

# Ethnobotanical and Ethnomedicinal Observations in Nirmal Division of Adilabad District, Andhrapradesh, India

V. Madhu\* and C. Suvatha

Plant Systematics Laboratory, Department of Botany, Kakatiya University,  
Warangal, Andhra Pradesh, India. – 506009

\*Corresponding author: *madhu\_kuc@rediffmail.com*

Issued August 01, 2009

## Abstract

In the present work an attempt is made to document the ethnobotanical remedies for various ailments of the ethnic tribes inhabiting the Nirmal division of Adilabad. Andhrapradesh, India. We reported more than 75 ethnomedicinal plants used by the tribal people in alleviating diseases. Our collections of ethno medicinal plant specimens from this area were deposited in the Kakatiya University Herbarium (KUH) Warangal, India.

**Key words:** Ethno medicine, Nirmal division, Adilabad District, Andhrapradesh.

## Introduction

Evolution of human life and culture has directly or indirectly been associated with and influence by the surrounding environments. Primitive man closely associated in the nature and directly depended on it for his survival i.e., for food, fuel medicine, and fodder, Heamcee, his life and diet system totally depended on plants, made him to acquire the knowledge of economic and medicinal properties of many plants by gradual growth of thinking, later he became enriched knowledge has been transferred from one generation to another without any written documents, now it is necessary that unwritten folk-lore uses of plants and plant product must be documented and preserved . It is important to document and understand the medical heritage of a changing culture before it is lost entirely to future generations. (Brumot & Naidu, 2007 ) Ethnomedicine is the study of the beliefs and practices concerning illness in different human populations. It observes and describes hygienic, account temporal and spatial references.

Among scheduled tribes of Andhra Pradesh, Gonds, Lambada, Kolams, Pradhans, Manne,

Naikpods, Thoties, Yerikalas, Koyas are the major communities in the Nirmal Division of Adilabad District, Andhra Pradesh, India of several natural forest ecosystems in the district, Swarna, Sadharmat and Kaddam are well known for their medicinal flora. Ravi Shanker and Henry (1992) were published a note on the medicinal plant wealth of Adilabad district. Later Pullaiah, Prasanna, and Vand Obulesu (1998) reported Ethanomedicinal plants, the scientific and vernacular names of the District. Mubeen, R. Sadia Fathima, Atiya Khanum, Irfan Ali Khan and S.Y. Anwar (2004 - 2005) studied the Medicinally important plants growing in the around Adilabad, District of Andhra Pradesh, used in the treatment of different ailments. Swamy, NSNS (2008) reported 366 ethnomedicinal plants used by tribes in the Adilabad District, in UGC Minor research project under plan. In the present work, an attempt is made to present some interesting ethno medicinal observations recorded in Nirmal forest division, Adilabad district of Andhra Pradesh, India.

## **Study Area**

The Nirmal division situated in between  $77^{\circ} 58'$  of the eastern longitudes and  $18^{\circ} 48'$  and  $19^{\circ} 24'$  of northern latitudes and is bounded on north by Adilabad and utnoor divisions. On the south by Karimnagar and Nizamabad districts and on the west by Nanded district of Maharashtra State. The most important river that drains the divisions is the river Godavari, which is the largest river in peninsular India. The Kadam Vagu is tributary of the Godavari. Besides these Swarna Vagu, and Sudda Vagu which drain the division. The average annual normal rain fall of the Nirmal division is 1114.6 mm and average number of rainy days in the year is 55 – 63 days, the forest of this district falls under tropical dry deciduous and tropical thorn forest type's consisting of mixed teak and miscellaneous type of corporation.

As for the census – 2001 Nirmal division has a population of 6,22,322 in which tribal population is 60,166 Lambada, Gonds and Naikpods are major tribes of this region and traditional practices for curing ailments using plants and animal resources are practiced by all these communities. Data on ethno medicinal plants, collected through frequent interviews tribes. The specimens of ethnomedicinal plants were collected and kept at Kakatiya University Herbarium, Warangal for further reference.

