia neriifolia*, L.) given orally twice a day for 1-2 days to treat Cathartic (Cleaning of Stomach) medicine.

Biological Properties: -Purgative.

F-ALISMACEAE

278. *Sagittaria sagittifolia* Linn.(ALISMACEAE)

Common & Regional Name: LN. &H.- Chhotukut; Bo.- Chotokut, Muyamuya.

Vegetative Character:- Annual are perennial herbs of marshy place or floating aquatic herbs with rhizomes and radical leaves long stalked with basal sheaths. Flower – uni sexual actinomorphic trimarous and hypogynous in whorled panicles.

FF- $\oplus, \sigma, K_3, C_3, A_{(6-\infty)}, G_0$.

FF- $\oplus, \sigma, K_3, C_3, A_0, \underline{G}_{6-\infty}$.

Use - The leaves paste mixed with “Neem” (*Azadirachta indica*) leaf and black pepper for skin disease as itches, scabies and plants are also used for flow of lochia, in retention of the placenta.

Biological Properties: -Plant considers – retention of placenta, skin diseases.

Chemical Substance:-Tuber yield – Starch, Sugars.

F – TYPHACEAE

279. *Typha elephantina* Roxb. (TYPHACEAE)

Common & Regional Name: LN. - Sarpat; H.- Ramban, Pater, Kash. - Pitz; S. - Gundrashari; Gondpator; Eng.- Cat tall; Bo. - Ramban; B. - Hogla; Kan. - Jambuhullu; Marvadi - Aro.; P. - Boj; Tam. - Chambu; Tel. - Jammugaddi;

Vegetative Character: -Water grass and cat tail say, aquatic or marshy herb occurring in ponds, ditches, lakes on river banks. Root - adventitious, fibrous. Stem - rhizome dithichous scales. Leaf – scale leaves in two lateral rows on the rhizome in their axils arise aerial shoots bearing two ranked foliage leaves with narrow, linear, spongy sheathing leaf base. Inflorescence – spike, bearing yellow male. Flowers above and brownish female flowers below, hair like bracteoles with dilated tips. Flower – small, unisexual, male flower stamens 2-5 or reduced to one, variously monadelphous. Female flower bracteate or ebracteate. Carpel one, ovary, unilocular, pendulous ovule; gynophore long, fruit – and achine seed – small endospermic.

FF- %, ♂, **P₀**, **A₁₋₅**, **G₀**.

FF- %, ♀, **P₀**, **A₀**, **G₁**.

Use- Powder of rootstock (rhizome) along with “Kali mushli” (*Curculigo orchoides*) and honey given orally; 1 spoon once a day for 15-11 days to cure weakness (recover strength) and when mixed with “Tikhur” (*Curcuma angustifolia* Roxb.) and “Babul” gum and fruit (*Acacia Arabica* Willd.) candy Sugar, it is used in gonorrhoea, measles and discharge of urine.

*Ripe fruit paste mixed with “Gurij” (*Tinospora cordifolia* Willd.) stem and “Karonda” (*Carissa opaca* Stapf.) root is locally applied for ulcer and wounds.

*Cotton wool made pillow, support for the head and relief for (Sannapat diseases) (tinnitus) continual sound into ear.

*Paste of soft woolly inflorescence of the male spadix mixed with “Neem” leave (*A. indica*. A. Juss.) is used like cotton over wounds and ulcer.

*The crush roots; 20 g along with 2 cup water, “Safed Ghumchi” (*Abrus sp.*) root taken orally twice a day for a week from the first day of menses for treatment of permanent sterility.

F – SPARGANIACEAE

280. *Sparganium simplex* Huds. (SEARGANIACEAE)

Common & Regional Name: Vernacular name - *Sperganium*.

Vegetative Character:- Plant are annual or perennial marshy herb which creeping rhizome having distichous, simple, linear entire and sessile leaves with sheathing base. Flower – unisexual, actinomorphic and hypogynous in globose head like spikes; the staminate flower heads are located above the pistillate ones. Fruit – drupe like. Seeds– endospermous. Occur in moist agriculture field. Flowering- Oct.- Dec.

FF- $\oplus$, ♂, P₄, A₁, G₀.

FF- $\oplus$, ♀, P₄, A₀, G₁.

Use- The plants are medicinally important.

F – ARACEAE

281. *Acorus calamus* Linn. (ARACEAE)

Common & Regional Name: LN., H. & B. - *Bach*; S. - *Bhadra*; Tel. - *Vadaja*; Tam - *Vashambu*; Bo. - *Vaj*.

Vegetative Character: - Perennial herbs common in marshy aromatic and river bank. Root- adventitious. Stem - underground (rhizome) rootstock. Leaf – parallel venation acicular. Flower – bisexual spadix not in closed by spathe which is long narrow and leaf like. Flowering – Aug. – Dec. Occur in Shahdol, Jabalpur, Rewa, Hoshangabad division. Medicinal use rhizome.

FF- $\oplus, \text{♀}, \text{P}_{3+3}, \text{A}_{3+3}, \underline{\text{G}}_{(3)}$.

Use - Powder of rhizome along with water is made into paste and applied locally; twice a day for 2-3 days for half headache & colic and mixed with “Dub Ghass” (*Cynodon dactylon*, L.) plant juice and honey 1-2 gm used daily for epilepsy and rhizome is used for amenorrhoea, bronchitis, calculi, depression, fever and skin diseases.

*Powder of rhizome alongwith black pepper 2-3 pieces, honey and “Ishwar Bhata” root (*Aristolochia indica*, L.) “Madar” roots bark (*Calotropis gigantea* L.) are taken in equal amount and ate twice a day for 5-7 weeks to treat paralysis, rheumatism, asthma, cough, worms and also used in snake bite and rhizome is also used for dysmenorrhoea, dyspepsia, epilepsy, helminthiasis, hoarseness, inflammation.

*Paste of rhizome compound with black pepper, honey useful for clean vocal sound and strangury, tumours, otalgia and recover memory, dysentery and minor powder used as eye-salve (ointment) (Surma anjan) to cure (dim light) night blindness.

Biological Properties :- Plant Rhizome is considered as- Acrid, Anodyne, Anti-inflammatory, Antispasmodic, Aphrodisiac, Antipyretic, Aromatic, Bitter, Carminative, Diphoretic, Emetic, Laxative, Nervine tonic, Stomachic, Sudorific, Sedative, thermogenic, expectorant, spasmolytic, Diuretic.

Chemical Substance:-*Rhizome contains various substance – Essential oil, Glucoside, Acorin, Flavon. β -Asarone. Calamene. Leaves – Oxalic, Calcium, Asarone, Chlorpromazine, Calamenone, Calamene, Calaminol, eugenol, Camphene acid in small quantity, Palmitic, Heptylic, Butyric, Starch, Gum, Tannin and Calcium oxalate.*

282. *Pistia stratiotes* Linn. (ARACEAE / LEMNACEAE)

Common & Regional Name: LN.- *Jal gobhi*; H.- *Jal Kumbhi*; S. *Kumbhika*; Eng.- *Water cabbage*; B.- *Takapana*; Bo.- *Prashni*; Mal.- *Koddapail*; Tam.- *Agasatamarai*; Tel.- *Akastamara*.

Vegetative Character: -Usually perennial herb Root – adventitious. Stem – stololinferous bearing rosettes of roundish or spatulate leaves the outer of which lie on the water while the inner stand erect. Leaves - in a rosette remain closed at night but open into a horizontal position by day. Stolons grow out from leaf axil which gives rise vegetative to new plants. Inflorescences - small and monoecious consisting of whorl of male flowers above and female flower below. The male flower has two stamens; female has on ovary from a carpel there is no perianth. The plant wild in ponds.

FF- $\oplus, \text{♂}, \text{P}_{3+3}, \text{A}_{1-2}, \underline{\text{G}}_1$.

Use - Paste of leaves compound with “Indraman” (*Citrullus colocynthis*, Schrad.) seeds powder and made into poultice bind for piles (bleeding condition), Bugs control and root also given orally for treating discharge of urine.

*The crushed leaf compound with “Kanji” oil (*Pongamia pinnata* L.) Merr., mustard oil, coconut oil and “Gurij” (*Tinospora cordifolia*, Willd.) stem, leaves, “Gataran” (*Caesalpinia bonducella*, Fleming) oil, “Chirchira” seeds crushed (*Achyranthes aspera* Linn.) and “Bavchi”

seeds powder (*Psoralea corylifolia*, Linn.) “Sehunda” (*Thuha*) (*Euphorbia neriifolia*, Linn.) delicate stem, leaves crushed and pili Kateli (*Argemone mexicana*, L.) all are cooked and externally used in leucoderma leprosy and psoriasis.

Biological Properties: -Plant considers – Demulic; Refrigerent; Dysuria; Destroy bugs; Skin diseases.

F-AMARYLLIDACEAE

283. *Curculigo orchioides* Gaertn.syn. *C. malabarica* Wight; *C. brevifolia* Dryl.; *Hypoxis orchiodies* Kurz. ; *Carcinia malabarica* Desv.(AMARYLLIDACEAE)

Common & Regional Name:LN. - *Musar mundi*, *Syah mushli*; S. - *Talamulika*; H. & Bo. - *Kali musli*; B. - *Talamuli*; Mal.- *Nelappanakizhanna*; Tam. - *Nilappanaik-kithangu*; Tel. - *Nelataygadda*.

Vegetative Character: -Mostly perennial herbsperenating by bulbs., Root - adventitious fibrous. Stem- root stock or rhizome. Leaf alternate, narrow entire linear lanceolate. Inflorescence- cymose flowers are born on a leafless scape, solitary. Flower- yellow 2-3 together on axillary peduncles hidden among – leaf corolla, hermaphrodite, epigynous actinomorphic. Flowering – June- July. Occure in all over M.P. Medicinal use rhizome.

FF- Br, $\oplus$, $\otimes$, P $\xrightarrow{3+3+corona}$ A $_{3+3}$, $\underline{G}_{(3)}$.

Use- Powdered rhizome mixed with “Safed mushli” (*Chlorophytum tuberosum*, Baker.) roots, “Satavar” (*Asparagus racemosus*, Willd.) roots one spoon twice a day to treat wounds, heal weakness, and also used for women after delivery, for secreation of milk, jaundice, asthma, gonorrhoea, menorrhoea, piles and amenorrhoea, polyurea and dysurea.

*Powder of rhizome 8-10gm mixed with Candy sugar (Mishri), Cumin seed 5-10 gm, Tulsi (Basil) seed 10-15 gm, “Elaichi” (Cardamom) 5gm, given together orally early morning, 1 time a day for 7-8 weeks to both husband and wife for enhancement of spermatization result. Patient must avoid pickles, spices & chillies.

*Paste of whole plant mixed with tobacco leaf used locally twice a day 3-5 days to cure wound, maggots in cattle.

*Paste of whole plant mixed with “Madar” latex used for scabies, itches and also used in diarrhoea, leucoderma and excessive itching. The crushed root stock cooked in castor oil is applied (massage) externally on waist, rheumatic pain.

*Power of tuber ½ tea spoon compound with “Van piyaj” (*Urginea indica Kunth.*) tuber ½ spoon applied internally once a day for a week to cure diuretic and also used as powder; 8-10 g with 2 cup buttermilk, given in leucorrhoea till 3-4 weeks.

Biological Properties: -Plant root stock – Alternative, Aphrodisiac, Antipyretic, Appetiser, Bitter, Carminative, Refrigerant (Cooling), Diuretic, Demulcent, Depurative, Emollient, Restorative, Stimulant, Cosmatic.

Chemical Substance:-Rhizomes (root stock) yield - Yuccagenin, Lycorin, 27-hydroxytriacontan-6 one and 23 Hydroxy-triacontan 2 one and also rhizome contains – Steroids, Terpenoids, Phenolics, Tannins, Glycosides, Iron, Starch, Calcium, Mg., Na., Stranthium, Resin, Gum and Calcium oxalate.

References: Asolkar et al., (1992); Ghose and Das, (2000).

284. *Narcissus tazetta*. Linn.(AMARYLLIDACEAE)

Common & Regional Name: LN.- *Ban Piaz*, H.- *Nargis*.

Vegetative Character: -Perennial herb. Root – adventitious, fibrous. Stem – bulb. Leaf – radical entire, thick and fleshy sword shaped. Inflorescence – solitary, cymose so as to resemble an umbel. Flower – bracteate spathe, hermaphrodite, epigynous regular actinomorphic. Perianth – six petaloid, cream – white, in two whorls gamophyllous, tube below is collar or corona. Androecium – six stamens, polyandrous epiphyllous. Gynoecium – 3 – carpels syncarpous. Fruit – a capsule, seeds – black and endospermic. Flowering – Aug. Sept. Occur in Shahdol, Jabalpur, Hoshangabad & Rewa division. Medicinal use tuber.

FF- **Br**, $\oplus$, σ , $P_{3+3+corona}$, A_{3+3} , $\underline{G}_{(3)}$.

Use - Juice of tuber 1-2 drops mixed with “Vach” (*Acorus calamus* L.) rhizome (kand) minor powder 2-3 mg. is used once a day for 7-15 days to treat difficulty in sight in dim light and paste of tuber is also used in sprain of eye ball. Paste is also used in thorn prickly (injury) broken deep in the foot (sole) and slightly come out spine sole layer.

*Paste of tuber mixed with “Turmeric” (*Powder*) useful as ointment for face and skin diseases and pus, with wound healing and stops bleeding, cut and injury.

*The 250 gm water is boiled; a cup mixed with 4-7 pieces black pepper, honey is taken as Juice to 2 spoons, honey 1 spoon once a day for 5-7 days to cure worms and stomach diseases.

*Decoction of tuber is mixed with honey, given orally 1-2 spoons once a day for 2-3 weeks for disease of uterine and paste used in penis once day for 7-15 days to treat weakness of penis strength.

Biological Properties: -Plant tuber – Emetic, Wound healing, worms kills.

F – PALMAE

285. *Phoenix acaulis* (Buch. Ham.) ex. Roxb.(PALMAE)

Common & Regional Name: *LN. - Chhindi.*

Vegetative Character:-The plant is perennial shrub, Root – adventitious arising around the bulbous base of stem. Stem – underground, very short
Leaf – large in terminal, pinnately compound, Inflorescence – spadix, paniculate clusters spathes, terminal. Flower – small, sessil, regular actinomorphic in complete, unisexual, perianth 6 in 2 whorls. Androecium – stamens 6 in 2 whorls Gynoecium – 3 Fruit – berry ripening black. Seed – endospermic, elongated. Flowering – April – May. Occur all over M.P. Medicinal parts use tuber.

FF- $\oplus$, σ , P_{3+3} , A_{3+3} , G_0 .

FF- $\oplus$, φ , P_{3+3} , A_0 , $\underline{G}_3$.

Use - Raw stem used during sickness to increase hunger (to have a keen appetite) till 7-21 days.

*Paste of seeds used externally 2-3 times a day for 5-7 days to cure scabies and itches.

F – GRAMINEAE (POACEAE)

286. *Andropogon contortus* L. (POACEAE)

Common & Regional Name: *LN - Lanpa, H. -Shurval; Mar. - Kantegawta.*

Vegetative Character: -This is a tufted annual or perennial grass. Root - adventitious, fibrous. Stems - are erect or slightly decumbent below slender rather compressed towards the base leafy at the base simple or branched, densely tufted and varying in length from 3 to 4 feet leaf sheath is smooth sparsely, leaf blades are linear, acute 2-12 inches long $\frac{1}{2}$ - $\frac{1}{5}$ inches broad. Inflorescence - consists of a solitary Spike with closely imbricating spikelets to six pairs of pedicellate and sessile spikelets are all female sessile spikelets, lower male and unless $\frac{1}{4}$ inch long. Flowering – Aug. – Sept. Occur all over M.P. Medicinal use root.

FF – %, ♂, ♀, **P**_{2, lodicules}, **A**₃ or 3+3, **G**₁.

Use : Infusion of (10–12 pieces) roots 2 spoon along with “Ainthe” (*Helicteres isora*, L.) seeds ½ tea spoon powder, 2-3 black pepper given orally 2-3 times a day to treat pain of stomach and mixed with “Chitrak” (*Plumbago zeylanica* L.) leaf decoction (about 5-7 leaf) 2-3 spoon given for colic.

*Root powder; ½ tea spoon mixed with “Anantmoole” (*Hemidesmus indicus*, R. Br.) root; meshed ½ tea spoon, 2-3 black pepper and honey is given orally 1-2 times a day for 3-5 days to treat discharge of urine and as blood purifier.

Biological Properties: -Plant root consider - Diuretic (discharge of urine), Stimulant (producing of vitality).

287. *Cynodon dactylon* (Linn.) Pers.(POACEAE)

Common & Regional Name: LN.- Doob ghass; H. - Dhub; S. - Dhurva; Eng.- Doob grass (creeping cyanodon); B. - Dubh - Dubra; Tel.- Harvali; Tam.- Arugampullu; Marathi- Haryali.

Vegetative Character: -A perennial grass. Root- adventitious., Stem- prostrate branched. Leaves - narrow flat and short rachis slender like or umbel spikes free at base. Basal - glume persistent, narrow, keeled. Lemma - longer than basal glume, glabrous, 3 nerved. Palea as long as basal glume 2 nerved. Lodicules - 2, small. Lemma - awnless, but rachilla produced above lemma as a fine bristly structure. Flowering - throughout year. A most common grass found all over M.P. Medicinal use whole plant.

FF – %, ♂, ♀, **P**_{2, lodicules}, **A**₃ or 3+3, **G**₁.

Use- Plant decoction (Tender branches 30-40) is taken twice a day for 7-10 days, applied for urino – genital system.

*Plant paste mixed with Mustard oil, Turmeric (Haldi) and applied on injuries, swelling, pain and used in goiter, dysentery, diarrhoea, ringworm, itch, and scabies etc.

*Juice of plant; one spoon along with honey ½ spoon given orally 2-3 times a day for hiccups and also used in vomiting. Plant extract can be used in hysteria, epilepsy, insanity, ophthalmia.

*Paste of whole plant; one spoon compound with “Koraiya” (*Holarrhena antidysenterica* Wall.) bark for 7-8 weeks to cure piles (stopping bleeding) and crushed root mixed with curd is used in chronic wound.

Biological Properties: -Plant considers – Antifungal, Anti-viral, Anti-biotic, Anti-thirst, Abortifacient, Astringent, Refrigerant (cooling), Constipating, Diuretic, Depurative, Dropsy, Diarrhoea, and Dysentery.

Chemical Substance :- Plant contains – β – Sitosterol, β – Carotene, Vitam – C, Carotenes, Glucoside, Palmitic acid, Triterpenoid, Arundoin, Friedelene, Alkaloid, Ergonovin, Ergonovinine, Ferulic, Mono & Oligo, Saccharide, Glucose, Fructose, Sucrose, Starch and Lignin and also 2-(3-methoxy-4'-hydroxyphenyl) Propionic acid, 3-methoxy-4 Hydroxybenzoic acid 4-hydroxy, Benzoic acid-2-(4 hydroxyphenyl) Propionic acid, Phytol, Sitosterol and Stigmasterol acetate.

References: Agrawal, (2003); Asolkar et al., (1992); Balu et al., (2000).

288. *Dactyloctenium aegypticum* (Beanv.) See *Eleusine aegyptiaca* Desf. (POACEAE)

Common & Regional Name: LN.- Ghoda chaba chara, Makra; H.- Mandua; Bo. - Mhar; Bo. - Nagli; S. - Rajika; Tel. - Ragulu Tam. - Tamida; P. - Madana.

Vegetative Character: -An annual erect grass. Root - adventitious. Stem - Weak. Leaves - flat blades, ligules absent, spikelets at rightangle with the rachis, laterally compressed 2-5, flowered in finger like spike, florets bisexual. Upper most floret some time reduced; Basal glume one nerved, upper shortly awaned. Lemma and palea of equal size. Grains globose rough. Flowering – Aug. Sept. A common weed of M.P. Medicinal use leave.

FF – %, ♀, **P**_{2+2, lodicules}, **A**₃, **G**₁.

Use - Tender leaf juice mixed with “Gudmar” (*Gymnema sylvestres* R. Br.) leaves juice taken together orally; 1-2 spoon to control diabetes and skin diseases and seed also used in biliousness.

*½ spoon Seed powder meshed with (*Embelia ribes* (Burm. f.) “Bividang” seeds ½ spoon, 2-3 black pepper and honey is used internally to treat weakness (Strength for body) and seed also used after child birth for stomach ache and kidney pain.

Biological Properties: -Plant considers - Stomachache after child birth, Biliousness, Diabetes, Skin diseases, Strength stop pain kidney regions.

289. *Echinochloa crus - galli* (Beauvi) syn. *Panicum crus - galli* Linn.(POACEAE)

Common & Regional Name: LN. - *Sama, Semai chara*; S. - *Jalsamaka*; H. - *Samak*; B. - *Burashama*; Tel. - *Peddawundu*; Tam. - *Oothupul*; P. - *Barasanwak*; Bo. - *Sarvank, Banti*.

Vegetative Character: - Annual grass, Root – adventitious. Stem – weak with loose pinkish leaf sheaths. Leaves - flat, linear, ligule hairy. Flowers- on an interrupted spike of spikelets., Lower florets sterile. Lower basal glume membranous, 5, nerved, upper broad ovate oblong, with long

awan, upper lemma palea with small appendages. Flowering- Aug. – Sept. A common grass found all over M.P. Medicinal use whole plant.

FF – %, ♂, ♀, **P**_{2, lodicules}, **A**₃, **G**₁.

Use- Plant extract or paste a spoon; meshed with “Chitrak” (*Plumbago zeylanica* L.) root paste in 1-2 gm curd, made as ointment and rubbed on affected area, with honey eaten daily 1 spoon in empty stomach thrice a day for 4-5 weeks to cure bleeding piles and patient must avoid spices, sour edibles and pickles.

Biological Properties: -Spleen diseases, Haemorrhage (Piles).

290. *E. frumentacea* Linn. syn. *Panicum frumentaceum* Roxb. (POACEAE)

Common & Regional Name:LN.- Sama; S. - Shyama; H. & B. - Sanwa; P. - Sawank; Tam.- Kudraivali, Pillu; Tel.- Chamalu.

Vegetative Character: - Annual grass, Root – adventitious. Stem – weak with loose pinkish leaf sheaths. Leaves - flat, linear, ligule hairy. Flowers on an interrupted spike of spikelets. Lower florets sterile. Lower basal glume membranous, 5, nerved, upper broad ovate oblong, with long awan, upper lemma palea with small appendages. Flowering – Aug. – Sept. A common grass found all over M.P. Medicinal use whole plant.

FF – %, ♂, ♀, **P**_{2, lodicules}, **A**₃, **G**₁.

Use- The plant extract mixed with “Bel” (Wood apple) leaves 2 part and “Ramna” (*Acacia donaldi* Nov.) leaves half tea spoon; given orally once a day, early morning 1 spoon for 3-5 day to treat biliousness and also used in constipation.

Biological Properties: -Plant – Biliousness, constipation.

291. *Eleusine indica* Gaertn. (POACEAE)

Common & Regional Name: LN. - *Paindhar chara*; H. - *Malnkuri*; Tam. - *Thipparagi*; Bo. - *Mahar-nachni*.

Vegetative Character: - An annual grass., Root – adventitious. Stem- soft weak. Leaves - narrow flaccid, sessile. Spikelets in long terminal finger like spike. Lower - basal glumes small one nerved, upper 3 nerved, unequal persistent. Spikelets laterally compressed, 3-12 flowered, florets bisexual. Lodicules absent. Palea smaller than lemma. Flowering – Aug. – Sept., Common grass of M.P. Medicinal use whole plant.

FF – %, ♀, P_{2, lodicules}, A₃, G₁.

Use- The plant decoction (2-3 plants boiled in 2 cup of water) ½ cup, mixed with “Cherayata” (*Swertia chirata* Buch.) ½ tea spoon powder, eaten two times a day for 3-7 days to treat fever.

Biological Properties: -Plant – Febrifuge, Sudorific.

292. *E. Corocana* (Gaertn.) (POACEAE)

Common & Regional Name: LN. - *Madia*; H. - *Mandua*; S.- *Rajika*; Kan.- *Ragi*; Tam.- *Kelvaregu*; Tel.- *Ragulu*.

Vegetative Character: - An annual grass. Root - adventitious. Stem - soft weak. Leaves - narrow flaccid, sessile. Spikelets in long terminal finger like spike. Lower - basal glumes small one nerved, upper 3 nerved, unequal persistent. Spikelets laterally compressed 3-12 flowered, florets bisexual. Lodicules absent. Palea smaller than lemma. Flowering – Aug. – Sept., Common grass of M.P. Medicinal use of whole plant.

FF – %, ♀, P_{2+2, lodicules}, A₃, G₁.

Use- The plant seeds are used as refrigerant, astringent (constipative) and biliousness etc.

Biological Properties: -Plant -Astringent, Refrigerant, Biliousness, Tonic.

293. *Paspalum commersonii* (Lam.) (POACEAE)

Common & Regional Name: LN.- Kodaila; H. - Kodo; S.- Kodrava, Koradusha, Eng.- Kodo-millet; Guj.- Kadra; B.- Kodoadhan; Bo. & P. Kodra; Mal.- Varagu; Mara.- Harik, Kardra; Oriya- Kodus; Tam.- Varagu; Tel.- Arugu.

Vegetative Character:- This is an annual cultivated. Root - adventitious. Stem- erect glabrous, 1-2 feet Leaf – sheath are compressed leaf blade is linear lanceolate, keeled with a distinct midrib. Inflorescence - consists of 2-3 terminal spikes with a slender long peduncle ½ -1 feet the rachis is flattened and winged. The spikelets are ovate – oblong as broad as the rachis glabrous, closely imbricating in two rows sessile or rarely geminate on a common pedicel. Three glumes. Flowering – Aug. Sept. It is common weeds in agriculture field. Medicinal use whole plant.

FF- %, ♂, ♀, P₃₊₃, A₃, G₍₁₎.

Use- Paste of plants mixed with “Ghamira” (*Eclipta alba*, Hassk.) plant, poultice tied over scorpion sting. The grains cooked and used for diabetes.

Biological Properties:-Plant is considered as- Anti diabetic, Ant poisonous & Narcotic properties.

Chemical Substance:- Plant contains these are - Hentriacontanoi, Hentriacontanone, Sitosterol and Campesterol, Isolated from seeds.

References: Ambasta, (1986); Johnson, (1998).

294. *Heteropogon contortus* (Beauv;Roem. & Schult.)(POACEAE)

Common & Regional Name: LN. - Lanpa; H - Shurval; Marathi - Kantegawta.

Vegetative Character: -This is a tufted perennial grass, Root - adventitious. Stem - are weak erect or slightly decumbent below, slender, rather compressed towards the base, leafy at the base, length from 1-4 ft. Leaf - sheath is smooth or hairy leaf-blades are linear, acute flat, rigid, 2-12 ” long or more 1/10 – 1/5 inch broad. Inflorescence consists of a solitary spike with closely imbricating spikelets. Flowering Aug. - Sept. Occur in all over M.P. Medicinal use root.

FF – %, ♂, ♀, P_{2+2, lodicules}, A₃, G₁.

Use- Decoction of roots; 2-3 spoons (about 8-10 pieces of root build in 10- 15 teaspoon with water) mixed with fruit powder ½ spoon of “Murra” (*Helicteres isora* L.) and “Shirphonka” (*Tephrosia purpurea* L.) 1-2 tea spoon is taken orally 2-3 times a day for 3 days to cure colic pain.

Biological Properties: -Root considers- Diuretic, Stimulant.

295. *Aristida adscensionis* Linn. (POACEAE)

Common & Regional Name: LN.- Kharahla; H.- Jhadu.

Vegetative Character: - An annual becoming a perennial under favourable conditions, Root – adventitious. Stem – are cylindrical, length 2.5 – 3 ft Leaf – sheath is glabrous thinly striate. Nodes are glabrous leaf blade is narrow, linear, fine point. Inflorescence – is a lax, narrow, length from 3-12” and with a slender glabrous peduncle, spikelet are narrow, erect, green or purplish. Flowering - Sept.-Oct. Occur in all over M.P. Medicinal use flower.

FF- %, ♂, ♀, P₃₊₂, A₃, G₁.

Use - Ashes of the flowers mixed with mustard oil and “Bichhu” seed oil (*Martynia annua*, L.) is used in topical application for treatment of eczema, Sehuan (little spot of leucoderma) and ringworm.

Biological Properties: -Plant considers – Skin disease, Ringworm, Eczema.

296. *Saccharum spontaneum* Linn. (POACEAE)

Common & Regional Name: LN. - *Kansi kasitta*; H. - *Kans*; P. - *Kahi*; Tam. - *Nanal*; Tel. - *Kakicheraku*; Mal. - *Nannana*; S. - *Kasha*.

Vegetative Character: - A perennial 1-3 ft. tall polymorphic grass. Stem-solid, with long horizontal root stock. Leaves - long and narrow, with hispid unrolled margins, mouth of teeth woolly, panicle terminal with paired spikelets, lower pedicellate upper sessile awnless, lodiculeless ciliated, glumes equal lower lemma ovate lanceolate, ciliate, empty, upper bisexual with very small palea. Callus - hairs longer than the spikelets. Flowering Aug. – Sept. Occur in most common weed of the State. Medicinal use whole plant.

FF – %, ♂, ♀, **P**₄, (lodicules) **A**₃, **G**₁.

Use- Paste of roots mixed with “Mehndi” (*Lawsonia alba* Lam.) Leaf is applied topically for 1-2 times a day for 2-3 weeks to cure inflammation of hand and (foot) sole.

*The plant decoction is useful for treatment of burning sensation, ailment of blood & biliousness.

*Infusion of root 2 spoon and compound with “Chhoti Dudhi” (*Euphorbia thymifolia* L.) plants is given orally; once a day for 7-21 days for stone, kidney, urethra etc. and it is also used in treating biliousness (excess of bile) and piles. The root paste about 3-5 gm meshed with “Ghamira” (*Eclipta alba*, Hassk.) plant is used for local application twice a day; for 3-7 days to cure inflammation of legs (sole)

hands (palm), cut, wound and also in strangury, phthisis, calculi vesical and haemorrhagic diathesis.

Biological Properties: -Plant root is considered as- Aphrodisiac, laxative.

**297. *Cymbopogon martinii* (Roxb.) Wats. syn. *Andropogon Martini* Roxb.
(POACEAE)**

Common & Regional Name: LN.- *Rusa ghass*; H.- *Rusaghas*, *Gandhabel*; S.- *Rohisah*; Eng.- *Rosha grass*; Kan.- *Harehullu*; Mal.- *Sambharappullu*; Tel.- *Kamakchi-kassuvu*; Tam.- *Kavattampillu*.

Vegetative Character: -An annual or perennial herb. Root – adventitious. Stem – 4 - 5 ft. tall weak and aromatic. Leaves - long amplexicaul at base, thin, long, linear, lanceolate. Inflorescences – panicles large, decumbent, sessile spikelets awned, lower glume have a deep medium groove. Found all over M.P. Flowering Aug. – Sept. Medicinal use leaves.

FF – %, ♀, P₂, lodicules, A₃₊₃, G₁.

Use- The leaves juice mixed with “Neem” (*Margosa* tree) leaves and “Tulsi/Basil” (*O. sanctum*) leaves given orally; twice a day one spoon for 2-3 weeks to treat bronchitis, cough, heat debility, fever.

2 spoons Leaves juice applied for gout, alopecia, scorbutic, neuralgia, and helminthiasis.

Biological Properties: -Plant is considered as- Anti-pyretic, Appetizer, Heart tonic, Bitter, Depurative, Diuretic, Digestive, Carminative, Febrifuge, Galactagogue, Sudorific, Diaphoretic.

Chemical Substance: Leave yield various substances – Geranium oil, Volatile oil, (Phellandrene), Sweet smelling.

298. *Cymbopogon nardus* (L.) Rendle syn.; *Andropogon nardus* (L.) (POACEAE)

Common & Regional Name: LN. -*Gajni ghass*; H.- *Ganjni*; S.- *Guchcha*; Eng.- *Citronella Grass*; Mal.- *Kamakshi-pillu*; Tam.- *Kamachipillu*; Tel.- *Kamkshikasuvu*.

Vegetative Character: -An annual or perennial herb. Root – adventitious. Stem- 4 to 5 ft tall weak and aromatic. Leaves - long amplexicaul at base, thin, long, linear, lanceolate. Inflorescences – panicles large, decompounds, sessile spikelets awned, lower glume have a deep medium groove. Found all over M.P. Flowering Aug. – Sept. Medicinal use leaves.

FF – %, ♂, ♀, $P_{2, lodicules}$, A_{3+3} , $\underline{G}_1$.

Use- The grass or leaves used for perfume, cosmetics and also used in mosquito-repellent preparations.

*Leaves decoction used to treat stomachic (appetite), carminative and oil applied as stimulant.

Biological Properties: -Plant considers – Stimulant, Carminative, Anti-spasmodic, Diaphoretic, Sudorific, and Rubefacient.

Chemical Substance:-Leave contains – Essential oil, Geraniol, Citronellal.

299. *Panicum miliare* (Lam.) (POACEAE)

Common & Regional NameLN.- *Kutiki*; H.& P.- *Kutki, Sanwa*; B.- *Gondula*; Eng.- *Little millet*; Bo.- *Warai*; Tam. - *Shamai*; Tel.- *Nellashamalu*.

Vegetative Character: - Annual cultivated Root – adventitious. Stem – weak with loose pinkish leaf sheaths. Leaves - flat, linear, ligule hairy. Flowers on an interrupted spike of spikelets. Lower florets sterile. Lower basal glume membranous, 5, nerved, upper broad ovate oblong, with

long awan, upper lemma palea with small appendages. Flowering – Aug. – Sept. A common grass found all over M.P. Medicinal use whole plant.

