Available online on 15.08.2020 at http://ajprd.com

Asian Journal of Pharmaceutical Research and Development

Open Access to Pharmaceutical and Medical Research

Open Access

Research Article

Quantitative Analysis in Traditional Knowledge of Wild Medicinal Plants Used to Treat Livestock Diseases by The Paliyar's Tribe of Sadhuragiri Hillstamil Nadu, India

Aadhan Kamatchi*, Anand Subramaniam Parvathi

PG and Research Department of Botany, National College (Autonomous), Tiruchirappalli,Tamil Nadu, India.

A B S T R A C T

An ethno-medicinal study of ethno-veterinary medicines among the local indigenous peoples of the villages of Sadhuragiri Hills, Southern Western Ghats, Virudhunagar district of Tamil Nadu, India were carried out during the period of July 2016 and March – 2018. About 90% interviewed people gained their knowledge of traditional medicine from their parents and grandparents and others gained from neighbors and co-producers. It has been observed that older persons and traditional healers have greater knowledge about traditional medicines than younger persons. Ethno-veterinary uses of 120 species belonging to 59 families have been documented in this study for their interesting therapeutic properties of various veterinary ailments such as Wound healing, Fever, Diarrhoea, Cold, Skin diseases, Bone fracture, Foot and mouth, Poison bite, Eye diseases, Low milk yielding, Fly repellent, Stomach pain, Anti-inflammatory, Cough, Swelling, Throat pain, Ear pain, Anorexia *etc.* Leaves thirty one species (37.2%) followed by Seed, Bark, Fruit, Latex and latex were most frequently used plant parts for ethno veterinary medicine. Usually fresh materials were used for medicinal preparation. The most frequently used routes of drug administration have been oral followed by dermal. Our study recommend that, documenting the medicinal plants and associated indigenous knowledge can be used for conservation and sustainable use of medicinal plants in the area and for validation of these plant preparations for ethno-veterinary treatment.

Keywords: Ethno-veterinary; Paliyar tribes; Traditional knowledge; Sadhuragiri hills.

A R T I C L E I N F O: Received 14 May 2020; Review Completed 18 July 2020; Accepted 14 August 2020; Available online 15 August. 2020

Cite this article as:

Kamatchi A*,Parvathi AS, Quantitative Analysis in Traditional Knowledge of Wild Medicinal Plants Used to Treat Livestock Diseases by The Paliyar's Tribe of Sadhuragiri Hillstamil Nadu, India, Asian Journal of Pharmaceutical Research and Development. 2020; 8(4):43-57. DOI: http://dx.doi.org/10.22270/ajprd.v8i4.784

***Address for Correspondence:**

Aadhan Kamatchi, PG and Research Department of Botany, National College (Autonomous), Tiruchirappalli,Tamil Nadu, India.

1. INTRODUCTION

The earth's greatest cultural and ecological transition started during the Neolithic revolution some ten to twelve thousand years ago, when humans largely shifted from hunter-gatherer societies and mobile lifestyles to a culture of sprawling agricultural civilizations and transhumance. With this transition, the domestication of animals catapulted humans into a new relationship with the natural world, where by *Homo sapiens* were directly responsible for the well-being of other non-human creatures, in what has been termed the "domesticated animal contract[1,2,3] Since the advent of agriculture, stock-raisers have naturally been concerned about animal health[4,5] and have been experimenting and developing their own veterinary theories and techniques.

"Until the early 1900s most veterinary practices could be considered 'traditional' in the sense that they were derived from long experience and underwent little fundamental change in many of their tools and techniques"[6]. Interestingly, traditional and complementary medicine continues to be widely used in most countries, and these practices are increasing in prevalence in others [7] World Health Organization. It is estimated that nearly 80% of the earth's inhabitants still rely on ethnomedicine[8], and as early as the mid-1990s, upwards of 80-90% of humans were thought to rely on ethno-veterinary care for livestock.[6]

India has great heritage of medicinal plants. India is basically agricultural country; domesticated livestock's are backbone of farmers. To maintain these livestock there is phenomenal increase in the demand of herbal traditional medicine in developing country like India. Ethno-veterinary medicine (EVM) practices cover the knowledge,

skill, methods and belief about animal health care found among the members of community. In the past, great importance was given to the use of indigenous medicines for treatment of animal ailments. Ancient records on animal health care are found in *Vedas*, *Puranas* like *Ashwapuran*, *Garudpuranan* and *Hastipuranan* which devoted to animal husbandry[9].

Livestock plays a vital role in (Indian) farmer's life. It gives manure, fuel, milk and meat, *etc* and also generates rural economy and rural employment. Farmers take care of their livestock using ethno veterinary medicine. These medicines are cheaper than western drugs[10,11,12,13,14,15]. Ethnoveterinary medicine was practiced as early as 1800 BC King Hamurabi of Babylon formulated a law on veterinary fees and charged for treating cattle and donkeys [16]. But for more than a decade now ethnoveterinary medicine has experienced a revival and several reports published. The growing interest in traditional practices has been encouraged by the recognition of some efficacious ethnoveterinary medicinal products. These products are locally available and easily accessible compared with western drugs. In the face of these and other factors, this increases interest in the field of ethnoveterinary research and development [17,11,12,13,14,15].

Ethno-veterinary medicine refers to the people's knowledge, skills, methods, practices and beliefs about the care of their animals [18]. From the *Vedic* period till the end of 19th century, much of the veterinary practice in India was based on the experiences gathered through generations and improved through informal experimentation this traditional system of medicine also referred to as ethno-veterinary medicine [19]. The ethno veterinary practices all over the world within the ethnic groups and cultural societies are an integral component of livestock healthcare and management practices. It is possible that the same traditional healers prescribe medicines for both human beings and animals but some specialized men treat animal's only[20].

Livestock production is found to be major source of income in rural and semi urban areas of India. The rural and tribal people are not easily accessible to modern veterinary services for their livestock. They are less economically healthy to cope with various bovine ailments therefore they depend upon their traditional knowledge of healing animals. It serves as a cheap, safe, biodegradable and easily accessible alternative to the synthetic and modern methods of disease control. According to the World Health Organization, at least 80% of people in developing countries depend largely on indigenous practices for the control and treatment of various diseases affecting both human beings and their animals. Livestock owners use a variety of plants and their products to form traditional medicines for primary health care treatment and maintaining animals productive. India is one of the world's 12 mega-diversity countries accounting for 8% of global plant genetic resources; therefore have a variety of plants to be the source of herbal medicines [21].

Medicine does recognized the value plant as a source of active principles with curative properties, the reason behind it is the enormous side effect of modern drugs. It's market cost also makes them out of rich to the poor people. Back to nature movement is a gaining to momentum which reflects demand of medicinal plant and herbal preparation for animal healthcare. Ethnoveterinary medicine are low cost medicines and without side effect than modern allopathic medicines and less expensive. May be therefore the dependence of rural mass on the plant based medicines for treating animal is observed which has forced the scientific community to search some promising answers in this direction[22]. Livestock production remains crucial and represents a major asset among resource-poor smallholder farmers by providing milk, meat, skin, manure and traction. However, the economic benefits of livestock populations remain low due to prevailing livestock diseases which are among the principal bottle necks of livestock performance and cause of high economic losses of the resource poor farmers [23,24].

Ethno veterinary medicine comprises of traditional surgical techniques, traditional immunization, magic religious practices, and the use of herbal medicines to treat livestock diseases Ethno veterinary medicine (EVM) is a system that is based on Folk beliefs, traditional knowledge, skills, methods and practices used for curing diseases and maintaining health of animals. Traditional veterinary medicine knowledge like all other traditional knowledge system is handed down orally from generation to generation and it may disappear because of rapid socioeconomic, environment, technological changes and as a result of cultural heritage under the guise of civilization [25,26].

Formal research in ethnoveterinary medicine will no doubt help to confirm the claims made by ethnoveterinarians with respect to the efficacy of ethnoveterinary treatments by ethnoveterinarians. So, there is need to standardize ethnoveterinary medicines to fully integrate it into orthodox medicine. Many countries have documented ethnoveterinary practices with special emphasis on use of medicinal plants and some countries have already developed databases on botanical resources and using them in their research studies and development. A large number of rural people use local herbal medicines for treatment of their domestic animals and the role of ethnoveterinary medicine in livestock development is beyond dispute [27, 28, 29, 30].

Ethno-veterinary medicine is gaining popularity in developing countries because it is readily accessible, easy to prepare and administer; and available at little or no cost to the farmer [12,31]. In many poor rural areas, ethno veterinary medicine can play an important role in animal production and livelihood development, and often becomes the only available means for farmers to treat ill animals [18,32,33,34,35,36,37].

Loss of the knowledge has-been aggravated by the expansion of modern education which has made the younger generation underestimates its traditional values. India has the second largest tribal population in the world after Africa. The tribal people mostly depend on forests for their livelihood. Plants and their parts are not only used as food and medicine but also used in various tribal rituals that are a part of their social and religious life. The recent forest cover estimates in Tamil Nadu by Forest Survey of India points out that the Tamil Nadu has a forest area of 2.26 million ha, which constitutes 17.40% of the state. Among them only 1.71 million ha is under actual forest cover, which is 13.10% of the total geographical area.