## **Results**

Data pertaining to 79 Ethnomedicinal plants species belonging to 43 families are arranged in alphabetical order according to scientific names for convenience followed by family, local name in telugu and ethnomedicinal use. For each plant species given in the following enumeration, details on the scientific name, botanical family, local name and use are provided along with the parts harvested for treatment and the manner of processing mode of administration.

## *Diuretic*

### **1. *Abutilon Indicum. L.***

Family: Malvaceae.

Local name: Thuthura Benda

Ethno medicinal use:

Stem bark decoction given with boney in 2 spoonfuls twice a day for 20 days.

## *Leprosy*

### **2. *Acacia Chundra (Roxb. exRott ) wild.***

Family : Mimosaceae ( Leguminosae)

Local name : Sundra Chettu

Ethno medicinal use:

Bark ground with leaf base of neem and the paste apply on ulcers of leprosy.

## *Anti emetic*

### **3. *Acalypha Indica. L.***

Family : Euphorbiaceae

Local name: Muripinda

Ethno medicinal use:

Roots ground with black pepper and 2 – 3 spoonfuls are administered orally once or twice.

## *Foot – mouth*

### **4. *Achyrathes aspera. L.***

Family: Amaranthaceae

Local name: Uttareni

Ethno medicinal use:

Entire plant grounds with Jaggery and the paste administered twice a day for one week days.

## *Asthma, cough*

### **5. *Adhatoda Zeylanica. L.***

Family: Acanthaceae

Local name: Addasaramu

Leaf extract administered orally in 2 Spoonfuls a day for 3 – 4 days.

## *Diarrhoea*

### **6. *Aegle marmelos (L) Corr***

Family : Rutaceae

Local name : Maredu

Stem bark extract and fruit pulp is administered in 3 spoonfuls twice a day for about 3 days.

***Gallbladder Kidney and ureteral stones***

**7. *Aerva Lanata* ( L.) Juss.**

Family: Amaranthaceae

Local name: Pindikura

10 grms. of shade dried plant powder taken along with the barley water thrice a day for about 45 days to dissolve stones. Also plant decoction used for the same.

***Anthelmintic***

**8. *Alangium salvifolium* (L.f.) Wang**

Family: Alangiaceae

Local name: Ooduga, Udugu.

Root bark decoction taken orally before going to bed for 3 – 4 days.

***Abortion***

**9. *Bambusa arundinacea* (Retz.) wild.**

Family: Poaceae (Gramineae)

Local name : Veduru

Leaves ground with seeds of Sesamum and Trigonella and the paste mixed with honey is taken of pregnancy to abort three months twice for 3 days.

***Anaemia***

**10. *Boerhavia diffusa* L.**

Family: Nyctaginaceae

Local name: Atikamamidi

Whole plant extract mixed with Cow milk and sugar candy and administered Orally in a spoonful twice a day for a month.

***Ringworm***

**11. *Butea monosperma* (Lam) Taub**

Family: Fabaceae (Leguminosae)

Local name: Modugu

Seeds ground with lemon juice and applied on effected area.

***Arthritis, stomachache***

**12. *Calotropis gigantean* (L) R.Br.**

Family: Asclepiadaceae

Local name: Jilledu

Leaf extract applied externally on painful parts, Roots ground with black pepper and made into small

pills and given in 2 pills twice a day for 7 days.

### ***Dysentery***

#### ***13. Canthium parviflorum. Lam.***

Family: Rubiaceae

Local name: Balusu

Root bark decoction is administered to infants in a spoonful twice a day for 3 days.

### ***Abortion***

#### ***14. Carica papaya L.***

Family: Caricaceae

Local name: Boppai, Coppadi

The milky Juice [Late like] and rhizomes of Gloriosa are ground and the paste is taken in 2 spoonfuls once in morning for 5 days to abort pregnancy up to 3 months.

### ***Bone fracture***

#### ***15. Cassia auriculata. L.***

Family: Caesalpiniaceae

Local name : Tangedu

Leaf paste with egg albumen plastered over the parts of human as well as cattle till cure.

### ***Cancer***

#### ***16. Catharthus roseus (L.) Don***

Family: Apocynaceae

Local name: Billa ganneru

Leaf paste applied on tumourus and the decoction given orally in 30 ml twice a day for about 1 month.

