

# An Ethno-Medical Study of Minerals and Biologicals Used for the Treatment of Livestock Diseases in Agasteeswaram Taluk, Kanyakumari District, Tamil Nadu

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## ABSTRACT

The majority of the people who are rearing livestock in Agasteeswaram taluk mostly utilize minerals and biological to treat the ailments of livestock. However this knowledge is perishing due to poor documentation. So this field study is carried out to recover ancient ethno-medical practices by means of semi structured questionnaire and interview among the inhabitants of Agasteeswaram taluk who are rearing livestock. 38 informants aged above 40 years old were interviewed after giving proper explanation about the study in their own language and obtaining informed consent. 8 biological, 9 minerals and mineral oils was reported from the study for the care of different livestock ailments. This study helps to conserve the ethno-medical knowledge of treating livestock ailments.

**KEY WORDS:** Livestock, Ailments, Ethno-medical, Agasteeswaram taluk.

## INTRODUCTION

Ethnomedicine is defined as those beliefs and practices relating to disease which are the products of indigenous cultural developments and are not explicitly derived from the conceptual framework of modern medicine. According to the data released by the World Health Organization (WHO) ethnomedicine has maintained its popularity in all regions of the developing world.<sup>[1]</sup>

On seeing the origin and development of mankind the human lives are mostly associated with livestock and nature. There is a book called MATTU VAGADAM which gives a brief note on siddha way of treating livestock diseases.

In this modern era there is a separate medical field [Veterinary science] for treating livestock diseases. Even some people from villages are also approaching Veterinary physician after globalisation. So the knowledge which is generally taught orally from their ancestors like how to treat livestock disease is gradually perishing. However some people here and there still practicing the method of treatment by

administering some preparations that are taught from their ancestors and healing the ailments of the livestock effectively. So there is a need to document this traditional wisdom as soon as possible.

The present study focuses on ethnomedical study of minerals and biologicals used in Agasteeswaram Taluk, Kanyakumari District, Tamilnadu by the inhabitants who are rearing livestock.

**AIM:**

The aim of the study is to explore the minerals and biologicals used in the treatment of livestock diseases.

**OBJECTIVE:**

To bring out the common minerals and biologicals used in the treatment of livestock diseases.

**STUDY PERIOD:**

4 Months.

**MATERIALS AND METHODS:**

**STUDY DESIGN:**

Qualitative Study

**PROPOSED MERHODS:**

**STUDY POPULATION:**

**MEDICINES FOR DISEASE OF HEN\COCK**

The study participants were the native people of Agasteeswaram Taluk. During the study 38 informants aged above 40 were selected.

**DATA COLLECTION:**

Informants were interviewed in their own localities using semi-structured questionnaires. A considerable time was spent with each informant. Information on indigenous use of minerals and biologicals, also the mode of preparation, route of administration and the diseases treated were collected.

**DATA ANALYSIS:**

All the collected data were entered into MS word software. Basic descriptive statistics were performed.

**RESULT AND DISCUSSION:**

Among the 38 informants, 20 were males and 18 were females including 29 people over 50 years. The respondent age range from 41 to 80 years old with an average age of 61. 34% of the study participants are degree holders. They prepare medicine using some minerals and biological by purchasing from the nearby drug store.

INDICATIONS	MAIN INGREDIENTS	PREPARATION FORMS	ROUTE OF ADMINISTRATION
Wound (Pun)	Manjal(RH)- <i>Curcuma longa</i> Uppu-Sodium chloride	Grinded and boiled end product	External
Lice/Flea infestation (Thel)	Kerosene		External (Dip the particular part)
Hardening of egg shell (Muttai odu palaka)	Chippi chunnambu-Calcium hydroxide	Mixed with water	Internal
	Cow's Milk		Internal
	Chunnambu-Calcium carbonate	Mixed with water	Internal
	Chunnambu-Calcium carbonate Kothumai thavidu(Wheat	Mixed end product	Internal

	bran)		
	Broken egg shells		Internal
Fowl pox (Ammal)	Pig oil-Lard oil		Both internal and external
To improve Immunity (Noi yethirpu thiran Membada)	Fish	Raw or cooked	Internal

### MEDICINES FOR DISEASE OF GOAT

INDICATIONS	MAIN INGREDIENTS	PREPARATION FORMS	ROUTE OF ADMINISTRATION
Acidosis (Vayir ootham)	Soda uppu-Sodium bicarbonate +Water		Internal
Wound (Pun)	Soodam-Cinnamomum camphora Gingelly oil		External
Bronchitis (Chali)	Sambirani- <i>Styrax benzoin</i>	Fumed	External
Mastitis (Madu veekam)	Seenthil(L)- <i>Tinospora cordifolia</i> Uppu-Sodium chloride	Grinded end product	External
	Castor oil+ Uppu-Sodium chloride		External
Foot rot (Kulambu Pun)	Gingelly oil+ Soodam- Cinnamomum camphora	Boiled end product	Fomentation
	Manjal(RH)- <i>Curcuma longa</i> Uppu-Sodium chloride		External
To increase Lactation (Paal suraka)	Ulunthu(S)- <i>Vigna mungo</i> Venthaiyam(S)- <i>Trigonella foenum graecum</i> Surai(F)- <i>Lagenaria siceraria</i> Uppu-Sodium chloride	Cooked and left for one day	Internal