FF – %, ♂, ♀, P_{2+2} , lodicules, A_{3+3} , $\underline{G}_1$.

Use- Plant juice used for Nervine stimulant and tonic and seed (grains) used for anti-diabetes.

Biological Properties: -Anti-diabetic.

300. *Vetiveria zizanioides* (Linn.) Nash., *Andropogon muricatus*, Retz. (POACEAE)

Common & Regional Name: LN. - Oorai ghass; H. - Khas; S. - Ushira; Eng.- Vetiver; B. - Khaskhas; Bo.- Khasakhasa; Mara.- Vala; Mal. & Tam- Vettiver, Ramaccham; Tel.- Kuruveeru, Vattiveru.

Vegetative Character:- This is densely tufted perennial grass 1-3 ft. tall with branching root stock and spongy aromatic roots. The stem are leafy. With equitant hard Leaf –sheaths at the base, smooth and polished solid. Leaf – sheaths are smooth and leaf blades are narrow linear, erect. The sessile spikelets about 1/6”(inch) long lanceolate. Style and stigma short stamens are three with yellow other stigma are purple., Flowering – Oct. – Nov. Occur in Shahdol, Sagar, Jabalpur, Hoshangabad division. Medicinal use roots.

FF – %, ♂, ♀, P_3 , lodicules, A_{3+3} , $\underline{G}_1$.

Use- Powder of roots; ½ tea spoon meshed with “Vach” (*Acorus calmus* L.) rhizome 2-3 gm, black pepper 2-3 pieces and 3-4 pieces of garlic are given orally twice a day for 5-7 weeks and same formula is mixed in castor oil and boiled (all material). Its daily massage is given 2-3 times a day for gout, osteoarthritis rheumatism, leprosy, ulcer.

*The paste of roots mixed with “Amarbel” (*Cuscuta reflexa*, Roxb.) single half seed, a cup of “palas/chhuila” (*Butea monosperma* Lam.) extract once a day for 5-7 days starting from first day of menstruation, continues for 3-4 cycles to control sterility and root can be also applied for anaemia, asthma, leprosy, menorrhagia, vomiting.

*Roots powder mixed with long pepper root in equal amount; ½ tea spoon given orally twice a day for 5-7 days to cure heart pain, burn and dyspepsia.

*Roots powder along with dry zinger tea spoon full; taken two times a day for 1-2 weeks to treat cramping of hand and foot.

Biological Properties :- Plant root is considered as- Acrid, Anthelmintic, Aromatic, Bitter, Carminative, Diuretic, Digestive, Expectorant, Febrifuge, Cooling (refrigerant) Stimulant, Stomachic, Styptic, Sweet, Anti- fatigue, Emmenagogue, Diaphoretic Tonic,

Chemical Substance: Plant root yield various constituents – Essential oil, Ca, Fe, Citronella, Acidic substance, Geraniol Terpene, Lignin, Resin, Salt.

301. *Desmostachya bipinnata* Stapf. (POACEAE)

Common & Regional Name: LN. - Kusa; H. - Dab, Durua; S. & B. - Darbha, Kusha; Bo. - Darbh; Tel. - Darbha.

Vegetative Character: -Erect annual or perennial grass root adventitious stem – hard. Leaf – leaf sheath, Stem length from 4-5 inches, leaf rough, hairy compressed, leaf – blades are little spiny 10-25 inches long. Inflorescence consists of a solitary spike imbricate spikeletes. Flowering Oct. – Dec. Occur Shahdol, Dindori, Mandla, Balaghat, Panchmarhi & Rewa. Medicinal parts use stem & root.

FF – %, ♀, P₂, lodicules, A₃₊₃, G₁.

Use- The root paste (8-10 pieces of fresh root) is applied once a day for 2-3 weeks to cure toothache and headache.

*The stem and root paste is applied locally; twice or thrice a day for a week to treat cut, wound and boils etc.

*Root powder; ½ spoon mixed with “Akkrha” (*Spilanthes acmella*, Murr.) seeds for 2-3 weeks, useful for toothache.

*Powder of root and culm; ½ tea spoon with candy sugar a spoon and “Koraya” (*Holarrhena antidysenterica*, Wall.) bark ½ spoon given orally; twice a day for 3-5 days to cure dysentery, menorrhoea and also used in discharge of urine.

*The paste of root with rice water given orally for 5-7 days to treat leucorrhoea.

Biological Properties:- Plant culms consider: Diuretic, Dysentery, Menorrhagia, and Stimulant.

(PTERIDOPHYTES)

F-EQUISETACEAE

302. *Equisetum debile* Roxb. *E. elongatum* Willd. (EQUISETACEAE)

Common & Regional Name: LN. & H. - *Hadjod*; Eng.- *Horse tail*; P. - *Trotak*; Nari,Matti; Santh.- *Buruka thom- charec*.

Vegetative Character: -Horse tail, pipe fern, Homosporous, sporophytic Plant, Perennial herbs, branched creeping rhizome, Root- Adventitious erect aerial branches 10-60 cm. long. Stem- branched, nodes and internodes, scaly leaves, cone strobilus present apex orange colour. It's called scouring rushes. Occur in Shahdol and other parts of M.P. Reproductive part grew Sep. – Oct. Medicinal use whole plant.

Sexorgans- Sporangium

Use- Paste of plants mixed with “Koreya” (*Holarrhena antidysenterica*) stem bark, taken orally one spoon; once a day and used also as plaster binding in bone fracture. For 7-21 days and Ash of the plants ½ tea spoon eaten once a day to cure acidity of the stomach and also used in kidney infection, haemostatic, haemopoietic, gonorrhoea, anti-diabetes in dyspepsia diseases.

Biological Properties:- Plant is considered as- Acidity, Dyspepsia, Antidiabetic, Gonorrhoea, Haemostatic, Haemopoietic, Kidney affections.

Chemical Substance :- Plant yield various substance – Apiagnin – 5.0 Beta-D glucoside, Kaempferol, Protogenkwainin 4- glucoside, 3- sophoraside, querctin, 3-glucopyranoside (isoquercitrin), Naringenin, Dihydrokaempferol, Dihydroquercefin, P-hydroxybenzoic, Protocatechuic, Vanillic, Gallic, P-Coumaric ferulic, Caffeic acid, Isoquercitrin (Plant), 6-chloroapigenin, Protogenkwanin-4-glucoside, genkwanin-5- O-Beta-D- glucopyranoside, apigenin 5-glucoside, Keteolin-5-glucoside.

F- MARSILEACEAE

303. *Marsilea quadrifolia* L. syn. *M. Minuta* L. (MARSILEACEAE)

Common & Regional Name: LN.- Charpatia/Sunsunia; B.- Susni Shak; Kan.- Chitingina; Kash- Paflu; P.- Tripattra; Tel.- Mudugu, Tamara.

Vegetative Character: -Perennial, herbs rhizome indefinite growth and more branched dichotomously form, horizontal, nodes, internodes. Roots adventitious, monopodial form Leaves - grow from nodes. Circinate coiled, long petiole compound, 4 leaflets, elliptical, obovate, and twice deeply lobed. Found moist place like pond, river, dam etc.

Sexorgans- Sporangium

Use- 5-10 gm leaves cooked in cow's (Ghee) butter and taken once a night at sleeping time for 3-7 days to treat (sleeplessness) i.e. "insomnia" disease and also used in diabetes.

F- SELAGINELLACEAE

304. *Selaginella rupestris* Linn.(SELAGINELLACEAE)

Common & Regional Name: LN. - Chiraiyagoda, Ninma, Sanjivanibuti.

Vegetative Character: -The plant body sporophytic dark green., Root adventitious. Stem 2-4 inches high and tetra angular strobilus. Occur in forest region rock side (shady) all over M.P. State. Medicinal use whole plant.

Sexorgans-Sporangium

Use - The plant paste; ½ teaspoon mixed with ½-1 pieces black pepper (Kali Mirch), Asafoetida (Heeng) little piece and "Pepper" (*Pepper longum* L.) fruit given together orally; twice a day for 3-7 days to cure dysentery & diarrhoea (green colour stool / Local name Ninma disease) of kids.

*Powder of plants; ½ spoon mixed with one spoon "Saunff" (Aniseed), ½ spoon ash of coconut fruit bark (fibrous Jata), buttermilk 1 cup taken orally; empty stomach twice a day for minimum 20 days to cure piles and also taken in diabetes.

305. *Dryopteris cochleata* (Buch. Ham. ex. Don.) C. Chr. (SELAGINELLACEAE)

Common & Regional Name: LN. & H.- Jatashankari.

Vegetative Character:- It is a perennial herbs and occur in sides of streams and moist areas, Rhizome thick, erect, lightbrown, brightly scaly; leaf-fronds approximate 20-30 cm. dimorphic, bipinnatifid, strip 15-30 long, pinnae green. Alternate, sub-sessile 10-15 pair, hairy herbaceous in

texture, sori large, veins distinct, horse shoe shaped. Fertile-Sep - Oct.
Occur in Amarkantak. Medicinal parts use rhizome & root.

Sexorgans-Sporangium

Use- Paste of rhizome has antifungal property and used as antidote two times a day; for 7 days.

*Extract of the dried rhizome is given in Epilepsy and leprosy for 3 months.

*The paste of fresh rhizome (stem) and stripe is externally applied on cut, wound, swelling and ulcer once a day for 7-21 days.

*Fresh paste of rhizome and fronds is externally applied in Snake bite and also used in dog bite, two spoons 3-4 times once a day for 2-3 days.

*The decoction of plant applied ½ cup; once a day for 3 weeks to cure weakness and also used for blood purification.

Biological Properties: -Plant considers - Anti-dot, Epilepsy, Leprosy, Wound, Swelling, Blood purification.

F - ASPIDIACEAE

306. *Tectaria coadunata* (Wall. ex Hook.et) C. Chr. (ASPIDIACEAE)

Common & Regional Name: *LN. & H.- Jatamasi.*

Vegetative Character: -Plant growing along the rock boulders and bank of rivers. Perennial Perennial herbs, it is occur in moist areas. Rhizome thick, creeping brown scaly; fronds approximate 30-150 x 30-70 cm. palecastaneous, bi to tripinnatifid at base; strip 15-30 cm. long; alternate sessile, deeply, lobed, lower pinnae with long stalk hairy, sori large, veins anastomosing very frequent at terminal margin. Occur in Amarkantak area.

Sexorgans- Sporangium

Use- Decoction of fresh rhizome and stripe mixed with “Marorphali” (*Helicteres isora*, L.) is eaten 2-3 times once a day for two days to cure stomach (Colic) pain.

*Gastrointestinal disorders and eradication of worm in childrens, anthelmintic, and rhizome crushed, half to one tea spoonful given daily till 3-7 days.

*The fresh rhizome and frond’s paste is used in insect bites or getting relief in centipedes bites; use 2-3 times a day.

*The paste of rhizome is useful in mental and nervous disorders, hysteria, improve weakness, cough, asthma and also used in bronchitis.

Biological Properties: -Plant considers - Anthelmintic, Antidote, Nervous disorder, Hysteria, Cough, Asthma, Bronchitis, Weakness.

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Appendix - I

Uses of Various Medical Terms

(**Sound body**), Disease is the absent in the health.

- **Abortifacient** - An agent that induces abortion (in women's problem).
- **Acrid** - Sharp to the taste, irritating, bitter, pungent etc.
- **Adenitis** - The inflammation of a gland or group of glands.
- **Agalactia** - The failure of secretion of milk.
- **Alexipharmic** - An antidote to poison.
- **Alexiteric** - protective to infectious diseases.
- **Alopecia** - The falling off of hair, a malady in which the hair falls from one or more circumscribed round or oval areas, leaving the skin smooth and white state.
- **Alterative** - Having the power to alter; causing a favourable change in the disordered functions of the body or metabolism.
- **Amenorrhoea** - The suppression (failure) of menstruation.
- **Amentia** - An arrest of the development of the mind from birth to early age.
- **Anaemia** - Lack of enough blood (bloodlessness) causing, unhealthy paleness of body.
- **Analgesic** - A removing pain (anodyne).
- **An aphrodisiac** - Having the power to lessen or inhibit sexual feeling., or An an aphrodisiac (also an aphrodisiac) is something that quells or blunts the libido. It is the opposite of an aphrodisiac.
- **Anorexia** - A condition of having lost the appetite for meal.
- **Anthelmintic** - The medicine by killing (destroying) worms.
- **Antibacterial** - The medicine active (medicine) against bacteria.
- **Antidote** - A medicine that counteracts poison, or active an agent which neutralizes or opposes the action of a poison.
- **Anti-inflammatory** - The medicine that active against inflammation.
- **Anti-leprotic** - The any (medicine) agent which prevents or cures leprosy
- **Antilithic** - An agent (medicine) which prevents the formation of calculi (Stone).
- **Anti-periodic** - preventing the regular recurrence of an ailment.

- **Antipyretic** - A medicine that counteracting fever.
- **Antiscorbutic** - A medicine that acting against scurvy disease.
- **Anti-septic** - The medicine that use (chemical sterilizing substance) to kill or control pathogenic microbes or preventing decay.
- **Antispasmodic** - The medicine that use (Excessive muscular contraction or nervous disorder caused by occupation) opposing spasms.
- **Anuria** - A medicine that acting against failure of the kidneys to produce urine.
- **Aperients** - A laxative medicine.
- **Aphrodisiac**- The medicine that use for (stimulates) producing sexual desire. or Men and women have sought aphrodisiacs, agents that arouse or increase sexual response or desire, since the beginning of time.
- **Areata** - The medicine that use occurring in patches or circumscribed areas. or Alopecia areata usually begins when clumps of hair fall out, resulting in totally smooth, round hairless patches on the scalp.
- **Arthritis** - A medicine that acting against inflammation of joints or joints swelling.
- **Ascities** – A medicine that use abnormal accumulation of a fluid in the peritoneal cavity. or the accumulation of fluid in the peritoneal cavity, causing abdominal swelling.
- **Astringent** - A medicine that use which contracting or the organic tissues & canals of the body, & thereby checking or diminishing bleeding of excessive discharges.
- **Azoospermia** - The drugs that use for total absence of sperm from the seminal fluid.
- **Baldness** –The hair less, it is normally grows.
- **Beriberi**- A medicine that uses deficiency disease caused by imbalance of vitamin B and carbohydrate etc.
- **Biliousness** - A drug usage that against symptom complex comprising nausea.
- **Boil** - The skin containing of the pus, it is an inflamed area.
- **Bronchitis** - The inflammation (Swelling of lungs) of the bronchi.
- **Bronchodilator**- A medicine use (agent) that causes widening of the air passages by relaxing bronchial smooth muscle.

- **Bubo** -An inflamed swelling in the armpit or lymph gland.
- **Calculi** - The stone concretion in the body or hard pebble-like mass formed within the body, particularly in the Kidney, urinary tract and gall bladder etc.
- **Cancer** - The drug usage that against malignant tumour or abnormal and uncontrolled division of cells that then invades and destroys the surrounding tissues.
- **Carbuncle** - A malignant tumour or an infection of the skin and subcutaneous tissue by staphylococcus aureus.
- **Carminative** - The curing flatulence or having the power of cleansing the bowels-purgative.
- **Catarrh** - The inflammation of a mucous membrane, Cold.
- **Catarrhal** - The drug usage that against pertaining to Catarrh.
- **Cathartic** - A having the power of cleansing the bowels-purgative.
- **Cephalalgia**- The medicine usage that against headache,or like cephalic remedy for disorders of the head.
- **Cholera** - An infectious disease with diarrhoea and vomiting or a severe infectious epidemic disease due to vibrio cholera.
- **Chronic bronchitis** - The medicine usage that against the patient coughs up excessive mucus secreted by enlarged bronchial mucous glands.
- **Conjunctivitis** - The patients suffering from eye (inflammation of conjunctiva), or the swelling of inner membrane into eye.
- **Colic** - A griping pain in belly.
- **Consumption** - A wasting disease (Kshya rog) or pulmonary tuberculosis.
- **Contraceptive**- The device, drug intended to prevent conception or drug which prevents unwanted pregnancy.
- **Convulsion** - The medicine usage that against violent involuntary contraction of the skeletal musculature.
- **Cystic** - The urinary bladder.
- **Cystitis**- The medicine usage that against inflammation of a bladder, especially the urinary bladder.
- **Dandruff**- The scurf formed on the scalp among the hairs, small dead pieces of skin in some one's hairs or dead scarf-skin separation in small scales and entangled in the hair.

- **Deafness** - Unable to hear at all (Listening trouble), partial or total loss of hearing in one or both ears.
- **Demulcent** – Soothing as a medicinal substance, or an agent for Soothing an irritated mucous membrane.
- **Depurative** - An agent that purifies the blood.
- **Diabetes** – A medicine usage that against disease, that impairs the ability of the body to use sugar, causing sugar to appear abnormally in the urine or blood (a person who has Diabetes) or here it refers to diabetes mellitus: a disorder of carbohydrate metabolism in which sugars in the body are not oxidized to produce energy due to lack of the pancreatic hormone- insulin. The accumulation of sugar leads to its appearance in the blood.
- **Diaphoretic**- A drug which induces perspiration.
- **Diarrhoea**- A persistent looseness of bowels or a specific infectious disease caused by virulent strains of a bacillus.
- **Diphtheria**- A medicine usage that against infectious disease in the back of the throat or the specific infectious ailment caused by virulent strains of bacillus.
- **Dissight**- An eye sore.
- **Diuretic**- The drugs usage that against promoting discharge of urine.
- **Dropsy**- A disease which watery fluid collects in the tissues of the body, or an excessive accumulation of a clear or watery fluid in any of the tissues or cavities of the body.
- **Dysentery**- A disorder of the bowels accompanied by mucus, bloody, or an infection of the intestinal tract causing severe diarrhoea with blood and mucus.
- **Dysmenorrhoea**- Painful menstruation (MC) or Dysmenorrhoea, also known as dysmenorrhoea, painful periods, or menstrual cramps, is pain during menstruation. It usually begins around the time that menstruation begins. Symptoms typically last less than three days.
- **Dysopia**-The defective vision or dysopia algera — disturbances of vision due to pains in the eyes and head on looking at objects.
- **Dyspepsia**- The indigestion or Indigestion, also known as dyspepsia, is a condition of impaired digestion. Symptoms may include upper abdominal fullness, heartburn, nausea, belching, ...

- **Dyspeptic-** A afflicted with dyspepsia., a person who suffers from indigestion or bad temper.
- **Dysphagia-** The difficulty in swallowing (pain in the eating)., difficulty or discomfort in swallowing, as a symptom of disease.
- **Dyspephonia-** The difficulty in producing sound (pain in the speaking).or difficulty in speaking due to a physical disorder of the mouth, tongue, throat, or vocal cords.
- **Dysphonea-** The difficulty in breathing (pain in the breathing).
- **Dysuria-** The difficulty in passing urine or pain while passing urine.or dysuria refers to painful urination. Difficult urination is also sometimes, but rarely, described as dysuria. It is one of a constellation of irritative bladder symptoms, which includes haematuria and urinary frequency.
- **Earache-** Pain in ears.
- **Eczema-** The drugs usage that against a non-contiguous inflammatory disease of the skin with much itching and burning.
- **Elephantiasis-** A skin ailments or gross lymphatic oedema of the limbs leading to hypertrophy.
- **Emaciate-** To make lean. or to make abnormally lean or thin by a gradual wasting away of flesh. After a month of toil and suffering, ragged and emaciate he at midnight reached the settlement.
- **Emaculate-** To remove blemishes from (remove spots) or Edit after the question was edited: Apparently emaculate is an archaic word that means to clear of stains / remove imperfection.
- **Emasculate-** To castrate.
- **Emetic-** A medicine that causes vomiting.
- **Emollient-** A drug that use softens animal texture, softening.
- **Epilepsy-** A nervous disease, manifested by sudden unconsciousness,or an affection of the nervous system resulting from excessive or disordered discharge of cerebral neurons.
- **Eruptions-** A breaking out of spots on the skin, outbreak of a rash.
- **Erysipelsa-** An inflammatory disease of the face or generally on the face marked by a bright redness of the skin or It is an infection of the upper dermis

and superficial lymphatics, usually caused by beta-hemolytic group A Streptococcus bacteria on scratches or otherwise infected areas.

- **Expectorant-** A medicine that promotes expectoration, or aiding the secretion of the mucous membrane of the air passages & the removal of fluid by spitting.
- **Fatigue-** The condition of being tired mental or physical tiredness, following prolonged or intense activity.
- **Ferifuge/Febirifuge—** That effective against fever; called also antifebrile. something having this effect, such as a cold pack, aspirin, or quinine; Leaves and seeds are used for external application for inflammatory swellings.
- **Fever-** A drug that use disease with high temperature, thrust and quick pulse, a rise in body temperature above the normal.
- **Fistula-** A cylindrical-ulcer with a narrow mouth (a disease of the anus), or an open channel from the anus or rectum to the skin near the anus.
- **Flatulence-** The drug that use filling of wind in the bowels (abdomen swelling), distention of stomach.
- **Foeticide-** A criminal abortion (Embryo kill).
- **Foeti-** A bad-smelling, fetid.
- **Gleet-** A drug that use chronic gonorrhoea, a thin morbid discharge as a wound, or chronic discharge of thin mucus from the vagina.
- **Goitre-** A morbid-swelling of thyroid gland or enlargement of the thyroid gland.
- **Gonorrhoea-**A drug that use inflammatory disease of generative organs (Sujak rog), or the urinogenital passages characterized by pain and discharge.
- **Gout-** A ailment with inflammation of the smaller joints (Gathia vat rog) or a disease of purein metabolism characterized by attacks of arthritis with an associated raised level of serum uric acid.
- **Goutiness-** The state of being gout and disturbance of uric-acid metabolism occurring chiefly in males, characterized by painful inflammation of the joints, especially of the feet and hands, and arthritic
- **Gouty-** A swelling with gout disease or Gout is usually characterized by recurrent attacks of inflammatory arthritis—a red, tender, hot, Lesch-Nyhan syndrome is often associated with gouty arthritis

- **Haematuria-** A medicine that use haemorrhage from urinary organs (blood flow in urinary tract).
- **Haematemesis-** The vomiting of blood or hematemesis or haematemesis is the vomiting of blood. The source is generally the upper gastrointestinal tract, typically above the suspensory muscle of duodenum. Patients can easily confuse it with hemoptysis (coughing up blood), although the latter is more common.
- **Haematinic-** The any substance which is required for the production of RBCs & its constituents.
- **Haemoptysis-** The spitting of blood.
- **Haemorrhage-** A discharge of blood from blood vessels or escape of blood from a ruptured blood vessel, externally or internally.
- **Haemorrhoids-** Piles.
- **Haemorrhagic ailment-**The associated with or resulting from blood loss.
- **Haemostatic-** That which checks bleeding, (styptic) or Hemostasis or haemostasis is a process which causes bleeding to stop, meaning to keep blood within a damaged blood vessel (the opposite of hemostasis is hemorrhage).
- **Hallucination-** Illusion or a false perception of something that is not really there.
- **Headache-** Pain in the head or pain felt deep within the skull.
- **Helminthiasis-**The morbid state due to infestation with worms.
- **Helminthic-** The anthelmintic, vermifuge.
- **Hemicrania-** Headache confined to one side.
- **Hepatomegaly-** The enlargement of the liver.
- **Hiccough-** An drug that use involuntary contraction of diaphragm with sudden closure of glottis or an abrupt involuntary lowering of the diaphragm and closure of the sound- producing floods at the upper end of the trachea, producing a characteristic sound as the breath is drawn in.
- **Hydrocele-** A morbid collection of fluid in the testicle or a circumscribed collection of fluid in the tunica vaginalis testis.
- **Hydrophathy-** A treatment of ailment with cold water.
- **Hydrophobia-** The aversion to water, exaggerated fear of water as in rabies.

- **Hypertrophy**-The excessive enlargement of an organ (any body organ).
- **Hypertension**- high arterial blood pressure.
- **Hypochondria**- A kind of nervous malady (Related to bile trouble).
- **Hysteria**- A nervous disorder characterized by anaesthesias or a neurotic disorder with varying symptoms.
- **Impotency**- The state of being powerless or inability to perform the sexual act due to failure of the reflex mechanism.
- **Inflammation**- A swelling, heat, and the body's response to injury, which may be acute or chronic.
- **Insecticidal**- Any agent which kills or destroys insects (Killing of insects)
- **Insomnia**- The condition a being unable to sleep (Sleeplessness).
- **Intermittent fever**- A fever that rises, subsides, then returns again.
- **Itch**- To feel itching, and discomfort or irritation of the skin, prompting the sufferer to scratch or rub the affected area.
- **Jaundice**- A morbid state of body in which the skin becomes yellow yellowing of the skin or whites of the eyes, indicating excess bilirubin (a bile pigment) in the blood.
- **Laxative**- A medicine used to stimulate or increase the frequency of bowel evacuation, or to encourage the passage of a softer or bulkier stool (tending to loosen the bowels).
- **Leprosy**- A loathsome endemic disease, caused by the bacterium mycobacterium leprae that affects the skin, mucous membranes, and nerves.
- **Leucoderma**- The loss of pigments in areas of skin, resulting in the appearance of white patches or bands (Whiteness spots of skin).
- **Leucoma**- A ailment of the eye, white opacity occurring in the cornea.
- **Leucorrhoea**- whitish or yellowish discharge of mucus from the vaginal opening (women disease).
- **Lumbago**- The rheumatic pain in the muscles about loins and pain in lower back.
- **Mammillitis**- The inflammation of nipple and also ulcerative mammillitis is a relatively uncommon condition but it can spread rapidly in herds which are affected for the first time and cause significant pain.

- **Menorrhagia-** excessive or prolonged menstruation.
- **Migraine-** A kind of headache, or condition resulting from spasm and subsequent over dilatation of certain arteries in the brain, which causes a recurrent throbbing headache that characteristically affects one side of the head.
- **Miscarriages-** The expulsion or removal of an embryo or fetus from the uterus at a stage of pregnancy when it is incapable of independent survival.
- **Mumps-** A contagious disease by painful swelling of salivary glands, and acute infectious disease caused by a virus.
- **Nasitis-** The inflammation of the nose and German. head cold; cold in the head; nasal catarrh; nasitis; rhinitis; coryza; the sniffles (coll.).
- **Nightblindness-**The inability to see in dim light or at night (Nyctalopia)
- **Obesity-** An excessive accumulation of fat in the body (corpulence, fatness).
- **Oedema-** the local dropsy and excessive accumulation of fluid in the bodytissues.
- **Oleaginous-** Oily or greasy.
- **Ophthalmia-** A word usually applied to conjunctivitis.
- **Ophthalmopathy-** Any eye disease.
- **Otalgia-** Pain in the ear.
- **Otorrhoea-** Any discharge from the ear, commonly a purulent discharge in chronic middle ear infection.
- **Paralysis-** The total or partial loss of sensation of the body, or a muscle weakness that varies in its extent, its severity and the degree of spasticity of flaccidity according to the nature of the underlying diseases and its distribution in the brain, spinal cord, peripheral nerves, or muscles.
- **Pectoral diseases-** The affective in diseases of the chest.
- **Peptic ulcer-** a branch in the lining (mucosa) of the digestive track produced by digestion of the mucosa by pepsin and acid.
- **Piles-** The condition of having haemorrhoids (Swollen) veins at or near the anus and also enlargement of the normal spongy blood-filled cushions in the wall of the anus, usually a consequence of prolonged constipation or occasionally, by diarrhoea.

- **Pneumonia-** The serious illness due to inflammation of lungs. a general disease in which the essential lesion is an inflammation of the spongy tissue of the lung with consolidation of the alveolar exudate.
- **Pneumonosis-** Any lung disorder.
- **Polyurea-** The production of large volumes of urine which is dilute and of a pale colour.
- **Procreant -** The drug which produces or generates.
- **Prophylactic-** Pertaining to the prevention of the development of a disease.
- **Prurigo-** The disease marked by excessive itching. An eruption of the skin causing severe itching.
- **Pruritus-** The disease itching.
- **Pyorrhoea-** A disease of the gum (pus form), a disease of the tissues that support and attach the teeth-the gums, periodontal membrane, and alveolar bone.
- **Refrigerant-** To cool.
- **Remittent fever-** Of fever that abates temporarily a remittent fever is one in which body temperature fluctuates but does not return to normal.
- **Renal calculi-** The calculi relating to kidney.
- **Resolvent-** The causing resolution of a tumour or swelling.
- **Retention of urine-** The medicine uses that inability to pass urine, which is retained in the bladder.
- **Revulsive-** The causing revulsion in one of the physiologic principles used in hydrotherapy to modify blood circulation. The alternating applications of heat and cold increase the blood flow.
- **Rheumatalgia-** The rheumatic pain.
- **Rheumatic-** The suffering from pain in the joints.
- **Rheumatics-** The patients of rheumatism
- **Rheumatism-** Any disorder in which aches and pains affect the muscles and joints.
- **Rheumatoid arthritis-** It is the second most common form of arthritis it typically involves the joints of the fingers, wrists, feet and neck.
- **Rhinitis -** The inflammation of the nasal mucous membrane.

- **Ringworm-** A skin disease in circular patches, or fungus infection of the skin, the scalp, or the nails.
- **Rubefacient-** The reddening of the skin.
- **Rubeola-** The measles disease.
- **Scabies-** The sarcoptic infestation of the human skin particularly a contagious skin disease caused by invasion of the epidermis.
- **Sciatica-** A neuralgia affecting the hip or thigh pain felt down the back and outer side of the thigh, leg, and foot.
- **Scrofula-** A disease indicated by morbid glandular swelling on the neck tending to consumption, a tuberculum cervical adenitis with or without ulceration.
- **Scurvied-** The pertaining to scurvy.
- **Scurvy-** A disease of blood, and deficiency disease due to lack of vitamin C.
- **Snus-** A hollow disease.
- **Sinusitis-** The inflammation of one or more of the mucous- membrane lined air spaces in the facial bones that communicate with the nose.
- **Slip disc-** A colloquial term for a prolapsed intervertebral disc.
- **Small pox-** A kind of contagious disease, or an acute infectious virus disease causing high fever and a rash that scars the skin.
- **Somatalgia-** The body pain.
- **Soporific- The sleep producing,** (inducing sleep).
- **Sore-** The drug uses that state of severe, painful, distressing, ulcer, and boils.
- **Sore throat-** A pain at the back of the mouth, commonly due to bacterial or viral infection of the tonsils.
- **Spasmolytic-** A drug use that relieves spasm of smooth muscle.
- **Splenopathy-** The spleen disease.
- **Spermatorrhoea-** The involuntary discharge of semen without orgasm.
- **Stomachache-** Pain in the stomach.
- **Stomachic-** A medicine that increases the functional activity of the stomach.
- **Stomatitis-** The generalized inflammation of the oral mucosa.
- **Strangury-** The severe pain in the urethra referred from the base of the bladder and associated with an intense desire to pass urine.
- **Sudorific-** The sweat-producing medicine.

- **Sun stroke-** The prostration caused by exposure to excessive heat of the sun or raised body temperature (pyrexia), absence of sweating, and eventual loss of consciousness due to failure of exhaustion of the temperature-regulating mechanism of the body.
- **Syphilis-** The contagious venereal disease.
- **Tetanus-** An infective disease due to toxin of clostridium tetani.
- **Tuberculosis(TB.)-** The infectious disease caused by the pathogen, bacillus mycobacterium tuberculosis and characterized by the formation of nodular lesions in the tissues (Consumption).
- **Tumour-** A morbid growth, swelling, and any abnormal swelling in or on a part of the body.
- **Typhoid-** A kind of fever resembling typhus, an infection of the digestive system by the bacterium salmonella typhi, causing general, weakness, high fever, a rash of red spots on the chest and abdomen.
- **Typhomania-** The muttering delirium in typhoid.
- **Ulcer-** A discharging sore, and break in the skin extending to all its layers, or a break in the mucous membrane lining the alimentary tract, that fails to heal and is often accompanied by inflammation.
- **Uretic-** To medicine use that which promotes flow of urine.
- **Urethrorrhoea-** An abnormal discharges from the urethra.
- **Urticaria-** An itchy rash resulting from the release of histamine by mast cells.
- **Uteralgia-** Pain in the uterus.
- **Venereal-** To sexual intercourse.
- **Veneral ailment-** any disease transmitted by sexual intercourse.
- **Verminosis-** The infestation with vermin.
- **Vertigo-** A dizziness.
- **Vesical calculi-** The stone in the urinary bladder.
- **Vomiting-** A matter ejected from the stomach, or the reflex action of ejecting the contents of the stomach through the mouth.
- **Vulnerary-** The useful healing wounds, an agent that promotes healing of wounds.
- **Warts-** A hard firm excrescence on the skin or circumscribed cutaneous excrescence.

- **Whooping cough-** (Pertussis) an acute infectious disease, primarily of infants caused by the bacterium *Bordetella pertussis*, which affects the respiratory tract.
- **Wounds-** A cut, injury, bodily hurt, damage, break in the structure of an organ or tissue caused by an external agent.

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Appendix – II

Index- use of various plants species under the cure of various, ailments/Prescribe for Patients and Page No.