### ***Labourpains***

#### ***17. Cayratia pedata (Lamk) Juss. Ex Gange P.***

Family: Vitaceae

Local name: Erukala sani

Dried branches ground with dried ginger and 2 spoonfuls of powder with a glass of milk is given for easy and fast delivery.

### ***Whitlow***

#### ***18. Citrus aurantifolia (Christm) Swingle.***

Family: Rutaceae

Local name: Nimma

Fruit is filed with turmeric powder and common salt and a hole is made to insert finger tip of affected area kept it for 5 – 7 days or till cure.

*Ear ache*

**19. *Cleome gynandra* L.**

Family: Capparidaceae.

Local name: Vaminta

Leaf Juice poured in 2 – 3 drops thrice a day till cure.

*Filaria*

**20. *Clitoria ternatea* L.**

Family: Fabaceae (Leguminosae)

Local name: Shanku pushpalu

Root paste applied externally on effected parts.

*Alopecia*

**21. *Cocos nucifera***

Family: Arecaceae

Local name: Kobbari Chettu

Oil is extracted from dried endosperm and applied effected area, till cure.

*Fever*

**22. *Cyperus rotundus*. L.**

Family: Cyperaceae

Local name: Tunga gaddi

Tuber extract given in 2 spoonfuls twice a day about 3 days.

*Muscular pains*

**23. *Datura metal* L.**

Family: Solanaceae

Local name: Errimmetta

Leaves and fruits ground in to popltice and massaged gently on painful parts.

*Anaemia*

**24. *Diospyros melanoxylon* Roxb**

Family: Ebenaceae

Local name: Tuniki

Stem bark extract given to pregnant women in 2 spoonfuls with a glass of rice cooked water once in morning for about 2 months from 6<sup>th</sup> or 7<sup>th</sup> month of pregnancy.

*Fever, jaundice*

**25. *Eclipta prostrata* (L) Mant.**

Family: Asteraceae (Compositae)

Local name: Gunta galagara

Whole plant ground with black pepper and made in to small pills 2 pills twice a day for about 3 days will be administered to infants. Leaf juice with curd and sugar given orally early in the morning for 3 days.

***Burns, lip cracks***

**26. *Euphorbia hirta* L.**

Family: Euphorbiaceae

Local name: Reddivari nanubalu, chukka bottu

Latex applied externally till cure of burns and lip cracks.

***Mental disorders***

**27. *Evolvulus alsinoides* (L) L.f.**

Family: Convolvulaceae

Local name: Vishnu krantha

Dried plant powder administered in 2 spoonfuls twice for a day about 2 months.

***Piles***

**28. *Ficus benghalensis* L.**

Family: Moraceae

Local name: Marri Chettu

Tender prop root decoction given in 2 spoonfuls twice a day for 3 months.

***Smallpox***

**29. *Ficus racemosa* L.**

Family: Moraceae

Local name: Medi

The small blister like galls which are present on the leaves are soaked in milk and honey and eaten as refrigerant.

***Appendicitis***

**30. *Ficus tinctoria* Fforst. F.**

Family: Moraceae

Local name: Tellabaranki

The root bark decoction administered in 2 spoonfuls twice a day for about a week to relieve the pain.

***Purgative***

**31. *Givotia rottleriformis* Griff**

Family: Euphorbiaceae

Local name: Puniki, Tella – puniki

Ripe fruits eaten as remedy.

***Abortion, Mumps***

**32. *Gloriosa superba* L.**

Family: Liliaceae

Local name: Konda nabi

Tuber extract taken orally in one spoonful twice a day for 5 days to about pregnancy up to 3 months.

Leaf paste applied externally on effected areas till cure.

***Dyspepsia***

**33. *Grewia tilefolia* Vahl.**

Family: Tiliaceae

Local name: Tada chettu

Ripe fruits eaten and said to improve digestion.

***Diabetes***

**34. *Gymnema sylvestre* (Retz.) R. Br. ex Schult**

Family: Asclepiadaceae

Local name: Podapatri

Leaf decoction administered in 2 spoonfuls twice a day for about 2 months.

