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Ethno-veterinary Medicinal Plants of the Catchments Area of the River Papagni in the Chittoor and Ananthapur Districts of Andhra Pradesh, India

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Abstract

This study presents first hand information about 73 prescriptions that were recorded during a field study of local traditional herbal practitioners and healers from villages at and around the Papagni river basin of the Chittoor and Ananthapur districts of Andhra Pradesh, in Southern India. The prescriptions discussed in this paper include various medicines prepared out of herbal plants in alleviating diseases that are suffered by livestock and by the local farmers. Enumerated in this study are 62 plant species (22 trees, 16 herbs, 8 shrubs and 14 climbers) along with other ingredients used in the preparation of veterinary medicine.

Key words: Ethno-veterinary medicinal plants, livestock diseases, traditional herbal practitioners, Chittoor and Ananthapur of Andhra Pradesh.

Introduction

The purpose of the present study was to survey and document the plant based animal health care practices used by the pastoralist communities as well as by the Adivasis people settled in the Papagni river catchments areas of the Ananthapur and Chittoor districts of Andhra Pradesh. The authors looked into the various medicinal plants which are available in the catchments areas of the River Papagni and their utilization on livestock health by local traditional healers. We found some 62 medicinal plants which are commonly used by local traditional herbal practitioners for curing various livestock diseases.

The Papagni River was at one time a perennial river, but gradually it became seasonal. It is a tributary of the river Pennar. The Papagni originates from the Kolar district of Karnataka and traverses about 175 km before joining the Pennar. The catchment of Papagni within AP is about 2,47,000 ha spread across three districts, viz. Chittoor, Ananthapur and Cuddapah, a major portion of which lies in the western uplands of Chittoor district. Some of the exploratory studies have been conducted by Sri Venkateswara University in some specific locations but not on ethno-veterinary plant based remedies.

Study area and the people

Most of the hills and hillocks of the study area are dry and degraded with few patches of good vegetation. A major portion of the forests in the area is either thorny scrub or tropical mixed dry deciduous type. In these forests, the trees begin to shed leaves by about December, and between February and May forests appear very open. No area is completely leafless at any given time of the year. Flowering and fruiting are generally before the onset of the southwest monsoon. The bulk of vegetation consists of co-dominant trees and thorny scrub capable of great drought resistance. The Chittoor geographical region of the present study is spread over 15152 square kilometers, which includes forest cover of 4520.18 hectares. The Ananthapur geographical region is 19130 square kilometers and is covered with 1969.78 hectares of forest area.

The economy of the region is mostly agro-based. The total population of the region could be divided into two broad livelihood classes, those dependent on agricultural and livestock rearing, and those relying on non-agricultural sources. More than 70 percent of the population belongs to the farmer category. In habitations close to the forested areas people make a living by cutting and selling fuel wood, collection and marketing of minor forest products like medicinal plants, honey, thatching grass, tendu leaves, fruits, roots and tubers, fiber, gums and resins, etc. The major communities along the river are the pastoralist communities (Golla and Yadava) and the Adivasis (Yerukala, Yanadi).

Livestock has always held a prominent place in the rural economy of the district. Of the total livestock population in the region the bovines (Cattle and Buffaloes) constitute close to 40 per cent and the small ruminants (Sheep and Goats) almost 60 per cent. The indigenous cattle breed called "Hallikar" is still the most preferred draught animal of the region. The other native "Punganur" variety of cattle that were highly drought-resistant is almost locally extinct. The poor farmers completely depend on bullocks of Hallikar breed to plough their lands. Communities which are habituated along with the Papagni river are primarily dependent on herbal medicines to cure their sick animals. Ethno-veterinary medicine plays a very significant role in these areas. Local government health care facilities are inaccessible to the rural poor of these areas.

Material and methods

The data for this article on ethno veterinary healing practices was collected between May 2004 and September 2005. Ten villages were selected from two districts (Chittoor-7 and Ananthapur-3) based on such criteria as the Density of livestock species, forest adjacent villages, without forests but with revenue lands, villages with all the above natural resources, hamlets near water bodies and hamlets adjacent to canals and streams. The localities of these villages are adjacent to river forests, such as in the case of the Sadukonda, Malaikonda, Neredikona, China Erragonda and Eswaramala forests.