Page No.	SN. & Botanical Name	Plants Name	Ailments (Diseases)Name / Prescribe for Patients
49 To N E X T Pag see	1. <i>Cassia tora</i> (Linn.) syn. <i>C. Obtusifolia</i> L. (FABACEAE)	Name: LN.- <i>Chakauda</i> ; S.- <i>Chakramarda</i> ; H.- <i>Chakauda</i> , <i>Panvar</i> .	Ailments - skin disease as itch and ringworm, Leucoderma & leprosy, gout, rheumatism, cough, headache, and fever, blood purifier, anthelmintic, eczema, cephalalgia & antipyretic.
	2. <i>Cassia occidentalis</i> Linn. (FABACEAE)	Name : LN.- <i>Bada chakauda</i> ; H.- <i>Kasondi</i> ; S.- <i>Kasamarda</i> .	Ailments - ringworm itch, snake bite, appetite, dysurea& inflammation, skin diseases.
	3. <i>Cassia angustata</i> Linn. (FABACEAE)	Name : LN.- <i>Bada chakauda</i> ; H. <i>sena</i> ; S.- <i>Kasamarda</i> .	Ailments - leaf power ½ spoon dip in one glass water to overnight and morning filter taken to bowel movements, Stool, constipation, gas etc.
52	4. <i>Cassia pumila</i> Lamk. (FABACEAE)	Name:- LN. - <i>Lajo</i> ; Marathi - <i>Sarmal</i> ; Tel. - <i>Nallajiluga</i> .	Ailments - stomach aperient.
52	5. <i>Cassia mimosoides</i> Linn. (FABACEAE)	Name:- LN.– <i>Patvaghas</i> , <i>Santhal.</i> - <i>Patwaghas</i> ; Tel.- <i>Nelaponna</i> .	Ailments –spasm (gripping) of stomach, piles.
	5. <i>Caesalpinia bonducella</i> (Fleming) Syn. <i>C. Crista</i>	Name :- LN.- <i>Gataran</i> ; S.- <i>Kuberakshi</i> ; H.- <i>Karanju</i> ; Eng. –	Ailments - fever, malaria fever, and dysurea ,

	Linn. (FABACEAE)	<i>Bonduc Nut (Fevernut).</i>	rheumatic Arthritis, and Osteoarthritis and skin diseases, colic pain, chronic fever, urogenital disease, leprosy & bile disease.
	6. <i>Mimosa rubicaulis</i> Lamk. (FABACEAE)	Name:- LN.– <i>Siaka</i> , H. & B. - <i>Shiak kanta</i> ; P. – <i>Arula</i> .	Ailments - piles, weakness.
	7. <i>Acacia caesia</i> Willd. (FABACEAE)	Name:- LN. – <i>Rail</i> ; H. – <i>Aile</i> ; <i>Santh</i> – <i>Kondrojanum</i> .	Ailments – mental Disorder and improving memory.
	8. <i>Canavalia ensiformis</i> Linn DC. (FABACEAE)	Name:- LN. – <i>Sema</i> , H. – <i>Bara sem</i> ; B. – <i>Makhan Shim</i> .	Ailments - hernia disease.
58	9. <i>Mimosa pudica</i> Linn. (FABACEAE)	Name:- LN.- <i>Chuimui</i> , <i>Lajmanti</i> ; S. - <i>Lajja</i> , H. & P. - <i>Lalwanti</i> ; Eng.- <i>Sensitive plant (Touch me not)</i> ,.	Ailments - scorpion & spider sting, asthma, cough, dysentery and Leucoderma, piles, Hydrocele, cure gonorrhoea and syphilis.
58	10. <i>Pueraria tuberosa</i> D.C. (FABACEAE)	Name LN. – <i>Patal Kohanda</i> ; H. – <i>Bidari Kand</i> ; San.- <i>Vidari</i> ; Eng. – <i>Indian Kudzu (Saral)</i> .	Ailments - diarrhoea (Cholera), stool, fever and dressing of cut and wounds and progestrogenic, oestrogenic, spermatorrhoea, strangury& tuberculosis. weakness, delivery (childbirth) women for strength, lactagogue and regains youthfulness even if old, impotency, seminal

			debility and also over bleeding of menstruation (MC), abortion and anti-inflammatory, spermopoeitic and diabetes.
61	11. <i>Mucuna prurita</i> (Hook.) Syn. ; <i>M. Pruriens</i> (L.) DC. (FABACEAE)	Name LN. - <i>Kemach</i> ; H.& P. - <i>Kawanch</i> ; Eng. : <i>Cow hage</i> ; B.- <i>Alkusa S.-Atmagupta</i> ; Bo.- <i>Kuhili</i> ; Mal. - <i>Corivalli</i> ; <i>Shoriyanam</i> ; Tam.- <i>Punippidukkan</i> , <i>Punaikkali</i> ; Tel.- <i>Pilliadugu</i> , <i>Dulagondi</i> .	Ailments - headache and ulcer, diarrhoea, tuberculosis, asthma, leucorrhoea, spermatorrhoea, scorpion sting. paralysis, gout, elephantitis, dropsy, dysmenorrhoea, amenorrhoea, helminthiasis, cholera, debility, inflammation, ulcer, helminthiasis, cancer disease, arthritis rheumatic, gout, and osteoarthritis.
61	12. <i>Crotalaria prostrate</i> Rottl. (FABACEAE)	Name LN. – <i>Chhota Jhunjhuna</i> ; H. & B. - <i>Chhota Jhunjhuniya</i> .	Ailments - disorder (Derangement) of stomach childrens (infantile) diarrhoea.
	13. <i>Crotalaria verrucosa</i> Linn. (FABACEAE)	Name LN. - <i>Jhunjhuna</i> ; H.- <i>Banshana</i> ; B. - <i>Jhanjhana</i> .	Ailments - skin disease as boils, scabies, itch boils, scabies, purifier of blood, mouth and heart disease, wound, cut, accidental wound etc.

	<i>Crotalaria spectabilis</i> Roth. Syn. <i>C. sericea</i> Retz. (Fabaceae) –	Name L.N. : <i>Jhunjhuna</i> ; H. <i>Jhunjhania</i> ; S. – <i>Bhantaryva</i> .	Ailments - skin disease as scabies ,poisonous to livestock (Veterinary), cut and wounds.
	15. <i>C. retusa</i> Linn. (FABACEAE)	Name H. - <i>Ghunghunia</i> ; B. - <i>Bil-Jhunjhun</i> ; Bo. – <i>Ghagri</i> .	Ailments - scabies, boils and other skin diseases.
	16. <i>Teramnus labialis</i> Spreng. (FABACEAE)	Name: LN. - <i>Van urda</i> , H. - <i>Mashoni</i> ; B. - <i>Mashani</i> ; S. – <i>Mashparni</i> .	Ailments - paralysis, gout and also use in weakness.
65	17. <i>Atylosia platycarpa</i> Benth. (FABACEAE)	Name: LN. - <i>Jangli-arhar</i> ; H. - <i>Van-arhar</i> .	Ailments - cure gout pain.
65	18. <i>Indigofera glandulosa</i> Willd. (FABACEAE)	Name: LN. - <i>Jhurjhura</i> ; Tel. - <i>Baragadam</i> ; Bo. - <i>Gauachamatmandi</i> .	Ailments - relieve amenorrhoea, Seeds- Nutritious, Tonic.
	19. <i>Indigofera linifolia</i> Retz. (FABACEAE)	Name: LN. – <i>Bhangara</i> , <i>Bhuijauar</i> ; H. & P. - <i>Tokri</i> ; B.& Bo.- <i>Bhangra</i> .	Ailments -Rheumatic& goat etc.
	20. <i>I. Cordifolia</i> Heyne. (FABACEAE)	Name: LN. - <i>Bakriavas</i> ; H. - <i>Vikriavas</i> .	Ailments - famines and also medicinal uses.

	21. <i>I. trifoliata</i> Linn. (FABACEAE)	Name: LN. – Sapot, Sanphut; H. – Janglimethi; Marathi – Lalmeti; Bo – Vekaria.	Ailments - rheumatic and gout, restorative, alterative, astringent, aphrodisiac, tonic.
	22. <i>Sesbania sesban</i> Linn. Merr. Syn. <i>S. aegyptiaca</i> pair. (FABACEAE)	Name: LN.- Jhilmili; H. & B.- Jayanti; Bo – Jait.	Ailments -diarrhoea, stool, itching skin, excessive menstrual blood flow, diabetes and tumour. scorpion sting.
	23. <i>Tephrosea purpurea</i> Linn. pers. (FABACEAE)	Name: LN. - sirphoka; H. & P. - sarphoka; S.- Sharapunkha..	Ailments - weakness, anthelmintic (worms), filariasis, hepato-splenomegally, haemorrhoids.
70	24. <i>Tephrosea villosa</i> pers. (FABACEAE)	Name: LN. - Anhai; Tel. - Nuguvempali; Tam. – Punaikkaivetlai.	Ailments - diabetes and dropsy.
70	25. <i>Indigofera enneaphylla</i> Linn. (FABACEAE)	Name: LN. - Basua; S. - Vasuka; Marathi – Bhuiguli	Ailments -antiscorbutic.
	26. <i>Indigofera tinctoria</i> Linn. (FABACEAE)	Name: LN. - Birhul; H. - Nil; San. - Nilini; Eng. – Indian indigo.	Ailments - asthma & bronchitis, laxative, expectorant.
	27. <i>Phaseolus trilobus</i> Ait. (FABACEAE)	Name: LN. - Van moong, Mungti; S.- Mudgaparni; H. – Moong; Eng. – Green Gram; B. - Mugani; Tam. –Panipiaya.	Ailments - intermittent fever (irregular fever) and improve eye sight.

	28. <i>P. aconitifolius</i> Jacq. (FABACEAE)	Name LN.- Math; H. & P. - Moth; B. - Banmudgakheri; S. - Makushthaka;.	Ailments - irregular (intermittent) fever and eye sight
	29. <i>Clitoria ternatea</i> Linn. (FABACEAE)	Name LN. - Tarvar, Talvar; H. & B. - Aprajit; S. - Aprajita; Eng. – Butterfly pea; Guj. – Garani; M. – Kakkanan; Mr. – Gokurna.	Ailments - croup (outgrowth), it sickens and vomiting, leprosy, goiter & migraine, relief in snake-bite, diuretic, half headache, constipation. Dropsy, hydrocele.
75	30. <i>Melilotus parviflora</i> (Desf.) see <i>M. indica</i> (Linn.) All. (FABACEAE)	Name LN.-Senjii; H.& B.- Banmethi; S.-Banamethika; Bo.- Zir.	Ailments - swellings and pain, infantile diarrhoea.
75	31. <i>Psoralea corylifolia</i> Linn. (FABACEAE)	Name LN.- Bavchi; S.-Bakachi; H. & P.-Babchi, B.-Latakasturi.	Ailments - psoriasis and leucoderma, carbuncle, leprosy, leucoderma and psoriasis.
	32. <i>Rhynchosia minima</i> DC. (FABACEAE)	Name LN.-Turela; Mar.- Dhaktaranghevada; Tel.-Nela alumu; Guj.-Nahanikamalavel; Kan.-Ghattavare.	Ailments - abortifacient.
	33. <i>Alysicarpus vaginalis</i> DC. (FABACEAE)	Name LN.-Mothadamp; Mara.- Jangli-gailia; Gujrati-Dhodasamervo.	Ailments -cough and could.
	34. <i>A. longifolius</i> W. & A. (FABACEAE)	Name LN. – Sehura; H.-Seura; Marathi- Jangli-gailia; Gujrati-Dhodasamervo.	Ailments - liquorice.
	35. <i>Alhagi pseudalhagi</i> (Bieb.) Desv. syn. <i>A. camelorum</i>(Fisch.)(FABACEAE)	Name LN. Durlabh; H.-Jawasa; S.- Durlabha.	Ailments - rheumatism.

	36. <i>Vicia hirsuta</i> Koch. (FABACEAE)	Name LN.- Ankadi, Jeelo; B.- Ankari; H.- Ankari.	Ailments -poisonous and arise gout diseases.
	37. <i>V. sativa</i> Linn. (FABACEAE)	Name LN.- Ankadi; H.- Ankara.	Ailments - poisonous and arise gout diseases .
	38. <i>Abrus precatorius</i> Linn. (FABACEAE)	Name LN.-Ghumchi; H.- Ghungchi, Ratti; B.-Kansh.	Ailments - chill, pneumonia, snake bite, scorpion bite, leprosy, paralysis. Mouth ulcer, best vocal sound.
	39. <i>Abrus</i> Sp. White (FABACEAE)	Name LN.- Safed ghumchi.	Ailments - Family planning sterilization (to stop child birth), leucorrhoea, paralysis and gout.
82	40. <i>Abrus</i> Sp. Black. (FABACEAE)	Name LN.- Kali ghumchi.	Ailments - cold fever and snake bite.
82	41. <i>Uria lagopoides</i> D.C. (FABACEAE)	Name L.N. Bhalu punch; Sher baithka; H. – Pithavana; S. – Prishriparni; Vishnuparni.	Ailments -weakness, cough control, fever and stool, burn, vagina to ease delivery.
	42. <i>Uria picta</i> Desv. Syn. <i>Hedysarum pictum</i> Jacq. (FABACEAE)	Name LN - Hansia dafar; H. - Dabra; Sans.-Chitraparni.	Ailments -Common &malaria fever piles, ulcer, cough, diarrhoea& snake bite, rheumatic-arthritis osteoarthritis and snake bite, heart diseases and dysurea.
	43. <i>Zornia diphylla</i> pers. (FABACEAE)	Name LN. - Nelamari; Mal. - Nelammari; Santh.- Taudijha.	Ailments - Sleep induce in children.
	44. <i>Desmodium latifolium</i> (DC.) Syn <i>D. lasiocarpum</i> (DC.) (FABACEAE)	Name H.- Chimba; Tem. - Chimbattai; Santh. - Simmithasura.	Ailments -weakness.
	45. <i>D.triflorum</i> (Linn.) DC. (FABACEAE)	Name LN.-Chepti Ghass; H. - Kudaliya; B. – kodalia.	Ailments - diarrhoea, dysentery, wounds, convulsion pain, worms, pain andtoothache.

	46. <i>D. parviflorum</i> (DC.) <i>D. microphyllum</i> (thunb) DC. (FABACEAE)	Name LN. - Vanmethi; H. - Kudaliya.	Ailments - boils cut and wounds.
	47. <i>D. gangeticum</i> DC.(FABACEAE)	Name LN. – Sariban; S. & Bo. - Shalaparni; H. – Sarivan.	Ailments - Chronic fever and vomiting, snake bite and scorpion sting, asthma.
	48. <i>Dichroa febrifuga</i> Lour. (SAXIFRAGACEAE)	Name LN. - Basu; H.-Basak.	Ailments -Vomiting, fever.
90	49. <i>Boerhaavia diffusa</i> (Linn.) syn. <i>B.repens</i> (Linn.) (NYCTAGINACEAE)	Name LN. - Patherchata; S. – Punarnava; H. – Sant; B & Tel. – Punarnava.	Ailments - stop urine (Scanty urine.), relief for anaemia, jaundice and skin diseases , heart disease, MC. disorder, gonorrhoea, Spermatorrhoea, kidney stone.
90	50. <i>Mirabilis Jalapa</i> (Linn.) (NYCTAGINACEAE)	Name LN. – Gulbas, H. & Bo. - Gulabbas; S. & B. - Krishnakeli; Tam. - Pattarashu; Mal. - Antimalari; Tel. - Chandrakanta.	Ailments – piles, goiter, phlegmons and whitlow, foot inflammation and boils , treat piles.
	51. <i>Cleome viscosa</i> (Linn.) (CAPPARIDACEAE)	Name LN. - Hurhur; H. – Pila Hulhul; S. – Arkakanta.	Ailments -ulcer, blisters and wounds.
	52. <i>Cleome chelidonii</i> (Linn.) f. (CAPPARIDACEAE)	Name LN. - Abhitalvan	Ailments -gout, skin diseases and fever gingivitis.
	53. <i>Gynandropsis gynandra</i> Linn. (CAPPARIDACEAE)	Name LN. - Hurhur, Safed hurhur; S. - Surjavarta; H. - Karalia; B. - Hurhuria; Tel. - Vaminia; Bo. - Tilavana; Mal.- Taivela; Tam.- Kadugu.	Ailments - earache and scorpion sting, snake bite, skin eruption, leprosy, polyurea, genital disorder.
	54. <i>Capparis spinosa</i> Linn. (CAPPARIDACEAE)	Name LN. - Baghnakhi; H. & P. - Kabara; Tel. - Kokila kshamu.	Ailments -gout (joints pain), paralysis, tubercular glands and enlarged

			spleen, cholera.
	55. <i>Coccinia indica</i> (W. & A.) (CUCURBITACEAE)	Name LN. - Van kundru; S.- Bimba; H.&P. - Kanduri; B. - Telakucha; Tel. - dondakaya; Tam.- Kovaikai, Kovai.	Ailments - diabetes.
	56. <i>Diplocyclos palmatus</i> (L.) Jeffery. <i>B. laciniosa</i> (Linn.), <i>B. palmata</i> L., <i>Bryonopsis laciniosa</i> (L.) (CUCURBITACEAE)	Name LN. - Pachguddu; H. - Gargumaru; S. - Bahupatra; B. - Mala; Bo. Kawala.	Ailments -Hand and foot inflammation, pregnant lady , tumours. treatment of AIDS and Cancer disease.
97	57. <i>Melothria maderaspatana</i> (Linn.) Cong. (CUCURBITACEAE)	Name. LN – Ninma, H. - Agumaki, Tam. - Musimusikkayi, Tel. - Puttibudamu.	Prescribe for - aching bodies etc.
97	58. <i>Momordica dioica</i> Roxb. Ex. Willd. (CUCURBITACEAE)	Name L.N. – Padora; H – Kakoda; Khikoda; Golkandra; S. – Vahisi; Eng. – Spiny gourd.	Ailments - poisonous insect, snake bite, and scorpion sting, leprosy, cough & more bile quantity, sterility and also snake bite, high fever with delirium.
	59. <i>Citrullus colocynthis</i> Schrad. (CUCURBITACEAE)	Name LN. - Indraman; S. - Mahendra - varuni; H., B. & Bo. – Indrayan.	Ailments -jaundice fever and gout, fever, snake bite and fruit is also purgative.
	60. <i>Trichosanthes cucumerina</i> Linn. (CUCURBITACEAE)	Name LN. - Van chachedia; S. - Patola; H. - Jangli Chichonda.	Ailments -Skin diseases, worm and leprosy.
	61. <i>Trichosanthes palmate</i> (Roxb.) Syn., <i>T. bracteata</i> (Lam.) Voigt.(CUCURBITACEAE)	Name LN. – L.N. – Kauhari; H. – Lal indrayan; B. – Makal.	Ailments - asthma and Hydrogogue purgative , Jaharvat (Carbuncle), plague tumour, headache, hemicrania and ozoena (Ulcer in the nostril.), skin diseases and boils.
	62. <i>Polygala chinensis</i> Linn.	Name LN. - Phutane; H. -	Ailments- giddiness,

	(POLYGALACEAE)	<i>Meradu; Marathi - Negli; Guj. - Pilibhonyasana.</i>	fever.
	63. <i>Opuntia dillenii</i> Haw. (CACTACEAE)	Name LN. - Nagphani; H. & B. - Nagphana; Bo.- Samar; Tel. & Tam. - Nagadali.	Ailments - leucorrhoea and gonorrhoea, boils.
	64. <i>Abelmoschus crinitus</i> Wall. (MALVACEAE)	Name LN.-Amru	Ailments - colic, gas pain in cattle.
105	65. <i>Abutilon indicum</i> (Linn.) G. Don. (MALVACEAE)	Name LN.- Kakai; H. - Kanghi; Eng. – Indian mallow, S. – Kankati.	Ailments - ingredient and aphrodisiac, fever and discharge of urine snake bite, leucorrhoea (the reddish) sterility, inflammation of urine, toothache, alternate fever.
105	66. <i>A. graveolens</i> W. & A.(MALVACEAE)	Name LN. - Badi Kanghi; H. & B. - Barkhanghi; M. – Tulli.	Ailments - demulic and discharge of urine
	67. <i>Sida rhombifolia</i>Linn. (MALVACEAE)	Name LN. - Safed Baryari; S. - Atibala, H. & B. - Swet-barela.	Ailments - swellings , gout.
	68. <i>Sida cordifolia</i>Linn. (MALVACEAE)	Name Biskhapri; H. - Kungyi; B. & S. – Brela.	Ailments -impotency and cardiac diseases, boils, healing wounds, gonorrhoea, leucorrhoea and weakness, paralysis and mouth paralysis, leucorrhoea, febrifuge.
	69. <i>S. spinosa</i> Linn. (MALVACEAE)	Name LN. – Gudsakri,S.- Nagabala; H.-Gudsakari.	Ailments - gonorrhoea, gonorrhoea, gleet and scalding urine.
	70. <i>S. acuta</i> Burm. (MALVACEAE)	Name LN. - Bariari; S. - Bala; H. – Bariari.	Ailments - relief colic pain, alternate fever, blood disorders & bile, pain and rheumatic, urinary problem.

	71. <i>Hibiscus ficulneus</i> Linn. (MALVACEAE)	Name LN. - Ram bhindi, Van bhindi.	Ailments – weakness, given as tonic.
	72. <i>H. micranthus</i> Linn. f. (MALVACEAE)	Name LN. – Van bhindi; Guj. - Chanak bhindo; Tam. – Sittmutti.	Ailments - relief fever.
	73. <i>Urena lobata</i> Linn. (MALVACEAE)	Name H. - Bachata; B. - Bonokra; S. – Vanabhenda.	Ailments - relief gout & arthritis.
	74. <i>U. sinuata</i> Linn. (MALVACEAE)	Name H. - Lotloti; B. - Kunjia; Bo. – Tapkote.	Ailments - Chest and waist pain.
113	75. <i>Malvastrum tricuspidatum</i> Syn. <i>M. coromandalianum</i> Garcke (A. Gray) (MALVACEAE)	Name LN. - Bariari.	Ailments - weakness.
113	76. <i>Malva sylvestris</i> Linn. (MALVACEAE)	Name H. - Gul khair; Bo. - Khubasi; Kan.- Sannabindigegida.	Ailments - swelling pain.
	77. <i>Triumfetta rhomboidea</i> Jacq. (TILIACEAE) Ailments - relief child birth, dysentery, diarrhoea.	Ailments - relief child birth, dysentery, diarrhoea.	Ailments - relief child birth, dysentery, diarrhoea.
	78. <i>Corchorus trilocularis</i> Linn. (TILIACEAE)	Name :- LN.- Chench Bhaji; H.- Kadu Kosta; S. - Dirghachanchu; Bo - Kaduchhunchh; Guj. - Kadvichhunchhdi.	Ailments - fever.
	79. <i>C. acutangulus</i> Lamk. (TILIACEAE) 80. <i>C. capsularis</i> Linn. (TILIACEAE)	Name LN. - Chech Bhaji; B. - Titapat. Name LN.- Chech bhaji, Harrawa H. & B. – Narchatitapat.	Ailments - (Child) pneumonia. Ailments – fever, dysentery, diarrhoea and piles.
	81. <i>C. facicularis</i> Lamk. (TILIACEAE)	Name LN. - Chicharia, Rajan.	Ailments - (weakness) power of renewing body strength.
	82. <i>C. Olitorius</i> Linn. (TILIACEAE)	Name LN. - Kusta; H. - Koshta, B. – Lalitapat.	Ailments - gonorrhoea , removing fever, gas and

			increase of diagestion.
	83. <i>Grewia hirsuta</i> (Vahl.) var. <i>helicterifolia</i>(TILIACEAE)	Name LN. - Gudsakri; H. - Kukurbicha; Bo. – Gowali.	Ailments- dressing (washing) to wounds, cut, dysentery, stool, diarrhoea, measles and boils.
120	84. <i>Tribulus terrestris</i> Linn. (ZYGOPHYLLACEAE)	Name LN. - Gukhru; S. - Gokshura; Eng. - Land catrops ; H. - Chhota gokhru.	Ailments- Urine diseases (to growth of prostate gland), gout rheumatic pain and kidney troubles, cooling, diuretic, tonic, aphrodisiac, painful micturition, calculus effectious, urinary discharges and impotence. gonorrhoea, leucorrhoea etc.
120	85. <i>Balanites aegyptiaca</i> (Linn.) Delile Syn. B. <i>Roxburghii</i> (planch.)(SIMARUBIACEAE)	Name LN.- Hingot; H.- Hingan; S.- ingudi.	Ailments - guined worm (white spot) and in hydrophobia etc.
	86. <i>Loranthus longiflorus</i> (Desr.) See <i>Dendrophthoe falcata</i> (Linn.f.), <i>D.elasxica</i> (Desr.) (Parasite Plant)(LORANTHACEAE)	Name LN. & H. - Banda; S.- Vanda; Eng. – Lonanthus.	Ailments- menstrual troubles, stone calculi.
	87. <i>Zizyphus rotundifolia</i> (Lamk.), <i>Z. nummularia</i> (W.&A.) (RHAMNACEAE)	Name LN. – Jhadberi, Bair; H. - Jharberi; S. – Bhubadari.	Ailments- male sterility, gonorrhoea leucorrhoea and blood purifier, digestion, fever, good intensity of body, improve weakness .
	88. <i>Z. oenoplia</i> Mill. (RHAMNACEAE)	Name LN. – Makohra, Barari; S. – Srigalakoli; H. – Makoiya.	Ailments- heal wounds, blood purifier, digestion, fever, weakness and arise to good intensity of body.

	89. <i>Vitis indica</i> (W. & A.) see <i>Ampelocissus arnottiana</i> (planch.) (VITACEAE)	Name LN. - Amrolla, Amal bel; H.- Jangali angur.	Ailments - the bullock's yoke (neck) sores on the neck, boils.
	90. <i>Vitis trifolia</i> wall. (VITACEAE)	Name LN.- Amalbel, Amrolla	Ailments -poultice applied to the bullock's yoke sores on the neck, boils astringent.
126	91. <i>Cardiospermum halicacabum</i> Linn. (SAPINDACEAE)	Name LN. - Sirmola; S. - Karnasphota; Eng. – Ballon vine; H.- Kanphuti.	Ailments - ear ache, gout rheumatism etc.
127	92. <i>Martynia annua</i> Linn. (PEDALIACEAE)	Common & Regional Name LN. - Bichhi; H. - Buchu, Hathajori, Baghnoki; Bo. - Vinchu; Tel. - Garudamukku; P.- Bichhu.	Ailments - in tuberculous gland, and sore throat, swelling pain.
	93. <i>Euphorbia hirta</i> Linn. (EUPHORBIACEAE)	Name LN.- Badi Dudhi; H.- Dudhi; S.- Pusitoo.	Ailments - dysentery, stool, skindisease, jaundice, black spot on face. (On cheek under & nose eye areas), treat dysentery, asthma and also used in bronchial affection.
	94. <i>E. microphylla</i> (Heyne)(EUPHORBIACEAE)	Name LN.- Chhoti dudhi; B.- Chota karuee; Santhal-Dhudhiaphul.	Ailments - ring worm,Snake bite & skin disease, stop of M.C.
	95. <i>E. rothiana</i> (spreng.) (EUPHORBIACEAE)	Name LN.- & H. – Chakri.	Ailments - in irritant.
	96. <i>Pedilanthus tithymaloides</i> (Jew's) Slipper pedilanthus; (EUPHORBIACEAE)	Name H.- Nagdauna.	Ailments - cure piles.
	97. <i>E. hypericifolia</i> Linn. (EUPHORBIACEAE)	Name H.- Dudhi, Hazardana; S. - Dugdika; Bo. - Nayetti; P.- Hazardana.	Ailments - dysentery diarrhea, and also treat menorrhagia, and leucorrhoea.
	98. <i>E. thymifolia</i> Linn.	Name H. - Chhoti Dudhi; S. -	Ailments -jaundice, ring

	(EUPHORBIACEAE)	<i>Laghududhika, Racta-vinda chanda.</i>	worm, skin disease etc.
	99. <i>E. dracunculoides</i> Lamk (EUPHORBIACEAE)	Name LN. - Titli; H. - Chagulputi; B. - Chhagul-putputi.	Ailments - - wart and skin diseases.
	100. <i>P. Maderaspatensis</i> Linn. (EUPHORBIACEAE)	Name LN. - Kanocha; H. - Kanocha; Gujrati - Kanochha.	Ailments - headache.
136	101. <i>P. simplex</i> (Retz.) (EUPHORBIACEAE)	Name LN. - Bhuamli; Bo. & Marathi - Bhuiavali; Tel. - Uchichiyusirika.	Ailments - mammary gland (breast), abscess & gonorrhoea.
136-	102. <i>P. niruri</i> (Linn.) (EUPHORBIACEAE)	Name LN. - Bhumi amla; H. - Jar amla; S. - Bhumyamalaki.	Ailments - relief asthma, diabetes, jaundice, & ulcer, over secretion blood in M.C. period, lessen, oedematous swelling.
	103. <i>Jatropha gossypifolia</i> Linn. (EUPHORBIACEAE)	Name LN. - Bhakred Andi; Baranda; H. - Ratanjot; Mal. - Simayavanakku.	Ailments - skin diseases as scabies, eczema and ring worm, treat piles, diarrhoea etc.
	104. <i>Chrozophora rottleri</i> (A. Juss ex Spreng.) Syn <i>c.tinctoria</i> Hook.f.(EUPHORBIACEA)	Name LN. - Bothri; H. - Shadevi, Subali; S. - Suryavarta.	Prescribe for - vomiting and see are also poisonous.
	105. <i>C. prostrata</i> (Dalz.) (EUPHORBIACEAE)	Name H. - Shadevi, Subali; B.- Khudickra; S.- Suryavart; P. - Nilakanthi; Tel. - Lingamiriyam.	Ailments - children cough, aperient.
	106. <i>Acalypha indica</i> (Linn.) Syn <i>A. Spicata</i> L. <i>A. Ciliata</i> L. (EUPHORBIACEAE)	Name LN.-Khokli, Kuppi; S.- Aritianunjayru; Eng.- Indian <i>acalypha</i> ; H. Khekal.	Ailments - scabies, itch, snakebite, vomiting, pneumonia and rheumatism.
	107. <i>Helicteres isora</i> (Linn.) (STERCULIACEAE)	Name LN. - Aainthi, Murra; H. & P. - Marorphali; S. - Mriga-shinga.	Ailments - gas, colic pain, diarrhoea, dysentery, stomachache, diabetes,

			astringent, demulcent, expectorant, diabetes and antilactagogue etc.
143	108. <i>Calotropis gigantea</i> Linn. (ASCLEPIADACEAE)	Name R. Br. ex Ait – [LN. - Madar; H. - AK; Eng. – Giant milk weed; S. – Arka.	Ailments- asthma, bronchitis and its paste also use for elephantitis, bone fracture, jaundice disease, leucorrhoea, leucoderma and other skin disease.
143	109. <i>C. procera</i> (Ait.) (ASCLEPIADACEAE)	Name R. Br. LN. - Madar, H. - Akavan; Eng.- Milk Weeds.	Ailments- Semi headache, snake bite and scorpion bite ,wound (bite and sting place) rheumatism and gout, (reduce blood sugar) control of diabetes, sprain and swelling, tooth pain, Tilman (Galaghotu) Anthrax and fever of cattles, rheumatism, elephant foot, hydrocele and gout swelling ,control cholera etc..
	110. <i>Oxystelma esculentum</i> R. Br. (ASCLEPIADACEAE)	Common & Regional Name LN. - Hiran Khuri; H. & B. - Dudhialata; S. - Dugdhika; Bo. - Dudhika; P. - Gharote; Tam. - Usippalai; Tel. - Dudipala.	Ailments- jaundice, & lactation.
	111. <i>Hemidesmus indicus</i> R. Br. (ASCLEPIADACEAE)	Name LN- Dudhi, pasaran, H. - Magrabu; S. - Ananta; Eng. – Indian sarsaparilla.	Ailments- oostoarthritis, rheumatic, gout and snake bite, improve (nephritis) kidney pain and asthma, skin disease and stone(Calculi),weakness, anaemia, mouth blister and rickets diseases of children.

148	112. <i>Tylophora indica</i> (Burm. f.) Merr. see <i>T. asthmatica</i> (W.&A.) (ASCLE PIADACEAE)	Name, LN.- DambelH. & B. – Dambel, Damajari, Antamul;Eng.- Indian Ipecacaunha. of indiagestion.	Ailments- vomiting in case
148	113. <i>Gymnema sylvestre</i> (R. Br.) (ASCLE PIADACEAE)	NameLN. - Fenia; H. - Gudmar, Merasingi;Eng.- Indian Ipecacuanha; S. – Meshashringi.	Ailments- eye diseases, diabetes, diarrhoea, stool and dysentery, leucoderma and skin diseases.
	114. <i>Cryptolepis buechanani</i> (Roem. & Schult.) (ASCLE PIADACEAE)	NameLN. - Krishna Sariva, Anantmool; H. - Karanta; B. - Shyam lata.	Ailments- rickets and also used in syphilis, anaemia & leucorrhoea snake bite and also used in vomiting in man & cattle, nephritis (to reduce pain and the inflammation).
	115. <i>Pergularia daemia</i> (Forck) syn. <i>Daemia</i> <i>extensa</i> (R.Br.) (ASCLE PIADACEAE)	NameLN. – Doodhibel; H. - Utran; Sans. - Yugaphala, B. – Chagulbanti.	Ailments- rheumatism & purgative (cathartic), infantile diarrhoea, carbuncle (Jaharvat).
	116. <i>Rubia cordifolia</i> L. Syn. <i>R. munjista</i> Roxb. (RUBIACEAE)	NameLN. - Majitha; H., Bo & P - Manjit; Eng. – Indian madder; San. – Manjitha.	Ailments- snake (cobra) bite & also other poison reptiles and insect bite.
	117. <i>Spermacoce hispida</i> Linn. Syn. <i>Borreria</i> <i>hispida</i> (L.) K. Schum. (RUBIACEAE)	NameLN. – Gathani, Bhaja; H. & S. – Madamaghanti.	Ailments- vapour is inhaled to kill tooth worms.
154	118. <i>Oldenlandia corymbosa</i> (Linn.) Syn. <i>Hedyotis</i> <i>corymbosa</i> (L.) Lam. (RUBIACEAE)	NameLN. – Daman papara; H. – Phulki, Daman papar; Eng. – Field parpat; S. - Parpata; Marathi - Papti; Guj. – Parpat; B. - Khet papra; Tam. – Parpadagam; Tel. –	Ailments- cholera and dysentery, wound cut and accidental wound etc.