***Blood purification***

**35. *Hemidesmus indicus* (L.) R. Br.**

Family: Asclepiadaceae

Local name: Sugandh pala

Root extract mixed with honey and administered in 2 spoonfuls thrice a day for 2 – 3 weeks .

***Alpecia***

**36. *Hibiscus rosa sinensis* L.**

Family: Malvaceae

Local name: Mandara

Leaves and flowers ground in equal proportion and the popultice applied on effected areas till growth of hair.

***Rheumatic pains***

**37. *Holoptelea intergrifolia* (Roxb.) planch.**

Family: Ulmaceae

Local name: Thamsi chettu, Nemlinara Chettu.

Stem bark decoction administered in 20 ml twice a day for about 7 days.

***Malaria***



**38. *Lantana camara* L.**

Family: Verbenaceae

Local name: Gajukampa

Leaf decoction given in 2 – 3 spoonfuls twice a day for 4 days.

***Psoriasis, skin eruptions***

**39. *Leucas aspera* ( Willd. ) Link.**

Family: Lamiaceae (Labiatae)

Local name: Thummikura

Leaf juice mixed with turmeric powder and applied on effected areas for 2 – 3 months or till cure.

***Rheumatic pains***

**40. *Madhuca indica* Gmel.**

Family: Sapotaceae

Local name: Ippa

Oil extracted from seeds massaged on painful parts

***Cold and cough***

**41. *Mangifera indica* L.**

Family: Anacardiaceae

Local name: Mamidichettu

Fumes from the burning leaves are inhaled for relief.

***Piles***

**42. *Manilkara zapota* (L.) Royen**

Family: Sapotaceae

Local name: Sapota

Stem bark ground with black pepper and make in to powder, it is mixed with sugar candy and cow milk and administered in 2 spoonfuls twice a day for about 3 – 4 months.

***Chestpain***

**43. *Mimusops elengi* L.**

Family: Sapotaceae

Local name: Pogadachettu

Bark juice given in 2 spoonfuls twice a day for 10 days, also the fruit paste applied on chest.

***Dandruff***

**44. *Momordica dioica* Roxb. ex Willd.**

Family: Cucurbitaceae

Local name: Boda kakara

Tender paste applied on head 1 hour before bath.

***Blood pressure***

**45. *Moringa oleifera* Lam**

Family: Moringaceae

Local name: Munaga chettu

Leaf Juice administered in one spoonful twice a day for about one month.

***Lice killing, dandruff***

**46. *Murraya koenigii* (L.) Spreng**

Family: Rutaceae

Local name: Karevepaku

Dried leaf powder mixed with hair oil and applied to head.

***Fertility***

**47. *Musa Paradisiaca* L.**

Family: Musaceae

Local name: Aratichettu

Rhizome boiled with sugar candy and the extract administered men in 2 spoonfuls twice a day for one month.

***Asthma***

**48. *Nerium oleander* L.**

Family: Apocynaceae

Local name: Ganneru

Flowers ground with Jiggery and the extract administered in 2 Spoonfuls twice a day for about 2 months.

***Goiter***

**49. *Nymphaea pubescens* Willd**

Family: Nymphaeaceae

Local name: Kaluvapuvvu

Rhizome ground with seeds of piper nigrum and the paste applied externally on swelling part of the neck.

***Rat bite, skin allergy***

**50. *Ocimum tenuiflorum***

Family: Lamianaceae (Labiatae)

Local name: Tulasi

Leaf paste applied on bitten area for Rat bite, leaf juice applied on effected areas till cure of skin

allergy.

### *Jaundice*

#### **51. *Oldenlandia corymbosa* L**

Family: Rubiaceae

Local name: Chiru veru

Whole plant decoction given with a glass of butter milk in 3 spoonfuls twice a day for about 5 days.

### *Scabies*

#### **52. *Oxystelma esculentum* ( L. f. ) R. Br. ex Schult.**

Family: Asclepiadaceae

Local name: Tella doodipala

Leaves boiled in Brassica Oil and the paste applied on effected areas.

### *Hydrocele*

#### **53. *Pedaliium Murex* L.**

Family: Pedallaceae

Local name: Pedd palleru, Yenugu palleru

Leaves and fruits ground together in to paste and applied on testicles for a week.