It is probable that tribal people of Tamil Nadu occupy 1.05% of the total state population and0.77% of the total tribal residents of the country. Ministry of Tribal affairs presented a list of tribal communities in India for each state and Tamil Nadu contains 36 types of tribal communities and they are distributed in different districts in the forests and neighboring areas. The present communication undertaken to ascertain the detailed information on the traditional remedial potential of Paliyar tribals inhabit the forest areas in southern districts of Tamil Nadu, India.

The majority of the tribes that inhabit the start include Paliyar tribe, Southern Western Ghats, Sadhuragiri hills. Many medicinal plants grow in India, in plains and hills are most commonly used ingredients in the preparation of ethno veterinary medicines. It is developed by farmers in field and barns rather than in scientific laboratories and it is also less systematic, less formalized and usually transferred by word of mouth rather than writing. No ethnoveterinary survey has been carried out in Sadhuragiri hills Therefore; an attempt has been made to describe the various diseases prevalent animals in study region and also to document the ethnoveterinary plants and practices used to treat them.

2. MATERIALS AND METHODS

2.1. Study area

Sadhuragiri hills are situated in Southern Western Ghats comes under The Srivilliputhur Grizzled Squirrel Wildlife Sanctuary Srivilliputhur Taluk, Virudhunagar and Theni district. The elevation of Sadhuragiri is 1900 meters (3,937.0 ft.) msl in Western Ghats of South India. It lies between 9º. 42´ - 9 º.44" West latitude and between 77 º.37 - 77 º.- 41" East longitude. Sadhuragiri is in an area with a Tropical Evergreen Forest, Semi Evergreen Forest and Mixed Deciduous Forest climate. The only tribal community residing in this region is Hindu Paliyar Tribes (**Fig: 1**).

Several field trips were carried out in Sadhuragiri hills between July 2016 and March – 2018, Covering different seasons. In order to know the phenology of the plants an Intensive and extensive field surveys were made in Sadhuragiri hills and villages in Virudhunagar and Theni district. The data were collected through repeated field visits and the careful interaction with the village people and Paliyar tribes. The collected specimens were identified taxonomically with the help of available Monographs, taxonomic revisions and floras and by using field keys [38, 39, 40, 41].

Ethenomedicine information was gathered from all categories of village people such as the local healers, village leaders, elderly persons and Paliyar tribes and the person having a through knowledge of Medical practices. Traditional Medicines for the Treatment of different diseases were cross checked and confirmed with some Siddha Doctors. The information gathered from one place was also confirmed with different communities of village people, Paliyar tribals in different places of investigation. The collected plant specimens were deposited in the Department of Botany, National College (Autonomous), Tiruchirappalli, Tamil Nadu for future reference.

Figure: 1 The over View of study region

2.2. Paliyar Tribals

The indigenous people of the study area are called Paliyar/Paliyan. They are found in the hilly regions of Madurai, Dindigul, Theni, Thirunelveli, and Virudhunagar districts. It is believed that paliyars are indigenous people of Palani hills (Situated near Kodaikanal a famous tourist place). In the Palani hills they are found at an altitude of up to 2200m. Generally Paliyars are illiterate and they speak Tamil (Mother tongue of Tamil Nadu). Paliyars when compared to various tribal communities in Tamil Nadu constitute relatively a small group.

Paliyars can be grouped into three categories based on their life styles, namely, Nomadic, Seminomadic and Settled Nomadic, Nomadic Paliyars don't built houses, they live temporarily in rock caves called "Pudai" Semi nomadic Paliyar build temporary house and confine themselves to small territories most of their huts are dark with no window or any other opening to admit air. Settled Nomadic Paliyars are almost urbanized and live as agricultural laborers. Importance of traditional and folk medicine in the treatment of various human ailments is well recognized amongst this people [42] (**Fig: 2**).

Figure: 2 Author Interaction with Paliyar's Tribes in EVM Medicine

3. Result

The present investigation indicates a high level of consensus of traditional Ethno-veterinary medicine knowledge of medicinal plants within Paliyar's community. The results of this study show that a large number of medicinal plants are traditionally used by the tribal community of Sadhuragiri hill for the treatment of various Ethno-veterinary diseases or health disorders of animals. In this study, 120 plant species were reported and arranged alphabetically by the botanical name. Paliyar Vernacular names (Tamil) and their family, parts used, mode of preparation and their administration have also been given **(Table-1)**.

The reported species belong to 105 genera and 59 families with a highest representative of species belong to the family Euphorbiaceae eight species, and six species belong to the family Lamiaceae, and four species belong to the family Fabaceae, Malvaceae, Solanaceae and Zingiberacae five species each the families Apocynaceae and Mimosaceae four species each, and three species belong to the family Anacardiaceae, Caesalpiniaceae, Cucurbitaceae, Myrtaceae, and Vitaceae, the family Amaranthaceae, Ariatolochiaceae, Asclepiadaceae, Asteraceae, Bignoniaceae, Boraginaceae, Combretaceae, Conolvulaceae, Ebenaceae, Liliaceae, Lythraceae, Meliaceae, Moraceae, Piperaceae, Portulacaceae, Sapindaceae, Sapotaceae and two species each. Whereas the rest of 29 families have one species each (**Fig: 3**).In our study, it's been identified that the tribes regularly use 41 Tree species, 38 Herb species, 21 Shrub species and 20 Climber species **(Fig: 4)**.

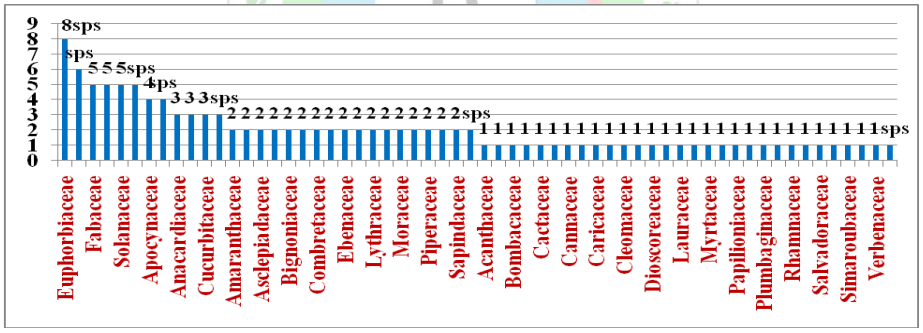

Figure: 3 Family wise distributions of Ethno-veterinary medicine (EVM) medicinal plants used by Paliyar Tribes

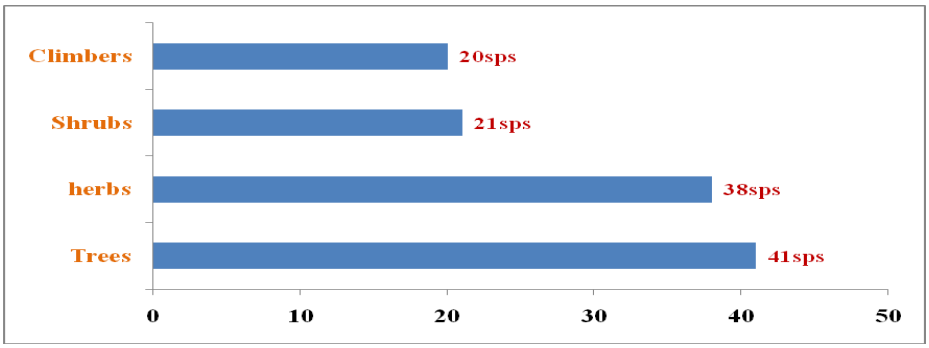

Figure: 4 Number of distribution in habit of the Ethno-veterinary medicine (EVM) plants recorded.

In the study region plant parts wise leaves (31 species) are mostly used for medicinal purpose to compare in other plant parts in Paliyar tribes out of 120 reported Ethnoveterinary medicinal plants in this study. Hence the leaves are without difficulty collected and accessible in throughout the year to use multipurpose for different medicine preparation. Followed by leaves the other plant parts wise Seed in second followed by (59 species), Bark (17 species), Fruit (11 species), Latex (9 species), Stem (6 species), whole plants (5 species), Flower (4 species), Tuber (3 species), Bulb (2 species), Rhizome (2 species), Root and Shoot (1species) were most commonly used plant parts for ethnoveterinary medicine **(Fig: 5)**.