In collecting our data we used Participatory Learning Approach (PLA) tools, individual interviews as well as semi structured interviews, questionnaires and tape recorders. We spent an average of 4 days each month to document the information from the traditional healers (natu vydhyulu). Plant specimens were

collected during our field visits and voucher specimens as well as photographs were prepared for the herbarium. The biographical data of the healers was recorded and utilized in the preparation of a directory of the healers of the study area, which could then be used for future reference. We also utilized the service of the veterinary doctors in the diagnosis of livestock diseases.

Twenty healers were interviewed in order to better understand their perceptions on traditional livestock healing practices. These healers came from 14 different communities. Naidus predominated at 23.4%, Valmiki - 12.8%, Kapus- 8.5%, Reddys -6.4%, Gollas 4.3% and Balija- 4.3%. One healer each was interviewed from the Bididi, Kuraba, Mala, Muslim, Sugali, Yadava, and Yerukala castes. Their age ranged between 45 and 70 years. Eleven healers were found to deal both with animal health care and human ailments as well, and the rest were completely specialized in treating animals only. The doses prescribed by these healers are based on experience only. These quantities were actually weighed and are presented here form of grams. Most of them are illiterate and only a very few knew how to sign their names. Usually healers follow the Ayurvedhic medical system in order to diagnose a disease. In the present report, juice means the liquid obtained by crushing and pressing the useful plant parts without adding water. Bolus is a paste made of plant parts made by grinding without water. Decoction means a solution derived by boiling the medicinal plant parts. There are single plant remedies and combinations of different plants.

Enumeration

Seventy-three herbal remedies based on 62 medicinal plants were documented.

The plants are arranged alphabetically by genus and species name. The botanical name is followed by synonym(s), family, local names, informant (healer) name and village. The vernacular names of the medicinal plants are spelled out by the healers in their local dialect.

The specimens are deposited in local Rural Development Institution know as Foundation for Ecological Security (FES) Madanapalli, Chittoor District, AP.

1. *Acacia sinuata* auct. Syn: *Acacia concinna* (willd) DC., (Fabaceae) “Seekaya”

- Take 100g fresh stem bark grind it and make a bolus. Feed animals to cure pneumonia twice daily for three days.(Ref: Garudappa, Nimmathotabailu)

2. *Acalypha indica* L. (Euphorbiaceae), “Pippi aku” or “Murakunda”

- Collect handful leaves and squeeze out the juice, add 5g of Inguva in it. Drench this medicine to the animal to get relief from constipation. (Ref: P.Narsappa, Dhaniyani cheruvu)
- Collect handful leaves and add 4 black pepper& 3 cloves of garlic and grind together to make a paste. Apply this medicine externally for maggot wounds once daily until cured. (Ref:Samula Chinakondappa, Somarajukunta)

3. *Acorus calamus* L. (Araceae) “Vasa”

- Apply corn powder externally through mixing coconut oil twice daily to control lice till cured. (Ref: Sorakayala Narsimhulu, Peddaboyapalle)

4. *Ailanthus excelsa* Roxb. (Simaroubaceae), “ Peddamanu”

- Grind 1 kg stem bark and squeeze out the juice and add 5ml garlic juice into it. Apply externally on affected part soon after diagnosed Black Quarter disease. (Ref:Nakka Chinnappa, Settupalli)