### *Tooth ache*

#### **54. *Phonix Sylvestris* (L) Roxb.**

Family: Arecaceae

Local name: Eetha Chettu

Main rachis of leaf and roots are used as tooth stick.

### *Jaundice*

#### **55. *Phyllanthus amarus* Schum. et Thonn.**

Family: Euphorbiaceae

Local name: Nela Usiri

Whole plant extract mixed with curd given in 2 spoonfuls twice a day for a week.

### *Purgative*

#### **56. *Physalis minima* L.**

Family: Solanaceae

Local name: Budda busara, Kupanti

One spoonful of fruit Juice mixed in a glass of milk is taken at bed time for 3 – 4 days.

### *Dog bite*

#### **57. *Pithecellobium dulce* (Roxb) Benth**

Family: Mimosaceae (Leguminosae)

Local name: Seemachintha

Tender leaves crushed with Cuminum cyminum and mixed with Sesamum Oil and administered in 2 spoonfuls early in the morning for about 5 days.

***Abortion***

**58. *Plumbago zeylanica* L**

Family: Plumbaginaceae

Local name: Chitra moolam

Root paste made in to pills and 2 pills taken twice a day for 5 days before to abort pregnancy up to 3 months.

***Piles***

**59. *Pongamia pinnata* (L) Pierre**

Family: Fabaceae (Leguminosae)

Local name: Kanuga

Stem bark ground with bark of syzygium cumini and Termination arjuna and the extract with sugar candy administered in 2 spoonfuls twice a day for 20 – 30 days.

***Leucorrhoea***

**60. *Prosopis Cineraria* (L) Druce**

Family: Mimosaceae (Leguminosae)

Local name: Jammi Chettu

Root bark decoction taken in 2 spoonfuls twice a day for about 10 days.

***Fertility***

**61. *Pterocarpus marsupium* Roxb.**

Family: Fabaceae (Leguminosae)

Local name: Pedda egg, Pedda Eggashi Chettu,

Stem bark ground with bark of Mitragyana parvi flora and the paste made in to pills and administered to women in 4 pills twice a day for 5 days after menses for 3 consecutive menstrual cycles.

***Blood Pressure***

**62. *Rauvolfia Serpentina* (L) Benth. ex Kurz.**

Family: Apocynaceae

Local name: Sarpa Gandhi, Patala Garidi.

Roots dried in shade and made in to powder and administered in 1 spoonful twice a day for about 20 days.

***Purgative, Jaundice***

**63. *Ricinus Communis* L.**

Family: Euphorbiaceae

Local name: Amudamu

Seed oil mixed with milk in equal proportions and taken at bed time for purgative. Leaf paste administered in 1 spoonful with butter milk early in the morning for 5 – 7 days to controlling jaundice.

***Dandruff***

**64. *Sapindus emagrinatus* Vahl**

Family: Sapinaceae

Local name: Kunkudu Chettu

Fruit Juice applied on head and washed once or twice in a week till cure.

***Bone fracture***

**65. *Sida acuta* Burm. F.**

Family: Malvaceae

Local name: Parasu Kampa, Mirpa Alum

Leaf paste mixed with egg albumen and plastered on effected parts till cure.

***Fertility***

**66. *Sphaeranthus indicus* L.**

Family: Asteraceae (Compositae)

Local name: Bodasaramu

Inflorescence and roots ground with goat's milk and one of extract taken spoonful at night for sexual potency about one month.

***Rheumatic pains***

**67. *Sterculia urens* Roxb.**

Family: Sterculiaceae

Local name: Tapsy Chettu

Stem bark ground with turmeric Powder and the warmed poultice administered in 2 spoonfuls twice a day for about 7 days.

***Tooth powder***

**68. *Streblus asper* Lour**

Family: Moraceae

Local name: Baranki

Leaves dried in shade and made in to powder is used as tooth powder. Branches used as tooth – stick.

***Eye infection***

**69. *Tabernaemontana divaricata* (L) R. Br.**

Family: Apocynaceae

Local name: Nandi Vardhanam

The milky juice from tender branches is poured in to eyes till cure.

