



## REGULAR ARTICLE

# UNIQUE ETHNOMEDICINAL USES OF SOME PLANT SPECIES OF ANDHRA PRADESH, INDIA

P. Prayaga Murty\* and G.M. Narasimha Rao

*Department of Botany, Andhra University, Visakhapatnam-530003, Andhra Pradesh, India*

## SUMMARY

Mankind has blessed with variety of natural products which help us in day to day life. These extraordinary substances help us to treat different ailments of human beings and other pet animals. In the recent years ethnopharmacology played a vital role in the undeveloped and developing countries of the Globe. Mono and multi ingredient herbal and non-herbal remedies as smoke practiced in different geographical regions of our globe. Present paper deals with some medicinal plants of Andhra Pradesh to treat different diseases with help of smoke therapy. Total 48 plant species of mono ingredient remedies, 16 plant species of multi ingredient remedies and 4 Non medicinal smokes with health benefits belonging to 30 families from Andhra Pradesh. Medicinal indications for smoke are respiratory tract, gynecological, narcotic, toothache, cough relief, chicken pox, skin diseases and neurological. The methods for administering smoke are inhalation, smoke directed at a specific part of the body. The benefit of the smoke therapy is quick absorption and rapid relief.

**Key words:** Unique ethnomedicinal plants, smoke, applications, Andhra Pradesh

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\*Corresponding Author, Email: [pragada007@gmail.com](mailto:pragada007@gmail.com), [ppm\\_phd@yahoo.com](mailto:ppm_phd@yahoo.com)

## 1. Introduction

From ancient times, plants have been used for curing several ailments of mankind and pet animals. Even today with advancement of allopathic medicine, still tribal people and rural population are dependent on the herbs and plants of medicinal interest. Reports of Akerele,(1), Anonymous,(2), revealed that more than 80% of the world population rely on herbal and traditional medicine. It was estimated that plant species of 2, 500 have been utilized for medicinal purposes and more than 6000 plants are widely used in folk and herbal medicine, Huxley(3). Ethno botanical expeditions are necessary for the progress of the tribal welfare. Traditional knowledge forms the basis for innovations of novel drugs for the benefit of the humanity. In the present study information was gathered from the tribal pockets of Andhra Pradesh regarding the applications of smoke from various plant species as medicinal remedy.

## 2. Material and Methods

Ethno botanical survey was conducted in selected tribal pockets of Andhra Pradesh, Uppa 18° 06' 822"- 82° 49' 571", Rajavommangi 17° 93' 483" - 82° 13' 502", Ramavaram 17° 26' 714"- 81° 13' 624", Sapparla 17° 55' 085"- 82° 10' 008", Boddaveru 17° 57' 261" - 82° 43' 612", Komarada 18° 57' 771"- 83° 29' 934", Rampachodavaram 17° 41' 464" - 81° 34' 761", G.K Veedi 17° 45' 717"- 81° 59' 318", Palakonda 17° 47' 410"-81° 32' 325", Kappakonda 17° 19' 572" - 82° 29' 294", Thimmapuram 17° 31' 563"- 82° 39' 245", Lankapalli 17° 017' 610"- 81° 11' 350", Siragada valasa 18° 28' 532"- 83° 13' 048", Madugula 17° 55' 280"- 81° 15' 420" , kinchumanda 18° 14' 563"- 82° 47' 881" , Kangaputte 18° 10' 988"- 82° 51' 478", Chittapuram 18° 52' 638" - 78° 39' 966", Sulanagar 17° 33' 804"- 80° 31' 540", Moraigudem 17° 47' 182"- 81° 01' 371". The first field trip of the study area was devoted to acquaintance with the local

chiefs, priests, vaidyas, herbal doctors, headman's, elderly people and educated students. In the subsequent field trips, collected the information on ethno botanical practices by the aboriginal and other. Six types of informants were chosen by random sampling methods those are

1. The Vaidhyas and other medicine men.
2. Village headman, priest and other prominent persons, their wives and other women.
3. The interpreters.
4. Men and women working in the field, preferably of fifty or more years of age.
5. Men and women in weekly shandies and other common places with fifty or more years.
6. Tribals, those who are cutting roots, tubers, herbs, etc. in the forest.

Each medicinal practice was cross checked with at least 3 to 4 informants. Discussions were made at the times of interaction with local chiefs, priests and herbal doctors for gathering information and confirming the uses of same plant recorded from different informants at different places. Ethnomedicinal data and the vernacular names have been collected for our records. Ethnobotanical enumeration of the study regions was followed by the works of Jain-(4-5) Martin, (6) and Cotton (7). Each plant was critically studied and identified with the help of Gamble's "Flora of the Presidency of Madras" Gamble,(8) using the field observations. The identifications were later confirmed with the help of Flora of Andhra Pradesh (Pullaiah and Chennaiah, (9), Pullaiah and Ali Moulali, (10-11).

### 3. Results and Discussion

In the present study data collected from different tribal pockets of Andhra Pradesh on inhalation of smoke, direct application of smoke on the specific organ and ambient smoke was discussed. Table I to III are self explanatory of the present investigation.