5. *Albizia amara* (Roxb.) Boivin. (Mimosaceae) “ Chigara”
 - Soak the pounded stem bark in 10% salt water for 2 hours and filter it., wash the affected eye with this water to cure eye discharges twice daily for two days.(Ref: K.Kasappa, N.P Kunta)
6. *Aloe vera* (L.) Burm.f. Syn: *Aloe barbadensis*; (Liliaceae) “ Kalabanda”
 - Apply leaf juice externally to control ticks and lice, wash with warm water after 3-4 hours. (Ref: Siddappanaidu, Naidugaripalli)
7. *Annona squamosa* L. (Annonaceae) “Seethaphal”
 - Handful leaves, 50g Tobacco leaves and 10g lime(sodium carbonate) .Grind all together and make a paste. Apply externally twice daily for three days to cure maggot wounds. (Ref: Yanamala Siddappa, Penderivari palli)
8. *Aristolochia bracteolata* Lam. Syn: *Aristolochia bracteata* Retz. (Aristolochiaceae) “ Gadida gadapa”
 - Handful roots, 6 black pepper and two cloves of garlic grind all together, make a bolus feed the animal which is suffering from anorexia as a single dose. (Ref: R. Sidhamallappa naidu, Thodendla gadda palli)
 - Feed roots about 50g once to cure bloat. (Muddanna, Boyipalli)
 - Make a bolus by grinding leaves and feed 30g twice daily for 3 days to cure convulsive seizures (Ref: Papisetti,Settupalli)
9. *Aristolochia indica* L. Syn: *Aristolochia lanceolata* W. (Aristolochiaceae) “ Gabbu Usili / Nalla Eswari”
 - Feed leaves for snake bite for one time. (Ref: Venkatanarayana, Peddamandyam)
10. *Azadirachta indica* A. Juss. (Meliaceae) “ Vepachettu”
 - Apply leaf paste externally for foot abscess twice daily till cured. (Ref:Narsappa, Dhaniyani cheruvu)
11. *Bambusa arundinaceae* (Retz.) Willd. Syn: *Bambusa arundinaceae* Retz; *Bambusa spinosa* Roxb. (Poaceae) “ Veduraku”
 - Collect handful fresh leaves, the same quantity of leaves of Clerodendrum phlomidis and Clerodendrum inerme grind all together and add 5g black pepper powder. Given orally twice daily to cure convulsive seizures. (Ref: Papisetti, Settupalli)
12. *Boswellia serrata* Roxb. (Bursaceae) “ Andugu”
 - Grind the stem bark and make a bolus. Feed 50g twice daily for 3 days to control infectious diarrhea (Ref: P.Peddanna, Cheruvukindapalli)
13. *Butea monosperma* (Lamk.) Taub. Syn: *Butea frondosa* Roxb. Ex Willd; *Erythrina monosperma* Lam. (Fabaceae) “ Moduga”
 - Grind 50g fresh bark by adding 5g black pepper and 2 cloves of garlic and make into a bolus. Feed twice daily for two days to cure diarrhea.(Ref:Papisetti, Settupalli)
14. *Calotropis gigantea* (L.) R.Br.; Syn : *Asclepias gigantea* L.; (Asclepiadaceae) “ Jilledu”
 - Feed 1kg young leaves once to get relief from HCN poisons. (Ref: Venkatappanaidu, Nimmathotabailu)
15. *Capparis zeylanica* L.; Syn: *Capparis zeylanica* L.; (Capparidaceae) “ Thotliteega”
 - Grind the stem bark by adding 10 seeds of black pepper, 2 bulbs of garlic and mix it into 500ml water. Given twice daily for two days to cure colic. (P.Narsappa Dhaniyani cheruvu)
 - Handful fresh roots,50g onions,50g jaggery grind all together and make a bolus. Feed twice daily for 3 days to cure convulsive seizures (Ref: Muddanna Boipalle)
16. *Capsicum annum* L. Syn: *Capsicum frutescens sensu Cl.* (Solanaceae) “ Mirapa”
 - Grind 5 fried dry fruits by adding 1g salt and mix it into 200ml water. Given twice daily for two days to cure bloat. (Nakka Chinnappa, Balasamudram)