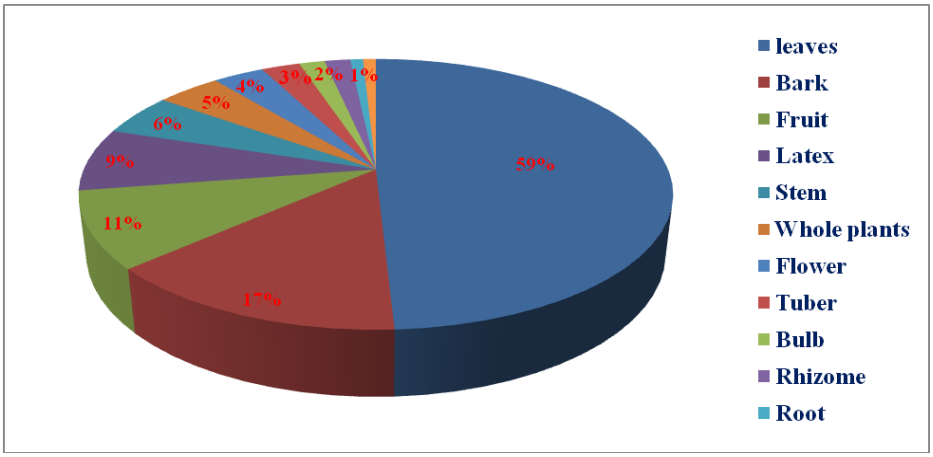

Figure: 5 Percentage distribution analysis of remedies obtained Ethno-veterinary medicine (EVM) from different plantparts

The method of preparation Paliyar tribe falls into majorly 7 categories plant parts used in the form of Paste 50 species (41.6%), Decoction 25 species (20.8%), Juice 18 species (15%), Raw 14 species (11.6%), Powder 13 species (10.8%), Plaster and Tea 3 species (2.5%). In majority of the cases these medications were prepared by using Coconut oil and water as a medium and orally administrated in all the cases. The treatment dosage and period may vary based on the disease stipulation as said above **(Fig: 6)**.

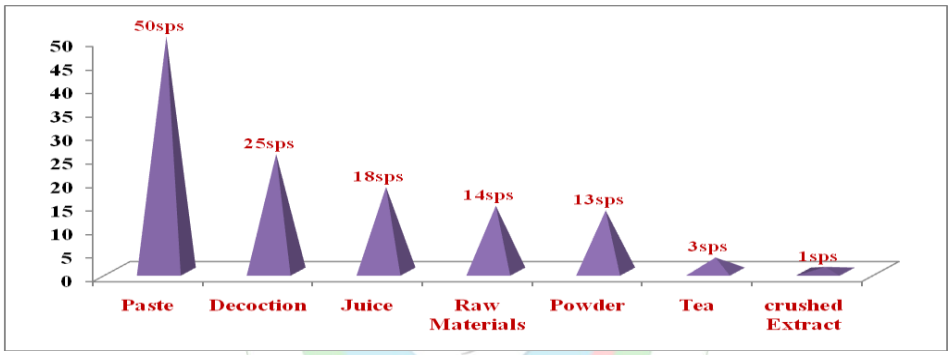

Figure: 6 Ethno-veterinary medicine (EVM) of Paliyar Used for drug Preparation of Medicine

Ethnoveterinary medicinal plants listed here are used for treating more than 31 types of EVM diseases. Maximum of 13 species used to cure Wound healing followed by Fever (7 species), Diarrhoea (10 species), Skin diseases and Cold (8 species), Bone fracture (7 species). The Tribal also these medicinal plant for treating Foot and mouth diseases and Poison bite (6 species), Eye diseases and Low milk yielding (5 species), 4 species as Fly repellent and Stomach pain, 3 species for Anti-inflammatory, Cough, Swelling, Throat pain and Ear pain, 2 species used to treating Anorexia, Cut injure, Delivery problem, Infertility, Dysentery, Rheumatic pain and Urinary problem and there were few species used to treat Bleeding, Carbuncles, Constipation, Imapptie, Indigestion, Insect bites infection and Retained placenta **(Fig: 7)**.

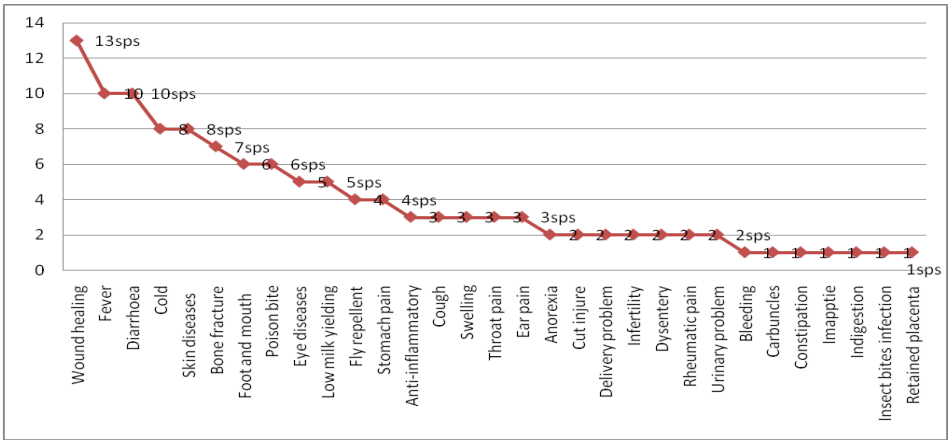

Figure: 7 Number of plants is used for various ailments Paliyar treat in Ethno-veterinary medicine (EVM)

Paliyar tribal have excellent knowledge of traditional medicinal plants utilize as drugs to treat the diseases of animals. But due to fast socioeconomic and cultural changes the traditional knowledge of plants in a surrounded lot of tribal communities is varying. Hence, a document of this knowledge is helpful for future generations and for

scientific thoughtfulness of wider uses of traditional knowledge in treating wild and domestic animals. However, there is a need to scientifically determine the dependability of the claimed use of these medicinal plants. The findings of this study predicted that, most of the medicinal plants used by the society of study area contain phytochemicals in the leaf, bark, stem and Rhizomes. Therefore, there is a need to generate awareness among the local population towards the sustainable utilization and protection of medicinal plants.

4. Discussions

The uses of 42 ethnoveterinary plant species for treating several ailments of horse and elephants in earliest period are documented by [43]. The status and prospectus of plants used in Indian ethno veterinary medicines to treat various ailments of animals are well recognized by [44, 45] reported 37 plant species belonging to 25 families are used for the treatment of household animals as folk herbal veterinary medicines of Southern Rajasthan had been discussed. Traditional veterinary practices reported some southern districts of Tamil Nadu [46] showed some similarity with the present study but most of the uses found to be different likewise [47] reported that Abrus precatorius, Cissus quadrangularis, Dendrocalamus strictus, Euphorbia hirta, Gymnema sylvestre, Abutilon indicum, Acalypha indica, Achyranthes aspera, Aloe vera, Andrographis paniculata, Aristolochia bracteolata, Azadirachta indica, Calotropis gigantea, Cassia tora, Pergularia deamia and Vitex negundo are used by the indigenous people of southern Kanyakumari district for the treatment of different types of diseases in livestock.

In modern years, safeties in ethnoveterinary investigations have been greater than before extremely on national and international level. Ancient ethnobotanical literature suggests that the tribal, non-tribal and rural population has been using wild ethnoflora since long ago for curing different diseases and disorders in the pet and domesticated animals. All these plants should be screened scientifically in order to investigate newer sources of ethno-veterinary drugs and medicines. Providentially, since last three to four decades considerable development has been made in the ethno-veterinary sciences due to recent ethnobotanical and ethnomedicinal explorations [48].

Ethnoveterinary medicine can be economical but its cost-effectiveness depends on numerous factors. Recognized research will no doubt help to substantiate the claims made by traditional healers with value to the efficacy of their remedies. This body of knowledge requires validation with a view towards integrating it into orthodox veterinary medicine. There is a need to standardize Ethnoveterinary techniques. An indigenous animal health-care system should be included in the curricula of veterinary colleges and universities. This integration of animal health care widens the spectrum of existing choices to farmers, veterinarians, and conservatory workers and is one way of making services for local conditions both more suitable and more cost-effective [49].

Plants and animals are significant part of tribal culture, belief, magico-religion and traditional pharmacopoeia. Traditional practices immobile remain prevalent in villages. This is a obvious indication of their assurance in the folk medicine. But in the process of transformation, this knowledge is vanishing very rapidly. Highly developed research on plants of excessive medicinal values may lead to new sources of drugs. The tribal people still depends on wild resources for their daily needs. Notwithstanding the appearance of modern means of transport, food production, artificial or synthetic substitute for leather and other animal products, animals continue to play an important role in human life. Hence animal health care will continue to attract attention of man. Conservation and sustainable utilization of potential medicinal plants is essential for the upcoming generation [50].