		<i>Verinellavemu.</i>	
154	119. <i>O. umbellata</i> (Linn.) (RUBIACEAE)	Name H. - Chirval; B. - Surbuli; Mal. – Chayaver.	Ailments - asthma and also for bronchial, catarrhal (cold) & bronchitis.
	120. <i>Lantana camara</i> (Linn.) (VERBENACEAE)	Name LN. - Barmasia; H. – Kuri; Eng. – Wild sage.	Ailments -tetanus, atoxy, abdominal visera, malaria fever
	121. <i>Lippia nodiflora</i> (Mich.) (VERBENACEAE)	Name LN. - Jalpipri; H. - Bhuiokra; S.- Vashira.	Ailments -spermopoeitic, blood purifier, delivery,diarrhoea, indigestion, polyurea, appetizer, dysentery, rheumatism, cardiac tonic &anthelmintic etc.
	122. <i>Clerodendrum inerme</i> (Linn.) Gaerten (VERBENACEAE)	Name LN. - Arni; H.-Lanjai; San. – Vanajal; Eng. – Garden quinine.	Ailments - gout, rheumatism & also use for Veneral, alternate fever disease.
	123. <i>Clerodendrum Phlomidis</i> (Linn.) f. Syn. C. <i>multiflorum</i> (Burm f.) O. Ktze. (VERBENACEAE)	Name LN. – Chhoti arni; H.- Arni; Sans. -Agnimata; Eng. – Clerodendron.	Ailments - diabetes , anaemia, piles & swelling.
	124. <i>Clerodendrum serratum</i> (Linn.) Moon. Syn. C. <i>Dentatum</i> Lam. (VERBENACEAE)	Name H. – Bharangi, Agia; S. & Bo. - Bharangi; Tam. - Angaravalli; Eng. – Turbon; Tel. - Gantubarangi; Mal. - Cherutekku.1	Ailments - cough and hiccough.
162	125. <i>Vitex negundo</i>(Linn.) Sys. V. <i>arborea</i>(Desf); V. <i>bicolor</i> (willd) (VERBENACEAE)	Name LN. – Nirgudi; H.-S.-Bo.& B. - Niragundi; Eng. – Indian privet.	Ailments -freat gout & rheumatic pain, arthritis, pneumonitis, gout, neck pain (<i>pharyngitis</i>), eczema leprosy & sinus problem, arthritis gout &rheumatics pain, leprosy, joints pain and skin diseases, ear

			diseases, as ear sound, pain, old ear flow pus, rheumatic, arthritis, gout, lumbago, cough and blood pressure, leprosy, bone cancer, pain, spleen problems, ear sound and gonorrhoea etc.
162	126. <i>Cissampelos Pareira</i> L. (MENISPERMACEAE)	Name L.N. – <i>Patha</i> ; Eng. – <i>Velvet leaf</i> , H. & B. – <i>Akandi</i> ; San. – <i>Ambashtha</i> .	Ailments - cystitis, snake bite, lowering blood pressure, enlarged spleen, chronic-inflammation, ulcer, itch & other skin disease, epilepsy etc.
	127. <i>Cocculus villosus</i> (DC.) Syn. <i>C. hisutus</i> (L.) <i>Diels</i>; <i>Menispermum hirsutum</i> L. (MENISPERMACEAE)	Name L.N – <i>Jamiti bel</i> ; H. – <i>Jamti-ki-bel</i> ; S. – <i>Patalagarudah</i> , <i>Garudi</i> ; Eng. – <i>Broom creeper</i> .	Ailments - stomach abdominal viscera, gonorrhoea, diarrhoea, eczema, arthritis, gout & rheumatic pain.
165	128. <i>Tinospora cordifolia</i> (Willd) Miers (MENISPERMACEAE)	Name L.N. - <i>Gurij</i> ; H. & B. <i>Giloe</i> ; S. – <i>Guduchi</i> .	Ailments - heartbeat, madness(<i>Insanity</i>).typhoid itches, rheumatism, dengue fever, Jaundice, acidity, vomiting and diabetes, leprosy ,treat tooth feeling water, tooth pain, and heart pain, leprosy and leucoderma treat elephantitis.
165	129. <i>Aristolochia bracteata</i> (Retz.) (MENISPERMACEAE)	Name L.N. <i>Kirmar</i> ; H.- <i>Kirmar</i> ; Eng. – <i>Vorm Killer</i> ; S- <i>Dhumra patra</i> .	Ailments - skin diseases eczema (on children's legs), ring worms and expelling round worms, neglected ulcer, stop M.C. for start again, piles.

	130. <i>Aristolochia indica</i> (Linn.) (ARISTOLOCHIA CEAE)	Name LN. - Batilha; H.& B.- Isharmul; Eng. – Indian Birthwort; S.- Ishvari.	Ailments - in gout, (joints pain) and rheumatism, amenorrhoea & flatulence, leucoderma snake bite and scorpion sting.
	131. <i>Argemone mexicana</i> Linn. (PAPAVERACEAE)	Name LN. – Katilli, Pili Katelli; Eng. – Mexican Poppy; H. & B. - Shialkanta; S. - Srigala – Kantak.	Ailments - skin disease as itches, scabies, snake bite, scorpion sting and regulating fertility, psoriasis.
	132. <i>Fumaria parviflora</i> (Lam.) (FUMARIACEAE)	Name LN - Papra H. - Pitpapara; S. - Parpataka; B. - Bansulpha; Bo. - Pit - Patra; Marathi - Pitpapda; Tam. - Tusa; Tel. - Chatarsi.	Ailments -anthelmintic, cutaneous, leprosy, tuberculosis & vertigo.
	133. <i>Trianthema portulacastrum</i> (Linn) Syn. <i>T. Monogyna</i> (Linn.) (FICOIDAE)	Name LN. - Kaparkutti; H. - Lalsabuni; Bo. & P. - Bishkkapra; S. - punarnavi; Tel. - Galijeru; Tam. - Sharunnai; Marathi - Pundharighentuli.	Ailments - for abortifacient and also used in amenorrhoea, dropsy (Jalodar) kidney (condition) troubles.
	134. <i>T. pentenda</i> (Linn.) (FICOIDAE)	Name LN. - Bishkhapdi; Bo. - Bishkapra; P. - Itsit.	Ailments - weakness, astringent in abdominal diseases, pain bladder, snake bite.
172	135. <i>Saponaria vaccaria</i> (Linn.)Medic. (CARYOPHYLLA CEAE)	Name LN. - Bada Tilja; H. - Musna; B. - Subuni; Eng.- Soapwort	Ailments - fever, scabies and itches etc.
172	136. <i>Stellaria media</i>, (Linn.)(CARYOPHYLLACEAE)	Name Eng - Stichwort; LN.	Ailments - broken bones, inflammation , and vulnerary.
	137. <i>Polycarpea corymbosa</i>. (Lam.) Bhisatu.(CARYOPHYLLA	Name LN. – Bhistu;S.- Bhisatta; Tam.- Nilaisedachi.	Ailments - Varanus (Tirichh) bites reptiles and jaundice.

	CEAE)		
	138. <i>Portulaca oleraceae</i> (Linn.) (PORTOLACEAC)	Name LN. – <i>Lonia bhaji</i> ; H. – <i>Khursa, Badi Kulfa</i> ; S. – <i>Lonika</i> ; Eng. – <i>Common purslane</i> .	Ailments - cough anti-inflammatory, vomiting, diabetes, headache, cephalalgia, tumors, antidote & leprosy.
	139. <i>P. quadrifida</i> (Linn.) See. <i>P. Meridiana</i> L.(PORTOLACEA C)	Name LN. - <i>Lonia</i> ; H. & B. – <i>Chhota luniya</i> ; S.- <i>Upadyki</i> ; Eng. – <i>Small purslane</i> .	Ailments - headache, burning, piles, stone & leprosy
	140. <i>Polygonum plebejum</i> (R. Br) (POLYGONACEAE)	Name LN. - <i>Rani phul</i> ; Santh.- <i>Rani phul</i> .	Ailments - pneumonia in children and root also used for bowels.
	141. <i>Polygonum glabrum</i> (Willd) (POLYGONACEAE)	Name LN. - <i>Bihagna</i> ; Assam - <i>Bihagni</i> ; Bo- <i>Raktarohida</i> .	Ailments - gripping stomach, febrifuge (removing fever).
	142. <i>Rumex dentatus</i> (Linn.) (POLYGONACEAE)	Name LN. - <i>Van palak</i> ; S. - <i>Changeri</i> ; H. - <i>Ambavati</i> .	Ailments - itches and scabies, cutaneous disorders.
178	143. <i>Chenopodium album</i> (Linn.) (CHENOPODIACEAE)	Name LN. - <i>Bhatua Bhaji</i> ; H. - <i>Bathua sag</i> ; Eng. - <i>Goose foot</i> ; B. - <i>Bethu Sag</i> ; S.- <i>Vastuk</i> .	Ailments - arise hungry (appetite), indigestion, anthelmintic, laxative, antacid and cordiac disorder and use for diabetes, hot fomentation used in joints pain with 1 spoon eaten daily.
178	144. <i>C. murale</i> (Linn.) (CHENOPODIACEAE)	Name LN. - <i>Bada Bhathua</i> ; Eng. - <i>Goose foot</i> .	Ailments - expel intestinal worms.
	145. <i>Celosia argentea</i> (Linn.) (AMARANTHACE AE)	Name LN. - <i>Silvari Sag</i> ; H. - <i>Sufaid murga</i> ; S. - <i>Vitunna</i> ; P. - <i>Sarwali</i> ; B. - <i>Swet murga</i> ; Bo. -	Ailments - eye diseases (clearing vision) , blood decreases, mouth sores blood decreases.

		Kurdu; Tel. - Gurugu.	
	146. <i>Gomphrena celosiodes</i> Mart. syn. <i>Gomphrena indica</i> (Linn.) (AMARANTHACEAE)	NameLN. – Lal Silvari sag, Keshpatra; H. - Sufaid Murga .	Ailments - weakness.
	147. <i>Digera muricata</i> (Linn.) Mart. syn <i>D. arvensis</i> (Fork.) (AMARANTHACEAE)	NameH. - Latmahuria; Mar. -S.- Manjirika; B. - Luta mahawaria.	Ailments - (diuretic) discharge of urine, urinary discharges, laxative in large doses, urinary pain (trouble).
	148. <i>Amaranthus viridis</i> (Linn) (AMARANTHACEAE)	NameLN. - Chamrai Bhaji; H. - Chaulai Bhaji; S. – Tanduliya.	Ailments - burn and scorpion stings
	149. <i>A. spinosus</i> (Linn.) (AMARANTHACEAE)	NameLN.- kanta chamrai H. - Kataili Chaulki; S. - Tanduliya; Eng. – Prickly amaranthus.	Ailments - treatment boils and burns, jaundice, stomach ache, laxative and root paste externally used for eczema and snake bite, inflammation, gonorrhoea.
183	150. <i>Aerva lanata</i> (Juss.) (AMARANTHACEAE)	NameLN. - Astam; H. & B. - Chaya; S. – Astamabayda.	Ailments - cuts, injury, wounds and headache, discharge of urine and also fresh plant juice local application twice a day for 3-5 days to healing cut and wounds.
183	151. <i>Achyranthes aspera</i> (Linn.) (AMARANTHACEAE)	NameLN. - Chirchita; H. - Latjira; S. - Apamarga; Eng. – Prickly chaff-flower.	Ailments - stone disease, toothache, waist pain, anti-diabetic, cholera, cough and for hair growth on head, wine (alcohol/ Daru) is avoided.
	152. <i>Alternanthera sessilis</i> (Linn.) R. Br. ex DC Syn. <i>A. triandra</i> Lam. (AMARANTHACEAE)	Name LN. - Gathi gas; H.- Saranti ; San.- Matsyaksi .	Ailments – diabetes, jaundice, leprosy, rickets, snake bite.

	153. <i>Ammannia baccifera</i> (Linn) (LYTHRACEAE)	Common & Regional Name LN. - Dhan Bhaji, Van Mehndi; H. & B.- Ammania, S.- Kurandika, Agnigarva; Eng. - Blistering.	Ailments - blisters, diabetes, dyspepsia, seminal weakness.
	154. <i>Enicostemma littorale</i> (Blume) Syn. <i>E. axillare</i> (Lam.) Raynal. (GENTIANACEAE)	Name LN. – Nau; H.- Chota Chirayata; S. & B. – Nagajivha.	Ailments - abdominal ulcer hernia swellings, dropsy fever, blood purifier and insect poisoning, antidiabetic, blood purifier and in dropsy, abdominal ulcers, hernia, swelling and insect poisoning.
	155. <i>Exacum tetragonum</i> (Roxb.) (GENTIANACEAE)	Name LN. - Choti chirata; H. - Ava – Chiretta, Deshi chiraita; B. - Koochu.	Ailments – fever, purification of blood, fever and stomach worms.
190	156. <i>Swertia chirata</i> (Buch.-Ham.) (GENTIANACEAE)	Name LN. - Chirayata, Chirayanth; H. & B. - Chireta; S. - Kairata; Eng. – Chireta.	Ailments - malaria fever, viral fever, anthelmintic, blood purifier, sugar, skin diseases, stomach worms and menorrhagia, neuro-muscular typhoid, leprosy Jaundice, common fever, worms, menstrual cycle irregularity, heart diseases and anaemia, diabetes, constipation, dysentery, acidity and rheumatism etc.
190	157. <i>Canscora decussate</i> (Rox b.) Roem. & Schult : (GENTIANACEAE)	Name LN. - Shankphul, Shankhia; H.- Shankpushpi, San.- Sankhapushpi.	Ailments - insanity (derangement of mind), high fever and skin disease. (Morning) for daily ,treat brain & nerve

			tonic.
	158. <i>Anagallis arvensis</i> (Linn.): (PRIMULACEAE)	Name LN. - Krishna neel; H. - Jonkmari; Gujrati- Anagallide; Morgellina.	Ailments - epilepsy cerebral affection, hydrophobia leprosy, snake bite ,gout.
	159. <i>Centella asiatica</i> (Linn.) (APIACEAE)	Name LN. - Brahmi; H. – Brahmi, Meghapati, Manduki; S. - Mandukparni; Eng. – Indian pennywort.	Ailments - leprosy, insomnia, (Andria, Sleeplessness) anaemia (increases blood protein, RBC), Hepatoprotective diseases and high blood pressure,skin diseases, hair growth, respiratory stimulant, asthma etc.
194	160. <i>Solanum indicum</i> (Linn.) Syn. <i>S. Violaceum</i> Ortega., <i>S. sodomenum</i> L. non. ambig. <i>S. anguivi</i> Lam. (SOLANACEAE) :	Name LN. – Van Bhata, Badi Bhatkataia; H. - Birhatta; Eng. – Indian Night; S. –Vanavrintaki.	Ailments - fever, cough cold, stop vomiting, skin diseases, toothache dysuria, leucoderma, asthma, bronchitis, vomiting and pruritus etc.
194	161. <i>S. nigrum</i> (Linn.) Syn. <i>S. subrum</i> mill ex. Wight, <i>S. incertum</i>, Dunal. Ex. Grahm. (SOLANACEAE)	Name LN. - Mukoia; H. - Makoi; Eng. - Black Night Shade; B. - Kakmachi; S. – Kakamachi.	Ailments - gout, oesto- arthritis, boils, swelling pain of testis and also leprosy, dysentery, heart disease, inflammation, leucoderma, piles, psoriasis, spermopoeitic, spleen and liver megaly, dropsy, otalgia, psoriasis, eyes pain, piles, dysentery,liver, dog bite.
	162. <i>S. xanthocarpum</i> (Schrader & Wendl) Syn. <i>S.</i>	Name LN. - Bhatkataia; H. - Kateli; S. & B. - Kantakari; Eng.	Ailments - cough and cold, cough and fever,

	<i>surattense</i> , <i>Burm. F.</i> ; <i>S. Maccanni</i> <i>sant. S. diffusum</i> <i>Roxb. S. armatum</i> <i>Br. S. virginianum</i> <i>Jacq.</i> (SOLANACEAE)	– Yellow berried.	toothache, scabies and itches, cure whooping cough, asthma, fever, heart diseases and pruritus, stone in urinary bladder, dissolved, asthma, lumbago, piles and strangury, rheumatizing.
	163. <i>Physalis minima</i> (Linn.) Var. <i>Indica</i> C.B. clark (SOLANACEAE)	Name LN. - <i>Phutkainya</i> , <i>Tipari</i> , <i>Rusbhari</i> ; <i>H.</i> - <i>Tulatipati</i> ; <i>Eng.</i> - <i>Country (Ran) gooseberry</i> ; <i>S.</i> - <i>Tankari</i> .	Ailments - diarrhoea, toothache, discharge, urine, purgative, earache pruritus (itching) ulcer, cough, colic and bronchitis.
199	164. <i>P. peruviana</i> (Linn.) (SOLANACEAE)	Name LN. – <i>Chirpoti sag.</i> , <i>H.</i> - <i>Tipari</i> ; <i>San.</i> – <i>Tankasi</i> ; <i>B.</i> – <i>Tepuria</i> ; <i>Marathi</i> - <i>Phopti</i> .	Ailments - worms and bowel complaints (the lower part of the stomach problem).
199	165. <i>Datura alba</i> (Nees)Syn. <i>D. innoxia D. fastuosa</i> L.D. <i>Metal</i> (Linn) (SOLANACEAE)	Name LN. – <i>Safed Dhatoor</i> ; <i>H.</i> - <i>Dhatura</i> ; <i>B.</i> - <i>Sada dhatura</i> ; <i>S.</i> – <i>Dhattura</i> .	Ailments - gout pain, swelling and oesto- arthritis, lice, earache, dog bite, boils, scorpion sting.
	166. <i>D. stramonium</i> (Linn.) (SOLANACEAE)	Name LN. – <i>Kala dhatur</i> ; <i>H.</i> - <i>Sadahdhatura</i> ; <i>S.</i> - <i>Dhustura</i> ; <i>Eng.</i> – <i>Thorn apple</i> .	Ailments - insanity (derangement of mind) fever and cerebral complication, scalp for treating dandruff and falling hair, asthma 2-3 times a day for month. The root external applied for abortion, spermatorrhoea.
	167. <i>Nicotiana plumbeginifolia</i> (Viv.) (SOLANACEAE)	Name LN. - <i>Bhabhakur</i> ; <i>H.</i> - <i>Van Tambakhu</i> .	Ailments - cure cough, cold, rheumatic pain, and skin diseases, scorpion sting.
	168. <i>Ipomoea aquatica</i> (Forsk.)	Name LN. - <i>Kalmi sag</i> ; <i>H.</i> & <i>B.</i> - <i>Kalmisak</i> ; <i>S.</i> – <i>Kalambi</i> .	Ailments - purgative and vomiting, debility.

	(CONVOLVULACEAE)		
	169. <i>I. pes-tigridis</i> (Linn.) (CONVOLVULACEAE)	NameLN. - Bolukaja; H. - Langulilata; Eng. - Tiger Foot.	Ailments - dog bite, boils ,carbuncle (a malignant tumour).
	170. <i>I. hederacea</i> (Linn.) Jacq. (CONVOLVULACEAE)	NameLN. - Khutlaiya; H., B. & Bo. - Kala danah, Nilkalmi; S. - Krishna bija; Eng. - Morning glory.	Ailments - leucoderma.purgative (aperient).
	171. <i>I. biloba</i> (Forsk) (CONVOLVULACEAE)	NameLN. - Besharam; H. - Dopatilata; Mal. - Atampa; S. - Sagaramekhala.	Ailments - boils, scabies, itches and bio pesticides.
207	172. <i>Argyreia speciosa</i> (sweet.) Syn. <i>A. nervosa</i> (Burn. f.) Bojer. (CONVOLVULACEAE)	NameLN. - Bidhara; H. - Samandar ka-pat; S. - Samundra palaka; Eng. - Elephant creeper.	Ailments - boils, wound, cut, potential, oosteo-arthritis, sugar (diabetes), asthma, leucorrhoea, weakness, rheumatic pain and gout ringworms, skin diseases eczema, ringworm, itching, psoriasis.
207	173. <i>Ipomoea reniformis</i> . (Chois.) (CONVOLVULACEAE)	NameLN. - Khotlaiya; H. - Musakani; S. - Mushakarni; B. - Undirakanipana.	Ailments - rheumatism, neuralgia (Nervous pain) and also used in discharge of urine, Jaundice.
	174. <i>Operculina turpethum</i> (Linn.) Silva manso syn. <i>Ipomoea turpethum</i> (R.Br.) (CONVOLVULACEAE)	NameLN. & H. - Nisothe; S. - Triputa; Eng. - Indian Jalpa; Mal. - Rochani.	Ailments - scorpion sting and purgative, snake bite, paralysis and Jaundice, head cleaned for louse, piles & dropsy, rheumatism, stone, cough and fever.
	175. <i>Convolvulus arvensis</i> (Linn.) (CONVOLVULACEAE)	NameLN. - Chandbel, Hiran khuri; H. - Hiranpadi; S. - Bhadrabala; Eng. - Deer foot.	Ailments - purgative.
	176. <i>Evolvulus alsinoides</i> (Linn.) Syn. <i>E. hirsutus</i> Lam.	NameLN- Shankhpuli; H. - Sankhapushpi; S. - Vishnugandhi;	Ailments - asthma and chronic bronchitis and also

	(CONVOLVULACEAE)	Bo. – Shankhavalli.	used into asthma, hair falling (hair care) with growth, epilepsy blood vomiting, haemorrhage, sexual debility, disuria & chronic cough.
213	177. <i>Cuscuta reflexa</i> (Roxb.) (CONVOLVULACEAE)	NameLN. - Amarbel; H. - Akasbel; S. - Amaravela; Eng. – Dodder; B. – Swarnalata.	Ailments - induce abortion, pregnancy, goat, jaundice and fever, swelling, kill worm, skin disease as itches, swelling due to hurt and sprain, scabies & itch for daily till one week, cure Jaundice, diabetes (sugar) and warm, gonorrhea, wound healing and sores wash, promote of hair growth of bold, rheumatism gout and fever.
214	178. <i>Ageratum conyzoides</i> (Linn.) (COMPOSITAE)	NameLN. - Chheria chara, Osdi; Eng. - Goat weed; Bo. - Osari; B. - Dochuntyl.	Ailments - common sore, injury, cut and wounds to stop bleeding, gall bladder and kidney stones, ring worm and itches, cut, injury and wound stop bleeding part prevent tetanus, cuts externally leprosy and skin diseases.
	179. <i>Centratherum anthelminthicum</i> (Willd.) <i>kuntze</i> see <i>Vernonia anthemintic</i> (Willd.) (COMPOSITAE)	NameLN. - Vanjeer; H. & B. - Somraj; S. – Aranyajirkam, Somraji.	Ailments - worms in cattles, common fever, malaria fever, skin disease, leucoderma, ringworm, jaundice, gastric troubles, sugar and leprosy piles, stomachache gas, Jaundice, stomach worms scorpion sting, skin

			diseases, eczema and leprosy and also destroying lice clousy.
217	180. <i>Elephantopus scaber</i> (Linn.)(COMPOSITAE)	Name LN.& B. - Gojibha; H. - Gobhi; S. -Gojihva; Bo. – Hastipata.	Ailments - diarrhoea, dysentery and swellings pain snake bite, vomiting toothache, arrest vomiting, ulcers, eczema, itches and scabies.
217	181. <i>Gnaphalium luteo-album</i> (Linn.) (COMPOSITAE)	Name LN. H. & P. -Balraksha.	Ailments - allaying pain, constipative, healing wounds, healing wounds itches , anodyne properties.
	182. <i>Pluchea lanceolata</i> (Oliver. & Hiren.) (COMPOSITAE)	Name LN. - Chhoti kalia, Venseroi; S. - Rasna; Gujarati – Rashana.	Ailments - aperient patient.
	183. <i>Sphaeranthus indicus</i> (Linn.)(COMPOSITAE)	Name LN. - Bhuimundi; H. – Gorakh mundi; S. - Mundirika; B. – Murmuria.	Ailments - stomachic, summer for gas problems, blood purifier, eye tears, urethral discharges, anthelmintic, teeth gum pyorrhoea (from bleeding of teeth gum).
	184. <i>Blumea. Lacera</i> (Burm. f.) DC. Syn. <i>B. balsamifera</i> DC.; <i>B. Densiflora</i> Hook f. (COMPOSITAE)	Name LN. - Gandhela; H. - Kakranda; S. - Kukuradru; Eng. – Blumea.	Ailments - abdominal worm, cholera diseases, inflammation, liver disorder, wounds, burning sensation, headache.
221	185. <i>Eclipta alba</i> (hassk.) syn <i>E. prostrata</i> (Roxb.) (COMPOSITAE)	Name LN. - Ghamira; H. - Bhangra; S. - Bhringaraja, Kesaraja; Eng. – Trailing Eclipta.	Ailments – head to promote of hair growth, memory and also used in skin diseases and hiccup, cut and wound, jaundice, fire burn, headache, scorpion sting,

			high blood pressure, antiseptic, scorpion sting, purgative, antiseptic on ulcers and wounds of cattles, blackish hair restorative.
212	186. <i>Glossocardia linearifolia</i>; (Cass.) see; <i>G. bosvallia</i> (DC.) (COMPOSITAE)	Name H. - Seri; S. - Pithari; Bo. - Phatusruwa; Tel. - Parapalanamu; Mra. - Patharsuva.	Ailments - syphilis and fever.
	187. <i>Bidens pilosa</i> (Linn.) (COMPOSITAE)	Name LN. - Phuttima; H. - Phutima; Gujrati - Phutium.	Ailments - cut, injury, wound, bleeding, ulcer and swelling glands, eye troubles, cough.
	188. <i>Spilanthes acmella</i> (Murr.) (COMPOSITAE)	Name LN. - Akalkarha; Tel. - Maratitige; Bo. - Akarkara; Assam - pirazha.	Ailments - massage teeth gum, toothache, voice (clear voice and improve fluency voice), produce salivation when the mouth is dry, good insecticide and mosquito larvicides, toothache, Powerful mosquito larvicides used as a fish poison.
	189. <i>Acmella oleracea</i> C.B. Clark Syn. <i>Spilanthes Oleraceae</i> Jacq. (COMPOSITAE)	Name LN. - Rashania; H. & B. - Roshunia, Bo. - Akra; Mar. - Ukra.	Ailments - paralysis of mouth & tongue, toothache and effection etc.
	190. <i>Echinops echinatus</i> (Roxb.) (COMPOSITAE)	Name LN. - Safed Kateri; H. - Utakanta, Gokru; Eng. - Thistle.	Ailments - pneumonia and fever, weakness, hair to destroy lice man and cattles. (Use to careful for eye), wounds of cattle to destroy maggots.
228	191. <i>Glossogyne pinnatifida</i> (DC.) (COMPOSITAE)	Name LN. - Bhangra; Gujrati - Pardesibhangro; Santh - Barangom- bir - barangom.	Ailments - scorpion sting, snake bite.

228	192. <i>Amberboa divaricata</i> kuntze syn. <i>Volutarella divaricata</i>. Benth ex Hook. f. (COMPOSITAE)	Name LN. - Brahmadani; H. & Bo. - Badaward; Marathi - Sakayi	Ailments - cough, bronchitis, blood purifier.
	193. <i>Sonchus oleraceus</i> (Linn.) (COMPOSITAE)	Name LN. – Kanphul, Bada tara; Bo. - Mahatara; Patana - Titaliya.	Ailments – purgative, febrifuge.
	194. <i>S. arvensis</i> (Linn.) (COMPOSITAE)	Name LN. – Badi Kanphul , pater, H. - Sahadevibari; Eng. - Sow Thistle; B. - Banpalang; P. - Bhangra; Tel. - Nallatapata.	Ailments - Jaundice.
	195. <i>Cichorium intybus</i> (L.) (COMPOSITAE)	Name LN. – Kashi, Van gobhi; H., B. & Bo. - Kasni; Eng. – Chikory; Tam. - Kashni; Tel. – Kasini.	Ailments – vomiting, sandice of hepatic erregulator.
	196. <i>Lagascea mollis</i> (Cav.) (COMPOSITAE)	Name LN.- Kala jeera, kadu jeera	Ailments - scabies and itches.
	197. <i>Launaea aspleniifolia</i> (Hook. f.) (COMPOSITAE)	Name LN. – Kanphul; B. - Tikchana.	Ailments - mammary gland (lactagogue) diseases.
	198. <i>Centipeda minima</i> Linn. - A. Br. et. Aschers syn. <i>C. orbicularis</i> Lour.(COMPOSITAE)	Name LN. - Chhikni; H. & Bo. - Nakchhikni; S. -Chhikika; B. - Mechitta	Ailments - coryza cold and headache, treat stomach worms.
	199. <i>Tridax procumbens</i> (Linn.)(COMPOSITAE)	Name LN. - Baramasi Ghamira, Ghav chara.	Ailments - injury cut, wounds, fungal disease, strength of teeth, diabetes.
	200. <i>Vernonia cinerea</i> (L.) Less. Syn. <i>Conyza cinerea</i> L. (COMPOSITAE)	Name LN. - Kala jeera; S.H. & Tam. - Sahadevi; B. – Kuksim.	Ailments – worms, piles, calculus (stone), ophthalmic disease as like conjunctivitis, easy delivery of child in abnormal position, dropsy, malarial fever and skin disease.
237	201. <i>Xanthium strumarium</i> (Linn.) (COMPOSITAE)	Name LN. – Litingi, Khuthua; H. - Chhota gokhru; S. - Arishta; Eng.	Ailments - scrofula disease, cancer diseases,

		– <i>Burweed</i> .	itchy skin, small pox, eczema snake bite.
237	202. <i>Nardostachys jatamansi</i> DC. (VALERIANACEAE)	Name LN. – <i>Balchad, Jatamasi</i> ; H. S. & B. - <i>Jatamansi</i> ; Eng. – <i>Spikenard</i> .	Ailments - epilepsy, hysteria, heart beet (Throbbing heart), stomach ache, eye (for light increasing power), stimulant, antiseptic and convulsive affections.
	203. <i>Orobanche aegyptica</i> (Pers.) (OROBANCHACEAE)	Name LN. – <i>Chhoti Babhakul</i> , Eng. - <i>Orobanki</i> .	Ailments - treat boils in cattle.
	204. <i>Bacopa monnieri</i> (Linn). Pennel syn. <i>B. monniera wettst. Herpestis monniera</i> (Linn.) H. B. & K. <i>Monniera cuneifolia</i> Michx; <i>Grahiola Monniera</i> L. (SCROPHULARIACEAE)	Name LN. – <i>Jal brahmi, Jal neem</i> ; H. – <i>Brahmi</i> ; S. – <i>Nira – Brahmi</i> ; Eng. – <i>Thyme leaved – Gratiola</i> .	Ailments - blooded dysentery, diarrhoea, stool insect bite, boils, injury, sprain, nervous disorder, improvement of memory, leprosy, T. B. anaemia, blood purifier, hoarsness of voice, epilepsy respiratory stimulant, asthma, insomnia, dyspepsia, wounds and cut, snake bite.
	205. <i>Celsia coromandeliana</i> (Vahl) (SCROPHULARIACEAE)	Name LN. - <i>Ketki</i> ; H. - <i>Gadartambaku</i> ; <i>Kokshima</i> ; S. - <i>Bhutakeshi</i> ; B. - <i>Kukshima</i> .	Ailments – dysentery, skin eruption.
	206. <i>Lindenbergia urticaefolia</i> (Lehm.) see <i>L. indica</i> (L.) O. Kuntze. (SCROPHULARIACEAE)	Name LN. - <i>Dhol</i> ; Bo. - <i>Gazdar</i> ; Guj.- <i>Bhintachati</i> .	Ailments - chronic bronchitis and asthma, skin eruptions.
242	207. <i>Verbascum thapsus</i> (Linn.) (SCROPHULARIACEAE)	Name LN. – <i>Van tamakhu</i> ; H. - <i>Gidar</i> - <i>tamaku</i> ; P. - <i>Bantamaku</i> ; Urdu - <i>Jangli Tamaku</i> .	Ailments - consumption bleeding of the lungs (TB) coughs and asthma, inflamed part, narcotic stupefying fish.
242	208. <i>Striga lutea</i> (Lour.)	Name LN. - <i>Agiya</i> ; S. - <i>Kuranti</i> ;	Ailments - appetite and

	(SCROPHULARIACEAE)	Gujrati - Agiyo; Marathi - Laghukurandika.	also applied in dysurea (strangury) diseases.
	209. <i>S. orobanchioides</i> (Benth); see <i>S. gesneroides</i> (willd) (SOLANACEAE)	NameLN. - Agiya; H - Lalagia; Gujrati - Ratoagio; Marathi - Tambadikarichagvat; S. - gesneroides (willd.)	Ailments – diabetes,
	210. <i>Stemodia viscosa</i> , (Roxb.)(SCROPHULARIACEAE)	NameLN. - Kethria; B. - Nukachuni; Tel. - Bodasarum, Guntakaminamu.	Ailments - demulcent (soothing or softening, medicine).
	211. <i>Scoparia dulcis</i> (Linn.) (SCROPHULARIACEAE)	NameLN.- Phulia.	Ailments - shivering fever, and diabetes (sugar), piles, strength in tooth, gonorrhoea and leucorrhoea, piles.
	212. <i>Leonotis nepetaefolia</i> , (R. Br.) (LAMIACEAE)	NameLN. - Bada Guma, Gathva; H. & B. - Hejurchei; Bo. - Matijer; Tel. - Ranabheri.	Ailments - hot formulate (cow dung cake burnet) gout and rheumatic, pickles, curd, whey and tamarind, scabies and itches, ringworm, asthma, swelling and milk does not pass through the nipples.
	213. <i>Anisomeles malabarica</i> (R. Br.) (LAMIACEAE)	NameLN. - Mahabar; S. - Vaikuntha; Tam. - Peyameratti; Tel. – Mogabiraku.	Ailments - gripping stomach, coryza, cough, rheumatism, intermittent fever.
249	214. <i>Leucas cephalotes</i> (Spreng.) (LAMIACEAE)	Name LN. - Dhurpi Bhaji, Khumbha; H. – Gumi sag, S. - Drona pushpin.	Ailments - snake bite, itchy skin and flower use in cough, asthma, cough, cold, bronchitis, dyspepsia, eruptions, headache, Jaundice, Leucoma, paralysis, asthma, piles and leucoderma.
249	215. <i>L. utricaeifolia</i> (R. Br.) (LAMIACEAE)	NameLN. - Gumi, Khumbha, Gujrati - Kubo.	Ailments -fever and cough.