17. *Carum copticum* (L.) Hiern.; Syn: *Trachyspermum ammi* (L.); Sprague; *Ammi copticum* L.; *Sison ammi* L. (Umbelliferae)
 “ Oma or Vamu”
 ➤ Boil handful quantity of seeds in 200ml to make a decoction, add 10g sweet soda. Drench it once cure bloat. (Ref: Venkatappanaidu, Nimmathotabayilu)
18. *Cassia auriculata* L. (Caesalpiniaceae) “ Nela thangedu”
 ➤ Collect 200ml of root juice. Administer orally twice daily for three days to cure diarrhea (Ref: K.Pullaiah, Upparapalli)
19. *Cassia fistula* L. Syn: *Cassia rhombifolia* Roxb. (Caesalpiniaceae) “ Rela”
 ➤ Fumigate with leaves near the sick animal once in the morning for three days to cure Ephemeral fever. (Ref: Muddanna, Boyapalle)
20. *Cassia siamea* Lam. Syn: *Cassia florida* Vahl, Symb.; Caesalpiniaceae) “ Seemathangedu”
 ➤ 100ml Fresh stem bark juice mix into 200ml water. Given orally twice daily to cure diarrhoea (Ref: Reddappa Naidu, Singanivaripalli)
21. *Cissus quadrangularis* L.; Syn: *Vitis quadrangularis* (L.) Wall. Ex Wight. (Vitaceae) “ Nallerukada”
 ➤ Apply stem juice externally to cure wounds due to dog bite. (Ref: Appineni Krishnappa, Jannevaripalli)
22. *Citrullus colocynthis* (L.) Schr.; Syn : *Cucumis colocynthis* L.; (Cucurbitaceae) ‘Peddapapara’
 ➤ Collect the juice from the leaves and apply on affected part twice daily for 3 days to cure yoke gall (Ref: Papisetti, Settopalli)
23. *Clerodendrum inerme* (L.) Gaertn. (Verbanaceae) “ Visamdari”
 ➤ About 50g leaves to be fed to the animal which is suffering from colic once daily for two days. (Ref: Siddappa naidu, Naidugari palle)
24. *Clerodendrum multiflorum* (Burm.f.)O.Ktze. *Clerodendrum phlomidis* L. f., *Volkameria multiflorum* Burm. F. (Verbenaceae) “ Thakkali”
 ➤ About 50g leaves to be fed to the animal to cure colic twice daily for two days. (Siddappanaidu, Naidappagari palle)
 ➤ 50g leaves, 10 seeds of pepper grind together and make a 50g bolus. Feed twice against Tripanosomiasis until cured. (G.Venkataramana, Kotakadapalli)
25. *Corchorus capsularis* L.(Tiliaceae) “ Gogokada”
 ➤ Leaves and the same quantity of *Pergularia daemia* leaves grind together and make a bolus. Feed 50g bolus twice a day for two days to cure fever (Ref: Jnanappa, Peddamandyam)
26. *Cuscuta reflexa* Roxb. (Convolvulaceae)
 ➤ Squeeze out the juice from twigs about 200ml and administer orally to cure diarrhoea twice daily till cured (Ref: Ramachandra, Nakkalavari kota)
27. *Datura metel* L. Syn: *Datura fastuosa* L.; *Datura fastuosa* var. *alba* C. B. Cl. (Solanaceae) ‘Ummetha’
 ➤ Burn 2 fresh fruits and make a powder, 5g pepper powder, two bulbs of garlic and make bolus. Administer orally twice daily for two days to cure diarrhea. (Ref: Papisetti, Settopalli)
 ➤ Feed 3 fresh leaves twice daily for three days to cure diarrhea (P.Narsappa, Dhaniyani cheruvu)
28. *Delonix elata* (L.) Gamble (Caesalpinaceae) “Sunkesula”
 ➤ Grind 50g stem bark and put it in boil water (200ml) for 10 minutes. Administer this mixture orally twice daily morning and evening for two days to cure colic. (Ref: Siddappanaidu, Naidappagari palle)