Live stocks play an important role in tribal culture and livelihood. Traditional background in the field of ethno-veterinary medicinal practices, but in the process of modernization, this knowledge is vanishing very rapidly. This information survived by being passed from word of mouth but now a day's young generation does not take interest in such practices. Some of the plant species were commonly used in more or less proportion throughout the world but during exploitation it is our prime duty to protect and conserve these plants in proper way. From the above study leaves (31 species) are mostly used for medicinal purpose to compare in other plant parts in Paliyar tribes out of 120 reported Ethnoveterinary medicinal plants in this study. Hence the leaves are easily collected and available throughout the year to use for multipurpose medicine preparations. Folk ethno-veterinary practices largely remain neglected and little has been done to document this precious wealth hence there is urgent need to documentation scientific line. Therefore it is necessary to record such type of valuable verbal information before it gets lost forever. In future, detailed chemical and pharmacological investigations of these traditional formulations and medicinal plants will be very helpful for developing the new veterinary drugs.

Table: 1 Ethno-veterinary medicinal plants in sadhuragiri hills.

S. NO	Binomial Name	Family	Local Name	Habit	Part (s) Used	Mode of administration	Diseases Cured	Animals treated	Preparation and administration
1.	*Abrus precatorius*L.	Fabaceae	*Kudumani*	Climber	Leaf Seed	Juice	Constipation Cough pneumonia	Cow	100gm of leaves are grind with help of few drops of water, made in to pills given to the cow for 1 time in a day. 50gm Crushed roots are used to cure cough, cold and pneumonia Seeds are used against constipation.
2.	*Abutilon hirtum* (Lam.) Sweet Var.	Malvaceae	*Peruthuthi*	Shrub	Leaf	Paste	Skin disease	Cow Goat Buffalo	100 gm mature leaves crushed and dried raw paste applied the skin affected area in the skin diseases.
3.	*Abutilon indicum*L.	Malvaceae	*Thuthi*	Shrub	Leaf	Decoction	Diarrhoea	Cow	100 gm Fresh leaves mixed

								Goat Hen	with whey are given orally two or three times a day to cure dysentery and diarrhoea.
4.	*Acacia catechu* (L.f.) Willd.	Mimosaceae	*Karungalli*	Tree	Shoot Leaf	Powder	Delivery problem	Cow	50gm dried leaves powder is mixed with 200g cow butter and 100gm sugar and is given weekly for facilitating smooth delivery in cattle.
5.	*Acacia nilotica*(L.) Delile	Mimosaceae	*Karuvelam*	Tree	Fruit	Paste	Stomach worms	Sheep Hen	500gm mature fruits are given as feedstuff daily for 4-5 days to the sheep and goats to kill the stomach worms.
6.	*Acalypha paniculata* Miq	Euphorbiaceae	*Kattu kuppamani*	Herb	Leaf	Paste	Skin diseases wound	Goat Cow	100gm fresh leaves crushed and made into extract is apply directly, to the goat and cattle, on the external surface 1time in a day for 2 days.
7.	*Acalypha indica*L.	Euphorbiaceae	*Kuppamani*	Herb	Leaf	Paste	Wound	Goat Cow Hen Ear pain	100gm fresh leaves crushed and made into extract is apply directly, to the goat and cattle, on the external surface 1time in a day for 2 days.
8.	*Aegle marmelos* (L.) Correa	Rutaceae	*Villvam*	Tree	Fruit	Decoction	Diarrhoea	Cow	500gm of mature fruit mixed with 50gm dried ginger fed decoction once a day, 2-3 days to treat dysentery and diarrhoea.
9.	*Ageratum conyzoides*L.	Asteraceae	*Pumpillu*	Herb	Whole Plants	Paste	Insect bites	Goat Cow Buffalo	500 gm whole plants Fine powder of piper is mixed with butter and pasted to the site bitten by poisonous cure
10.	*Ailanthus excelsa* Roxb.	Simaroubaceae	*Peenarimaram*	Tree	Leaf	Decoction	Wound	Cow Buffalo	100 gm Fresh Leaves crushed raw extract is applied on the wound to remove the maggots from the wound.
11.	*Albizia lebbek*L.	Mimosaceae	*Vaghai*	Tree	Leaf	Juice	Eye Diseases	Goat Cow Buffalo Donkey	100gm juice of the crushed green young fresh leaf is dropped to the eyes to treat general eye problem.
12.	*Aloe vera* (L.) Burm. F.	Liliaceae	*Kathallai*	Herb	Leaf	Juice	Inflammatory Haemarogic Mastitis	Cow	50 gm of *pulp* and 100 gm of *Curcuma longa* rhizome are grind with the help of lime juice made intopills given to the goat and cow for mastitis 1 time in aday for 2 days.
13.	*Alternanthera dentate* Scheygrond	Amaranthaceae	*Verukerai*	Herb	Root	Decoction	Diarrhoea Wound healing	Goat Sheep	500 gm Whole plant is crushed extract and boiled with Zingier in half liter water and given orally to cure loose motion.
14.	*Alternenthera pungens* Kunth	Amaranthaceae	*Otumul*	Herb	Leaf	Paste	Wound	Goat Sheep	200 gm mature Leaf is crushed and squeezed on wound using gauze or clean cloth in affected area.
15.	*Ampelocissus arnottiana* Planch	Vitaceae	*Kattukodi*	Climber	Leaf	Plaster	Bone fractures	Cow Buffalo Donkey	250 gm mature leaves crushed extract if the bone is broken, wash the affected area with water and remove matted hair. Align bones back into their normal positions. Rub butter around the affected area.
16.	*Anacardium occidentale* L.	Anacardiaceae	*Kotta Munthuiri*	Tree	Bark	Decoction	Diarrhoea	Goat Cow Buffalo Horse	100 gm Bark prepare a mix of one spoon of powder per cup of water (250 ml) to treat adult cattle: two spoons of powder per 250 ml water. Administer this mixture twice a day to the animals, for 3-6 days, depending n the severity of the diarrhoea.
17.	*Andrografphis panniculata* Nees.	Acanthaceae	*Nela Veambu*	Herb	Leaf	Decoction	Fever	Goat Cow Buffalo Horse	10 number of fresh leaf are grind with the 10 gm seeds of *Cuminum cyminum*, 5gm seeds of *Piper nigrum*, 5 number of bulbs, 5 leaves of *Piper betelin*, are made into paste and it is apply on the tongue of cow & goat for fever, 2 time in a day for 2 days.
18.	*Anisomeles indica* (L.) Kuntz.	Lamiaceae	*Vaa Thaneer Patchilai*	Herb	Leaf	Paste	Mouth sores	Cow Goat Sheep	50gm of leaves crushed extract is grind with 1 table spoon of turmeric powder along with a pinch of calcium carbonate made into

									paste is apply externally to the inflammatory condition 2 times in a day for 2 days.
19.	*Argemone Mexicana* L.	Papaveraceae	*Nai Kadukku*	Herb	Whole plants	Raw material	Retained placenta	Cow Buffalo Donkey	100 gm whole plant is fed with any available local grass once a day for removal of retained placenta.
20.	*Aristolochia bracteolata* LAM.	Ariatolochiaceae	*Aduthinnapalai*	Climber	Leaf	Paste	Poison bit	Cow Goat Buffalo	50 gm Leaves is crush and apply on the infected position, 2 times in a day till up to cure.
21.	*Aristolochia indica* L.	Ariatolochiaceae	*Aduthinnapalai*	Climber	Leaf	Paste	Poison bit	Cow Goat Buffalo Hen	50 gm Leaves is crush and apply on the infected position, 2 times in a day till up to cure.
22.	*Asparagus racemosus*Willd.	Liliaceae	*Thannier vittankellangu*	Climber	Bulb	Powder	Low milk yield	Buffalo Cow	100 gm crushed pure powder and mixed with water given to milch animals to enhance milk yield.
23.	*Azadirachta indica* A. Juss.,	Meliaceae	*Veambu*	Tree	Seed	Paste	Fly repellant Maggot Wound.	Cow Goat Buffalo Horse	50 gm oil paste is apply externally to the cow and goat in foot heal for Maggot wound ie. Wound, in some case worm is produce. 1 time in a day at the empty stomach for 2 days.
24.	*Bauhinia malabarica* Roxb.	Caesalpiniaceae	*Mandarai*	Tree	Leaf	Juice	Eye diseases	Cow	50 gm matured leaf crushed extract juice is applied over forehead to heal redness of eye of cattle.
25.	*Bombax ceiba* L.	Bombacaceae	*Ellavam*	Tree	Bark	Powder	Diarrhoea	Cow Goat Buffalo Horse	250 gm inner bark of stem crushed, mixed with 750 ml water and given twice or thrice a day in dysentery.
26.	*Butea monosperma* (Lamk.)	Fabaceae	*Paraskam*	Tree	Stem Bark Root	Decoction	Urinary problem	Cow	100 gm stem bark or root plants extract decoction is given for three days in cure.
27.	*Calotropis procera*R.Br.	Asclepiadaceae	*Earruku*	Shrub	Latex	Paste	Wound	Cow Goat Buffalo Horse Hen	The latex collected from the branch is directly given to cattle. Leaves stick applied to treat wound and heal.
28.	*Canna indica*L.	Cannaceae	*Kalvallai*	Shrub	Leaf	Decoction	Diarrhoea	Cow Donkey	100 gm fresh leaves crushed extract gives in dysentery or diarrhea 2-3 time in one day.
29.	*Cannabis sativa* L.	Cannabinaceae	*Ganja*	Herb	Seed	Decoction.	Dysentery	Goat Buffalo	10 gm number of matured leaves is grind with water is made into given 2 times in days for 2 days.
30.	*Capparis zeylanica* L.	Capparaceae	*Atondai*	Shrub	Leaf	Plaster	Bone fracture	Cow Goat Buffalo Horse	200 gm matured Leaves crushed with water, mixed with 250 ml coconut oil and applied to cattle in bone fracture.
31.	*Capsicum annuum* L.	Solanaceae	*Kattu Mellaka*	Herb	Fruit	Paste	Anorexia	Cow Horse	*50 gm Tamarindus indica* fruit, 50 gm *Capsicum annum* are grind and made into pills, which is tied with green straw of the *Panicum sumatrense* is given to the cattle to increase the intake of food *ie* Anorexia 2 time in a day for 2 days.
32.	*Cardiospermum Halicacabum* L. .	Sapindaceae	*Mudukattan*	Climber	Leaf	Paste	Rheumatic pain	Cow Goat	100 gm young leaves crushing mixing coconut oil in white cloth and it is tied to the where it has the bone pain and cut injure 1 time in a day.
33.	*Carica papaya* L.	Caricaceae	*Papali*	Tree	Leaf	Juice	Fever	Cow Goat Horse Pig	100 gm of fresh mature leaf juice with equal quantity of ginger is given twice/day for one week.
34.	*Cassia fistula* L.	Caesalpiniaceae	*Konnai*	Tree	Flower	Decoction	Cold Fever	Cow	50 gm of flowers crushed extract were orally given twice a day for five days against cure.
35.	*Chenopodium ambrosioides*L.	Chenopodiaceae	*Chayaseadi*	Herb	Leaf	Plaster Juice	Wound healing Anti-inflammatory	Goat Cow	100 gm young leaves crushing mixing coconut oil in white cloth and it is tied to the goat where it has the inflammatory affected applied and cut injure 1 time in a day.
36.	*Cissus quandrangularis*L.	Vitaceae	*Pirandai*	Climber	Stem	Paste	Bone fracture wound	Cow Goat Sheep Hen	200 gm stem Crush aerial parts, mix with water and use as poultice. It is used to control maggots and ticks. Can be used to prevent