	216. <i>L. aspera</i> (spreng.) syn. <i>L. mollissima</i> , Wall. (LAMIACEAE)	NameLN. - Goomi Bhaji; H. & B. - Chota halkusa; Bo. - Tamba.	Ailments - psoriasis, chronic skin irruption and plant leaves applied rheumatism, insecticide and preventing fever (febrifuge).
	217. <i>Napeta hindostana</i> (Roth.) Haines Syn. <i>N. ruderalis</i> (Hook.) F. (LAMIACEAE)	NameLN. - Badranga; P. - Badrang boya, Billilotan.	Ailments - cardiac tonic, cough and plant decoction use as gargle in sore throat.
	218. <i>Hyptis suaveolens</i> (Poit.) O. <i>basilicum</i> (Linn.) (LAMIACEAE)	NameLN. - Vantulsi; Uriya : Gangatulsi, Damna.	Ailments -injury, cut and wounds , flatulence & sweet producing, cough, cold, skin disease I, itches , scabies ,antiseptic , blood coagulant.
	219. <i>Ocimum. basilicum</i> (Linn.) Syn. <i>O. caryophyllantum</i> Roxb.; <i>O. pilosum</i> Willd.; <i>O. anisatum</i> L. (LAMIACEAE)	NameLN. - Damna, Marua; H. & B. - Babuitulsi; S. - Munjariki; Eng.- Sweet basil.	Ailments - relief headache, inflammation diseases of throat, pus in ear , leucorrhoea.
255	220. <i>Salvia plebeian</i> (R. Br.) (LAMIACEAE)	NameLN. - Kamarkaso; B. - Kokaburadi; Bo. - Kamarkas; P. - Sathi.	Ailments - haemorrhoids, gonorrhoea, and menorrhoea and also used in leucorrhoea, postnatal diseases, gonorrhoea, Menorrhagia, Haemohoids of ladies problem , diarrhoea.
255	221. <i>Ocimum americanum</i> (Linn.) <i>O. canum</i> (sims.)	NameLN . - Mamri; H. & B. - Van tulsi; S. - Ajaka; Mal.- Katturama tulsi.	Ailments - parasitical skin diseases, cold & chilliness of children, gonorrhoea and Spermatorrhoea, typhoid (Motijhira) , malaria fever.
	222. <i>Colebrookea oppositifolia</i> Sm.	Common & Regional Name LN. - Benda; H .- Binda, Pansara;	Ailments - epilepsy , wounds healing.

	(LAMIACEAE)	Bo. - Dasari; P.- Shakardan.	
	223. <i>Biophytum sensitivum</i> (D.C.) Syn. <i>Oxalis sensitive</i> L. (OXALIDACEAE)	Name LN. -Lakshana; H. - Lajalu; S. - Lajjaluka; Eng. - Sensitive wood – sorrel.	Ailments - properly discharge of urine , wounds (stop the pus), bladder stone and gonorrhoea.
	224. <i>Oxalis corniculata</i> (Linn.)(OXALIDACEAE)	Name LN. - Amti bhaji, Khattbuti, Tinpatia, H. & B. - Amrul; S. & P. - Amlika; Eng. – Indian sorrel.	Ailments - antidote, antibacterial, antipyretic, anti-inflammatory, menstrual cycle disorder, use in fertility, hypotensive and piles, control anaemia, in liver tonic, paralysis, cooling refrigerant, diarrhoea, Coagulate blood, fresh wounds & normal bleeding, warts , dysentery, scurvy, cold and coryza, dysentery, digestion.
260	225. <i>Oxalis acetosella</i> (Linn.) (OXALIDACEAE)	Name LN.- Khattibuti, Khattsag.	Ailments - cough coryza in summer season, control of seeds poison of “Dhatur” (<i>Datura stramonium</i> L.), weak digestion power scurvy (antiscorbutic) and cooling (refrigerant).
260	226. <i>Heliotropium strigosum</i> (Willd) (BORAGINACEAE)	Name LN. – Chitphul, Safed bhangra; H.- Chitiphul; P. - Tindu.	Ailments - snake bite and also used for sore eyes, laxative (tending to loose the bowels) and diuretic (discharge of urine), gums, boils and boils suppuration.
	227. <i>Heliotropium indicum</i> (Linn.) (BORAGINACEAE)	Common & Regional Name LN. - Hathisund; H. & B. - Hatisura;	Ailments - boils, ulcers, injury wounds cut , bites of

		S. - <i>Hastisunda</i> ; Tam. - <i>Telkoduksi</i> ; Bo. - <i>Burundi</i> .	reptiles (<i>Varnaus</i> sp.) and snake sting of scorpion (Nettles) insect, antifungal, antibacterial, anticancer, antiviral etc. (Note : high dose for abortifacient).
	228. <i>Heliotropium ovalifolium</i> (Forsk.) (BORAGINACEAE)	Common & Regional Name LN. – <i>Chitiphul</i> .	Ailments - for washing the wounds, cut and is injury.
	229. <i>Trichodesma indicum</i> (R. Br.) (BORAGINACEAE)	Name LN. &H. - <i>Chhotakulfa</i> ; S. - <i>Surasa</i> ; B. - <i>Choto kulpa</i> .	Ailments - depurative (cleansing) in colds, joints swelling & juice in dysentery to children, joints swelling for a week.
	230. <i>T. Zeylanicum</i> (R. Br.) (BORAGINACEAE)	Common & Regional Name LN.- <i>Hatmura</i> ; H.- <i>Hetemuria</i> ; S.- <i>Jhingi</i> .	Ailments - improve properly discharge of urine, throat softens.
265	231. <i>Plumbago zeylanica</i> (Linn.) (PLUMBAGINACEAE)	Name LN. – <i>Chitabar</i> ; H. – <i>Chitrak</i> , <i>Chita</i> , <i>Chitaur</i> ; S. – <i>Chitrak</i> , Eng. – <i>White leadwort</i> .	Ailments - stomach pain, Leucoderma, unhealthy ulcer, scabies and itching. indigestion, dysentery, stool, diarrhoea, anaemia, bronchitis, hepatic protective cardio stimulant, arthritis , gout, paralysis pain, weakness , leucoderma, liver, diseases, piles inflammation, leprosy, uterotonic and anti cancerous.
265	232. <i>Barleria prionitis</i> (Linn.) (ACANTHACEAE)	Common & Regional Name LN. - <i>Karhanti</i> ; H. - <i>Katsareya</i> ; S.- <i>Karunta</i> .	Ailments -bronchitis, cough, colic, fever, worms, lumbago, leprosy, dysmenorrhoea, skin disease syphilis, stranguary and ulcer

			asthma, stick use for toothache, control diabetes, cold fever, glandular swellings and boils.
	233. <i>Barleria cristata</i> (Linn.) (ACANTHACEAE)	Name LN. - Janti; S.- Jhinti, Fhinti; B.- Sada- jati; Ori. - Koileka; P. – Tadrelu.	Ailments - swelling and snake bite.
	234. <i>Blepharis maderaspatensis</i>(Linn.)Heym e. ex. Roth.B. molluginifolia; (Pers.) (ACANTHACEAE)	Name LN. - Koreta.	Ailments - seeds diuretic .
269	235. <i>Andrographis paniculata</i> (Burm. F.) Wall. Ex. Nees. Syn. <i>A. subspathulata</i> Clarke; <i>Justicia paniculata</i> Burm. (ACANTHACEAE)	Name LN. - Bhui neem; H. - Kiryat, Kirayat; S. - Bhunimba; Eng. – Creat.	Ailments - diabetes, fever, worms, constipation, dyspepsia, anorexia ,Hepatomegally, alternate fever, dysentery, stomach worm, skin diseases, hepatic disorders, oedema, blood purifier.
269	236. <i>Dipteracanthus prostratus</i> (Nees) syn. <i>Ruellia prostrata</i> (poir.) (ACANTHACEAE)	Name LN. -Koreta; Guj. - Kalighavani; Mal. - Upudali; Tam. - pottoanchi.	Ailments - gonorrhoea and leucorrhoea, ointment to boils.
	237. <i>Hygrophila spinosa</i> T. anders., <i>Asteracantha longifolia</i> (Nees.)Syn. <i>H. auriculata</i> (Sch.) Heine. <i>A. auriculata</i> Nees. (ACANTHACEAE)	Name LN. - Talmakhana; S.- Bajrakanta, Kakilakshya; B.- Kuliakhara.	Ailments - Jaundice, gout and properly discharge of urine and diuretic, gonorrhoea, spermatorrhoea, dropsy, rheumatic, dropsy, urinogenital tract and anasarca, stone (calculi) liver disorder, oedema and gout.
	238. <i>Ecobolium linneanum</i> Kurz. <i>E. viride</i> (Forsk.) Merrill (ACANTHACEAE)	Name LN. – Udjati; H.-Udajati; Marathi. - Dhaktaadulsa; Tam. – Nilambari.	Ailments - Jaundice, gout , rheumatism, cure.

	239. <i>Lepidagathis hamiltoniana</i> (Wall.) (ACANTHACEAE)	Name LN. & H. - Kumbha; Mundari - Gharia; Bo. - Kolichechutar.	Ailments – swelling, sore.
	240. <i>Peristrophe bicalyculata</i> (Nees.) (ACANTHACEAE)	Name LN. - Chitchitia; H. - Atrilal; B. - Nasabhanga; Bo. - Pitpapra.	Ailments - Rheumatism osteoarthritis gout, dog bite, snake bite, in deafness.
	241. <i>Rungia repens</i> (Nees.) (ACANTHACEAE)	Name LN. - Parpat chara; H. - Kharmor; S. - Parpatha; Gujarati – Khatsalio.	Ailments - cough and fever, considered, stomach worm (vermifuge).
	242. <i>R. parviflora</i> (Nees.) (ACANTHACEAE)	Name LN. - Pendi chara; S. - Pindi; Gujrati – Mothokhadsalio.	Ailments - pain, cooling effect and small pox.
276	243. <i>R. pectinata</i> (Linn.) (ACANTHACEAE)	Name LN. - Ukchi jhar, Pindi.	Ailments - wounds, cut.(ACANTHACEAE)
277	244. <i>Adhatoda vasica</i> (Neen) Syn. <i>A. zeylanica</i> Medic. <i>Adennthera vasica</i> L. <i>Justica adhatoda</i> L.	Name LN. - Adusa; H. & Bo. - Adulasa; S. - Vasaka; B.- Bakas.	Ailments - chronic asthma, cough and primary T.B., diabetes, mouth ulcer (blister) ,toothache , children hoping cough, skin diseases itchy skin scabies and worms in regular menstruation and in heart diseases, Jaundice, indigestion, eye diseases, boils, stopping growth of boils or ripening condition to out pus in boils, mosquito larva and other insects.
	245. <i>Ranunculus sceleratus</i>. (Linn.) (RANUNCULACEAE)	Name LN. - Jal Dhania; Kumaon - Shimi.	Ailments - head, for bold, diuretic, tumour boil , toothache and goiter, plague fever (<i>Mahamari Roga</i>) (from over dose of plant leaves) to given orally one glass of cow milk, curd and butter 50 g.

			(Ghee) to cure problem for over doses).a keen appetite (good feel hungry) then given sago or wheat mash, till 2-3 days.
281	246. <i>Nymphaea alba</i> (Linn.) (NYMPHAEACEAE)	Name LN. - Kuiri Phul; H.- Kumudni; Eng. – Indian white water lily; S. – Nilotpala.	Ailments - strength (body) , piles, discharge of urine, palpitate of heart, piles , heart beat.
281	247. <i>N. pubescens</i> Willd. (NYMPHAEACEAE)	Name LN. – Lal Kunri; H.- Rakta Kamal; S. – Kumuda; Eng. – Indian Red water lily.	Ailments - dysentery, diarrhoea, debility, dyspepsia, leucorrhoea, gonorrhoea ,Spermatorrhoea, cardio tonic, astringent etc.
	248. <i>N. speciosum</i> Willd. (NYMPHAEACEAE)	Name: LN.-Kamal gatta; H.- Kaval/ Kamal; S.- Kumuda; Eng.- Indian lotus; B.- Shaluk; Guj.- Kanval; M. - Alli; Mal. - Periambal; Mar.- Lal Kamal; Tam.- Vell ambal; Tel.- Allikada.	Ailments - heart disease, dysentery, diarrhoea, debility, dispepsia, leucorrhoea, gonorrhoea& spermatorrhoea a etc. *Root power use for piles as and flower use for cardio tonic and astringent etc.
	249. <i>Carissa opaca</i> (Stapf.)C.spinarum L. (APOCYNACEAE)	Common & Regional Name LN. - Vankaraunda; H. & B. - Karaunda; S. - karamadika; P. - Garna; Tel. - Kalivi; Tam. - Chiru; Kash. - Garunda.	Ailments - cuts, wounds, poisonous insects and parasite attacks.
	250. <i>Impatiens balsamina</i> (Linn.)	Name LN. - Turuia phul; H. - Gulmendi; P. - Bontil; B. - Dupati; Bo. - Terada.	Ailments - joints pain internally, acts as emetic, portion of rectum,

	(BALSAMINACEAE)		weakness, piles, gout.
286	251. <i>Celastrus paniculatus</i> (Willd.) syn. <i>C. montana</i> Roth.; <i>C. multiflora</i> Roxb. (CELASTRACEAE)	NameLN. - Khurkhundan; H. &B. - Malkangni Eng. – Climbing staff plant.	Ailments - malaria fever, leucoderma, leprosy, paralysis, dysmenorrhoea, amenorrhoea, anti-viral, scabies &itch, asthma , inflammation and rheumatism, stomachache.
286	352. <i>Drosera indica</i> (Linn.) (DROSERACEAE)	NameLN. - Kitphasana ghas, Kidmar; H. - Mukha jaili; Eng. – Sundue; Keet-bhakshi.	Ailments - cure blister, cut affected area of (Gokhru) corns.
	253. <i>Embelia ribes</i> (Burm.f.) Syn. <i>E. glandulifera</i> Wt. (MYRSINACEAE)	NameLN. - Baibiring; S. - Vidanga, H. - Baberang; Eng. – Barbreng.	Ailments - snake bite & insect bite,diabetes.
	[MONOCOTYLEDONY WEEDS]		
	254. <i>Dioscorea bulbifera</i> (Linn.) (DIOSCOREACEAE)	NameLN. - Gitora kanda; Gethi kanda; H. - Ratalu, pitalu; S.- Varahi; Eng. - Yam.	Ailments - anthelmintic, worms, blood dysentery, piles, improves spearms, polyurea, dysurea, hydrocele and leprosy, biliousness, leucoderma, piles, syphilis, haemorrhoids, piles, stone, hydrocele and diabetes.
	255. <i>D. Hispida</i> Dennst. Syn. <i>D. daemona</i> Roxb.; <i>D. hirsuta</i> Dennst. <i>D. triphylla</i> L. (DIOSCOREACEAE)	NameLN. - Baichandi; H. - Karukand; Marathi - Baichandi; Tam. - Peiperendai; Tel. – Tella – giniged dalu.	Ailments - swelling, wound, injury and arrow poison.
	256. <i>D. alata</i> L. Syn. <i>D. atropurpurea</i> Roxb.; <i>D. purpurea</i> Roxb.; <i>D. rubella</i> Roxb.; <i>D. globosa</i> Roxb. (DIOSCOREACEAE)	Name LN. – Khanima Kanda; H. & B. – Chupri alu; Bo – Chopri alu; Tam. – Perumvalli – Kizhangu. Tel. – Pendalamu.	Ailments - piles, syphilis, gonorrhoea, anthelmintic, leprosy.
	257. <i>Eichhornia crassipes</i> (Solms.)	NameLN. - Jalbhata; B. - kachuri pana; Mal. - Kalavazha;	Ailments - wound, boils (Sore) to treat cancer like

	(PONTEDERACEAE)	<i>Tam. - Akas, thamarai; Tel. - pisachithamara.</i>	disease Carbuncle, skin of horses.
293	258. <i>Commelina benghalensis</i> (Linn.) (COMMELINACEAE)	Name LN. - Kankaua Bhaji; S. - Khanchata; H. & B. - Kanchara; Eng. – Spiderwort.	Ailments - down fever, itches, scabies.
	259. <i>C. nudiflora</i> (Linn.) (COMMELINACEAE)	Name LN. - Kankaua; H. - Kanshura; S. - Koshapushpi; M. - Vazhapazhathi.	Ailments -Burn, boil.
	260. <i>Cyanotis axillaries</i> (Roem & Schulf. f.) (COMMELINACEAE)	Name LN. - Sutraj; H. - Soltraj; Bo. - Itsaka; Tam. – Nirpulli.	Ailments -swelling of abdomen , tympanitis.
	261. <i>Asphodelus teunifolius</i> Cav. (LILIACEAE)	Common & Regional Name LN. - Ban piaz; H.- Bokal, Ban Pyaj; Gujrati - Dungru.	Ailments - blister and also seeds use as diuretic.
	262. <i>Asparagus racemosus</i> (Willd.) Syn. <i>A. javanica</i> Kunth.; <i>A. sarmentosus</i> Graham. (LILIACEAE)	Name LN. & H. - Satawar; Eng. – Asparagus; S. & B. – Shatamuli.	Ailments - urinary troubles, treat weakness, weakness (strength) , leucorrhoea syphilis, hysteria, milk secretion (Galactagogue), rheumatic fever and common fever, aphrodisiac (sexual medicine) and also used in Dysuria (difficulty in passing urine), diarrhoea with blood, Haematuria (blood with urine).
	263. <i>Smilax prolifera</i> (Roxb) (LILIACEAE)	Name LN. - Sher Tatoon; H. - Ram datoon; Sing.- Mahakabarasa.	Ailments - weakness improve, rheumatism, Haematuria (urine is reddish colour), dysentery, toothache, snake bite, diseases.
	264. <i>Smilax zeylanica</i> (Linn.) Syn. <i>S. macrophylla</i> (Roxb). (LILIACEAE)	Name LN. – Sher datoon; H. – Jangali aushbah; B. – Kumarica.	Ailments - Dysentery, Venereal diseases.

300	265. <i>Gloriosa superba</i> (Linn.) Syn. <i>Methonia superb</i> Lam. (LILIACEAE)	NameLN. - Karihari; S. - Shakrapushpi; H. - Kalihari; Eng. – Glory lily.	Ailments - gonorrhoea, leucorrhoea, paralysis, rheumatism, spleenomegally, tumours, erysipelas, sores, syphilisdestroy, arthritis and joints pain, anthelmintic, it is abortifacient (don't use pregnant ladies, treat ear pus , snake ,scorpion, scolopendra bite, leprosy, piles, (grip) spasmolytic-ulcer, dermatitis etc.
301	266. <i>Urginea indica</i> (Kunth.) Syn. <i>Drimia indica</i> (Roxb.) Jessop. (LILIACEAE)	NameLN. – Van piaj; H. & B. - Jangli piyaz; S. - Vana - plandam; Eng. – Indian suill.	Ailments - Dysuria, sole, fingers, asthma, blood pressure, menorrhagia, paralysis , regulation of menstruation (M.C.), injury, cut wounds, dropsy,whooping cough, skin diseases calculi (stone) heart diseases, heart kidney, pneumonia.
	267. <i>Costus speciosus</i> (koen.) Smith; Syn. <i>Banksea speciosa</i> Koen. (ZINGIBERACEAE)	NameLN. - Sikta kanda, Sikta mauri; H. & B. - Keu kand; Eng. – Kosht.	Ailments - diseases cut and wounds, anthelmintic (to extricate) worms from intestines, asthma, anaemia, constipation, bronchitis, leprosy, Inflammation, skin diseases, leprosy, burning sensation and flatulence.
304	268. <i>Hedychium coronarium</i> Koenig. (ZINGIBERACEAE)	NameLN. - Gul bakavli; S. - Karchura; Karpur, H. - Sitruti; Eng. – Butterfly lily, Spiked ginger lily.	Ailments - crocodiles tears , eye diseases, bronchitis, tuberculosis, mouth wash.

304	269. <i>Curcuma angustifolia</i> (Roxb.) (ZINGIBERACEAE)	NameLN. – H. & B. - Tikhur; S. - Tavakshira - Tam. - Kua; Bo. - Tickar; Tel. - Ararutgaddalu.	Ailments - Jaundice and also used in gonorrhoea and leucorrhoea, gout, Osteoarthritis, paralysis, rheumatism.
	270. <i>C. aromatica</i> (Salisb.) (ZINGIBERACEAE)	NameLN. &H. - Jangli haldi; S. - Van haridra, B. – Banhalud.	Ailments - flatulence (Gas & Rheumatic), snake bite, fever, leprosy, blood rheumatism.
	271. <i>C. amada</i> (Roxb.) (ZINGIBERACEAE)	NameLN. - Amahaldi; H. - Amahaldi; S. - Karpura haridra, Ambragandhi haridra; Eng. – Mango ginger.	Ailments - pain, sprains, inflammation, wound, cut. (Hot fomentation slightly fire to cow dung cake), rheumatism, gout, skin diseases, ulcer, bronchitis.
	272. <i>C. caesia</i> (Roxb.) (ZINGIBERACEAE)	NameLN. - Kalahardi; H. - Kalihaldi; Narkachura; B. - Kalahaldi.	Ailments - injury, sprains, weakness, tooth ache, headache.
	273. <i>Vanda roxburghii</i> (R. Br.) syn. <i>V. tessellate</i> Hook.ex.G.Don. (ORCHIDIACEAE)	NameLN. - Vanda; S.,H.,B.&Bo.- Rasna; Kan. - Bandanike; Tel. - Kanapabadanika.	Ailments - area of (bone fracture), fracture, pain & cleaning, fever, ear diseases (Otitis), paralysis, joints pain, rheumatism, external massage to nervous system diseases.
310	274. <i>Cyperus rotendus</i> (Linn.) (CYPERACEAE)	NameLN. - Nagar motha, Gangaura; S. & Bo. - Musta; H. & B. – Motha.	Ailments - diarrhoea, cholera, amoebiasis, galactagogue wounds ulcer, insomnia diseases, disorders of the stomach, irrigation bowls.
310	275. <i>C. esculentus</i> L. (CYPERACEAE)	NameLN. - Gangaura, Gondaila; H.- Chichoda, Cicada; S.- Bhandramusta.	Ailments - helminthiasis, leprosy, diarrhoea, dysentery, colic pain.
	276. <i>Scirpus kysoor</i> (Roxb.) (CYPERACEAE)	NameLN. - Ghoda gad; H. & B. - Kasuru; S.- Kaseruka; Bo.-	Ailments - diarrhoea, vomiting, treat dry cough.

		<i>Kachera.</i>	
	277. <i>Scirpus articulatus</i> (Linn.) (CYPERACEAE)	NameLN. - Chhichora; S. & H. – Chichora.	Ailments - purgative (act of cleaning Bowel), Cathartic (Clean of Stomach) medicine.
	278. <i>Sagittaria sagittifolia</i> (Linn.) (ALISMACEAE)	NameLN. Chhotukut.	Ailments - skin disease, itches, scabies, lochia, placenta.
	279. <i>Typha elephantina</i> (Roxb.) (TYPHACEAE)	NameLN. - Sarpat; H. – Ramban, Pater, Kash. - Pitz; S. - Gundrashari; Gondpator; Eng. – Cat tall.	Ailments - gonorrhoea, measles, discharge of urine, ulcer wounds, (Sannapat diseases) continual sound into ear, wounds, ulcer, permanent sterility.
	280. <i>Sparganium siple</i> (Huds.) (SEARGANIACEAE)	NameVarnacular name – Sperganum.	Ailments -The plants use for medicinally important.
316	281. <i>Acorus calamus</i> (Linn.) (ARACEAE)	NameLN.,H. & B. - Bach; S. - Bhadra; Tel. - Vadaja; Tam – Vashambu.	Ailments - epilepsy, amenorrhoea, bronchitis, calculi, depression, fever, skin diseases, paralysis, rheumatism, asthma, cough, worms, snake bite, dysmenorrhoea, dyspepsia, epilepsy, helminthiasis, hoarseness inflammation, night blindness.
316	282. <i>Pistia stratiotes</i> (Linn.) (ARACEAE / LEMNACEAE)	NameLN. - Jal gobhi; H.- Jal Kumbhi; S. Kumbhika; Eng.- Water cabbage.	Ailments - piles (bleeding condition), control, discharge of urine, leucoderma, leprosy, psoriasis.
	283. <i>Curculigo orchioidea</i> (Gaertn.) Syn. <i>C. malabarica</i> Wight; <i>C. brevifolia</i> Dryl.;	NameLN. - Musar mundi, Syah mushli; H. & Bo. - Kali musli; S. – Talamulika.	Ailments - jaundice, asthma, gonorrhoea, menorrhoea, piles,

	<i>Hyposxis orchiodies</i> Kurz. ; <i>Carcinia malabarica</i> Desv. (AMARYLLIDACEAE)		amenorrhoea, polyurea and dysurea, enhancement, spermatization, consultation, wound maggot, diarrhoea, leucoderma, excessive itching, externally on waist rheumatic pain, diuretic leucorrhoea.
	284. <i>Narcissus tazetta</i> . (Linn.) (AMARYLLIDACEAE)	NameLN. – Ban Piaz, H.- Nargis.	Ailments - net difficulty, dim light , eye ball, thron prickly (injust) broken deep in the foot (sole) and slightly come out spine sole layer, ointment for face , skin diseases, pus clean, wound healing , bleeding, stop cut injury, worms and stomach diseases, weakness of penis strength.
320	285. <i>Phoenix acaulis</i> Buch. (Ham.) ex. Roxb. (PALMAE)	NameLN. - Chhindi.	Ailments - hunger (to have a keen appetite) , scabies and itches.
321	286. <i>Andropogon contortus</i> L. (POACEAE)	NameLN - Lanpa, H.- Shurval ; Mar. - Kantegawta.	Ailments - gripping pain , colic, discharge of urine and blood purifier.
	287. <i>Cyanodon dactylon</i> (Linn.) Pers. (POACEAE)	NameLN.- Doob ghass; H - Dhub; S. - Dhurva; Eng.- Doob grass (creeping cyanodon).	Ailments - urinogenital system, injured swelling pain, goiter, dysentery, diarrhoea, ringworm, itches, scabies, vomiting, extract hysteria, epilepsy, insanity, ophthalmia, piles (stopping bleeding).
	288. <i>Dactyloctenium aegyptium</i> (Beanv.) see	NameLN.- Ghoda chaba chara, Makra; H.- Mandua; Bo. - Mhar;	Ailments - diabetes, skin diseases, biliousness,

	<i>Eleusine aegyptiaca</i> (Desf.) (POACEAE)	Bo. - Nagli; S. -Rajika.	stomachic, kidney pain.
	289. <i>Echinochloa crus-galli</i> (Beauvi) syn. <i>Panicum crus-galli</i> (Linn.) (POACEAE)	NameLN. – Sama, Semai chara; S. - Jalsamaka; H. - Samak; B. – Burashama.	Ailments - bleeding piles,.
	290. <i>E. frumentacea</i> Linn. syn. <i>Panicum frumentaceum</i> (Roxb.) (POACEAE)	NameLN. – Sama; S. - Shyama; H. & B. - Sanwa; P. – Sawank.	Ailments - biliousness, constipation.
	291. <i>Eleusine indica</i> (Gaertn.) (POACEAE)	NameLN. - Paindhar chara; H. - Malnkuri; Tam. – Thipparagi.	Ailments - fever.
	292. <i>E. Corocana</i> (Gaertn.) (POACEAE)	NameLN. - Madia; H. - Mandua; S. – Rajika; Kan. – Ragi; Tam. – Kelvaregu s	Ailments - refrigerant, astringent (constipative), biliousness.
327	293. <i>Paspalum commersonii</i> . (Lam.) (POACEAE)	NameLN. – kodaila; H. - Kodo; S.- Kodrava, Koradusha, Eng.- Kodo-millet.	Ailments - scorpion sting, diabetes.
327	294. <i>Heteropogon contortus</i> (Beauv;Roem.&Schult.)(POACEAE)	NameLN. -Lanpa; H -Shurval; Marathi - Kantegawta.	Ailments - colic pain,Root is considered as-Diuretic, Stimulent.
	295. <i>Aristida adscensionis</i> (Linn.) (POACEAE)	NameLN.- Kharahla; H.- Jhadu.	Ailments - eczema ,sehua (little spot of leucoderma), ringworm.
	296. <i>Saccharum spontaneum</i> (Linn.) (POACEAE)	NameLN.- Kansi kasitta; H.- Kans; P.- Kahi; Tam.- Nanal.	Ailments - cure inflammation of hand and (foot) sole, burning sensation ailment of blood & biliousness, inflammation of legs (sole) hands , cut wound, strangury, phthisis, calculi vesical and haemorrhagic diathesis.
	297. <i>Cymbopogon</i>	Common & Regional NameLN.	Ailments - bronchitis,

	<i>martinii</i> (Roxb.). Wats. Syn.; <i>Andropogon Martini</i> Roxb. (POACEAE)	- <i>Rusa ghass</i> ; H. - <i>Rusaghas</i> , <i>Gandhabel</i> ; S. - <i>Rohisah</i> ; Eng.- <i>Rosha grass</i> .	cough, heat debility, fever, gout, alopecia, scorbutic, neuralgia, helminthiasis.
	298. <i>Cymbopogon nardus</i> (L.) Rendle Syn.; <i>Andropogon nardus</i> (L.) (POACEAE)	NameLN.- <i>Gajni ghass</i> ; H. - <i>Ganjni</i> ; S.- <i>Guchcha</i> ; Eng.- <i>Citronella Grass</i> .	Ailments - perfumery, cosmetics, mosquito- repellent preparations, stomachic (appetite), carminative, stimulant.
332	299. <i>Panicum miliare</i> (Lam.) (POACEAE)	NameLN.- <i>Kutiki</i> ; H.& P.- <i>Kutki</i> , <i>Sanwa</i> ; B. - <i>Gondula</i> ; Eng.- <i>Little</i> <i>millet</i> .	Ailments - Nervine stimulant, anti-diabetes.
	300. <i>Vetiveria zizanioides</i> (Linn.)Nash. <i>Andropogon</i> <i>muricatus</i> Retz. (POACEAE)	NameLN. - <i>Oorai ghass</i> ; H. - <i>Khas</i> ; S.- <i>Ushira</i> ; Eng.- <i>Vetiver</i> ; B. – <i>Khaskhas</i> .	Ailments - gout, osteoarthritis, rheumatism, leprosy, ulcer, sterility, anaemia, asthma, leprosy, menorrhagia, vomiting, pain, burn, dyspepsia, cramping hand and foot.
332	301. <i>Desmostachya</i> <i>bipinnata</i> (Stapf.) (POACEAE)	NameLN. - <i>Kusa</i> ; H. - <i>Dab</i> , <i>Duraa</i> ; S. & B. – <i>Darbha</i> , <i>Kusha</i> ; Bo. - <i>Darbh</i> .	Ailments - toothache and headache, cut, wound, toothache, weakness, dysentery, menorrhoea, discharge of urine, leucorrhoea.
	302. <i>Equisetum debile</i> Roxb. <i>E. elongatum</i> Willd. (EQUISETACEAE)	NameLN. & H. - <i>Hadjod</i> ; Eng. – <i>Horse tail</i> ; P. - <i>Trotak</i> ; <i>Nari</i> , <i>Matti</i> .	Ailments - kidney affection, haemostatic, haemopoietic, gonorrhoea, anti-diabetes in dyspepsia diseases.
	303. <i>Marsilea quadrifolia</i> L. Syn. <i>M. Minuta</i> L. “ <i>Sunsunia</i> ” (MARSILEACEAE)	NameLN. – <i>Charpatia</i> ; B. – <i>Susni</i> <i>Shak</i> ; Kan. – <i>Chitingina</i> ; Kash- <i>Paflu</i> .	Ailments - (Sleeplessness) “insomnia”, diabetes.
	304. <i>Selaginella rupestris</i> Linn. (SELAGINELLACEAE)	NameLN. – <i>Chiraiyagoda</i> , <i>Ninma</i> , <i>Sanjivanibuti</i> .	Ailments - dysentery &diarrhoea (Children, green colour latrine / Local name <i>Ninma</i> disease) of

			kids, piles, diabetes, gastic.
	305. <i>Dryopteris cochleata</i> (Buch Ham.Exd.Don) C. chr (Dryopteridaceae)(SELAGI NELLACEAE)	Name LN. & H. - Jatashankari.	Ailments - antidote, epilepsy, leprosy, cut, wound, swelling , snake , dog bite, weakness, blood purification
339	306. <i>Tectaria coadunata</i> (Wall.ex Hook.et) C.chr. (ASPIDIACEAE)	Name LN. & H. – Jatamasi.	Ailments - stomach (Colic) pain, eradication, childrens, anthelmintic, insect bites or getting relief in centipedes bites, mental, nervous disorders, hysteria, improve weakness, cough, asthma, bronch

Appendix – III

Biological Properties of Weeds

SNo	Plants Name	Biological Properties
1.	<i>Cassia tora</i> (Linn.)Sym. <i>C. Obtusifolia</i> L. (FABACEAE) : LN.-Chakauda;	Biological Properties:- Anti – leprotic, anthelmintic, analgesic, depurative, anodyne, cordiactionic, febrifuge, expectorant, laxative, stomachic, tonic& ophthalmic.
2.	<i>Cassia occidentalis</i> Linn (FABACEAE) : LN. Bada Chakauda.	Biological Properties : Plant appetizer, antipyretic, Antileprotic, aphrodisiac, diuretic, digestive, Anticough, expectorant, purgative, thermogenic, blood purifier.
3.	<i>Cassia angustifolia</i> Linn. (FABACEAE) :	Biological Properties : Plant used as a laxative, cathartic and purgative.
4.	<i>Cassia pumila</i> Lamk. (FABACEAE) : LN. Lajo.	Biological Properties:- Plant seeds purgative.
5.	<i>Cassia mimosoides</i> Linn. (FABACEAE) : LN. Patvaghas.	Biological Properties:- Plant root – Spasms of stomach, piles.
5.	<i>Caesalpinia bonducella</i> (Fleming) (FABACEAE) : LN. Gataran.	Biological Properties :- PlantAntimalarial, antipyretic, anti leprotic, anthelmintic, anti-inflammatory, anti bronchitis, digestive, pungent, thermogenic & styptic.
6.	<i>Mimosa rubicaulis</i> Lamk. (FABACEAE) : LN. Siaka.	Biological Properties:- Plant root – weakness, piles.
7.	<i>Acacia caesia</i> Willd. (FABACEAE): LN. Rail.	Ailment - mental disorder and improving memory. Biological Properties : Mental disorder.
8.	<i>Canavalia ensiformis</i> Linn DC. (FABACEAE): LN. Sema.	Biological Properties:- Plant adverse effects obtained by feeding and drenching experiments or rabbits, sheep & hernia diseases.
9.	<i>Mimosa pudica</i> Linn. (FABACEAE) :LN. Chuimui, Lajmanti.	Biological Properties :- Plant root Astringent, antispasmodic, acrid, bitter, constipating, diuretic,

		febrifuge, emetic. Leaf – bitter, Sudorific, cooling, pungent, carminative, alexipharmic, Resolvent&vulnerable.
10.	<i>Pueraria tuberosa</i> D.C. (FABACEAE): LN. Patal Kohanda.	Biological Properties :- Anti-inflammatory, Demulcent, Diuretic, Refrigerant, Tonic, Spermapoeitic, Rejuvenator, Aphrodisiac, Emetic, Emollient, Expectorant, Laxative, Febrifuge & Sweet.
11.	<i>Mucuna pruriata</i> (Hook.) Syn. ; <i>M. Pruriens</i> (L.) DC. (FABACEAE): LN. Kemach.	Biological Properties :- Root – Aphrodisiac, Anthelmintic, Bitter, Diuretic Febrifuge, Emollient, Purgative, Sweet, Stimulant, Thermogenic, Astringent, Laxative, Nervine Tonic.
12.	<i>Crotalaria prostrata</i> Rottl. (FABACEAE) :LN. Chhota Jhunjhuna.	Biological Properties :- Plant Derangement, diarrhoea.
13.	<i>Crotalaria verrucosa</i> Linn.(FABACEAE): LN. Jhunjhuna.	Biological Properties :- Leaves – Scabies, Impetigo, Efficacious in Diminishing, Salivation.
14.	<i>Crotalaria spectabilis</i> Roth. (Fabaceae) : LN Jhunjhuna.	Biological Properties :- Plant – Scabies, Impetigo, Veterinary, Seeds.
15.	<i>C. retusa</i> Linn. (FABACEAE) : LN. Ghunghunia.	Biological Properties :- Plant – Astringent, Bitter, Emetic, Expectorant. Seeds – Depurative, digestive, febrifuge, scabies and impetigo.
16.	<i>Teramnus labialis</i> Spreng. (FABACEAE) : LN. Van urda.	Biological Properties:- Astringent, Aphrodisiac, Diuretic, Demulcent, Carminative& Tonic
17.	<i>Atylosia platycarpa</i> Benth.(FABACEAE) :LN. Jangli-arhar.	Biological Properties:- Prescribe for - cure gout pain.
18.	<i>Indigofera glandulosa</i> Willd.(FABACEAE) :LN. Jhurjhura.	Biological Properties:- Seeds-Nutritious, Tonic, amenorrhoea.
19.	<i>Indigofera linifolia</i> Retz. (FABACEAE) : LN. Bhangara.	Biological Properties:- Plant – Febrile, eruptions. Rheumatic& goat etc.
20.	<i>I. cordifolia</i> Heyne.(FABACEAE): LN. Bakriavas.	Biological Properties:- famines and also medicinal uses.
21.	<i>I. trifoliata</i> Linn. (FABACEAE) :LN. Sapot, Sanphut.	Biological Properties:- Seeds ,Restorative , Alterative, Astringent, Aphrodisiac, Tonic.