29. *Diospyrus chloroxylon* Roxb.; Syn: *Diospyrus capitulata* Wight. (Ebenaceae) “ Illinda”
- Grind ½ kg of fresh leaves and mix into 200ml butter milk. Administer orally twice daily for two days to control diarrhea(Ref: B.Nagappa, Bathenagari palli)
30. *Dodonea viscosa* (Sapindaceae) “ Banderi”
- Grind the leaves and make paste, apply this paste on bone dislocated part (after setting up the bone) and tie with sheep wool tightly. Keep it for 15-20days. (Ref: Penderi Bodappa, Penderivaripalli)
31. *Dolichos biflorus* L.;Syn: *Dolichos uniflorus* Lam.; *Macrotyloma uniflorum* (Lam.) Verdc. (Fabaceae) “ Ulavalu”
- 500ml of decoction making with seeds and add little salt, mirch powder and oma in it. Drench this medicine once to cure bloat . (Ref:K.Kasappa, NPKunta)
 - Leaf juice to be applied externally on affected hooves to cure foot rot (Ref: Buchannagari Krishnappa, Penderivari palli)
32. *Eclipta prostrata* L.; Syn: *Eclipta alba* (L.) Hassk.; *Verbesina prostrata* L. (Asteraceae) “Guntagalagaraku”
- Handful leaves along with same quantity of *Ocimum sanctum* leaves grind together and make a paste. Apply externally on affected hooves to cure foot rot. Once a day till cured. (Ref: Appineni Krishnappa, Jannevaripalli)
33. *Ficus hispida* L.f.; Syn: *Ficus oppositifolia* Willd.; *Ficus daemonum* Koen.; (Moraceae) “ Medichettu”
- Grind 5 fresh fruits and mix it into 200ml water. Administer orally twice daily morning and evening until cured diarrhea (Ref: Krishnareddy, Erragutta palli)
34. *Ficus benghalensis* L.; Syn: *Ficus indica* Linn.; *Urostigima benghalense* (Linn.); (Moraceae) “Marri chettu”
- Collect 50g of fresh stem bark, add same quantity of *Azadirachta indica* stem bark grind together and make bolus. Feed twice daily for 3 days to cure smelly diarrhoea (Ref: Machineni Venkata Ramana, Nakkalavari kota)
35. *Gmelina arborea* Roxb. (Verbenaceae) “ Konda gummudu”
- Grind 50g fresh leaves and add 5g sugar. Boil it in 500ml water for ½ an hour, filtered and cool it. Given orally twice daily for 3 days to cure blood in urine. (Ref: S.Reddappa naidu, Singanivari palli)
36. *Gymnema sylvestre* (Retz.) R.Br. Syn: *Periploca sylvestris* Retz. (Asclepiadaceae) “ Podapathri”
- Apply leaf juice 2 or 3drops into affected eye twice daily for two days to cure eye discharge. (Ref: P.Narsappa, Dhaniyani cheruvu)
37. *Hemidesmus indicus* (L.) R.Br. Syn: *Periploca indica*; (Periplocaceae) “ Sughandipala”
- Make a bolus by grinding leaves, given orally 30g twice daily for 3 days to cure convulsive seizures (Ref: Papisetti, Settupalli)
38. *Holarrhena pubescens* (Buch.-Ham.) Wall. Ex G. Don.; Syn: *Holarrhena antidysenterica* (Roth) Wall. ex A. D.;*Echites pubescens* Buch.- Ham (Apocynaceae) “ Palakodise”
- Grind the stem bark and make a bolus. Feed twice daily for 3 days to control infectious diarrhea (Ref: P.Peddanna, Cheruvukindapalli)
39. *Jasminum sambac* (Oleaceae) “ Malle teega”
- Sun dry the flowers and make fine powder apply this powder into the eye to cure eye discharges twice daily for two days.(Ref: P.Narsappa, Dhaniyani cheruvu)
40. *Leucas aspera* (Willd.) Link. Syn: *Leucas plukenetii* (Roth)Spr. In Syst. Veg. ; *Phlomis plukenetti* Roth, *Phlomis aspera* Willd. In Enum. Hort. Berol (Lamiaceae) “ Thummikura”
- Put fumigation near the sick animal to control Ephemeral Fever once a day till cured. (Ref: Muddanna, Boyipalle)
 - Pour 2-3 drops of leaf juice into the nasal to get relief from HCN poison one time only.(Ref: Appineni Krishnappa, Jannevaripalli)