									secondary wound infection due to tick bites. In case of lumpy skin disease, crush the stem, mix with water, red soil and pork fat; smear the whole body.
37.	*Clematis triloba* Heyne ex Roth	Ranunculaceae		Shrub	Leaf	Paste	Throat pain	Cow	100gm fresh Leaves are crushed and the paste is applied on the throat swelling.
38.	*Cleome viscose* L.	Cleomaceae	*Naikadukku*	Herb	Leaf Seed	Decoction	Skin diseases Ear pain	Cow Horse Donkey	100 gm of leaves crushed applied on sores for killing maggots in sores. Seed powder mixed with 500ml water given to cure epilepsy in animals.
39.	*Clitoria ternatea*L.	Fabaceae	*Sangupoo*	Climber	Root Seed	Powder	Poison bit	Cow Goat	50 gm of seeds or root powder mixed with pepper powder affected area applied orally.
40.	*Coccinia indica* Wight & Arn.	Cucurbitaceae	*Kovai*	Climber	Leaf	Juice	Cough Cold	Sheep Buffalo	100 gm of warm leaf juice with equal quantity of ginger is given twice/day for one week.
41.	*Cordia dichotoma* G.Forst.	Boraginaceae	*Naruvali*	Tree	Leaf	Paste	Wound cracked	Buffalo	200gm warmed leaves are tied over cracked nipples in case of lactating animals especially buffaloes.
42.	*Costus speciosus*L.	Zingiberacae	*Vsambu*	Herb	Root	Paste	Cut injure	Goat Cow Sheep	10gm root extract made mixed *curcuma longa* powder and count oil in white cloth and it is tied to the where it has the cut injure 1 time in a day.
43.	*Crescentia cujete*L.	Bignoniaceae	*Thiruvottukai*	Tree	Leaf	Paste	Skin problems wound healing and fly repellant	Cow Goat Sheep Horse	100gm of mature leaf is grind with 1 table spoon of ginger powder along with a pinch of calcium carbonate made into paste is apply externally to the foot infection condition 2 times in a day for 3 days.
44.	*Crotalaria juncea*L.	Papilioniaceae	*Sannappu*	Shrub	Seed	Juice	Delivery problem	Cow Goat	200 gm seed extract mixed with sufficient quantity of salt and mahuwa gives to cattle after delivery to retention of placenta.
45.	*Curcuma amada* Roxb.	Zingiberaceae	*Mansal inji*	Herb	Rhizome	Paste	Bones Fractured .	Cow Goat Sheep	100 gm young rhizomes crushing mixing coconut oil in white cloth and it is tied to the goat where it has the bone fracture and cut injure 1 time in a day.
46.	*Curcuma longa* L.	Zingiberaceae	*Mansal*	Herb	Rhizome	Decoction	Throat painEar pain	Cow	50 gm of leaves extract mixed with salt and piper is given to animals with the help of drenching tubes in tymphany.
47.	*Cuscuta chinensis* Lam.	Cuscutaceae	*Kodiyagundal*	Climber	Stem	Raw materials	Low milk yield	Cow Buffalo	2kg the stem mixed with fodder to increase the milk production and crushed plant hold near uterus to treat prolapsed uterus
48.	*Datura metel* L.	Solanaceae	*Umathai*	Herb	Leaf	Paste	Poison bite	Cow Goat	100gm of matured leaf is crushed grind pure extract applied bite area.
49.	*Datura stramonium*L.	Solanaceae	*Peruumathai*	Herb	Fruit	Juice	Poison bite	Cow Goat	100gm of matured leaf is grind pure extract juice orally given at the spot time.
50.	*Dioscorea alata*L.	Dioscoreaceae	*PerumvaliKizhangu*	Climber	Tuber	Decoction	Bones Fractured	Goat Cow Hen	100gm tuber extract, mixed *curcuma longa* powder and count oil in white cloth and it is tied to the where it has the bone fracture and cut injure 1 time in a day.
51.	*Diospyros montana*Roxb.N.V.	Ebenaceae	*Vakanai*	Tree	Bark	Paste	Wound	Cow Goat	100 gm Bark grinded made paste with salt and applied over wounds in cattle 1time in a day.
52.	*Diospyros mespiliformis* Hochst. ex A. DC.	Ebeneceae	kalluthakoya	Tree	Bark	Paste	wound	Cow Goat	100 gm bark grinded made paste with salt and applied over wounds in cattle 1time in a day.
53.	*Diplocyclos palmatus* (L.) C.Jeffrey	Curcurbitaceae	*Aiviralkkovai*	Climber	Leaf fruit	Juice	Fever	Cow	50gm of leaves or fruits crushed in butter milk and given to cure ephemeral fever.
54.	*Dodonea angustifolia* L.	Sapindaceae	*Viraali*	Shrub	Leaf	Paste	Bone fractures Muscle swellings	Cow Goat Horse	100gm leaf extract mixed curcuma longa powder and count oil in white cloth and it is tied to the where it has the bone fracture and cut