22.	<i>Sesbania sesban</i> Linn. Merr.(FABACEAE): LN. Jhilmili.	Biological Properties:- Diarrhoea, Stool, Itching skin, Excessive menstrual blood flow, Diabetes and Tumour. Scorpion sting.
23.	<i>Tephrosea purpurea</i> Linn. pers. (FABACEAE): LN. Sirphoka.	Biological Properties:- Plant Alexiteric, Anthelmintic, Alterative, Bitter, Digestive, Anti – pyretic.
24.	<i>Tephrosea villosa</i> pers.(FABACEAE): LN. Anhai.	Biological Properties:- Diabetes and Dropsy.
25.	<i>Indigofera enneaphylla</i> Linn.(FABACEAE) : LN. Basua.	Biological Properties:- Plant Juice Antiscorbutic, Alterative, Diuretic.
26.	<i>Indigofera tinctoria</i> Linn.(FABACEAE):LN. Birhul.	Biological Properties :- Root, Stem & Leaf – Anthelmintic Bitter, Diuretic Laxative, Expectorant.
27.	<i>Phaseolus trilobus</i> Ait. (FABACEAE): LN. Van moong, Mungti.	Biological Properties: Anthelmintic, Demulcent, Cooling, Febrifuge, Sedative, Tonic.
28.	<i>P. aconitifolius</i> Jacq. (FABACEAE): LN. Math.	Biological Properties:- irregular (intermittent) fever and eye sight.
29.	<i>Clitoria ternatea</i> Linn. (FABACEAE): LN. - Tarvar, Talvar.	Biological Properties:- Anthelmintic, Aphrodisiac, Bitter, Alexeteric, Depurative, Laxative, Ophthalmic, Refrigerant, Diuretic, Intellect, Promoting Tonic.
30.	<i>Melilotus parviflora</i> (Desf.) (FABACEAE) : LN. Senjii.	Biological Properties :- Infantile diarrhoea, Gruel (Seeds).
31.	<i>Psoralea corylifolia</i> Linn.(FABACEAE): LN. Bavchi.	Biological Properties :- Seeds – Acrid, Bitter, Anthelmintic, Aphrodisiac, Diaphoretic, Diuretic, Laxative, Stimulating, Stomachic and also Anti Bacterial, Wound healing, Expectorant, Appetizer Tonic.
32.	<i>Rhynchosia minima</i> DC.(FABACEAE) : LN. Turela.	Biological Properties :- Abortifacient.
33.	<i>Alysicarpus vaginalis</i> DC.(FABACEAE): LN. Mothadamp.	Biological Properties :- Cough and cold.
34.	<i>A. longifolius</i> W. & A.(FABACEAE): LN. Sehura.	Biological Properties :- Liquorice.

35.	<i>Alhagi pseudalhagi (Bieb.) Desv. (Fisch.)</i> (FABACEAE) : LN. Durlabh.	Biological Properties :- Rheumatism.
36.	<i>Vicia hirsuta Koch.</i> (FABACEAE) : LN. Ankadi.	Biological Properties :- poisonous and arise gout diseases.
37.	<i>V. sativa</i> Linn. (FABACEAE); LN. Ankadi, H. Ankara.	Biological Properties :- Seed contain – Glucoside, HCN, Vicianine.
38.	<i>Abrus precatorius</i> Linn. (FABACEAE); LN. Ghumchi.	Biological Properties :- Root & Leaves Bitter – Diuretic, Aphrodisiac, Acrid alexiteric, Emetic. Fruit – acrid, bitter. Seeds – Abortifacient, Aphrodisiac, Purgative, Emetic.
39.	<i>Abrus Sp. White</i> (FABACEAE): LN. Safed Ghumchi.	Biological Properties :- Family planning sterilization (to stop child birth), leucorrhoea, paralysis and gout.
40.	<i>Abrus Sp. Black.</i> (FABACEAE): LN. Kali ghumchi.	Biological Properties :- cold fever and snake bite.
41.	<i>Uraria lagopoides D.C.</i> (FABACEAE); LN. Bhalu punch; Sher Baithka.	Biological Properties :- Weakness, Cough control, Fever and Stool, Burn, Vagina to ease Delivery.
42.	<i>Uraria picta Desv.</i> (FABACEAE) : LN. Hansia dafar.	Biological Properties:- Antibiotic, Alterative, Anti-inflammatory, Carminative, Stomachic, Tonic.
43.	<i>Zornia diphylla pers.</i> (FABACEAE) :LN. Nelamari.	Biological Properties :- Sleep induce in children.
44.	<i>Desmodium latifolium</i> (DC.)(FABACEAE): LN. Chimba.	Biological Properties :- Weakness.
45.	<i>D. triflorum (Linn.) DC.</i> (FABACEAE):LN. Chepti.	Biological Properties:- Leaves - Galactagogue, Convulsion, Diarrhoea, Dysentery.
46.	<i>D. parviflorum</i> (DC.) (FABACEAE):LN. Vanmethi.	Biological Properties :- Boils, Cut and Wounds.
47.	<i>D. gangeticum DC.</i> (FABACEAE):LN. Sariban.	Biological Properties :- Roots – Anti inflammatory, Antidote, Aphrodisiac, Bitter, Carminative, Diuretic, Expectorant, Febrifuge, Digestive, Demulcent, Haemostatic, Anthelmintic, Rejuvenator, Thermogenic, Tonic.
48.	<i>Dichroa febrifuga</i> Lour.	Biological Properties :- Emetic, Febrifuge.

	(SAXIFRAGACEAE): LN. – Basu.	
49.	<i>Boerhaavia diffusa</i> (Linn.)(NYCTAGINACEAE) : LN. Patherchata .	Biological Properties :- Anti – bacterial, Antiviral, Bitter, Ant-inflammatory, Astringent, Laxative, Diaphoretic, Cooling, Stimulant, Stomachic.
50	<i>Mirabilis Jalapa</i> (Linn.) (NYCTAGINACEAE): LN. Gulbas.	Biological Properties :- Blood purifier, Cooling, Aphrodisiac.
51.	<i>Cleome viscosa</i> (Linn.) (CAPPARIDACEAE) :LN. Hurhur.	Biological Properties :- Root-Stimulant, Diaphoretic, Antiscorbutic, Stimulant, Vermifuge & Seeds – Digestive, Anthelmintic, Inflammatory, Stomachic, Acrid, Sudorific, Thermogenic, Cardiac, Stimulant, Carminative, Constipating, Febrifuge.
52.	<i>Cleome chelidonii</i> (Linn.) f. (CAPPARIDACEAE) : LN. Abhitalvan	Biological Properties :- Root – Vermifuge, Plant – gingivitis.
53.	<i>Gynandropsis gynandra</i> Linn. (CAPPARIDACEAE) : LN. Hurhur	Biological Properties :- Root- Stimulant, Diaphoretic, Antiscorbutic, Stimulant, Vermifuge & Seeds – Digestive, Anthelmintic, Inflammatory, Stomachic, Acrid, Sudorific, Thermogenic, Cardiac, Stimulant, Carminative, Constipating, Febrifuge.
54.	<i>Capparis spinosa</i> Linn. (CAPPARIDACEAE) : LN. Baghnakhi	Biological Properties :- Root bark - Aperient, Diuretic, Expectorant, Tonic, Anthelmintic, Emmenagogue, Analgesic.
55.	<i>Coccinia indica</i> (W. & A.) (CUCURBITACEAE): LN. Van kundru	Biological Properties :- Roots – exhibit effective hypoglycaemic activities.
56.	<i>Diplocyclos palmatus</i> (L.)(CUCURBITACEAE) : LN. Pachguddu/Shivlingi	Biological Properties:- Alterant, Acrid, Inflammatory, Depurative, Thermogenic, Better, Tonic.
57.	<i>Melothria maderaspatana</i> (Linn.) Cong.(CUCURBITACEAE) : LN Ninma	Biological Properties :- Aching bodies etc.
58.	<i>Momordica dioica</i> Roxb.Ex. Will. (CUCURBITACEAE) : LN. Padora	Biological Properties :- Leaf contains Anthelmintic, Aphrodisiac, Fruit – Alexiteric, Bitter, Laxative, Stomachic, Pungent & also Expectorant, Anti-ulcer, Antidote, Appetizer.
59.	<i>Citrullus colocynthis</i> Schrad.	Biological Properties :- Hypoglycaemic activity

	(CUCURBITACEAE) : LN. Indraman.	Positive in rabbits and Cooling, Bitter, Antibilious, Diuretic, Laxative, Anthelmintic, Anti-inflammatory.
60.	<i>Trichosanthes cucumerina</i> Linn. (CUCURBITACEAE) : LN. Van chachedia.	Biological Properties :- Latex, Bitter (Fruit), Leaf Juice – Emetic. Root Juice – Cathartic. Seeds – Antifebrile, Anthelmintic.
61.	<i>Trichosanthes palmate</i> (Roxb.) (CUCURBITACEAE) : LN. Kauhari.	Biological Properties :- Fruits contains – Hydrogogue, Cathartic, Gingelly oil, Carbuncles, Bitter.
62.	<i>Polygala chinensis</i> Linn. (POLYGALACEAE): LN. Phutane.	Biological Properties :- Giddiness and also use in Fever.
63.	<i>Opuntia dillenii</i> Haw. (CACTACEAE): LN. Nagphani.	Biological Properties :- Fruit- contains, Refrigerant, Spasmodic, Cough, Expectoration. Milk juice - Purgative. Leaf - Inflammatory.
64.	<i>Abelmoschus crinitus</i> Wall. (MALVACEAE): LN. Amru	Biological Properties :- Colic, Gas pain in Cattle.
65.	<i>Abutilon indicum</i> (Linn.) G. Don. (MALVACEAE) : LN. Kakai.	Biological Properties :- Root - Antipyretic, Astringent, Diuretic. Leaves - Demulcent, Diuretic, Emollient. Seed - Aphrodisiac, Demulcent, Laxative.
66.	<i>A. graveolens</i> W. & A. (MALVACEAE) : LN. Badi Kanghi.	Biological Properties :- Root powder ½ tea spoon given orally once a day for 3-10 days to demulic and leaves also use discharge of urine.
67.	<i>Sida rhombifolia</i> Linn. (MALVACEAE) : LN. Safed Bariyari.	Biological Properties :- Tonic Astringent, Blood – Purifier, Aphrodisiac, Aphrodisiac diuretic.
68.	<i>Sida cordifolia</i> Linn. (MALVACEAE): LN. Biskhapri.	Biological Properties :- Aphrodisiac, Astringent, Emollient. Fruit – cooling, digestive, acrid, Aphrodisiac, Astringent.
69.	<i>S. spinosa</i> Linn. (MALVACEAE) : LN. Gudsakri.	Biological Properties :- Root & bark – Demulcent, Diaphoretic, Leaves – Demulcent, Refrigerant.
70.	<i>S. acuta</i> Burm. (MALVACEAE) : LN. – Bariari.	Biological Properties :- Roots – Astrin, Cooling, Tonic, Bitter, Febrifuge, Aphrodisiac.
71.	<i>Hibiscus ficulneus</i> Linn. (MALVACEAE) :	Biological Properties :- Weakness, given as Tonic.

	LN. Ram bhindi, Van Bhindi.	
72.	<i>H. micranthus</i> Linn. f.(MALVACEAE) LN. Van bhindi.	Biological Properties :- Plant – Febrifuge.
73.	<i>Urena lobata</i> Linn. (MALVACEAE) : LN Bachata.	Biological Properties :- Roots – Diuretic & seed contains – Urease.
74.	<i>U. sinuata</i> Linn. (MALVACEAE): LN.Lotloti.	Biological Properties :- Chest and Waist pain.
75.	<i>Malvastrum tricuspidatum</i> Linn. (MALVACEAE) : LN. Bariari.	Biological Properties :- Plant- considered, Emollient, Resolvent, Plant - Inflammation, Cooling, (Leave) & Pectoral, Diaphor.
76.	<i>Malva sylvestris</i> Linn. (MALVACEAE): LN. Gul khair.	Biological Properties :- Plant is considered as- Demulcent, Emollient, Mucilaginous, Cooling, Febrifuge, Inflammatory L, Leaf contain – tannin.
77.	<i>Triumfetta rhomboidea</i> Jacq. (TILIACEAE):LN. Chirpat.	Biological Properties :- Mucilaginous, Demulcent, Astrin, Root- Bitter, Diuretic.
78.	<i>Corchorus trilocularis</i> Linn. (TILIACEAE) :LN. Chench Bhaji.	Biological Properties :- Seeds – Mucilage, Demulcent.
79.	<i>C. acutangulus</i> Lamk. (TILIACEAE) : LN. Chech Bhaji.	Biological Properties :- (Child) pneumonia.
80.	<i>C. capsularis</i> Linn.(TILIACEAE): LN. Chech bhaji.	Biological Properties :- Leaves – demulcent, Stomachic, Laxative, Carminative, Stimulant, Bitter, Tonic, Corcorin, Capsularin, Corcortin isolated from seeds, Glucoside Genies, Digitalis.
81.	<i>C. facicularis</i> Lamk. (TILIACEAE): LN. Chicharia, Rajan.	Biological Properties :- Plant – Mucilaginous, Astrin, Restorative.
82.	<i>C. Olitorius</i> Linn. (TILIACEAE) : LN. Kusta.	Biological Properties :- Demulcent, Diuretic, Leaf tonic, Febrifuge, Seed – purgative.
83.	<i>Grewia hirsuta</i> (Vahl.) (TILIACEAE) : LN. Gudsakri.	Biological Properties :- dressing (washing) to wounds, cut, dysentery, stool, diarrhoea, measles and boils.
84.	<i>Tribulus terrestris</i> Linn. (ZYGOPHYLLACEAE) : LN.	Biological Properties :- Carminative, Anti – inflammatory, Expectorant, Anodyne, Aphrodisiac,

	Gukhru .	Alternative, Cooling, Appetiser, Fattening, Diuretic, Tonic.
85.	<i>Balanites aegyptiaca</i> (Linn.)(SIMARUBIACEAE) :LN. Hingot.	Biological Properties :- Bitter, Heating, Anthelmintic, Expectorant.
86.	<i>Loranthus longiflorus</i> (Desr.) (LORANTHACEAE) : LN. Banda .	Biological Properties :- Bark - Astringent, Narcotic, Expectorant, Carminative, Diuretic, Blood Purifier, Wound healing.
87.	<i>Zizyphus rotundifolia</i> (Lamk.) (RHAMNACEAE): LN. Jhadberi.	Biological Properties :- Root – bitter, Cooling, Leaf – antipyretic, Better, Fruit – aphrodisiac, Cooling, Indigestible, Laxative, Tonic, Mucilaginous.
88.	<i>Z. oenoplia</i> Mill. (RHAMNACEAE) : LN.Makohra.	Biological Properties :- Fruit – an ingredient, blood purifier, Stomachache.
89.	<i>Vitis indica</i> (W. & A.) (VITACEAE): LN. Amrolla, Amal bel.	Biological Properties :- Juice of roots – depurative, Diuretic, Aperient, Alterative & Blood purifier.
90.	<i>Vitis trifolia</i> wall. (VITACEAE) : LN. Amalbel, Amrolla	Biological Properties :- poultice applied to the bullock's yoke sores on the neck, boils astringent.
91.	<i>Cardiospermum halicacabum</i> Linn. (SAPINDACEAE) : LN. Sirmola.	Biological Properties :- Root- Diaphoretic, diuretic, Laxative, Emetic, Leaf - rubefacient. Seeds - Activities – diaphoretic.
92.	<i>Martynia annua</i> Linn. (PEDALIACEAE) : LN. Bichhi.	Biological Properties:- Fruit-alexiteric, inflammatory.
93.	<i>Euphorbia hirta</i> Linn. (EUPHORBIACEAE) : LN. Badi Dudhi.	Biological Properties :- Plant is considered as- Astringent, diuretic, expectorant, Alcoholic, Hypoglycaemic, Lactagogue Quercetin, Palmitic, Oleic, Cathin, Phytosterolin, Euphosterol, Resin, Tannins, Sugar, Mucilage, Ellagic acid.
94.	<i>E. microphylla</i> (Heyne)(EUPHORBIACEAE) : LN. Chhoti Dudhi	Biological Properties :- Galactagogue, Ring worm,Snake bite.
95.	<i>E. rothiana</i> (spreng.) (EUPHORBIACEAE): LN. Chakri.	Biological Properties :- Juice – Acrid, Irritant.
96.	<i>Pedilanthus tithymaloides</i> (Jew's) (EUPHORBIACEAE):LN. Nagdauna.	Biological Properties :- Cure Piles.
97.	<i>E. hypericifolia</i> Linn.	Biological Properties :- Leaves - Astringent,

	(EUPHORBIACEAE): H. Dudhi.	Diuretic, Dysentery, Menorrhagia & leucorrhoea.
98.	<i>E. thymifolia</i> Linn. (EUPHORBIACEAE) :LN. Chhoti Dudhi.	Biological Properties :- Plant Leaves & Seeds - Aromatic, Astrin, Laxative, Stimulant.
99.	<i>E. dracunculoides</i> Lamk (EUPHORBIACEAE) : LN. Titli.	Biological Properties :- Wart and Skin diseases.
100.	<i>P. Maderaspatensis</i> Linn. (EUPHORBIACEAE): LN. Kanocha.	Biological Properties :- Headache.
101.	<i>P. simplex</i> (Retz.) (EUPHORBIACEAE): LN. Bhuamli.	Biological Properties :- Mammary gland(breast), Abscess, Gonorrhoea.
102.	<i>P. niruri</i> (Linn.) (EUPHORBIACEAE) :LN. Bhumia amla.	Biological Properties :- Alexipharmic, Acrid, Bitter, Cooling sour, Diuretic, Anti-pyretic, Antiseptic, Astringent, Digestive, Stomachic.
03.	<i>Jatropha gossypifolia</i> Linn. (EUPHORBIACEAE) : LN. Bhakred Andi.	Biological Properties :- Plant consider - Emetic, Purgative, Stimulant, Root - astringent, Haemostatic. Digestive, Carminative, Wound healing.
104.	<i>Chrozophora rotleri</i> (A. Juss ex Spreng.)(EUPHORBIACEAE) : LN. Bhothri.	Biological Properties :- Vomiting , Poisonous.
105.	<i>C. prostrata</i> (Dalz). (EUPHORBIACEAE) :LN. Shadevi.	Biological Properties :- Depurative,Purgative.
106.	<i>Acalypha indica</i> (Linn.) (EUPHORBIACEAE): LN. Khokli.	Biological Properties :- Plant – Anthelmintic, Diuretic, Emetic, Carminative, Laxative, Expectorant plant contains – Kempferol, Acalyphamide, Sterols, Cyanogenic, Glyceride.
107.	<i>Helicteres isora</i> (Linn.) (Sterculiaceae) : LN. Aainthi, Murra.	Biological Properties:- Plant fruit is considered as- colic pain, Astringent, Demulcent, Expectorant.
108.	<i>Calotropis gigantea</i> (Linn.) (ASCLEPIADACEAE) : LN. Madar.	Biological Properties :- Plant - Alexipharmic, Anthelmintic, Purgative, Root bark- diaphoretic. Flower- analgesic, Anthelmintic bitter, Astringent, sweet. Milk- bitter, Purgative, laxative, Depurative.
109.	<i>C. procera</i> (Ait.) R. Br. (ASCLEPIADACEAE) : LN.Madar.	Biological Properties :- Plant considered- Anthelmintic, Analgesic, Anti-inflammatory, Depurative, Emetic, Expectorant laxative, Resolvent

		stomachic digestive.
110.	<i>Oxystelma esculentum</i> R.Br.(ASCLE PIADACEAE) : LN. Hiran Khuri.	Biological Properties :- Jaundice, Lactation.
111.	<i>Hemidesmus indicus</i> R.Br.(ASCLE PIADACEAE) : LN. Dudhi, Pasaran.	Biological Properties :- Alexiteric, Antidiarrhoeal, Antipyretic, Aphrodisiac antibacterial, Antifungal, Antiviral astringent bitter, Anti inflammatory cooling, Diuretic, Blood purifier demulcent, Alterative, Diaphoretic, Tonic sweet.
112.	112. <i>Tylophora indica</i> (Burm. f.) (ASCLE PIADACEAE) : LN. Dambel.	Biological Properties :- Anti-inflammatory, Blood purifier, Carminative, Diaphoretic, Expectorant.
113.	<i>Gymnema sylvestre</i> (R. Br.) (ASCLE PIADACEAE) : LN. Fenia.	Biological Properties :- Astringent, Cardiotonic, Alterative, Acrid, Cooling, Bitter, Anthelmintic, Diuretic, Liver tonic, Uterine tonic.
114.	<i>Cryptolepis buchanani</i> (Roem. & Schult.) (ASCLE PIADACEAE)LN. Krishna Sariva.	Biological Properties :- Leaves- toxic, Plant contains – laxative and syphilis, anaemia, cattle, nephritis.
115.	<i>Pergularia daemia</i> (Forck) (ASCLE PIADACEAE): LN.Doodhibel.	Biological Properties :- Plant - Acrid, Antipyretic, Astringent, Anthelmintic, Root bark- purgative, Emetic, Expectorant, Laxative Thermogenic.
116.	<i>Rubia cordifolia</i> L.(RUBIACEAE) : LN. Majitha.	Biological Properties :- Root-Acrid, Analgesic, Alexiteric, Anthelmintic antipyretic, Bitter, Sweet anti-dysentery. Leaves also biliosness.
117.	<i>Spermacoce hispida</i> Linn. (RUBIACEAE): LN.Gathni.	Properties :- Root- Alterative. Seeds – Stimulant.
118.	<i>Oldenlandia corymbosa</i> (Linn.) (RUBIACEAE): LN. Daman papara.	Biological Properties :- Antipyretic, Anti-inflammatory, Cooling, Diuretic, Expectorant, Styptic and also the plant use for lever disorder, Measles, Malaria fever, Jaundice, Worms, Bronchitis etc.
119.	<i>O. umbellata</i> (Linn.)(RUBIACEAE): LN. Chirvel.	Biological Properties :- Root& Leaves - Expectorent, Bronchial, Catarrhal.
120.	<i>Lantana camara</i> (Linn.) (VERBENACEAE) : LN. Barmasia	Properties :- Anti-spasmodic, Carminative, Antiseptic, Diaphoretic, Laxative.

121	<i>Lippia nodiflora</i> (Mich.) (VERBENACEAE) : LN. Jalpipri.	Biological Properties:- Astringent, Diuretic, Demulcent, Febrifuge, Refrigerant, Stomachic, Ophthalmic.
122	<i>Clerodendrum inerme</i> (Linn.) Gaerten (VERBENACEAE) : LN. Arni .	Biological Properties :- Plant- Mucilaginous, Bitter, Blood purifier, Fragrant, Nutritive.
123	<i>Clerodendrum Phlomidis</i> (Linn.) f.(VERBENACEAE): LN. Chhoti arni.	Biological Properties :- Plant root– Alexi pharmonic, Alternative, Astringent, Bitter, Demulcent, Anti-inflammatory, Glycosuria, Coryza, Heating laxative, pungent, Stomachic.
124	<i>Clerodendrum serratum</i> (Linn.) Moon ,(VERBENACEAE):LN. Agia.	cal Properties :- Antibiotic, Astringent, Blood purifier, Febrile, Carminative, Acrid, Anthelmintic, Antispasmodic, Anti-inflammatory, Bitter, Depurative, Digestive, Febrifuge, Stimulant, Stomachic, Sudorific, Expectorant.
125	<i>Vitex negundo</i> (Linn.) (VERBENACEAE): LN. Nirgudi.	Biological Properties :- Acrid, Aromatic, Analgesic, Astringent, Anti-inflammatory, Anthelmintic, Antipyretic, Bitter, Carminative, Cephalic, Heating, Diuretic, Expectorant, Stomachic, Rejuvenator, Emmenagogue. Pungent, Vermifuge. Thermogenic.
126	<i>Cissampelos Pareira</i> L. (MENISPERMACEAE): LN. Patha.	Biological Properties :- Plant – Astringent, Antileprotic, Antipyretic, Blood purifier, Tonic , Anthelmintic, Expectorant, Diuretic, Galactagogue, Wound healing, Bitter, Purgative.
127	<i>Cocculus villosus</i> (DC.)hirsutum L.(MENISPERMACEAE): LN. Jamiti bel.	Biological Properties :- Root – Antipyretic, Acrid, Alexiteric, Alterant, Anodyne, Bitter, Aphrodisiac, Carminative, Digestive, Depurative, Diuretic, Demulcent, Emollient, Expectorant, Laxative, Tonic. Leaf – Expectorant, Demulcent, Anodyne, Cooling, Mucilaginous.
128	<i>Tinospora cordifolia</i> (Willd) Miers(MENISPERMACEAE): LN. Guri.	Biological Properties :- Antidote, Anodyne, Anthelmintic, Astringent, Antipyretic, Blood purifier, Diuretic, Rejuvenator, Tonic, Antispasmodic, Bitter, Stimulant, Stomachic.

129	<i>Aristolochiaceae bracteata (Retz.)</i> (MENISPERMACEAE): LN. Kirmar.	Biological Properties :- Root & leaf – Anthelmintic, Anti-inflammatory, Acrid, Bitter, Apptizer, Antiperoidic, Vulnerary, Emmenagogue, Purgative.
130	<i>Aristolochia indica (Linn.)</i> (ARISTOLOCHIACEAE) : LN. Batilha.	Biological Properties :- Analgesic and Antidote, Antipyretic, Anthelmintic, Anti-inflammatory, Cardiotonic, Ebolic, Stomachic, Sudorific, Stimulant.
131	<i>Argemone mexicana</i> (Papavraceae)(PAPAVERACEAE) :LN. Katilli.	Bio.Properties :- Root – Anthelmintic, Antileprotic, Anti-inflammatory, Laxative, demulcent, Rejuvenator, Skin disease, Seed – Diarrhoea, Dysentery.
132	<i>Fumaria parviflora (Lam)</i> (FUMARIACEAE) : LN Papra.	Biological Properties :- Aperient, Bitter, Astiringent, Diaphoretic, Blood purifier, Anthelmintic, Diuretic Tonic.
133	<i>Trianthema portulacastrum (Linn)</i> (FICOIDAE) : LN. Kaparkutti.	Biological Properties :- Root- abortifacient, Cathartic, Bitter, Leave- diuretic.
134	<i>T. pentenda (Linn.)</i> (FICOIDAE):LN. Bishkhapdi.	Biological Properties :- Astringent, Abortifacient.
135	<i>Saponaria vaccaria (Linn.)</i> (CARYOPHYLLACEAE): LN. Bada Tilja.	Biological Properties :- Febrifuge Tonic.
136	<i>Stellaria media, (Linn.)</i> (CARYOPHYLLACEAE) : LN.Taraia.	Biological Properties :- Cooling, Binding, Sapin, Resolvent, Astringent.
137	<i>Polycarpea corymbosa. (Lam.)</i> (CARYOPHYLLACEAE) : LN. Bhista.	Biological Properties :- Cooling & Inflammatory.
138	<i>Portulaca oleraceae (Linn.)</i> (PORTOLACEAC) : LN. Lonia bhaji.	Biological Properties :- Plant- Anti-inflammatory, Appetizer, Alterative, Antiscorbutic, Anthelmintic & Diuretic, Blood purifier, Expectorant, Alexiteric, Sour, Stomachic, Refrigerant, Seed – Vermifuge.
139	<i>P. quadrifida (Linn.)</i> (PORTOLACEAC): LN. Lonia .	Biological Properties :- Alterative, Carminative, Diuretic, Lithotriptic, Laxative, Vermifuge, Bitter, Sour, Stomachic.