***Dyspepsia***

**70. *Tectona grandis*. L.f.**

Family: Verbenaceae

Local name: Teku Chettu

Wood powder mixed with honey and taken once in the morning in 1 spoonful for 5 days.

***Obesity***

**71. *Terminalia arjuna* (Roxb.exDc.) Wt. et Arn.**

Family: Combretaceae

Local name: Tella maddi, Arjuna Chekka

Bark powder taken in 1 spoonful once in the morning for about 3 weeks.

***Leucoderma***

**72. *Tinospora cordifolia* (Willd) Hook.f.et Thoms.**

Family: Menispermaceae

Local name: Tippa teega

Tuberous and aerial root paste applied on patches and exposed to morning sunlight for 30 – 45 minutes.

***Asthma***

**73. *Tragia involucrate* L.**

Family: Euphorbiaceae

Local name: Durada gondi

Root powder cigared with leaves of *Diospyros melanoxylon* and smoked to reduce suffering.

***Heamorrhage***

**74. *Trida procumbens* L**

Family: Astaraceae (Compositae)

Local name: Gaddi Chamanti, Moddlam

Leaf juice applied externally for cuts, sores, ulcers and wounds to arrest the bleeding, leaf juice applied on cuts and wounds till cure.

***Scorpion sting***

**75. *Vigna trilobata* (L) Verdc.**

Family: Fabaceae ( Leguminosae)

Local name: Pilli pesara

Leaf paste applied over the stringed area.

## *Arthritis*

### **76. *Vitex negundo* L.**

Family: Verbenaceae

Local name: Vavili chettu

Leaves boiled in water and leaves used for bathing and said to be effective.

## *Goiter*

### **77. *Xanthium strumarium* L.**

Family: Asteraceae (Compositae)

Local name: Marula matangi

50 ml of root juice administered in the morning about a week.

## *Asthma*

### **78. *Zaleya decandra* (L.) Burm.f.**

Family: Aizoaceae

Local name: Tella garijelu

Root Juice administered in 2 spoonfuls twice a day about 20 days.

## *Stomach ache*

### **79. *Zingiber Officinale* Rose C.**

Family: Zingiberaceae

Local name: Allam

Rhizome ground with lemon juice and administered in 2 – 3 spoonfuls for immediate relief.

## **Conclusion**

The present study revealed an important and alarming situation with regard to utilization of morphological plants in ethnobotanical practices of 79 plant species from Nirmal area of Adilabad district in Andhra Pradesh to treat 57 different ailments and diseases. Among these plant species only few species are used to treat more than one disease. Medicinal pastes are prepared from stem, root, leaves to treat diseases by the tribal people.

## **Acknowledgements**

The author is thankful to the university Grants Commission (UGC) New Delhi for providing the financial assistance in the form of Rajiv Gandhi National Fellowship. Thanks to Head, Department of Botany, Kakatiya University, Warangal for facilities.

## **References**

- 1) Brumot, K.S. & Naidu, T.S. 2007. National Seminar on Tribal medicinal system and its contemporary relevance”. – Alluri SeetharamaRaju centre for Tribal Studies & Research.
- 2) Hemadri K, Medicinal Plants in Andhra Pradesh, (Telugu Akademi, Hyderabad), 1984.
- 3) Jain SK & Mudgal A, Handbook of Ethnobotany, (*Scientific Publishers, Jodhpur*), 1999.
- 4) Ravishankar, T. 1990. Ethnobotanical studies in Adilabad and Karimnagar districts of Andhra Pradesh, India. Ph.D., Thesis, Bharathiar University, Coimbatore.
- 5) Ravishankar, T. and A. N. Henry.1992. Ethnobotany of Adilabad district,Andhra Pradesh, India, *Ethnobotany* 4, 45--52.
- 6) T. Pullaiah, P.V. Prasanna and G. Obulesu. 1992, Flora of Adilabad District (Andhra Pradesh, India)/ x, 284 p., map, Details No. 6962.
- 7) Mubeen, Rizwana, Sadia Fatima, Atiya Khanum, Irfan Ali Khan and S. Y. Anwar ,2005. Medicinally important plants growing in and around Adilabad district of Andhra Pradesh used in the treatment of different ailments. (*Eds.*), *III*, 118--180.