41. *Lycopersicum esculentum* (Solanaceae) “ Tamata”
 - Let the animal eat once about ½ kg twigs to cure bloat. (Ref: P.Narsappa, Dhaniyani cheruvu)
42. *Musa paradisiaca* L. Syn: *Musa sapientum* L. var *paradisiaca* Baker; *Musa cliffortiana* L. (Musaceae) “Arati chettu”
 - Feed 2 or 3 young fruits mixing with little castor oil twice daily for two days to get relief from constipation. (Ref: Venkatappa naidu, Nimmathotabailu)
43. *Pergularia daemia* (Forssk.) Chiov. Syn: *Asclepias daemia* Forssk.; *Daemia extensa* R. Br (Asclepiadaceae) “ Juttuvaku”
 - Collect the latex and pour 3 drops into the nasal for one time to cure sneezing. (Ref: Sorakayala narsimhulu , Peddaboyapalli)
44. *Piper betel* L. (Piperaceae) “ Thamalapakulu”
 - Collect 10g leaves, 10g tamarind fruit pulp and 10g jaggery grind all together and make bolus. Feed twice daily for 3 days to cure bloody diarrhea (Ref: K.Pullaiiah Upparapalle)
45. *Piper nigrum* L. (Piperaceae) “ Miriyalu”
 - Grind 10g seeds with 25g of *Brasica nigra* and Mix it into 500ml warm water and drench once to cure bloat. (Ref: Penderi Bodappa, Penderivari palli)
46. *Plumbago zeylanica* L. (Plumbaginaceae) “ Thella chitramulam”
 - Apply roots bark paste as katuka for eye injuries once daily till cured. (Ref: Venkatappanaidu, Nimmatotabailu)
47. *Pongamia pinnata* (L.) Pierre. Syn: *Derris indica* (Lam.) Bennet; *Pongamia glabra* Vent.; *Cytisus pinnatus* L.; *Derris pinnata* Lour. (Fabaceae) “ Kanuga”
 - Grind ½ seed by adding little salt. Feed once to reduce bloat. (Ref: Papisetti, Settupalli)
48. *Psidium guajava* L.(Myrtaceae) “ Jamachettu”
 - Make juice out of fresh stem bark and add 200ml fresh water. Given orally twice daily for 2 to 3 days to control diarrhea (Ref: Reddappa Naidu, Singanivaripalle)
49. *Randia spinosa* Poir. Syn: *Randia dumetorum* (Retz.)Poir. (Rubiaceae) “ Manga chettu”
 - Grind the stem bark and make a bolus. Feed twice daily for 3 days to control infectious diarrhea (Ref; P.Peddanna, Cheruvukindapalli)
50. *Solanum virginianum* L.; *Solanum surattense* Burm. f.; *Solanum xanthocarpum* Schrad. & Wendl (Solanaceae) “ Ramamulka”
 - Collect juice from fruits and apply 2 -3 drops on affected eye, twice daily for two days to cure eye discharge. (Ref: Buchanna, Penderipalli)
51. *Sorghum vulgare* Pers. (Poaceae) “ Thella Jonnalu”
 - Fry the grains (red variety) about 50g and put them in hot water (200ml) for 10 minutes and filter it. Drench this water twice daily for two days. (Ref: Nakkala Chinnappa, Balasamudram)
52. *Soymida febrifuga* (Roxb.) A. Juss.; Syn: *Swietenia febrifuga* Roxb (Melieaceae) “ Somi”
 - Stem bark 50g and add 50g stem bark of *Pongamia pinnata* grind together and make bolus. Feed twice daily for 3 days to control infectious diarrhea (Ref: Machineni Venkata Ramana, Nakkalavari kota)
53. *Tamarindus indica* L. (Caesalpiniaceae) “ Chintha chettu”
 - Prepare juice from fruit pulp and add 5g of sweet soda (Calcium carbonate) administer orally for colic once daily till cured. (Ref: K Pullaiiah, Upparapalle)
 - Boil the fruit pulp and apply on the affected hooves when it is slightly hot to control foot rot. (Ref:

Sorakayala Narsimlu, Peddaboyapalle)