									injure 1 time in a day.
55.	*Elettaria cardamomum*(L.) Maton	Zingiberaceae	*Ellakai*	Shrub	Fruit	Powder	Vomiting Stomach pain	Horse Cow	50 gm seed grinded made powder with given in the cattle 1time in a day.
56.	*Euphorbia thymifolia* L.	Euphorbiaceae	*Pallkollai*	Herb	Latex	Raw materials	Eye diseases	Got Cow Horse	3-5 drops latex mixed with coconut oil eye inflammatory, eye wounds and radish eye problem is orally applied the raw mixable extract applied the daily 2 times eye wound cure the problem.
57.	*Euphorbia hirta* L.	Euphorbiaceae	*Amman pacharaci*	Herb	Latex	Raw materials	Eye diseases	Got Cow Horse	3-5 drops latex mixed with coconut oil eye inflammatory, eye wounds and radish eye problem is orally applied the raw mixable extract applied the daily 2 times eye wound cure the problem.
58.	*Emblica officinalis* Gaertn.	Euphorbiaceae	*Nellikkaai*	Tree	Fruit	Powder	Foot Infections	Got Cow	50gm of mature fruits is grind with 1 table spoon of turmeric powder along with a pinch of calcium carbonate made into paste is apply externally to the foot infection condition 2 times in a day for 2 days.
59.	*Erythrina indica* L.	Fabaceae	*Kaliyanamurungai*	Tree	Leaf	Paste	Wounds	Cow Goat	50gm of leaf extract is grind with 1 table spoon of turmeric powder along with few drops of count oil mixed made into paste is apply externally to the area condition 2 times in a day for 3days.
60.	*Ficus glomerata* Roxb.	Moraceae	*Annai athi*	Tree	Latex	Paste	Cut injure	Sheep Goat	5 to 10 drops of latex, mixed curcuma longa powder and count oil in white cloth and it is tied to the where it has the cut injure 1 time in a day.
61.	*Ficus racemosa* L.	Moraceae	*Atthi*	Tree	Latex Bark	Juice Decoction	Joint pain, neck swelling	Cow Sheep Goat	5 to 10 drops of latex, mixed curcuma longa powder and count oil in white cloth and it is tied to the where it has the pain and swelling 1 time in a day.
62.	*Gloriosa superba*L.	Amarillidaceae	*Kalaippaikkizhangu*	Herb	Tuber	Decoction	Stomach pain	Cow Goat Sheep	100 gm Tuberous root extract prepared the decoction is given to the morning empty stomach.
63.	*Gossypium hirsutum* L.	Malvaceae	*Kattu Paruthi*	Shrub	Seed	Raw materials	Low milk yield	Buffalo	100 gm seeds given as dietary supplement to increase the milk quality for butter yield especially in case of buffaloes.
64.	*Gymnema sylvestre* (L.) R.Br.	Asclepiadaceae	*Srikurinchan*	Climber	Leaf	Juice	Fever Cold Cough	Cow Goat	50 gm leaves mixed with ginger, piper powder extract made prepare juice is drenched once daily to treat cold and cough.
65.	*Heliotropium indicum* L.	Boraginaceae	*Tetkotukki*	Herb	Leaf	Paste	Anti-inflammatory Wound healing	Cow Sheep Goat	100gm of mature leaf is grind with 1 table spoon of ginger powder along with a pinch of table salt made into paste is apply externally to the foot infection condition 2 times in a day for 3 days.
66.	*Holoptelea integrifolia* (Roxb.)	Ulmaceae	*Ayamaram*	Tree	Leaf	Paste	Wound	Cow Donkey	200gm of mature leaves is crushed made extract paste applied on maggot infection wound of cattle to kill the worm and to heal the wound.
67.	*Ichnocarpus frutescens* (L.) R.Br	Apocynaceae	*Paravalli udargodi*	Shrub	Leaf	Paste	Wound	Cow	100gm of leaf paste along with paste of tender is applied externally.
68.	*Ipomoea aquatic* Forsk.	Conolvulaceae	*Nalikam*	Climber	Leaf	Raw materials	Low Milk yielding	Cow	2kg the fresh leaves mixed with fodder to increase the milk production.
69.	*Ipomoea fistulosa*Mart.	Conolvulaceae	*kadankodi*	Climber	Leaf	Paste	Swelling	Cow Goat	100gm leaf extract made paste are wormed and applied the wormed leaves are useful for curing swelling at any place of the body.
70.	*Jatropha curcas*L.	Euphorbiaceae	*Katamannaku*	Shrub	Latex	Paste	Wound infection	Cow Goat	5-10 drops latex mixing curcuma powder 1 table spoon paste prepared white cloth and it is tied to the where it has the infestation and fly repellant 1 time in a

									day.
71.	*Kydia kalycina*Roxb.	Malvaceae	*Vattakannu*	Tree	Bark	Paste	wound	Horse	100gm stem bark made paste is useful in the treatment of maggot wound in horse.
72.	*Lagerstroemia microcarpa*Wight	Lythraceae	*Vevala*	Tree	Bark	Paste	Mouth Foot diseases	Cow Goat	100gm of the crushed bark and the leaves of *Caereya arborea* mixed together and applied on the hoof to cure foot and mouth disease.
73.	*Lawsonia inermis* L.	Lythraceae	*Maruthani*	Tree	Leaf	Powder	Fertilization	Cow Buffalo	500gm about matured leaf powder is given with any fodder to maintain pregnancy just after fertilization for one week.
74.	*Leea macrophylla* Roxb.	Vitaceae	*Ottannalam*	Shrub	Root	Paste	Carbuncles	Cow	100gm mature root made paste is applied over carbuncles of animals for early cure.
75.	*Leucas aspera*(Willd.)Link.	Lamiaceae	*Thumbi*	Herb	Leaf	Paste	Wound	Cow	50gm Bark is ground with common salt and applied over wound.
76.	*Litsea glutinosa*(Lour.)	Lauraceae	*Muchaippeyetti*	Tree	Leaf	Decoction	Diarrhoea	Cow	10 gm number of matured leaves is grind with water is made into given 2 times in days for 2 days.
77.	*Madhuca indica*Ham. Ex Gmel.	Sapotaceae	*Illubai*	Tree	Seed Leaf Bark	Decoction	Diarrhoea	Cow Goat	100gm leaf extract made decoction is given to goat in fever and bloody diarrhoea fruits and bark are crushed with water and given to animals against diphtheria.
78.	*Mangifera indica*L.	Anacardiaceae	*Mamaram*	Tree	Stem bark	Decoction	Indigestion	Cow Goat	100gm bark extract made decoction is prepared mixed with table salt ones spoon given morning 1litre water and plant extract 100ml decoction given the cattle's day one time.
79.	*Mimosa pudica* L.	Mimosaceae	*Thottasinigi*	Herb	Leaf	Paste	Cor-vital mucus	Buffalo Cow	200gm fresh leaf is made into paste and it apply as paste on the vaginae area mostly in buffalo than cow, 1 time in a day for more than 3 days.
80.	*Mimusops elengi* L.	Sapotaceae	*Makilam*	Tree	Latex	Raw materials	Foot Mouth disease	Cow Goat	5-10 drops latex is applied externally on swollen mouth diseases.
81.	*Momordica charantia*L.	Cucurbitaceae	*Pakal*	Climber	Leaf	Juice	Skin problems Fly repellant	Cow Goat Buffalo	100gm fresh leaves Crushed leaves mixed with water and filtered and the sediments applied topically.
82.	*Mucuna prurita* Hook.	Fabaceae	*Poonaikali*	Climber	Leaf	Raw materials	Lactation	Pig	1kg tender leaf is fed daily in Pig against lactation.
83.	*Nerium oleander* L.	Apocynaceae	*Aralli*	Shrub	Latex	Raw Material	Position bite	Goat Cow Buffalo	5-10 drops of latex applied affected area orally insect and snake bite.
84.	*Nicotiana tabacum* L.	Solanaceae	*Pukaiillai*	Herb	Leaf	Paste Juice	Wound Fly repellant	Cow	100gm of mature leaves is crushed made extract paste applied on maggot infection wound and crushed with plant juice applying body fly repellant problem solve.
85.	*Ocimum basilicum*L.	Lamiaceae	*Tiruneetru Pachhilai*	Herb	Leaf	Raw Materials	Cough	Cow Goat	½ -1kg fresh leaf raw materials fodder mixing the plants continue 3days.
86.	*Ocimum sanctum*L.	Lamiaceae	*Nalla-tulasi*	Herb	Leaf Fruit	Extract	Urinary problems	Cow Goat	1-2kg fresh leaf raw materials night time fodder mixing the plants given 3days urinary problem cure.
87.	*Opuntia elatior*Mill.	Cactaceae	*Sappattukkalli*	Shrub	Stem	Paste	Swelling	Cow	Making two parts of stem (Phylloclade) and after heating it on the fire, the stem is applied on the swelling part of the animals.
88.	*Oroxylum indicum*(L.)	Bignoniaceae	*Sorikonrai*	Tree	Seed	Decoction	Diarrhoea	Cow Goat	50gm seeds of the crushed made decoction give in diarrhea and dysentery one time day.
89.	*Phyllanthus niruri*L.	Euphorbiaceae	*Kellanelli*	Herb	Whole plants	Decoction	Kidney problems	Cow Goat Sheep	100 gm mature whole plant extract made of decoction given morning orally one times a day to cure.
90.	*Piper longum* L.	Piperaceae	*Thippili*	Climber	Fruit	Tea	Cough Fever	Cow Goat	10-30gm of fruits and 10 gm ginger extract made prepare decoction is drenched once daily to buffaloes to treat cough and fever.
91.	*Piper nigrum* L.	Piperaceae	*Mellakku*	Climber	Fruit	Tea	Fever Cough	Cow Goat	10-30gm of fruits and 10 gm ginger extract made prepare decoction is drenched once daily to buffaloes to treat