140	<i>Polygonum plebejum</i> (R. Br) (POLYGONACEAE): LN. Rani phul .	Biological Properties :- pneumonia in children and root also used for bowels.
141	141. <i>Polygonum glabrum</i> (Willd) (POLYGONACEAE) : LN. Bihagna.	Biological Properties :- Febrifuge.
142	<i>Rumex dentatus</i> (Linn.) (POLYGONACEAE) :LN. Van palak.	Biological Properties :- Root – used as astringent.
143	<i>Chenopodium album</i> (Linn.) (CHENOPODIACEAE):LN. BhatuaBhaji.	Biological Properties :- Aphrodisiac, Acid, Anthelmintic, Carminative, Digestive, Diuretic, Laxative, Sweet, Tonic.
144	<i>C. murale</i> (Linn.) (CHENOPODIACEAE) : LN. Bada Bhathua.	Biological Properties :- Expel intestinal worms.
145	<i>Celosia argentea</i> (Linn.) (AMARANTHACEAE) :LN. Silvari Sag.	Biological Properties :- Seeds – Aphrodisiac.
146	<i>Gomphrena celosiodes</i> Mart. (AMARANTHACEAE): LN. Lal Silvar	Biological Properties :- Weakness.
147	<i>Digera muricata</i> (Linn.) (AMARANTHACEAE) : LN. Latmahuria.	Biological Properties :- Plant – Laxative, Diuretic.
148	<i>Amaranthus viridis</i> (Linn)(AMARANTHACEAE) :LN. Chamrai Bhaji.	Biological Properties :- Leaves - Emollient.
149	<i>A. spinosus</i> (Linn.) (AMARANTHACEAE) :LN. Kanta chamrai.	Biological Properties :- Antipyretic, Appetiser, Alexiteric, Cooling, Diuretic, Digestive, Laxative, Stomachic.
150	<i>Aerva lanata</i> (Juss.) (AMARANTHACEAE) : LN. Astam.	Biological Properties :- Astringent, Diuretic, Bitter, Cooling, Emollient, Suppurative, Vermifuge.
151	<i>Achyranthes aspera</i> (Linn.) (AMARANTHACEAE) : LN. Chirchita	Biological Properties :- Expectorant, digestive, stomachic, Astringent, Anthelmintic, Bitter, Cooling, Diuretic, Carminative, Anodyne, Emetic, Depurative, Sudorific, Demulcent, Acid, Anti-inflammatory.
152	<i>Alternanthera sessilis</i> (Linn.)	Biological Properties :- Galactagogue, Cholagogue,

	(AMARANTHACEAE) : LN. Gathi gas.	Febrifuge, Dried plant in Sterols.
153	153. <i>Ammannia baccifera</i> (Linn) (LYTHRACEAE) : LN. Dhan Bhaji.	Biological Properties :- Acrid, Appetizer, Aphrodisiac, Bitter, Cooling, Diuretic, Laxative, Rubifacient, Stomachic.
154	<i>Enicostemma littorale</i> (Blume) (GENTIANACEAE) : LN. Nau.	Biological Properties :- Acrid, Anthelmintic, Antiperiodic, Anti-inflammatory, Bitter, Carminative, Digestive, Depurative, Stomachic, Thermogenic.
155	<i>Exacum tetragonum</i> (Roxb.) (GENTIANACEAE) : LN. Choti chirata.	Biological Properties :- Bitter, Tonic, purification of blood, worms.
156	<i>Swertia chirata</i> (Buch-Ham.) (GENTIANACEAE) : LN. Chirayanth.	Biological Properties :- Appetizer, Anthelmintic, Anticancer, Antibacterial, Stomachic, Febrifuge, Laxative, Diuretic, Increases, Thrust.
157	<i>Canscora decussate</i> (Rox b.) (GENTIANACEAE) : LN. Shankhphul.	Properties :- Plant – Alterative, Laxative, Nerve tonic.
158	<i>Anagallis arvensis</i> (Linn.) (PRIMULACEAE) : LN. Krishna neel.	Biological Properties :- Dropsy, Hydrophobic, Antitoxicity, Enzyme.
159	<i>Centella asiatica</i> (Linn.) (APIACEAE) : LN. Brahmi.	Biological Properties :- Acrid, Antiamaeobic, Antileprotic, Bitter, Brain tonic, Blood purifier, Diuretic, Insecticidal, Rejuvenator, Wound healing, Stimulant, Nervine tonic, Stomachic, Cooling, Sweet, Febrifuge, Carminative, Cardio tonic.
160	<i>Solanum indicum</i> (Linn.) (SOLANACEAE) : LN. Badi Bhatkataia.	Biological Properties :- Plant Root & fruits is considered as- Astringent, Bitter, Anthelmintic, Digestive, Pungent.
161	161. <i>S. nigrum</i> (Linn.) (SOLANACEAE) : LN. Mukoia.	Biological Properties :- Plant fruit – Aphrodisiac, Appetiser, Alterative, Bitter, Diuretic, Laxative, Pungent, Analgesic, Expectorant, Anthelmintic, Emollient, Anti inflammatory, Rejuvenator, Spermapoeitic, Hydrogogue and Demulcent.
162	162. <i>S.xanthocarpum</i> (Schrade & Wendl) (SOLANACEAE):LN. Bhatkataia.	Biological Properties :- The plant root & fruits is considered as- Appetiser, Anthelmintic, Bitter, Laxative, Pungent, Stomachic, Carminative, Diuretic, Astringent, Expectorant, Antipyretic, An aphrodisiac, Digestive.

163	<i>Physalis minima</i> (Linn.) (SOLANACEAE) : LN. Phutkainya.	Biological Properties :- Plant is considered as- Appetizer, Bitter, Cooling, Diuretic, Expectorant. Fruits- Tonic, Diuretic, Laxative, Gastric, Stimulant.
164	<i>P. peruviana</i> (Linn.) (SOLANACEAE) : LN. Chirpoti sag.	Biological Properties :- worms and bowel complaints (the lower part of the stomach problem).
165	<i>Datura alba</i> (Nees)(SOLANACEAE) : LN. Dhatoor.	Biological Properties :- Plant is considered as- Acrid, Anthelmintic, Bitter, Alexiteric, Emetic, Heating, Febrifuge, Sharp taste tonic, Sedative, Antiseptic, Narcotic, Antipyretic, Anthelmintic and Anti leprotic.
166	<i>D. stramonium</i> (Linn.) (SOLANACEAE) : LN. Kala dhatur.	Biological Properties :- Plant is considered as- Antipyretic, Analgesic, Antiseptic, Anti cough, Anti inflammatory, Emetic, Intoxicant, Spasmolytic, Narcotic. Root – Anodyne, Narcotic, Antispasmodic. Seed – Aphrodisiac, Antispasmodic, Narcotic.
167	<i>Nicotiana plumbaginifolia</i> (Viv.) (SOLANACEAE) : LN. Bhabhakur.	Biological Properties :- Cough, Cold, Rheumatic Pain, and Skin diseases, Scorpion sting.
168	<i>Ipomoea aquatica</i> (Forsk.) (CONVOLVULACEAE):LN. - Kalmi sag.	Biological Properties :- Plant antidote, Purgative, Emetic to Opium and Arsenical Poisoning.
169	<i>I. pes - tigridis</i> (Linn.) (CONVOLVULACEAE) : LN. Bolukaja.	Biological Properties :- Root is considered as- Antidote and Purgative.
170	<i>I. hederacea</i> (Linn.) Jacq. (CONVOLVULACEAE): LN. Khutlaiya.	Biological Properties :- Anti-inflammatory, Acrid, Carminative, Depurative, Purgative, Sweet. Substitute, Extract, Hypoglycaemic in rats.
171	171. <i>I. biloba</i> (Forsk) (CONVOLVULACEAE) : LN. Besharam.	Biological Properties :- Boils, Scabies, Itches and Bio pesticides.
172	<i>Argyreia speciosa</i> (sweet.) (CONVOLVULACEAE) : LN. Bidhara.	Biological Properties :- Plant is considered as- Root – Alterative, Bitter, Diuretic, Leaf – emollient, Plant – Aphrodisiac, Anti-inflammatory, Nervine tonic, Rejuvenator, Hypotensive, Spasmolytic,

		Emollient, Rubifacient, Digestive, Aperient, Carminative, Emollient.
173	<i>Ipomoea reniformis.</i> (Chois.) (CONVOLVULACEAE):LN. Khotlaiya.	Biological Properties :- Plant is considered as- Alterative, Diuretic, Deobstruent.
174	<i>Operculina turpethum</i> (Linn.) (CONVOLVULACEAE) : LN. Nisoth.	Biological Properties :- Plant consider roots - Acrid, Astringent, Antipyretic, Anthelmintic, Bitter, Expectorant, Inflammatory, Purgative, Carminative, Sweet, Thermogenic.
175	<i>Convolvulus arvensis</i> (Linn.) (CONVOLVULACEAE): LN. Chandbel.	Biological Properties :- Root-Purgative.
176	<i>Evolvulus alsinoides</i> (Linn.) (CONVOLVULACEAE) : LN. Shankhphuli.	Biological Properties :- Root -Purgative, Alterative, Anthelmintic, Alexiteric, Bitter, Pungent, Brain tonic, Appetizing, Rejuvenator, Stomachic.
177	<i>Cuscuta reflexa</i> (Roxb.) (CONVOLVULACEAE) : LN. Amarbel.	Biological Properties:- Anthelmintic, Astringent, Aphrodisiac, Bitter, Diuretic, Expectorant, Sweet, Carminative, Purgative, Liver stimulant, Stomachic.
178	<i>Ageratum conyzoides</i> (Linn.) (COMPOSITAE): LN. Chheria chara.	Biological Properties :- Plant leaves – Styptic, Root – Antilithic.
179	<i>Centratherum anthelminiticum</i> (Willd.) (COMPOSITAE) : LN. Vanjeer.	Biological Properties :- Plant seeds-Acrid, Anthelmintic, Astringent, Bitter, Sharp taste.
180	<i>Elephantopus scaber</i> (Linn.) (COMPOSITAE): LN. Gojibha.	Biological Properties :- Alterative, Febrifuge, Emollient, Skin disease.
181	181. <i>Gnaphalium luteo-album</i> (Linn.) (COMPOSITAE) : LN. Balraksha.	Biological Properties :- allaying pain, constipative, healing wounds, healing wounds itches , anodyne properties.
182	<i>Pluchea lanceolata</i> (Oliver. & Hiren.)(COMPOSITAE) : LN. Chhoti klia, Venseroi.	Biological Properties :- Leaves – Aperient.
183	<i>Sphaeranthus indicus</i> (Linn.) (COMPOSITAE): LN. Bhuimundi.	Biological Properties :- Plant is considered as- Alterative, Aphrodisiac, Deobstruent. Root and seeds – Anthelmintic. Flowers – Cooling, Alterative

		and Tonic.
184	<i>Blumea. Lacera (Burm. f.)</i> (COMPOSITAE) : LN. Gandhela.	Biological Properties :- Plant consider -Acrid, Bitter, Astringent, Anthelmintic, Anti-inflammatory, Diuretic, Digestive, Expectorant, Febrifuge, Styptic, Thermogenic.
185	<i>Eclipta alba (hassk.)</i> (COMPOSITAE) : LN. Ghamira.	Biological Properties :- Plant consider - Antiseptic, Analgesic, Antiviral, Alternative, Anthelmintic, Bitter, Blood purifier, Hepatoprotective, Digestive, Carminative, Hoematinic, Anti-inflammatory, Spasmogenic, Stomachic, Emetic, Depurative, Diuretic, Febrifuge, Thermogenic, Aphrodisiac.
186	<i>Glossocardia linearifolia;</i> (Cass.) (COMPOSITAE): LN. Seri.	Biological Properties :- Plant consider - Emmenagogue.
187	<i>Bidens pilosa (Linn.)</i> (COMPOSITAE): LN. Phuttima.	Biological Properties :- Vulnerary, Swollen.
188	<i>Spilenthesis acmella</i> (Murr.)(COMPOSITAE) :LN. Akalkarha.	Biological Properties :- Flower -Tincture, Pain, Salivation, Anaesthetic action.
189	<i>Acmella oleracea C.B. Clark.</i> (COMPOSITAE) : LN. Rashania.	Biological Properties :- Flower- Stimulant, Sialogogue, Paralysis, Stammer.
190	<i>Echinops echinatus (Roxb.)</i> (COMPOSITAE) : LN. Safed Kater.	Biological Properties :- Aphrodisiac, Abortifacient, Bitter, Cooling, Pungent, Alterative, Diuretic, Maggots, Nerve tonic, Wounds.
191	191. <i>Glossogyne pinnatifida (DC.)</i> (COMPOSITAE):LN. Bhangra.	Biological Properties :- Plant curer of poison.
192	<i>Amberboa divaricata Kuntze. syn.</i> (COMPOSITAE) : LN. Brahmadani.	Biological Properties :- Plant-Aperient, Deobstruent, Febrifuge, Slightly -Mucilaginous.
193	<i>Sonchus oleraceus (Linn.)</i> (COMPOSITAE) :LN. Kanphul.	Biological Properties :- Root & leaves – Febrifuge, Tonic, Gum, Cathartic.
194	<i>S. arvensis (Linn.)</i> (COMPOSITAE) : LN. Badi Kanphul.	Biological Properties :- Root-Bitter.
195	<i>Cichorium intybus (L.)</i> (COMPOSITAE) :LN. Kashi, Van gobhi.	Biological Properties :- Plant is considered as- Diarrhoea, Tonic, Emmenagogue and Alexiteric. Root – Diuretic, Stomachic.
196	<i>Lagascea mollis (Cav.)</i> (COMPOSITAE):	Biological Properties :- scabies and itches.

	LN. Kala jeera, kadu jeera	
197	<i>Launaea aspleniifolia</i> (Hook. f.) (COMPOSITAE) : LN. Kanphul.	Biological Properties :- Lactagogue.
198	<i>Centipeda minima</i> Linn. (COMPOSITAE) : LN. Chhikni.	Biological Properties :- Leaves & seeds Indicate, Sneezing, Cold, Ophthalmia, Vermifuge.
199	<i>Tridax procumbens</i> (Linn.) (COMPOSITAE) : LN. Baramasi Ghamira.	Biological Properties :- wound healer, Antiseptic, Anti-diabetic.
200	<i>Vernonia cinerea</i> (L.) (COMPOSITAE) :LN. Kala jeera.	Biological Properties :- Plant is considered as- Astringent, Cold, Sweet, Stomachic, Tonic, Diaphoretic, Anthelmintic, Anti-inflammatory.
201	<i>Xanthium strumarium</i> (Linn.) (COMPOSITAE) : LN. Litingi, Khuthua.	Biological Properties :- Plant is considered as- Acrid, Alterative, Anthelmintic, Antipyretic, Alexiteric, Appetiser, Cooling, Digestive, Fattening, Laxative, Plant tonic, Malaria, Demulcent. Root – Anti cancerous, Fruit - Anti small pox and viral.
202	<i>Nardostachys jatamansi</i> DC. (VALERIANACEAE) : LN. Balchad.	Biological Properties :- Plant is considered as- Anti-bacterial, Hypotensive, Antipyretic, Heart tonic, Anti-histaminic, Anti spasmodic, Stomachic, Stimulant, Antipyretic, Laxative, Carminative, diuretic.
203	<i>Orobancha aegyptica</i> (Pers.) (OROBANCHACEAE) :LN. Chhoti Babhakul.	Biological Properties :- treat boils in cattle.
204	<i>Bacopa monnieri</i> (Linn.) (SCROPHULARIACEAE):LN. Jal brahmi.	Biological Properties :- Plant consider - Anti-inflammatory, blood purifier, laxative, plant tonic, diuretic.
205	<i>Celsia coromandeliana</i> (Vahl) (SCROPHULARIACEAE) : LN. Ketki.	Biological Properties :- Leaves - Sedative, Astringent, Diarrhoea, Dysentery & Fevers.
206	<i>Lindenbergia urticaefolia</i> (Lehm.) (SCROPHULARIACEAE) :LN.Dhol.	Biological Properties :- Leaves – Chronic bronchitis, Cough, Skin eruptions.
207	<i>Verbascum thapsus</i> (Linn.) (SCROPHULARIACEAE) : LN. Van tamakhu.	Biological Properties :- Leaf consider Astringent, Inflammatory, Demulcent, Consumption, Bleeding of the Lungs and Bowels. Pulmonary diseases. Seed- Aphrodisiac narcotic, Root - febrifuge.

208	<i>S. orobanchioides</i> (Bent.) (SOLANACEAE) : LN. Agiya.	Biological Properties :- diabetes,
209	<i>Striga lutea</i> (Lour.) (SCROPHULARIACEAE) : LN. Agiya.	Biological Properties :- Plant yield-Bitter, Improves appetite, Strangury (Urine passes with difficulty or in drops) & blood disease.
210	<i>Stemodia viscosa</i> , (Roxb.) (SCROPHULARIACEAE) : LN. Kethria.	Biological Properties :- Demulcent.
211	<i>Scoparia dulcis</i> (Linn.) (SCROPHULARIACEAE): LN. Phulia.	Biological Properties :- Plant is considered as- Piles, Gonorrhoea, Leucorrhoea, Toothache, Emetic, Guiana, Ague.
212	<i>Leonotis nepetaefolia</i> , (R. Br.) (LAMIACEAE) : LN. Bada Guma.	Biological Properties :- Root is considered as- In lactation, Flower head – to burns and scalds, Skin diseases. Leaves - tonic, bitter.
213	<i>Anisomeles malabarica</i> (R. Br.) (LAMIACEAE): LN. Mahabar.	Biological Properties :- Leaves – Colic, Dyspepsia, Cathartic, Intermittent fever, Anti poisonous.
214	<i>Leucas cephalotes</i> (Spreng.) (LAMIACEAE) : LN. Dhurpi Bhaji.	Biological Properties :- Plant consider - Antiseptic, Anthelmintic, Appetiser, Antispasmodic, Carminative, Cathartic, Diaphoretic, Expectorant, Healing, Laxative, Indigestible, Stimulant.
215	<i>L. utricaefolia</i> (R. Br.) (LAMIACEAE) : LN. Gumi, Khumbha.	Biological Properties :- Plant -Antipyretic.
216	216. <i>L. aspera</i> (spreng.) (LAMIACEAE) : LN. Goomi Bhaji.	Biological Properties :- Plant is considered as- Antipyretic, Insecticide, Cold.
217	<i>Napeta hindostana</i> (Roth.)Haines. (LAMIACEAE): LN. Badranga.	Biological Properties :- cardiac tonic, cough and plant decoction use as gargle in sore throat.
218	218. <i>Hyptis suavelens</i> (Poit.) (LAMIACEAE) : LN. Vantulsi.	Biological Properties :- Plant consider, Carminative, Sudorific, Catarrhal condition.
219	<i>Ocimum. basilicum</i> (Linn.) (LAMIACEAE) : LN. Damna, Marua.	Biological Properties :- Plant is considered as- Anodyne, Anthelmintic, Acrid, Antibacterial, Antiemetic, Anti-inflammatory, Antidiarrhoeal, Antipyretic, Antispasmodic, Appetiser, Aromatic, Carminative digestive, Depurative digestive, Diuretic, Expectorant, Insecticidal, Pectoral,

		Stimulating, Stomachic, Thermogenic, Diaphoretic.
220	<i>Salvia plebeian (R. Br.) (LAMIACEAE) :</i> LN Kamarkaso.	Biological Properties :- Haemorrhoids, Gonorrhoea, and Menorrhoea, Leucorrhoea postnatal diseases, Menorrhagia, Haemohoids of Ladies problem , Diarrhoea.
221	<i>Ocimum americanum (Linn.) (LAMIACEAE) :</i> LN . Mamri.	Biological Properties :- Plant is considered as- Demulcent, Expectorant, Stomachic and stimulant, Camphor.
222	<i>Colebrookea oppositifolia Sm. (LAMIACEAE) :</i> LN . Benda.	Biological Properties :- Epilepsy, wounds healing.
223	<i>Biophytum sensitivum (D.C.)(OXALIDACEAE):</i> LN. Lakshana.	Biological Properties :- Plant is considered as- Antiseptic, Astringent, Anthelmintic, Bitter, Cooling, Diuretic, Styptic, Tonic, Stimulant.
224	<i>Oxalis corniculata (Linn.) (OXALIDACEAE) :</i> LN. Amti bhaji,	Biological Properties :- Plant is considered as- Antibacterial, Anodyne, Antiseptic, Anti-inflammatory, Astringent, Constipating, Diuretic, Febrifuge, Sour, Vermifuge, Thermogenic, Cooling, Analgesic, Appetizer, Stomachic, Digestive.
225	<i>Oxalis acetosella (Linn.) (OXALIDACEAE):</i> LN. Khattibuti, Khattsag.	Biological Properties :- Plant – Antiscorbutic, Cooling.
256	<i>Heliotropium strigosum (willd) (BORAGINACEAE) :</i> LN. Chitphul.	Biological Properties :- Plant – Laxative, Diurative, Sores, Suppuration.
227	<i>Heliotropium indicum (Linn.) (BORAGINACEAE) :</i> LN. Hathisund.	Biological Properties :- Plant leaves-Antifungal, Antibacterial, Antiviral, Anticancer & Antiprotozoal, Ulcer, Boils, Diuretic, Anti-poisons.
228	<i>Heliotropium ovalifolium (Forsk.) (BORAGINACEAE) :</i> LN. Chitiphul.	Biological Properties :- for washing the wounds, cut and is injury.
229	<i>Trichodesma indicum (R. Br.) (BORAGINACEAE) :</i> LN. Chhotakulfa.	Biological Properties :- Plant- Diuretic, Emollient, Depurative, Swelling etc
230	<i>T. Zeylanicum (R. Br.)(BORAGINACEAE) :</i> LN. Hatmura	Biological Properties :- improve properly discharge of urine, throat softens.
231	<i>Plumbago zeylanica (Linn.) (PLUMBAGINACEAE):</i> LN. Chitabar.	Biological Properties :- Root bark – Anthelmintic, Antiseptic, Alternative, Astringent, Antileprotic,

		Bitter, Carminative, Hot, Dry, Stomachic, Anti bacterial, Anti-fungal, Diaphoretic, Wound healing.
232	<i>Barleria prionitis</i> (Linn.) (ACANTHACEAE) : LN. Karhanti.	Biological Properties:- Plant consider - Antiseptic, antidote, anti-inflammatory, wound healing, diuretic, diaphoretic, expectorant.
233	<i>Barleria cristata</i> (Linn.) (ACANTHACEAE) : LN. Janti.	Biological Properties:- Plant consider - Alc. Ext. Of the entire plant exhibits hypoglycaemic activity in albino rats.
234	<i>Blepharis maderaspatensis</i> (Linn.) (ACANTHACEAE) : LN. Koreta.	Biological Properties:- Seeds diuretic .
235	<i>Andrographis paniculata</i> (Burm.f.) (ACANTHACEAE) : LN. Bhui neem.	Biological Properties:- Plant Leprotic, Antiperiodic, Hepatic, Digestive, Nutritive, Stomachic, Stimulant.
236	<i>Dipteracanthus prostratus</i> (Nees) (ACANTHACEAE) : LN. Koreta.	Biological Properties:- gonorrhoea and leucorrhoea, ointment to boils.
237	<i>Hygrophila spinosa</i> T. anders. (ACANTHACEAE) : LN. Talmakhana.	Biological Properties :- Seed – Acrid, Aphrodisiac, Bitter, Constipating, Cooling, Tonic, Diuretic, Sweet, Spermapoeitic, Galactagogue.
238	<i>Ecobolium linneanum</i> Kurz. (ACANTHACEAE) : LN. Udjati.	Biological Properties :- Plant- Gout, Rheumatism, Dysuria, Menorrhoea, Stricture.
239	<i>Lepidagathis hamiltoniana</i> (Wall.) (ACANTHACEAE) : LN. Kumbha.	Biological Properties :- Plant – Bitter, Fever, Itchy affections of Skin and Sores.
240	<i>Peristrophe bicalyculata</i> (Nees.)(ACANTHACEAE) : LN. Chitchitia.	Biological Properties :- Antidot, Ear deafness, Anti-rabies (Hydrophobia) & Rheumatism.
241	<i>Rungia repens</i> (Nees.)(ACANTHACEAE) : LN. Parpat chara.	Biological Properties :- Plant is considered as- Cough, Fever, Vermifuge, Tinea capitis.
242	<i>R. parviflora</i> (Nees.) (ACANTHACEAE): LN. Pendi chara.	Biological Properties :- Leaf juice – Cooling, Aperient, Viral (Small pox), Root-pain and Diminish and Swelling.
243	<i>R. pectinata</i> (Linn.) (ACANTHACEAE) :LN. Ukchi jhar, Pindi.	Biological Properties :- Plant – cut and Wound.
244	<i>Adhatoda vasica</i> (Neen)	Biological Properties :- Plant is considered as-

	(ACANTHACEAE) : LN. Adusa.	Acrid, Anthelmintic, Anti-leprotic, Anti-inflammatory, Anti-periodic, Antiseptic, Anti-spasmodic, Bitter, Bronchodilator, Cooling, Diuretic, Expectorant, Pungent, Stimulant.
245	<i>Ranunculus sceleratus</i> .(Linn.)(RANUNCULACEAE) : LN. Jal Dhania.	Biological Properties :- Plant-Emmenagogue, Galactose, Poisonous, Skin Diseases.
246	<i>Nymphaea alba</i> (Linn.) (NYMPHAEACEAE) : LN. Kuir Phul.	Biological Properties :- Plant root stock – Astringent, Slightly, Narcotic, Dysentery. Flower – anti-aphrodisiac, Diarrhoea, Diaphoretic.
247	<i>N. pubescens</i> Willd. (NYMPHAEACEAE) : LN. Lal Kunri.	Biological Properties :- Root is considered for Worm infestation, Sore, Constipation, Maggots.
248	<i>Carissa opaca</i> (Stapf.) (APOCYNACEAE) :LN. Vankaraunda.	Biological Properties :- Root is considered for Worm infestation, Sore, Constipation, Maggots.
249	<i>Impatiens balsamina</i> (Linn.) (BALSAMINACEAE): LN. Turua phul.	Biological Properties :- Plant – Pain (Joints), Internally acts as emetic, Cathartic, Diuretic and Flower – Cooling tonic.
250	<i>Celastrus paniculatus</i> (Willd.) (CELASTRACEAE) : LN. Khurkhundan.	Biological Properties :- Stem bark is considered as – Abortifacient, Depurative. Leaves – Antidote. Seed – Acrid, Aphrodisiac, Appetiser, Diuretic, Digestive, Emollient, Emetic, Expectorant, Febrifuge, Intellect, Laxative, Promoting, Stimulant, Thermogenic, Anti-inflammatory, Stomachic, Carminative, Brain tonic, Emmenagogue.
251	<i>Drosera indica</i> (Linn.) (DROSERACEAE) : LN. Kitphasana ghas, Kidmar.	Biological Properties :- Plant – Corns, Blister.
252	<i>Embelia ribes</i> (Burm.f.) (MYRSINACEAE) :LN. Baibiring.	Biological Properties :- Plant is considered as Alterative, Blood purifier, Anthelmintic, Rejuvenator, Stomachic and Tonic.
	MONOCOTYLEDONY WEEDS	
253	<i>Dioscorea bulbifera</i> (Linn.) (DIOSCOREACEAE) : LN. Gitora kanda.	Biological Properties :- Plant is considered as Acrid, Alternative, Anthelmintic, Aphrodisiac,

		Appetiser, Bitter, Fattening, Stomach, Tonic, Bilioid, Purgative, Deflatant, Thermogenic, Sweet, Rejuvenator, Spermatopitotic.
254	<i>D. Hispida</i> <i>Dennst.</i> (DIOSCOREACEAE) : LN. Baichandi.	Biological Properties :- The tuber – Wound healing, Arrow poisonous.
255	<i>D. alata</i> <i>L.</i> (DIOSCOREACEAE) : LN. Khanima Kanda.	Biological Properties:- Tuber – Leprosy, Anthelmintic, Piles, Gonorrhoea, Syphilis.
256	<i>Eichhornia crassipes</i> (<i>Solms</i>) (PONTEDERACEAE) :LN. Jalbhata.	Biological Properties:- Plant is considered as- Skin (diseases) of horses, Flower – Carbuncle.
257	<i>Commelina benghalensis</i> (<i>Linn.</i>) (COMMELINACEAE) : LN. Kankaua Bhaji.	Biological Properties:- Plant is considered as- Bitter, Emollient (Softening a medicine), Demulcent (Soothing), Refrigerant (Cooling), Laxative (loosen the bowels) leprosy.
258	<i>C. nudiflora</i> (<i>Linn.</i>) (COMMELINACEAE): LN. Kankaua.	Biological Properties:- Plant is considered as- Inflammation (burn) and Sores, Itches, Boils.
259	<i>Cyanotis axillaries</i> (<i>Roem & Schulf. f.</i>) (COMMELINACEAE) : LN. Sutraj.	Biological Properties :- Plant – Tympanitis, External use as in Ascities
260	<i>Asphodelus teunifolius</i> <i>Cav.</i> (LILIACEAE) : LN. Ban piaz.	Biological Properties :- Plant seed - Diuretic, Skin disease.
261	<i>Asparagus racemosus</i> (<i>Willd.</i>) (LILIACEAE) : LN. Satawar.	Biological Properties :- Plant is considered as- Aphrodisiac, Alternative, Astringent, Appetiser, Diuretic, Cooling, Indigestion, Stomachic, Sweet, Heart tonic, Nervine tonic, Galactagogue, Spermopoeitic.
262	<i>Smilax prolifera</i> (<i>Roxb</i>) (LILIACEAE) : LN. Sher Tatoon.	Biological Properties :- Plant root is considered as- Urinary complaint, Aphrodisiac, Haematuria, Poisonous, Toothache, Dysuria, Anti-leprotic, Rejuvenator, Syphilis, Carminative.
263	<i>Smilax zeylanica</i> (<i>Linn.</i>) (LILIACEAE): LN. Sher datoon.	Biological Properties :- Plant root consider - Veneral diseases, rheumatism & pain in the lower extremities and dysentery.
264	<i>Gloriosa superba</i> (<i>Linn.</i>) (LILIACEAE): LN. Karihari.	Biological Properties :- Plant tuber is considered as- Acrid, Alexiteric, Anti-leprotic, Febrifuge, Antibiotic, Abortifacient, Anthelmintic, Heating, Laxative, Pungent, Cholagogue, Stomachic,

		Purgative and Anti-inflammatory.
265	<i>Urginea indica</i> (Kunth.) (LILIACEAE) : LN. Van piaj.	Biological Properties:- Plant bulb is considered as- Anthelmintic, Cardio tonic, Diuretic, Diaphoretic, Expectorant, Laxative.
266	<i>Costus speciosus</i> (Koen.) (ZINGIBERACEAE): LN. Sikta mauri/Kevkand.	Biological Properties:- Plant rhizome - Acrid, Bitter, Anthelmintic, Astringent, Aphrodisiac, Cooling, Depurative, Expectorant, Febrifuge, Purgative, Anti-spasmodic, Anti-viral, Blood purifier, Anti-inflammatory, Digestive, Spermapoeitic.
267	<i>Hedychium coronarium</i> Koenig. (ZINGIBERACEAE): LN. Gulbakavli.	Biological Properties:- crocodiles tears , eye diseases, bronchitis, tuberculosis, mouth wash.
268	<i>Curcuma angustifolia</i> (Roxb.)(ZINGIBERACEAE): LN. Tikhur.	Biological Properties:- Plant rhizome- Demulcent (Soothing medicine), Nutrition.
269	<i>C. aromatica</i> (Salisb.) (ZINGIBERACEAE) : LN. Jangli Haldi.	Biological Properties:- Plant rhizome – Astringents (constipative), Bitter, Carminative, Tonic.
270	<i>C. amada</i> (Roxb.) (ZINGIBERACEAE) : LN. Amahaldi.	Biological Properties:- Plant rhizome – Anti-inflammatory, Anti-pyretic, Appetizer, Aphrodisiac, Astringent, Aromatic, Carminative, Cooling, Digestive, Diuretic, Expectorant, Febrifuge, Laxative, Sour, Stomachic, Sweet.
271	<i>C. caesia</i> (Roxb.) (ZINGIBERACEAE) : LN. KalaHard.	Biological Properties:- Rhizome -Aromatic, Stimulant, Carminative.
272	<i>Vanda roxburghii</i> (R. Br.) (ORCHIDIACEAE) : LN. Vanda.	Biological Properties:- Plant root is considered as- Rheumatic, Paralysis, Nervous disorder and Leaves – Fever and Ear disease.
273	<i>Cyperus rotendus</i> (Linn.) (CYPERACEAE): LN. Nagar motha, Gangaura.	Biological Properties :- Plant is considered as- Acrid, Bitter, Anthelmintic, Anti-inflammatory, Antiperiodic, Astringent, Blood purifier, Cooling, Constipating, Carminative, Depurative, Diuretic, Digestive, Expectorant, Febrifuge, Repulsive, Galactagogue, Nervine tonic.
274	<i>C. esculentus</i> L. (CYPERACEAE) : LN.Gangaura, Gondaila.	Biological Properties :- Plant rhizome – Acrid, Anthelmintic, Aphrodisiac, Astringent, Bitter, Carminative, Cooling, Digestive, Febrifuge,

		Stimulant.
275	<i>Scirpus kysoor (Roxb.) (CYPERACEAE) :</i> LN. Ghoda gad.	Biological Properties :- Rhizome – Diuretic, Cough, Vomiting.
276	<i>Scirpus articulatus (Linn.) (CYPERACEAE) :</i> LN.Chhichora	Biological Properties :- Purgative, Cathartic.
277	<i>Scripus kysoor (Roxb.) (CYPERACEAE) :</i> LN. Ghoda gad .	Biological Properties :- relieve pruritus of the skin.
278	<i>Sagittaria sagittifolia (Linn.)(ALISMACEAE) :</i> LN. Chhotukut.	Biological Properties :- Plant is considered as- retention of placenta, skin diseases.
279	<i>Typha elephantina (Roxb.) (TYPHACEAE) :</i> LN. Sarpat.	Biological Properties :- gonorrhoea, measles, discharge of urine, ulcer wounds, (Sannapat diseases) continual sound into ear, wounds, ulcer, permanent sterility.
280	<i>Sparganium simplex (Huds.) (SEARGANIACEAE) :</i> Vernacular name- <i>Sparganium</i> .	Biological Properties:- The plants use for medicinally important.
281	<i>Acorus calamus (Linn.) (ARACEAE) :</i> LN. Bach.	Biological Properties :- Plant Rhizome is considered as- Acrid, Anodyne, Anti-inflammatory, Antispasmodic, Aphrodisiac, Antipyretic, Aromatic, Bitter, Carminative, Diaphoretic, Emetic, Laxative, Nervine tonic, Stomachic, Sudorific, Sedative, thermogenic, expectorant, spasmolytic, Diuretic.
282	<i>Pistia stratiotes (Linn.) (ARACEAE / LEMNACEAE) :</i> LN. Jal gobhi.	Biological Properties :- Plant is considered as- Demulic; Refrigerant; Dysurea; Destroy bugs; Skin diseases.
283	<i>Curculigo orchioides (Gaertn.) (AMARYLLIDACEAE):</i> LN. Musar mundi.	Biological Properties:- Plant root stock – Alternative, Aphrodisiac, Antipyretic, Appetiser, Bitter, Carminative, Refrigerant (Cooling), Diuretic, Demulcent, Depurative, Emollient, Restorative, Stimulant, Cosmetic.
284	<i>Narcissus tazetta. (Linn.) (AMARYLLIDACEAE):</i> LN. Ban Piaz.	cal Properties:- Plant tuber – Emetic, Wound healing, worms kills.
285	<i>Phoenix acaulis Buch. (Ham.) ex. Roxb. (PALMAE) :</i> LN. Chhindi.	Biological Properties:- hunger (to have a keen appetite) , scabies and itches.