Table I reveals the data about mono ingredient herbal remedies used as medicinal smoke, total 48 plant species belongs to 43 genera and 30 families used as mono ingredient herbal remedies. Different parts of the plants such as root, stem, leaf, bulb, tubers, fruit, seed, wood and whole plant were used as smoke remedy. Table -I shows the application of plants species and remedy for various ailments of the human beings. Table-II shows multi ingredient remedies used as smoke form for treating various chronic and acute diseases. Data gathered on 20 plant species which are belongs to 15 genera and 13 species. These genera grouped into 4 categories for treating the chronic diseases. Table-III showed the uses of different plant species on non medicinal smokes with other benefits.

There are different types of application of medicinal smoke as remedy for treating diseases. The major three methods recorded from this investigation were namely, smoke inhalation, smoke directed at a specific part of the body and ambient smoke.

1. Smoke inhalation:

Today most of the tribal people and people in the remote rural population smoke cigars prepared from the leaves of *Datura stramonium* for treating the asthma and other respiratory tract problems. The major categories of conditions or uses for this method are pulmonary, neurological, tooth ache and gastrointestinal.

2. Smoke directed at a specific part of the body:

In this method, for producing smoke, natural materials are put on a hot plate, spread over embers or placed directly in to the fire. The resulting smoke is directed at the largest organ.

3. Ambient smoke :

Passive smoking refers to filling ambient air with smoke by generating it within confirmed spaces so as to purify the air and to make the environment cleans.

Table 1. Mono ingredient herbal remedies used as medicinal smoke.

S. No	Scientific Name	Family	Common Name	Part used	Preparation	Medicinal uses
1	<i>Barleria prionites</i>	Acanthaceae	Mullagorinta	A	SI	Chicken pox remedy
2	<i>Acorus calamus</i> L.	Araceae	Vasa	R	SI	Relief cold, analgesic, toothache remedy
3	<i>Adiantum</i>	Adiantaceae		W	SI	Febrifuge
4	<i>Allium cepa</i> L.	Liliaceae	Neerulli	B	SD	Respiratory tract diseases
5	<i>Allium sativum</i> L.	Liliaceae	Vellulli	B	SD	Analgesic, respiratory tract diseases
6	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Mullathota kura	W	SI	Mood disorders
7	<i>Mangifera indica</i> L.	Anacardiaceae	Mamidi	L	SD	General skin diseases
8	<i>Semecarpus anacardium</i> L.	Anacardiaceae	Jeedimamidi	Fr	SD	Haemorrhoids
9	<i>Annona squamosa</i> L.	Annonaceae	Seethaphalam	Fr	SI	Anticonvulsive
10	<i>Carum capticum</i> L.	Apiaceae	Vamu	Fr	SD,SI	General gynecological disorders
11	<i>Coriandrum sativum</i> L	Apiaceae	Daniyalu	Fr	SI	Toothache remedy
12	<i>Ferula asafoetida</i>	Apiaceae	Inguva	W	SI	Expectorant
13	<i>Cocos nucifera</i> L	Arecaceae	Kobbari	Fr	SD	Abortifacient
14	<i>Phoenix dactylifera</i> L	Arecaceae	Kharjuram	Fr	SD	General skin disease
15	<i>Aristolochia indica</i> L	Aristolochiaceae	Eswari	St	SI	Relief cough, respiratory tract disease
16	<i>Calotropis procera</i> (Ait) Ait.f.	Asclepiadaceae	Jilledu	L	SI	Respiratory tract disease
17	<i>Bidens pilosa</i> L	Asteraceae	Roddamokka	L, Fl, R	SI	General gynecological disorders
18	<i>Tagetes erecta</i> L	Asteraceae	Banthi	L	SI	Snakebite remedy
19	<i>Cannabis sativa</i> L	Cannabaceae	Ganjay	L, Fl	SI	Narcotic, analgesic, mood disorder
20	<i>Carica papaya</i> L	Capparaceae	Boppay	L	SI	Respiratory tract diseases
21	<i>Cuscuta reflexa</i> Roxb	Convolvulaceae	Bangaruteega	W	SI	Febrifuge
22	<i>Evolvulus alsinoides</i> L	Convolvulaceae	Vishnukranthi	L	SI	Respiratory tract diseases
23	<i>Cyperus rotundus</i> L	Cyperaceae	Tunga	T	SD	Analgesic
24	<i>Euphorbia hirta</i> L	Euphorbiaceae	Reddivarinarub ralu	L	SI	Respiratory tract diseases
25	<i>Ricinus communis</i> L.	Euphorbiaceae	Amudamu	Fr	SI	Toothache remedy
26	<i>Dichrostachys cinerea</i> (L.) Wight& Arn.	Caesalpiniaceae	Veluthuru-chettu	R,L	SI	Relief cough, respiratory tract disease
27	<i>Entada pursaetha</i> L	Mimosaceae	Gillakaya	Fr, Sd	SI	Analgesic
28	<i>Mimosa pudica</i> L.	Mimosaceae	Athipatti	L	SI	Toothache remedy
29	<i>Mucuna pruriens</i> Bak	Fabaceae	Pedda-duradagandi	Fr	SI	Relief cough
30	<i>Ocimum americanum</i> L	Lamiaceae	Kukka tulasi	L	SI	Nose medicine
31	<i>Bauhinia purpurea</i> L	Fabaceae	Devakanchanamu	L	SI	Respiratory tract diseases
32	<i>Pavonia zeylanica</i> L	Malvaceae		W	SD	Dressing wounds
33	<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Neelagiri	L	SI	Expectorant, relief cold
34	<i>Triticum aestivum</i> L	Poaceae	Goduma	Fr	SD	Analgesic
35	<i>Zea mays</i> L.	Poaceae	Mokkajonna	Styl-	SI	Throat aid