									fever and cough.
92.	*Plectranthus urticifolius*Hk.F	Lamiaceae	*sirukillangu*	Herb	Leaf	Tea	Cough Fever	Cow Goat Sheep Horse	50gm young leaf and 10 gm mixed pepper and ginger powder extract made prepare decoction is given to drenched once daily to following 3 days animals to treat cough and fever.
93.	*Plumbago zeylanica* L.	Plumbaginaceae	*Chittiramoolam*	Herb	Root	Paste	Wound	Cow	100 gm root grain paste extract is applied on maggot infected wound of kill the worm and to heal the wound 1 time in a day for 2 days.
94.	*Portulaca oleracea* L.	Portulaceae	*Paruppukerai*	Herb	Whole Plants	Raw materials	Bleeding	Cow Goat	3-5kg Whole plant is given as feedstuff to prevent excessive bleeding to buffaloes during and after delivery.
95.	*Portulaca pilosa*L.	Portulacaceae	*Koli muliayan*	Herb	Whole Plants	Raw materials	Wound healing	Cow Goat	100gm of mature leaves is crushed made extract paste applied on maggot infection wound of cattle to kill the worm and to heal the wound.
96.	*Premna serratifolia* L.	Lamiaceae	*Pasumunnai*	Shrub	Leaf	Juice	Wound	Cow Horse	100gm leaf extract made juice of the given on the wound to kill the germs.
97.	*Psidium guajava*L.	Myrtaceae	*Koya*	Tree	Leaf	Juice	Dysentery	Cow Goat	500gm fresh young leaves of the *extract* mixed with table salt 1 spoon are given to 2 times in a day for 2 days.
98.	*Raphanus sativus* L.	Brassicaceae	*Mullangi*	Herb	Tuber	Juice	Viral fever	Cow Buffalo	200gm tuberous root and country chicken egg are grind and made into pills given to the animal for Ephemeral fever and viral fever. 2 times in days for 3 days.
99.	*Ricinus communis*L.	Euphorbiaceae	*Ammanaku*	Shrub	Seed	Paste	Tick infestation Fly repellant Anti -helminthic	Buffalo Donkey	100 gm mature seeds crushing mixing curcuma powder 1 table spoon paste prepared white cloth and it is tied to the where it has the infestation and fly repellant 1 time in a day.
100.	*Salvadora persica*L.	Salvadoraceae	*Ukka*	Tree	Seed	Powder	Skin infection	Goat Sheep	100 gm Seeds powder mixed with old jute bag and hairs are burnt and the cattle is allowed to smoke the fumes to cure canker sores.
101.	*Santalum album* L.	Santalaceae	*Santhanam*	Tree	Bark	Powder	Skin infection	Cow Goat	50 gm stem bark grain mixed with coconut oil applied topically 1 time in a day for 3 days.
102.	*Semecarpus anacardium* L.	Anacardiaceae	*Sen kottai*	Tree	Fruit	Paste	Mouth infection	Goat Cow	5-10 numbers of the fruits take extract paste to animals in mouth disease as preventive measure in epidemic of mouth disease.
103.	*Sesamum indicum* L.	Pedaliaceae	*Eall*	Herb	Leaf	Raw materials	Imapptie	Goat	1 kg fresh young leaves are given to the 1 time in a day for 3 days.
104.	*Shorea alata* Gaertn f.	Dipterocarpaceae	*Kungiliyam*	Tree	Seed	Paste	Wound	Cow	50gm Seed kernel paste is orally administered twice a day for three days
105.	*Syzygium aromaticum*(L.) Merr. & L.M.	Myrtaceae	*Kerambu*	Shrub	Seed	Paste	Skin disease	Cow Buffalos	5gm clove buds is mixed with coconut oil and curcuma longa powder 1 table spoon of made paste applied over nipples to treat mastitis.
106.	*Syzygium cumini* (L.) Skeels	Myrtaceae	*Naval*	Tree	Bark	Decoction	Diarrhoea	Cow Goat Horse	100gm Bark juice extract is made decoction orally given thrice a day for two day.
107.	*Tabernaemontana Heyniana* Wall.	Apocynaceae	*Nanthiya vattam*	Tree	Flower	Juice	Eye diseases	Goat Cow	3-5 numbers of flowers crushed juice applied cow eye infection and eye wound, dusted eye cure the diseases.
108.	*Tamarindus indica* L.	Caesalpiniaceae	*Puli*	Tree	Seed	Powder	Anorexia	Horse Donkey	200 gm seeds roasted which is tied with green straw of the *Panicum species* is given to the cattle to increase the intake offood ie Anorexia. 2 time in a day for 2 days.
109.	*Terminalia arjuna* (Roxb. Ex DC.)	Combretaceae	*Marutham*	Tree	Bark	Paste Powder	Bone fracture Diarrhoea	Cow Goat Horse	100 gm Stem bark crushed in water and the paste is mixed coconut oil applied over bone fracture and 1litre 50 gm bark powder prepare extract decoction orally 3 days Diarrhoea problem cure.

110.	*Terminalia chebula* Retz.	Combretaceae	*Kadukai*	Tree	Seed	Powder	Fever Cough	Cow	5 mature fruits dry powder mixed with water give in orally 1 time in a day for 3 days.
111.	*Thespesia populnea* (Linn.)Scl.ex correa.	Malvaceae	*Poovarasu*	Tree	Flower	Paste	Skin Allergic	Cow Goat	50gm flower of crushed and made into extract is apply directly, to the goat and cattle, on the external surface 1time in a day for 2 days.
112.	*Thevetia neriifolia* Juss.	Apocynaceae	*Aralli*	Shrub	Latex	Paste	Wound pain	Horse Hen	5-10 drops of latex, mixed *curcuma longa* powder and count oil in white cloth and it is tied to the where it has the pain and swelling 1 time in a day.
113.	*Tinospora cordifolia* (Thunb.) Miers.	Menispermaceae	*Kattukodi*	Climber	Leaf	Raw	Low milk yield	Cow Goat	5kg fresh leaves are fed to cattle, cow and goat as a galactagogue agent to increase flow of milk.
114.	*Toona ciliata* ROEM.	Meliaceae	*Malai Veambu*	Tree	Leaf	Decoction	Infertility	Cow Sheep Goat	100ml of leaf extract is given orally to the cow infertility for the natural Semination after crossing. 1 time in a day for 2 days.
115.	*Tribulus terrestris* L.	Zygophyllaceae	*Nerunji*	Herb	Whole Plants	Powder	Urinary problem	Cow Sheep Goat	100gm of whole plant made the water extract is given orally twice a day for 2-3 days to goats for curing urinary problem.
116.	*Tridax procumbens* L.	Asteraceae	*Vettukayapondu*	Herb	Leaf	Paste	Wound	Buffalo Cow	100 gm mature leaf extract prepared the paste is applied till wound healing following one tome in the days.
117.	*Vitex negundo*L.	Verbenaceae	*Notchii*	Shrub	Leaf	Paste	Foot and Mouth disease	Cow Sheep Goat	100 gm fresh leaves curcuma longa powder mixed coconut oil made a paste affected infection area applied twice a day for one week.
118.	*Withania somnifera* (L.) Dunal	Solanaceae	*Nithyakalyani*	Herb	Root	Decoction	Cough	Buffalo Donkey	50 gm Root and 10 gm ginger extract made prepare decoction is drenched once daily to buffaloes to treat cold and cough.
119.	*Zingiber officinale* Roscoe	Zingiberaceae	*Engii*	Herb	Bulb	Decoction	Throat pain	Goat Sheep Horse	100g ginger are mixed with juggery and given to the cattle to treat cough or throat problem.
120.	*Zizyphus nummularia* (Burm.f.) Wight	Rhamnaceae	*Ellanthai*	Shrub	Seed	Decoction	Stomach disorder	Cow Goat Sheep	100gm seeds and mixed piper powder made decoction prepare 1litre twice a day for 5-6 days to remove intestinal worms.

ACKNOWLEDGEMENT

The authors would like to thank the Paliyar Tribes in Sadhuragiri hills and local people for their valuable indigenous knowledge transfer. We are also thankful to the Tamil Nadu Forest Department for their co-operation during the field work.

REFERENCES

1. Anderson K. Animal domestication in geographic perspective. *Society and Animals*, 1998; 6 (2): 119-136.
2. Larrère C & Larrère R. Animal rearing as a contract. .*Journal of Agricultural and Environmental Ethics*, 2000; 12(1):51-58.
3. Palmer C. The idea of the domesticated animal contract. *Environmental Values*, 1997; 6(4):411-426.
4. Bierer B. W.A short history of veterinary medicine in America. East Lansing, MI: Michigan State University Press; 1955.p.163-172.
5. Shanklin E. Sustenance and symbol: Anthropological studies of domesticated animals. *Annual Review of Anthropology*, 1985; 14: 375-403.
6. Mathias E., McCorkle, C & Schillhorn Van Veen, T. Introduction: Ethnoveterinary research and development. In McCorkle, C. M., Mathias, E., & Schillhorn Van Veen, T. W. (Eds.), Ethnoveterinary research & development London, UK: Intermediate Technology Publications; 1996. p. 1-23.
7. World Health Organization (WHO) traditional medicine strategy 2014-2023. Geneva, Switzerland: World Health Organization; 2014.
8. Alves R. R. N & Rosa I. L. Animals in traditional folk medicine: Implications for conservation. Heidelberg, Germany: Springer; 2012.
9. Jain S.K & Srivastava S. Some folk herbal medicines for possible use in veterinary practices. *Indian Journal of Traditional Knowledge*, 2003; 2(2):118-125.
10. Zschocke, S., Rabe, T., Taylor, J.L., Jäger, A.K & Van Staden, J. Plant part substitution-a way to conserve endangered medicinal plants. *J. Ethnopharmacol*, 2000a; 71: 281–292.
11. Masika P.J., Van Averbeeke W & Sonandi A. Use of herbal remedies by smallscale farmers to treat livestock diseases in central Eastern Cape Province, South Africa. *J. S. Afr. Vet. Assoc*, 2000; 71: 87–91.
12. Tabuti J.R., Dhillion, S.S & Lye, K.A. Ethnoveterinary medicines for cattle (Bos indicus) in Bulamogi County, Uganda: plant species and mode of use. *J. Ethnopharmacol*, 2003; 88:279–286.
13. Yinegar H., Kelbessa E., Bekele T & Lulekal E. Ethnoveterinary medicinalplants in Bale Mountains National Park, Ethiopia. *J. Ethnopharmacol*, 2007; 112: 55–70.
14. Masika P.J & Afolayan A.J. An ethnobotanical study of plants used for the treatment of livestock diseases in the Eastern Cape Province, South Africa. *Pharm.Biol*, 2003; 41: 16–21.
15. Kone W.M & Atindehou K.K. Ethnobotanical inventory of medicinal plantsused in traditional veterinary medicine in Northern Cote d'Ivoire (West Africa). *S. Afr. J. Bot*, 2008; 74:76–84.