54. *Terminalia chebula* Retz. Syn: *Myrobalanus chebula* (Retz.) Gaertner, *Fruct. Terminalia chebula* var. *tomentella* (Kurz) C. B. Cl. (Combretaceae) “Karakachettu”
- Grind two dry fruits and mix it in 200ml water. Given twice daily for two days to cure diarrhea.(Ref: Venkatappa naidu, Nimmathota bailu)
 - 10 fruits powder and add ½ kg ghee, ½ kg moon dall and 25g sugar. Feed twice daily for 3 days to cure bloody diarrhea (Ref: Venkatappa naidu, Nimmathota bailu)
55. *Tiliacora acuminata* (Lam) Miers. (Menispermaceae) “Theerla teega”
- Collect handful of twigs, 10g jaggery grind together and make bolus. Feed it twice daily for 3 days to control blood in urine. (Ref: S.Reddappa naidu, Singanivari palli)
 - Apply leaf juice 3 drops into the eye to cure conjunctivitis twice daily for two days. (Ref: Reddappanaidu,Singanivaripalli)
56. *Tylophora indica* (Burm.f.) Merrill. Syn: *Cynanchum indicum* Burm. f., ; *Tylophora asthamatica* Wight & Arn (Asclepiadaceae) “Mekameyani teega”
- 50g leaves, 50g of garlic and 10g of Black pepper grind all together and feed to the animal which is suffering from anorexia thrice daily until cured. (Ref:Ganginaidu,Chennappagari palli)
57. *Tridax procumbens* L. (Asteraceae) “Belapaku”
- Collect handful leaves and grind them. Mix into 200ml butter milk. Given orally morning and evening for one day. (Ref:P Narsappa, Dhaniyani cheruvu)
58. *Trigonella foenum- graecum* L. (Fabaceae) “Menthulu”
- Take 25g of seeds soak them in 200ml water for ½ an hour and grind it. Given orally twice daily until cured for control diarrhea. (Ref: Venkatappa naidu,Nimmathota bailu)
59. *Wattakaka volubilis* (L.f) Stapf.; Syn: *Marsdenia volubilis* T. Cooke; *Asclepias volubilis* L. f.; *Dregea volubilis* (L. f.) Bth. Ex Hook. f. (Asclepiadaceae) “Pedda kadithi/ Bandigurija”
- Apply leaf juice by adding little lime on affected part to cure sprains once day till cured (Ref: K.Pullaiiah, Upparapalle)
60. *Withania somnifera* L. Dunal. Syn : *Physalis somnifera* (Solanaceae) “Dommadolu gadda/ Aswagandha ”
- Squeeze out the juice from roots. Put 3 drops each in nasal and ear twice daily for 3 days to cure convulsive seizures (Ref: Sorakayala Narsimhulu, Peddaboyapalli)
61. *Wrightia tinctoria* Br. Syn: *Wrightia rothii* G.Don. Syst. Gard. Bot (Apocynaceae) “Ankudu”
- Leaf juice apply 2 drops into eye to control eye discharge for one time only (Ref: Venkatappa naidu, Nimmathotabailu)
62. *Zingiber officinalis* Rosc. Syn: (Zingiberaceae) “Sonti”
- Grind about 50g of dried rhizome along with same quantity of soanf and oma boil them in 500ml of water for 10minutes, filter it after become cool. Drench twice daily for two days to cure bloat. (Ref: Reddappa naidu, Singanivari palli)

Conclusion and discussion

About 73 prescriptions were recorded, based on 62 plant species. Farmers primarily approach these traditional healers to diagnose the diseases and treatment. Healers are asking consumers to bring additives like Salt, jaggery, and dry chilies etc. to prepare medicine but not charging any fee. Healers are providing excellent service in terms of diagnosing diseases and treatment. Healers opine that, they cannot assure 100% guaranty to heal animals for some of the contagious diseases like, Foot and Mouth

Disease(FMD), Black Quarter (BQ), Haemorrhagic Septicaemia (HS) and Pestides Petits Ruminants (PPR). However, preventive vaccines are also available to control these diseases. 80% of farmers strongly believe in traditional treatments. Some farmers continue to use traditional treatments because they are low cost, locally and easily available and do not have side effects. However there is a gradual shift to allopathic medicines. The major reasons include the negative attitude of local veterinary doctors, belief that local herbal medicines do not work for cross-breeds, non availability of herbal medicinal plants and reduced numbers of healers. Farmers want to continue to use herbal medicines to treat their local breeds.

Our field data and other medicinally use of botanicals in treating effectively in the practices of the veterinary medicine can be fruitfully utilized in identification of the pharmacological activities of these medicinal plants studied.

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