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36	<i>Ziziphus mauritiana Lam</i>	Rhamnaceae	Regu	Wo	SD	Treating the scalp
37	<i>Santalum album L.</i>	Santalaceae	Chandanam	Wo	AS	Air purifier
38	<i>Scoparia dulcis</i>	Scrophulariaceae		L	SI	Respiratory tract diseases
39	<i>Datura metal L.</i>	Solanaceae	Ummetta	Fr, L	SI	Respiratory tract diseases, toothache remedy
40	<i>Datura stramonium L</i>	Solanaceae	Nalla ummetta	L	SI	Respiratory tract diseases, toothache remedy, analgesic, narcotic.
41	<i>Hyoscyamus niger L.</i>	Solanaceae	Kurasani	Fr, L	SI	Respiratory tract diseases, toothache remedy.
42	<i>Nicotiana tabacum L.</i>	Solanaceae	Pogaku	L	SD, SI	General gynecological disorders
43	<i>Solanum incanum L</i>	Solanaceae	Mulla vanga	F, Fr	SD	Treatment of the eye
44	<i>Solanum melangena L</i>	Solanaceae	Vankaya	Fr	SD	Haemorrhoids remedy
45	<i>Solanum nigrum L</i>	Solanaceae	Kamanchi	W	SI	Toochache remedy
46	<i>Solanum surattense Burm.</i>	Solanaceae	Mulla vangakaya	Fr	SI	Toothache remedy, general skin diseases.
47	<i>Vitex nigundo L.</i>	Verbenaceae	Vavila	St	SI	Relief cold, analgesic.
48	<i>Cissus quadrangularis L.</i>	Vitaceae	Nalleru	W	SI	General gastro-intestinal disorders

A= Ariel part, B= Bulb, Fl= Flower, Fr= Fruit, L =Leaves, R= Root, T= tuber, Sd= Seed, St= Stem, W= Whole, Wo= Wood. AS=Ambient smoke, SI= Smoke inhalation, SD= Smoke directed a specific organ or body part.

Table 2. Multi ingredients herbal remedies used as the smoke form.

S. No	Scientific Name	Family	Common Name	Medicinal uses
1	<i>Alpinia galangal (L.) Willd.</i> <i>Azadirachta indica A.Juss</i> <i>Citrulus colicynthis (L.) Schrad</i> <i>Cocos nucifera L.</i> <i>Ficus religiosa L.</i> <i>Hordeum vulgare L.</i> <i>Oryza sativa L</i> <i>Santalum album L</i> <i>Sesamum indicum L.</i> <i>Withania somnifera (L) Dunal.</i>	Zingiberaceae Miliaceae Cucurbitaceae Araceae Moraceae Poaceae Poaceae Santalaceae Pedaliaceae Solanaceae	Dumparastram Vepa Pucha Kobbari Ravichettu Jonna Vari Chandanam Nuvvulu Aswagandha	Tuberculosis, smallpox, measles, skin disease, rheumatism, cardiac ailments and antifungal.
2	<i>Cannabis sativa L.</i> <i>Datura stramonium L.</i> <i>Withania somnifera (L.) Dunal</i>	Cannabaceae Solanaceae Solanaceae	Ganjayi Ummetha Aswagandha	Abortion
3	<i>Allium cepa L</i> <i>Allium sativum L.</i> <i>Sesamum indicum L.</i>	Liliaceae Liliaceae Pedaliaceae	Neerulli Vellulli Nuvvulu	Skin diseases
4	<i>Allium sativum L</i> <i>Cajanus scarabaeoides (L.) du-Petit-Thours</i> <i>Catunaregam spinosas (Thunb.)Tirveng</i>	Liliaceae Fabaceae Rubiaceae	Vellull Kondakandi	Piles

Table 3. Non medicinal smokes with other benefits.

S.No	Scientific Name	Family	Common Name	Part used	Medicinal uses
1	<i>Aerva lanata</i> (L) Schult.	Amaranthaceae	Pindikura	W	Smoke in social settings
2	<i>Leonotis nepatifolia</i> (L.) Ait.f.	Lamiaceae	Ranaberi	L	Smoke in social settings
3	<i>Eucalyptus glabulus</i> Labill	Myrtaceae	Neelagiri chettu	L	Repellent
4	<i>Dodonae viscosa</i> (L.) Jaq.	Sapindaceae		R	Smoke in social settings

L= Leaves , R=Root, W= Whole.

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