16. Schillhorn van Veen, T.W. In: McCorkle, C.M., Mathias, E., Schillhornvan Veen, T.W. (Eds.) Traditional Methods of Animal Disease Prevention and Control in African Savannah. EthnoveterinaryResearch and Development, Intermediate Technology Publications, London; 1996. p. 338.

17. Zschocke S, Rabe T, Taylor J.L.S., Jäger A.K & Van Staden, J. Plant part sub-stitution – a way to conserve endangered medicinal plants. *J. Ethnopharmacol*, 2000b ; 71: 281–292.

18. McCorkle C.M. An Introduction to ethnoveterinary research and development. *J. Ethnobiol*, 1986; 6: 129-149.

19. Krishna L. Swarup D & Patra R.C. An overview of prospects of ethno-veterinary medicine in India. *Indian. J. Anim. Sci*, 2005; 75: 1481-1491.

20. Dwivedi S.K. Overview of Ethnobotany Practices in India: Techniques for scientific validation and evolution of Ethnoveterinary practices in India, Bareilly; 1998.p. 1-5.

21. Sri Balaji N & Chakravarthi R. Ethnoveterinary Practices in India: A Review: Veterinary World, 2010; 3(12): 549-551.

22. Maydeel Hans J. Arbres et arbustes du sahel leurs caracteristiques etleurs utilization. GT2; 1990.

23. Central Statistical Agency (CSA). Livestock resources and production Statistics in Ethiopia. Federal Democratic Republic of Ethiopia Agricultural Sample Survey for: Report on Livestock and Livestock Characteristics; 2003.

24. Mesfine T & Lemma M. The role of traditional veterinary herbal medicine and its constraints in the animal health care system in Ethiopia. In: Conservation and Sustainable Use of Medicinal Plants in Ethiopia. Medhin Zewdu and Abebe Demissie (Eds); Institute of Biodiversity Conservation and Research, Addis Ababa, Ethiopia; 2001.p. 22-28.

25. Giday M & Ameni G. An Ethno botanical Survey on Plants of Veterinary Importance in Two Woredas of Southern Tigray, Northern Ethiopia. SINET: *Ethiop J Sci*, 2003; 26: 123-126.

26. Teklehaymanot T & Giday M. Ethnobotanical Study of Medicinal Plants Used by People in Zegie Peninsula, Northwestern Ethiopia. *Journal of Ethnobiology and Ethnomedicine*, 2007; 163:3-12.

27. Tiwari L & Pande PC. Ethnoveterinary plants of Johar valley of Pithoragarh district, Uttarakhand Himalaya. *Vegetos*, 2009; 22:155-62.

28. Mallik BK, Panda T & Padhy R.N. Ethnoveterinary practices of aborigine tribes in Odisha, India. *Asian Pacific J Trop Biomed*, 2012; 3:S1520-S1525.

29. Adedeji O.S, Ogunsina T.K, Akinwumi A.O, Ameen S.A, Ojebiyi O.O & Akinlade J. An Ethnoveterinary medicine in African organic poultry production: Int. *Food Research Journal*, 2013; 20(2): 527-532.

30. Galav P, Jain A, & Katewa S.S. Ethnoveterinary medicines used by Tribals of Tadgarh-Raoli Wildlife Sanctuary, Rajasthan, India. *Indian J Traditional Knowledge*, 2013; 12(1): 56-61.

31. Njoroge G.N. & Bussmann R.W. Herbal usage and informant consensus in ethnoveterinary management of cattle diseases among the Kikuyus (Central Kenya). *J. Ethnopharmacol*, 2006; 108: 332-339.

32. Dold A.P. & Cocks M.L. Traditional veterinary medicine in the Alice district of the Eastern Cape province, South Africa. *Afr. J. Sci*, 2001; 97: 375-379.

33. Matekaire T & Bwakura T.M. Ethnoveterinary medicine: A potential alternative to orthodox animal health delivery in Zimbabwe. *Int. J. Appl. Res. Vet. Med*, 2004; **2**(4): 269-273.

34. Jabbar A., Akhtar M.S, Muhammad, G & Lateef M. Possible role of ethno-veterinary medicine in poverty reduction in Pakistan: Use of botanical Anthelmintics as an example. *J. Agric. Soc. Sci*, 2005; **1**(2):187-195.

35. Mwale M., Bhebhe E. Chimonyo M. & Halimani T.E. Use of herbal plants in poultry health management in the Mushagashe small-scale commercial farming area in Zimbabwe. *Int. J. Appl. Res. Vet. Med*, 2005; **3**: 163-170.

36. Maine V.A.C., Lívia E.T.M., José S.M & Rômulo R.N.A. Animals to heal animals: ethnoveterinary practices in semiarid region, Northeastern Brazil. *J. Ethnobiol. Ethnomed*, 2009; **5**(37):5-37.

37. Shen S., Qian J & Ren J. Ethnoveterinary plant remedies used by Nu people in NW Yunnan of China. *J. Ethnobiol. Ethnomed*, 2010;.**6**(24):6-24.

38. Gamble J.S. Flora of the Presidency of Madras. Vol. I-III. Allard & Co. London Botanical Survey of India, Culcutta; 1956.

39. Henry AN, Kumarai G.R & Chitra V. Flora of Tamilnadu, India, series 1: Analysis, Botanical Survey of India, Southern Circle, Coimbatore, Tamilnadu, India; 1987.

40. Matthew KM. The Flora of Tamilnadu Carnatic, Vol. 1-3: The Rapinat Herbarium, Tiruchirappalli, Tamilnadu, India; 1983.

41. Jain S.K & Rao R.R. A Handbook of Field and Herbarium Methods. Today and Tomorrow's Printers and Publishers, New Delhi; 1977.

42. Sankarasivaraman K. Ethnobotanical wealth of Paliyar tribe in Tamil Nadu. Ph.D., Thesis: Manonmanisundaranar University, Thirunelveli; 2000.

43. Priyadarsan S.S. Herbal veterinary medicines in an ancient Sanskrit work: The Garuda Purana. *Ethnobotany*, 1991; 3: 83.

44. Jain S.K. Plants in Indian ethno veterinary medicine: Status and Prospectus, *Indian Journal of Veterinary Medicine*, 2000; 20: 1- 11.

45. Takhar H.K. Folk herbal veterinary medicines of Southern Rajasthan.*Indian Journal of Traditional Knowledge*, 2004; 3(4):407-418.

46. Ganesan S, Chandhirasekaran M & Selvaraju A. Ethno-veterinary health care practices in Southern districts of Tamil Nadu. *Indian Journal of Traditional Knowledge*, 2008; 7: 347-354.

47. Kiruba S, Jeeva S & Dhas S.S.M. Enumeration of Ethnoveterinary plants of Cope Comorin, Tamil Nadu. *Indian Journal of Traditional Knowledge*, 2006; 7: 576-578.

48. Salave A.P, Reddy P.G & Diwakar P.G. Some Reports on Ethnoveterinary Practices in Ashti Areas of Beed District (MS) India. *International Journal of Applied Biology and Pharmaceutical Technology*, 2011; 2: 69-73.

49. Tafara Matekaire M.S, Taona M and Bwakura M.S. Ethnoveterinary Medicine: A potential alternative to orthodox animal health delivery in Zimbabwe. *International Journal of Applied Research in Veterinary Medicine*, 2004; 2(4):269-273.

50. Patil U.S and Deshmukh O.S. Plants Used In Ethno-Veterinary Medicines by Tribal Peoples in Betul District, Madhya Pradesh, India. *International Journal of Science and Research*, 2015; 4(10): 1536-1538.