286	<i>Andropogon contortus</i> L. (POACEAE) : LN Lanpa.	Biological Properties :- Plant root consider - Diuretic (discharge of urine), Stimulant (producing of vitality).
287	<i>Cyanodon dactylon</i> (Linn.) Pers. (POACEAE) : LN. Doob ghass.	Biological Properties :- Plant is considered as- Antifungal, Anti-viral, Anti-biotic, Anti-thirst, Abortifacient, Astringent, Refrigerant (cooling), Constipating, Diuretic, Depurative, Dropsy, Diarrhoea, Dysentery.
288	<i>Dactyloctenium aegyptium</i> (Beanv.) (POACEAE) : LN. Ghod chaba chara.	Biological Properties :- Plant is considered as- Stomachache after child birth, Biliousness, Diabetes, Skin diseases, Strength stop pain kidney regions.
289	<i>Echinochloa crus-galli</i> (Beauvi) (POACEAE): LN. Sama, Semai chara.	Biological Properties :- Spleen diseases, Haemorrhage (Piles).
290	<i>E. frumentacea</i> Linn. (POACEAE): LN. Sama.	Biological Properties :- Plant - Biliousness, constipation.
291	<i>Eleusine indica</i> (Gaertn.) (POACEAE) : LN. Paindhar chara.	Biological Properties :- Plant- Febrifuge, Sudorific.
292	<i>E. Corocana</i> (Gaertn.) (POACEAE) : LN. Madia.	Biological Properties :- Plant -Astringent, Refrigerant, Biliousness, Tonic.
293	<i>Paspalum commersonii.</i> (Lam.) (POACEAE) : LN. Kodaila.	Biological Properties :- Plant is considered as- Anti diabetic, Antipoisonous & Narcotic properties.
294	<i>Heteropogon contortus</i> (Roem.&Schult.) (POACEAE):LN. Lanpa.	Biological Properties :- Root is considered as- Diuretic, Stimulant.
295	<i>Aristida adscensionis</i> (Linn.) (POACEAE) : LN. Kharahla.	Biological Properties :- Plant is considered as- Skin disease, Ringworm, Eczema.
296	<i>Saccharum spontaneum</i> (Linn.) (POACEAE) : LN. Kansi kasitta.	Biological Properties :- Plant root is considered as- Aphrodisiac, laxative.
297	297. <i>Cymbopogon martinii</i> (Roxb.) (POACEAE) : LN. Rusa ghass.	Biological Properties :- Plant consider - Anti-pyretic, Appetizer, Heart tonic, Bitter. Depurative, Diuretic, Digestive, Carminative, Febrifuge, Galactagogue, Sudorific, Dipharetic.
298	<i>Cymbopogon nardus</i> (L.) (POACEAE) : LN. Gajni ghass.	Biological Properties :- Plant is considered as- Stimulant, Carminative, Anti-spasmodic,

		Diaphoretic, Sudorific, Rubefacient.
299	<i>Panicum miliare</i> (Lam.) (POACEAE) : LN. Kutiki.	Biological Properties :- Anti-diabetic.
300	<i>Vetiveria zizaniodes</i> (Linn.) (OACEAE) : LN. Oorai ghass.	Biological Properties :- Plant root is considered as- Acrid, Anthelmintic, Aromatic, Bitter, Carminative, Diuretic, Digestive, Expectorant, Febrifuge, Cooling (refrigerant) Stimulant, Stomachic, Styptic, Sweet, Antifatigue, Emmenagogue, Diaphoretic Tonic,
301	<i>Desmostachya bipinnata</i> (Stapf.) (POACEAE) : LN. Kusa.	Biological Properties :- Plant culms consider : Diuretic, Dysentery, Menorrhagia, Stimulant.
302	<i>Equisetum debile</i> Roxb. (EQUISETACEAE) : LN. Hadjod.	Biological Properties :- Plant is considered as- Acidity, Dyspepsia, Antidiabetic, Gonorrhoea, Haemostatic, Haemopoietic, Kidney affections.
303	<i>Marsilea quadrifolia</i> L. (MARSILEACEAE) : LN. Charpatia.	Biological Properties :- (Sleeplessness) “insomnia”, Diabetes.
304	<i>Selaginella rupestris</i> Linn.(SELAGINELLACEAE) : LN. Chiraiyagoda,Ninma, Sanjivanibuti.	Biological Properties :- dysentery &diarrhoea (Children, green colour latrine / Local name Ninma disease) of kids, piles, diabetes, gastic.
305	<i>Dryopteris cochleata</i> Buch. (DRYOPTERIDACEAE): LN.: Jatashankari.	Biological Properties :- Plant consider - Anti-dot, Epilepsy, Leprosy, Wound, Swelling, Blood purification.
306	<i>Tectaria coadunata</i> (Wall.ex Hook.et) (ASPIDIACEAE) : LN. Jatamasi.	Biological Properties:- Plant consider - Anthelmintic, Antidote, Nervous disorder, Hysteria, Cough, Asthma, Bronchitis, Weakness.

Appendix - IV

- Index to total number of various family, species under of plants. **Total Family - 72**
- **[Dicotyledonous]**

SN o.	Family Name	Plants Name
1.	FABACEAE	1. <i>Cassia tora</i> (Linn.)Sym. <i>C. Obtusifolia</i> L. 2. <i>Cassia occidentalis</i>Linn. 3. <i>Cassia angustata</i>Linn. 4. <i>Cassia pumila</i>Lamk. 5. <i>Cassia mimosoides</i>Linn. 6. <i>Caesalpinia bonducella</i> (Fleming) Syn. <i>C. Crista</i> Linn. 7. <i>Mimosa rubicaulis</i>Lamk. 8. <i>Acacia caesia</i> Willd. 9. <i>Canavalia ensiformis</i> Linn DC. 10. <i>Mimosa pudica</i> Linn. 11. <i>Pueraria tuberosa</i> D.C. 12. <i>Mucuna prurita</i>(Hook.) Syn. ; <i>M. Pruriens</i> (L.) DC. 13. <i>Crotalaria prostrate</i> Rottl. 14. <i>Crotalaria verrucosa</i>Linn. 15. <i>Crotalaria spectabilis</i> Roth. Syn. <i>C. sericea</i> Retz. 16. <i>C. retusa</i>Linn. 17. <i>Teramnus labialis</i>Spreng. 18. <i>Atylosia platycarpa</i> Benth. 19. <i>Indigofera glandulosa</i> Willd. 20. <i>Indigofera linifolia</i> Retz.

		21. <i>I. cordifolia</i> Heyne. 22. <i>I. trifoliata</i> Linn. 23. <i>Sesbania sesban</i> Linn. Merr. Syn. <i>S. aegyptiaca</i> pair 24. <i>Tephrosea purpurea</i> Linn. pers. 25. <i>Tephrosea villosa</i> pers. 26. <i>Indigofera enneaphylla</i> Linn. 27. <i>Indigofera tinctoria</i> Linn. 28. <i>Phaseolus trilobus</i> Ait. 29. <i>P. aconitifolius</i> Jacq. 30. <i>Clitoria ternatea</i> Linn. 31. <i>Melilotus parviflora</i> (Desf.) see <i>M. indica</i> (Linn.) All. 32. <i>Psoralea corylifolia</i> Linn. 33. <i>Rhynchosia minima</i> DC. 34. <i>Alysicarpus vaginalis</i> DC. 35. <i>A. longifolius</i> W. & A. 36. <i>Alhagi pseudalhagi</i> (Bieb.) Desv. syn. <i>A. camelorum</i> (Fisch.) 37. <i>Vicia hirsuta</i> Koch. 38. <i>V. sativa</i> Linn. 39. <i>Abrus precatorius</i> Linn. 40. <i>Abrus</i> Sp. White 41. <i>Abrus</i> Sp. Black. 42. <i>Uraria lagopoides</i> D.C. 43. <i>Uraria picta</i> Desv. Syn. <i>Hedysarum pictum</i> Jacq. 44. <i>Zornia diphylla</i> pers. 45. <i>Desmodium latifolium</i> (DC.) Syn <i>D. lasiocarpum</i> (DC.) 46. <i>D. triflorum</i> (Linn.) DC. 47. <i>D. parviflorum</i> (DC.) <i>D. microphyllum</i> (thunb) DC. 48. <i>D. gangeticum</i> DC.

2.	F – SAXIFRAGACEAE	49. <i>Dichroa febrifuga</i> Lour.
3.	F – NYCTAGINACEAE	50. <i>Boerhaavia diffusa</i> (Linn.) syn. <i>B.repens</i> (Linn.) 51. <i>Mirabilis Jalapa</i> (Linn.)
4.	F – CAPPARIDACEAE	52. <i>Cleome viscosa</i> (Linn.) 53. <i>Cleome chelidonii</i> (Linn.) f. 54. <i>Gynandropsis gynandra</i> Linn. 55. <i>Capparis spinosa</i> Linn.
5.	F – CUCURBITACEAE	56. <i>Coccinia indica</i> (W. & A.) 57. <i>Diplocyclos palmatus</i> (L.) Jeffery. <i>B. laciniosa</i> (Linn.), <i>B. palmata</i> L., <i>Bryonopsis laciniosa</i> (L.). 58. <i>Melothria maderaspatana</i> (Linn.) Cong. 59. <i>Momordica dioica</i> Roxb.Ex. Will. 60. <i>Citrullus colocynthis</i> Schrad. 61. <i>Trichosanthes cucumerina</i> Linn. 62. <i>Trichosanthes palmate</i> (Roxb.) Syn., <i>T. Bracteate</i> (Lam.) Voigt.
6.	F – POLYGALACEAE	63. <i>Polygala chinensis</i> Linn.
7.	F – CACTACEAE	64. <i>Opuntia dillenii</i> Haw.
8.	F – MALVACEAE	65. <i>Abelmoschus crinitus</i> Wall. 66. <i>Abutilon indicum</i> (Linn.) G. Don. 67. <i>A. graveolens</i> W. & A. 68. <i>Sida rhombifolia</i> Linn. 69. <i>Sida cordifolia</i> Linn. 71. <i>S. spinosa</i> Linn. 72. <i>S. acuta</i> Burm. 73. <i>Hibiscus ficulneus</i> Linn. 74. <i>H. micranthus</i> Linn. f. 75. <i>Urena lobata</i> Linn. 76. <i>U. sinuata</i> Linn.

		77. <i>Malvastrum tricuspidatum</i> Syn. <i>M. coromandalianum</i> Garcke (A. Gray). 78. <i>Malva sylvestris</i> Linn.
9.	F – TILIACEAE	79. <i>Triumfetta rhomboidea</i> Jacq. 80. <i>Corchorus trilocularis</i> Linn. 81. <i>C. acutangulus</i> Lamk. 82. <i>C. capsularis</i> Linn. 83. <i>C. facicularis</i> Lamk. 84. <i>C. Olitorius</i> Linn. 85. <i>Grewia hirsuta</i> (Vahl.) var. <i>Helicterifolia</i>.
10.	F – ZYGOPHYLLACEAE	84. <i>Tribulus terrestris</i> Linn.
11.	F – SIMARUBIACEAE	85. <i>Balanites aegyptiaca</i> (Linn.) Delile Syn. <i>B. Roxburghii</i> (planch.).
12.	F – LORANTHACEAE <i>(Parasite Plant)</i>	86. <i>Loranthus longiflorus</i> (Desr.) See <i>Dendrophthoe falcata</i> (Linn.f.) <i>D. elasxica</i> (Desr.).
13.	F – RHAMNACEAE	87. <i>Zizyphus rotundifolia</i> (Lamk.), <i>Z. nummularia</i> (W. & A.). 88. <i>Z. oenoplia</i> Mill.
14.	F – VITACEAE	89. <i>Vitis indica</i> (W. & A.) see <i>Ampelocissus arnottiana</i> (planch.). 90. <i>Vitis trifolia</i> Wall.
15.	F – SAPINDACEAE	91. <i>Cardiospermum halicacabum</i> Linn.
16.	F – PEDALIACEAE	92. <i>Martynia annua</i> Linn.
17.	F – EUPHORBIACEAE	93. <i>Euphorbia hirta</i> Linn. 94. <i>E. microphylla</i> (Heyne). 95. <i>E. rothiana</i> (spreng.). 96. <i>Pedilanthus tithymaloides</i> (Jew's) Slipper <i>pedilanthus</i>; 97. <i>E. hypericifolia</i> Linn. 98. <i>E. thymifolia</i> Linn. 99. <i>E. dracunculoides</i> Lamk. 100. <i>P. Maderaspatensis</i> Linn.

		101. <i>P. simplex</i> (Retz.) 102. <i>P. niruri</i> (Linn.). 103. <i>Jatropha gossypifolia</i> Linn. 104. <i>Chrozophora rottleri</i> (A. Juss ex Spreng.) Syn <i>C.tinctoria</i> Hook.f. 105. <i>C. prostrata</i> (Dalz). 106. <i>Acalypha indica</i> (Linn.) Syn <i>A. Spicata</i> L. <i>A. Ciliata</i>Linn.
18.	F – STERCULIACEAE	107. <i>Helicteres isora</i> (Linn.).
19.	F - ASCLE PIADACEAE	108. <i>Calotropis gigantea</i> Linn. 109. <i>C. procera</i> (Ait.). 110. <i>Oxystelma esculentum</i> R. Br. 111. <i>Hemidesmus indicus</i> R. Br. 112. <i>Tylophora indica</i> (Burm. f.) Merr. see <i>T. Asthmatica</i>(W.&A. 113. <i>Gymnema sylvestre</i> (R. Br.). 114. <i>Cryptolepis buchanani</i> (Roem. & Schult.). 115. <i>Pergularia daemia</i> (Forck) syn. <i>Daemia extensa</i>(R.Br.).
20	F – RUBIACEAE	116. <i>Rubia cordifolia</i> L. Syn. <i>R. munjista</i> Roxb. 117. <i>Spermacoce hispida</i> Linn. Syn. <i>Borreria hispida</i>(Linn.) <i>K. Schum.</i> 118. <i>Oldenlandia corymbosa</i> (Linn.)Syn. <i>Hedyotis corymbosa</i> (Linn.) Lam. 119. <i>O. umbellata</i> (Linn.).
21	F – VERBENACEAE	120. <i>Lantana camara</i> (Linn.) 121. <i>Lippia nodiflora</i> (Mich.). 122. <i>Clerodendrum inerme</i> (Linn.) Gaerten. 123. <i>Clerodendrum Phlomidis</i> (Linn.) f. Syn. <i>C.multiflorum</i> (Burm f.) O. Ktze. 124. <i>Clerodendrum serratum</i> (Linn.) Moon. Syn. <i>C.</i>

		<i>Dentatum</i> Lam. 125. <i>Vitex negundo</i> (Linn.) Sys. <i>V. arborea</i> (Desf); <i>V.bicolor</i> (willd)
22.	F – MENISPERMACEAE	126. <i>Cissampelos Pareira</i> L. 127. <i>Cocculus villosus</i> (DC.) Syn. <i>C. hisutus</i> (L.) Diels; <i>Menispermum hirsutum</i> L. 128. <i>Tinospora cordifolia</i> (Willd) Miers. 129 <i>Aristolochiaceae bracteata</i> (Retz.).
23.	F- ARISTOLOCHACEAE	130. <i>Aristolochia indica</i> (Linn.).
24.	F – PAPAVERACEAE	131. <i>Argemone mexicana</i> (Papavraceae).
25.	F – FUMARIACEAE	132. <i>Fumaria parviflora</i> (Lam.).
26.	F – FICOIDAE	133. <i>Trianthema portulacastrum</i> (Linn) Syn. <i>T. Monogyna</i> (Linn.). 134. <i>T. pentenda</i> (Linn.).
27.	F- CARYOPHYLLACEAE	135. <i>Saponaria vaccaria</i> (Linn.) Medic. 136. <i>Stellaria media</i> , (Linn.). 137. <i>Polycarpea corymbosa</i> . (Lam.) Bhisatu.
28.	F – PORTOLACEAC	138. <i>Portulaca oleraceae</i> (Linn.). 139. <i>P. quadrifida</i> (Linn.) See. <i>P. Meridiana</i> Linn.
29.	F- POLYGONACEAE	140. <i>Polygonum plebejum</i> (R. Br). 141. <i>Polygonum glabrum</i> (Willd) 142. <i>Rumex dentatus</i> (Linn.).
30.	F – CHENOPODIACEAE	143. <i>Chenopodium album</i> (Linn.). 144. <i>C. murale</i> (Linn.).
31.	F – AMARANTHACEAE	145. <i>Celosia argentea</i> (Linn.) 146. <i>Gomphrena celosiodes</i> Mart. syn. <i>Gomphrena indica</i> (Linn.) 147. <i>Digera muricata</i> (Linn.) Mart. syn <i>D. arvensis</i> (Fork.).

		148. <i>Amaranthus viridis</i> (Linn). 149. <i>A. spinosus</i> (Linn.). 150. <i>Aerva lanata</i> (Juss.). 151. <i>Achyranthes aspera</i> (Linn.). 152. <i>Alternanthera sessilis</i> (Linn.) R. Br. ex DC Syn. <i>A. triandra</i> Lamk.
32.	F – LYTHRACEAE	153. <i>Ammannia baccifera</i> (Linn).
33.	F – GENTIANACEAE	154. <i>Enicostemma littorale</i> (Blume) Syn. <i>E. axillare</i> (Lam.) Raynal. 155. <i>Exacum tetragonum</i> (Roxb.). 156. <i>Swertia chirata</i> (Buch.-Ham.). 157. <i>Canscora decussate</i> (Rox b.) Roem. & Schult .
34.	F – (PRIMULACEAE)	158. <i>Anagallis arvensis</i> (Linn.).
35	F- <u>UMBELLIFERAE</u> (APIACEAE)	159. <i>Centella asiatica</i> (Linn.)
36.	F – (SOLANACEAE)	160. <i>Solanum indicum</i> (Linn.) Syn. <i>S. Violaceum</i> Ortega., <i>S. sodomenum</i> L. non. <i>ambig. S. anguivi</i> Lam. 161. <i>S. nigrum</i> (Linn.) Syn. <i>S. subrum</i> mill ex. Wight, <i>S. incertum</i>, Dunal. Ex. Grahum. 162. <i>S. xanthocarpum</i> (Schrاد & Wendl) Syn. <i>S. surattense</i>, <i>Burm. f.</i>; <i>S. Maccanni</i> sant. <i>S. diffusum</i> Roxb. <i>S. armatum</i> Br. <i>S. virginianum</i> Jacq. 163. <i>Physalis minima</i> (Linn.) Var. <i>Indica</i> C.B. Clark. 164. <i>P. peruviana</i> (Linn.). 165. <i>Datura alba</i> Nees.Syn. <i>D. innoxia</i> D. <i>fastuosa</i> L.D. <i>Metal</i> (Linn). 166. <i>D. stramonium</i> (Linn.). 167. <i>Nicotiana plumbeginifolia</i> (Viv.).
37.	F – CONVULVULACEAE	168. <i>I. pomoea aquatica</i> (Forsk.)

		169. <i>I. pes-tigridis</i> (Linn.) 170. <i>I. hederacea</i> (Linn.) Jacq. 171. <i>I. biloba</i> (Forsk) 172. <i>Argyreia speciosa</i> (Sweet.) Syn. <i>A. nervosa</i> (Burn. f.) Bojer. 173. <i>Ipomoea reniformis</i>. (Chois.). 174. <i>Operculina turpethum</i> (Linn.) Silva manso syn.<i>Ipomoea turpethum</i> (R.Br.). 175. <i>Convolvulus arvensis</i> (Linn.). 176. <i>Evolvulus alsinoides</i> (Linn.) Syn. <i>E. hirsutus</i> Lam. 177. <i>Cuscuta reflexa</i> (Roxb.).
38.	F-ASTERACEAE (COMPOSITAE)	178. <i>Ageratum conyzoides</i> (Linn.). 179. <i>Centratherum anthelminiticum</i> (Willd.) kumtze see <i>Vernonia anthemintic</i> (Willd.). 180. <i>Elephantopus scaber</i> (Linn.). 181. <i>Gnaphalium luteo-album</i> (Linn.) . 182. <i>Pluchea lanceolata</i> (Oliver. & Hiren.) 183. <i>Sphaeranthus indicus</i> (Linn.) . 184. <i>Blumea. Lacera</i> (Burm. f.) DC. Syn. <i>B. balsamífera</i> DC.;<i>B. Densiflora</i> Hook f. 185. <i>Eclipta alba</i> (Hassk.) syn <i>E. prostrata</i> (Roxb.). 186. <i>Glossocardia linearifolia</i>; (Cass.) see; <i>G. Bosvallia</i> (DC.) 187. <i>Bidens pilosa</i> (Linn.). 188. <i>Spilenthesis acmella</i> (Murr.). 189. <i>Acmella oleracea</i> C.B. Clark Syn. <i>Spilanthus Oleraceae</i> Jacq. 190. <i>Echinops echinatus</i> (Roxb.). 191. <i>Glossogyne pinnatifida</i> (DC.).

		192. <i>Amberboa divaricata</i> kuntze syn. <i>Volutarella divaricata</i>. <i>Benth et al. Hook.f.</i> 193. <i>Sonchus oleraceus</i> (Linn.). 194. <i>S. arvensis</i> (Linn.). 195. <i>Cichorium intybus</i> (L.). 196. <i>Lagascea mollis</i> (Cav.). 197. <i>Launaea aspleniifolia</i> (Hook. f.). 198. <i>Centipeda minima</i> Linn., A. Br. et. Aschers syn. <i>C. orbicularis</i> Lour. 199. <i>Tridax procumbens</i> (Linn.) . 200. <i>Vernonia cinerea</i> (Linn.) Less. Syn. <i>Conyza cinerea</i> Linn. 201. <i>Xanthium strumarium</i> (Linn.).
39.	F – VALERIANACEAE	202. <i>Nardostachys jatamansi</i> DC.
40.	F – OROBANCHACEAE	203. <i>Orobanche aegyptica</i> (Pers.).
41	F- SCROPHULARIACEAE	204. <i>Bacopa monnieri</i> (Linn). Pennel syn. <i>B. monniera</i> wettst. <i>Herpestis monniera</i> (Linn.) H. B. & K. <i>Monnieracuneifolia</i> Michx; <i>Grahiola Monniera</i> L. 205. <i>Celsia coromandeliana</i> (Vahl.) 206. <i>Lindenbergia urticaefolia</i> (Lehm.) see <i>L. indica</i> (L.) O. Kuntze. 207. <i>Verbascum thapsus</i> (Linn.). 208. <i>Striga lutea</i> (Lour.). 209. <i>S. orobanchioides</i> (Benth); see <i>S. gesneroides</i> (Willd). 210. <i>Stemodia viscose</i>, (Roxb.). 211. <i>Scoparia dulcis</i> (Linn.).
42.	F- <u>LAMIACEAE</u> (LABIATAE)	212. <i>Leonotis nepetaefolia</i>, (R. Br.). 213. <i>Anisomeles malabarica</i> (R. Br.). 214. <i>Leucas cephalotes</i> (Spreng.). 215. <i>L. utricaefolia</i> (R. Br.).

		216. <i>L. aspera</i> (spreng.) syn. <i>L. mollissima</i>, Wall. 217. <i>Napeta hindostana</i> (Roth.) Haines Syn. <i>N. Ruderalis</i>(Hook.) f. 218. <i>Hyptis suaveolens</i> (Poit.)O. <i>basilicum</i>(Linn.). 219. <i>Ocimum. basilicum</i> (Linn.) Syn. <i>O. Caryophyllantum</i> Roxb.; <i>O. pilosum</i> Willd.; <i>O. anisatum</i> L. 220. <i>Salvia plebeian</i> (R. Br.). 221. <i>Ocimum americanum</i> (Linn.) <i>O.canum</i> (sims.). 222. <i>Colebrookea oppositifolia</i> Sm.
43.	F – GERANIACEAE (OXALIDACEAE)	223. <i>Biophytum sensitivum</i> (D.C.) Syn. <i>Oxalis sensitive</i> Linn. 224. <i>Oxalis corniculata</i> (Linn.). 225. <i>Oxalis acetosella</i> (Linn.).
44.	F – BORAGINACEAE	226. <i>Heliotropium strigosum</i> (Willd). 227. <i>Heliotropium indicum</i> (Linn.). 228. <i>Heliotropium ovalifolium</i> (Forsk.). 229. <i>Trichodesma indicum</i> (R. Br.). 230. <i>T. Zeylanicum</i> (R. Br.).
45.	F- PLUMBAGINACEAE	231. <i>Plumbago zeylanica</i> (Linn.).
46.	F – ACANTHACEAE	232. <i>Barleria prionitis</i> (Linn.). 233. <i>Barleria cristata</i> (Linn.). 334. <i>Blepharis maderaspatensis</i>(Linn.)Heyme. ex. <i>Roth.B. molluginifolia</i>; (Pers.) 235. <i>Andrographis paniculata</i> (Burm. F.) wall. ex. <i>Nees. Syn.</i> <i>A. subspathulata</i> Clarke; <i>Justicia paniculata</i> Burm. 236. <i>Dipteracanthus prostratus</i> (Nees) syn. <i>Ruellia prostrata</i>(poir.) 237. <i>Hygrophila spinosa</i> T. anders., <i>Asteracantha longifolia</i>(Nees.)Syn. <i>H. auriculata</i> (Sch.) Heine. <i>A. Auriculata</i>Nees. 238. <i>Ecobolium linneanum</i> Kurz. <i>E. viride</i> (Forsk.)

		Merrill. 239..<i>Lepidagathis hamiltoniana</i> (wall.). 240. <i>Peristrophe bicalyculata</i> (Nees.). 241. <i>Rungia repens</i> (Nees.)242. <i>R. parviflora</i> (Nees.). 242. <i>R. pectinata</i> (Linn.). 243. <i>Adhatoda vasica</i> (Neen) Syn. <i>A. zeylanica</i> Medic. 244. <i>Adenantha vasica</i> Linn. <i>Justica adhatoda</i> Linn.
47.	F – RANUNCULACEAE	245. <i>Ranunculus sceleratus</i> . (Linn.).
48.	F – NYMPHAEACEAE	246.<i>Nymphaea alba</i> (Linn.). 247. <i>N. pubescens</i> Willd.
49.	F – APOCYNACEAE	248. <i>Carissa opaca</i> (stapf.)
50.	F- BALSAMINACEAE	249. <i>Impatiens balsamina</i> (Linn.)
51.	F – CELASTRACEAE	250. <i>Celastrus paniculatus</i> (willd.) Syn. <i>C. montana</i> Roth.; <i>C.multiflora</i> Roxb.
52.	F- DROSERACEAE	251. <i>Drosera indica</i> (Linn.)
53.	F – MYRSINACEAE	252. <i>Embelia ribes</i> (Burm.f.) Syn. <i>E. glandulifera</i> Wt.
	<u>2.[MONOCOTYLEDONY WEEDS]</u>	
54.	F – DIOSCOREACEAE	253. <i>Dioscorea bulbifera</i> (Linn.). 254. <i>D. Hispida</i> Dennst. Syn. <i>D. daemona</i> Roxb.; <i>D. Hirsuta</i>Dennst. <i>D. triphylla</i> Linn. 255. <i>D. alata</i> L. Syn. <i>D. atropurpurea</i> Roxb.; <i>D. purpurea</i>Roxb.; <i>D. rubella</i> Roxb.; <i>D. globosa</i> Roxb.
55.	F – PONTEDERACEAE	256. <i>Eichhornia crassipes</i> (Solms)
56.	F – COMMELINACEAE	257. <i>Commelina benghalensis</i> (Linn.) 258. <i>C. nudiflora</i> (Linn.) 259. <i>Cyanotis axillaries</i> (Roem & Schult. f.).

57.	F – LILIACEAE	260. <i>Asphodelus teunifolius</i> Cav. 261. <i>Asparagus racemosus</i> (Willd.) Syn. <i>A. javanica</i> Kunth.; <i>Sarmentosus</i> Grahm.. 262. <i>Smilax prolifera</i> (Roxb). 263. <i>Smilax zeylanica</i> (Linn.) Syn. <i>S. macrophylla</i> (Roxb). 264. <i>Gloriosa superba</i> (Linn.) Syn. <i>Methonia superb</i> Lam. 265. <i>Urginea indica</i> (Kunth.) Syn. <i>Drimia indica</i> (Roxb.) Jessop.
58.	F – ZINGIBERACEAE	266. <i>Costus speciosus</i> (Koen.) Smith; Syn. <i>Banksea speciosa</i> Koen. 267. <i>Hedychium coronarium</i> Koenig. 268. <i>Curcuma angustifolia</i> (Roxb.). 269. <i>C. aromatica</i> (Salisb.). 270. <i>C. amada</i> (Roxb.). 271. <i>C. caesia</i> (Roxb.).
59.	F – ORCHIDIACEAE	272. <i>Vanda roxburghii</i> (R. Br.) syn. <i>V. tessellate</i> Hook.ex.G.Don.
60.	F – CYPERACEAE	273. <i>Cyperus rotendus</i> (Linn.). 274. <i>C. esculentus</i> Linn. 275. <i>Scirpus kysoor</i> (Roxb.). 276. <i>Scirpus articulatus</i> (Linn.). 277. <i>Scripus kysoor</i> (Roxb.).
61.	F-ALISMACEAE	278. <i>Sagittaria sagittifolia</i> (Linn.).
62.	F – TYPHACEAE	279. <i>Typha elephantina</i> (Roxb.).
63.	F – SEARGANIACEAE	280. <i>Sparganium siple</i> (Huds.)
64.	F – ARACEAE	281. <i>Acorus calamus</i> (Linn.). 282. <i>Pistia stratiotes</i> (Linn.).

65.	F-AMARYLLIDACEAE	283. <i>Curculigo orchioides</i> (Gaertn.) Syn. <i>C. Malabarica</i> Wight; <i>C. brevifolia</i> Dryl.; <i>Hyposxis orchiodies</i> Kurz. ; <i>Carcinia malabarica</i> 284. <i>Narcissus tazetta</i>. (Linn.) .
66.	F – PALMAE	285. <i>Phoenix acaulis</i> Buch. (Ham.) ex. Roxb.
67.	F-GRAMINEAE (POACEAE)	286. <i>Andropogon contortus</i> Linn. 287. <i>Cyanodon dactylon</i> (Linn.) Pers. 288. <i>Dactyloctenium aegypticum</i> (Beanv.) see <i>Eleusine aegyptiaca</i> (Desf.). 289. <i>Echinochloa crus-galli</i> (Beauvi) syn. <i>Panicum crus-galli</i> (Linn.). 290. <i>E. frumentacea</i> Linn. syn. <i>Panicum frumentaceum</i> (Roxb.). 291. <i>Eleusine indica</i> (Gaertn.). 292. <i>E. Corocana</i> (Gaertn.). 293. <i>Paspalum commersonii</i>. (Lam.). 294. <i>Heteropogon contortus</i> (Beauv.; Roem. & Schult.). 395. <i>Aristida adscensionis</i> (Linn.). 296. <i>Saccharum spontaneum</i> (Linn.). 297. <i>Cymbopogon martinii</i> (Roxb.). Wats. Syn.; <i>Andropogon martini</i> Roxb. 298. <i>Cymbopogon nardus</i> (Linn.) Rendle Syn.; <i>Andropogon nardus</i> Linn. 299. <i>Panicum miliare</i> (Lam.). 300. <i>Vetiveria zizanioides</i> (Linn.) Nash. <i>Andropogon muricatus</i>. 301. <i>Desmostachya bipinnata</i> (Stapf.).
	3.(PTERIDOPHYTES)	

68.	F-EQUISETACEAE	302. <i>Equisetum debile</i> Roxb. <i>E. elongatum</i> Willd.
69.	F- MARSILEACEAE	303. <i>Marsilea quadrifolia</i> Linn. Syn. <i>M. Minuta</i> Linn.
70	F-SELAGINELLACEAE	304. <i>Selaginella rupestris</i> Linn.
71.	(DRYOPTERIDACEAE).	305. <i>Dryopteris cochleata</i> (Buch Ham.Exd.Don) C. Chr .
72.	F – ASPIDIACEAE	306. <i>Tectaria coadunata</i> (Wall.ex Hook.et) C.Chr.

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About Author



Dr. Radhe Shyam Napit is working as Guest-Faculty of in the Department of Botany, Shri Birashni Mata Government Degree College Birsinghpur Pali District Umaria (M.P.) Central India. I did M. Sc. (Botany) in 1999 and Ph. D., in 17 Jan 2008 from A.P.S. University, Rewa (M.P.). More than 18 Research Papers have been published in Research Journals of National and International reputes. Author has got life membership in many nationally and internationally reputed learned societies viz. Indian Science Congress Association (ISCA), anural member of Ethnobotanical Society, Lucknow (UP). The author is engaged also in writing Book of Ethnomedicinal Weeds for Our Needs of Today and Tomorrow and on Antidiabetic Miracle Plants. The author has participated in more than 23 both national and international Conferences, Seminars and Workshop.