### MEDICINES FOR DISEASE OF COW/BUFFALOW

INDICATIONS	MAIN INGREDIENTS	PREPARATION FORMS	ROUTE OF ADMINISTRATION
Indigestion (Seriyaamai)	Groundnut oil(1/2 lit) Soda uppu(100gm)-Sodium bicarbonate (Contraindication: this content if aspirated via respiratory tract while administering will cost the life of the animal)		Internal
Nakku mul	Induppu-Impure Sodium chloride Puli(F)- <i>Tamarindus indica</i>		Apply in tounge
	Iron Knife	Heated	Placed in the affected area
Enteritis (Kalichal)	Egg+ Neem oil		Internal

Laminitis (Kalthangal)	Gingelly oil+ Soodam-Cinnamomum camphora+ Kaintha Milagai(F)- <i>Capsicum annuum</i>	Boiled	External
	Chunnambu-Calcium carbonate+ Water	Filtered Water	Internal
	Cow dung	Boiled	Fomentation
Wound (Pun)	Gingelly oil Kaintha Milagai(F)- <i>Capsicum annuum</i> Uppu-Sodium chloride Manjal(RH)- <i>Curcuma longa</i>	Boiled	External
	Ottadai-(Cobwebs) Poongarpooram- Cinnamomum camphora (especialy for worm in wound)		External
	Manjal(RH)- <i>Curcuma longa</i> Uppu-Sodium chloride		External
	Gingelly oil Kaintha Milagai(F)- <i>Capsicum annuum</i> Soodam- Chinnamomum camphora Manjal(RH)- <i>Curcuma longa</i>	Boiled	External
Umbilical (Kantrugaluku Kopul pun)	ill Turpentine/Petrol(To bring out worms) To heal the wound Neem oil+ Manjal(RH)- <i>Curcuma longa</i>		Peechu(Ext)
	Neem oil+ Soodam-Cinnmomum camphora(To bring out worms) To heal the wound Manjal(RH)- <i>Curcuma longa</i> +uppu	Boiled	External
Mastitis veekam)	(Madi Kattralai(L)- <i>Aloe vera</i> Yelumichai(F)- <i>Citrus limon</i> Chunnambu-Calcium carbonate	Paste form	External
	Seenthil(L)- <i>Tinospora cordifolia</i> Uppu-Sodium chloride	Paste	External
	Chippi chunnambu-Calcium hydroxide Yelumichai(F)- <i>Citrus limon</i>	Paste	External
	Castor oil Uppu-Sodium chloride	Paste	External
Foot & mouth diseases (Vanokano)	Pig oil-Lard oil		External
To expel the placenta (Nanji kodi vila)	Chunnambu-Calcium carbonate		External(Apply on the horn)
To increase the reproductive rate (Madu sinaipidika)	½ lit Neem oil 3 Nattukozhi egg (During ovulation day)		Internal

### Biologicals used:

S.no	Common Name	English Name
1.	Pig Oil	Lard Oil
2.	Muttai	Hen's Egg
3.	Muttai Odu	Hen's Egg shell
4.	Meen	Fish
5.	Thyir	Yogurt
6.	Pasum Pal	Cow Milk
7.	Mattu Sanam	Cow dung
8.	Ottadai	Cobwebs

### Minerals and Mineral oil used:

S.no	Common Name	Chemical Name
1.	Karpooram	Cinnamomum camphora
2.	Induppu	Impure Sodium Chloride
3.	Uppu	Sodium Chloride
4.	Cunnambu	Calcium carbonate
5.	Chippi chunnambu	Calcium hydroxide
6.	Soda uppu	Sodium bicarbonate
7.	Kerosene oil	Paraffin oil
8.	Petrole	Hydrocarbon
9.	Turpentine	Pinus palustris mill

From the above information collected we come to know that 9 minerals and 8 biologicals were also used to treat livestock diseases, along with some herbals

The ethnomedicinal uses of minerals and biological in treating various livestock diseases such as Indigestion, Ticks, Enteritis, Laminitis, Wound, Helminthiasis, Umbilical ill, Mastitis, Pyrexia, Anthrax, Foot& mouth disease, Pox, Bronchitis in Cow/Buffalo and diseases such as Acidosis, Helminthiasis, Enteritis, Wound, Laminitis, Bronchitis, Mastitis, Foot rot in Goats and also some other disease such as Ranikhet disease, Indigestion, Wound, Fracture, Coryza, Lice/Hae infestation Helminthiasis, Foul pox in hen/cock were documented. Immuno boosting medicines for Livestock, Medicine to increase muscle mass in chicks and medicines to increase lactation, medicines to increase reproductive rate in cows, medicines to improve immunity in cattle were also documented

It is possible that this traditional knowledge might get disappear in the near future because of life style changes and the fact that this traditional knowledge was still taught orally without any documentation. So this documentation will be very useful to the next generation.

### CONCLUSION

This study revealed that the inhabitants of this region utilize different minerals and biological for treating livestock due to the easy availability of the minerals biological products along with some herbals. The minerals and biological with high informant consensus and fidelity level should be subjected to further invitro investigation for their pharmacological activities.

#### *Declaration by Authors*

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**Conflict of Interest:** The authors declare no conflict of interest.

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1. LAD Williams, Ethnomedicine, West Indian Med J 2006 Sep; 55 (4): 215-216

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