Documenting ethnoveterinary practices of Tiruvannamalai district in Tamil Nadu, India

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Research

Abstract

Background: Ethnoveterinary practices are prevalent in India; yet this knowledge is poorly documented. This study documents the ethnoveterinary practices in Tiruvannamalai district in Tamil Nadu, India.

Methods: Using successive free listing method, 23 healers were identified and the ethnoveterinary formulations used by them were recorded. The data were analyzed using Informant Consensus Factor (F_{ic}) and Index of Agreement Remedies (IAR).

Results: A total of 120 formulations was documented for treating about 50 veterinary health conditions. Alimentary tract ailments showed high consensus followed by dermatological ailments and poisonous bites. Musculo-skeletal ailments, genito-urinary ailments, sensory organ ailments and ectoparasitic infections showed average consensus. Considerable overlap was observed between human and veterinary applications; common medicinal plants like *Curcuma longa*, *Piper nigrum*, *Allium sativum*, *Piper betle* and *Azadirachta indica* were regularly cited.

Conclusion: This preliminary study highlights the significance of validating traditional knowledge of veterinary practices in Tamil Nadu.

Key words: Animal health; Botanicals; *Siddha*; Traditional Indian Medicine

Background

Animal rearing is one of the major occupations of South Asia, particularly India. The global livestock is estimated at 4,000 million, of which India holds approximately 512 million heads (Sonavale *et al.* 2020). India accounts for 37.28% of world's cattle, 26.40% of goats, 12.17% of sheep and 21.23% of buffalo. In India, the portion of chicken rose from 207 million to 729 million in the last three decades. In many traditional cultures, plants have been used to treat various illnesses of the domestic animals; such ethnoveterinary practices are high in India. *Atharvaveda* (1000-900 BC) mentioned some of veterinary ailments and applications of some medicinal plants like *Terminalia arjuna* and *Holarrhena pubescens* (Suroowan *et al.* 2017). Similarly, the classical Ayurvedic texts such as *Asvayurveda siddhanta, Gajashastra* and *Hastyayurveda* described the ailments as well as treatments for the horses and elephants, respectively.

Siddha is one of the five accepted traditional medical systems of India. It has been mainly practiced in Tamil Nadu; it is also familiar in other countries like Sri Lanka and Malaysia. Non-institutional practice of *Siddha* still exists in many parts of Tamil Nadu. Some of these healers also treat veterinary ailments to a considerable extent. Though *Siddha* literature prescribes drugs for veterinary health issues, many proprietary formulations are prevalent, and they were transmitted orally over the generations and this local knowledge has no written literature. Scientific exploration of this knowledge might yield some clues for treating some veterinary ailments. In Tamil Nadu, the documentation of ethnoveterinary practices was sporadic and relatively scarce. Previous works documented the ethnoveterinary practices of Kanyakumari (Kiruba *et al.* 2006), Madurai (Ganesan *et al.* 2008), and Salem (Usha *et al.* 2016) districts of Tamil Nadu. This study documented the ethnoverterinary practices of Tiruvannamalai district in Tamil Nadu.

Materials and Methods

Study area and interviews

Tiruvannamalai district is located in the northern part of Tamil Nadu state between 12° 00' and 12° 52' N latitude and 78° 39' and 79° 45' E longitude (Fig. 1). This study was conducted between July 2020 and January 2021 among the traditional healers in the district; field work was carried out for 63 days. The successive free listing method was employed to document the local knowledge (Heinrich et al., 2018) and the healers were identified by the snowball sampling technique. The healers were recruited regardless of age, gender or education; the aims and outcomes of the study were explained to them in a simple language for obtaining prior informed consent. By this manner, 23 healers were identified and their knowledge was documented. The data regarding the symptomatology of the illnesses, the ingredients used to prepare the formulations, parts used, mode of preparation, dose, mode of administration and duration were documented. The interviews were conducted in 'Tamil' and later translated into 'English'. Representative voucher specimens were collected, and their identity was confirmed using the local flora (Gamble and Fischer, 1997); the validity of the botanical names was confirmed using an online database (http://www.worldfloraonline.org/). The voucher specimens were stored at the herbarium of Xavier Research Foundation, St Xavier's College, Palayamkottai.

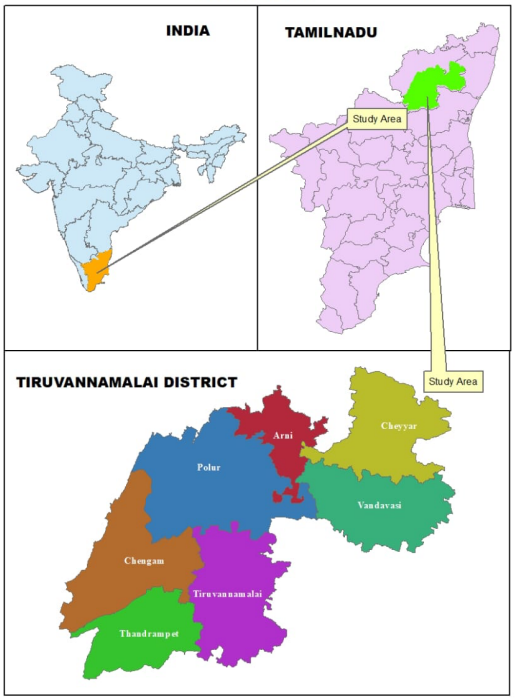

Figure 1. Map showing the location of the study area, Tiruvannamalai district in Tamil Nadu, India

Data analysis

Equivalent English terminologies for the illnesses were identified before analysis; they were grouped as illness categories and sub-categories in accordance with ATCvet index (https://www.whocc.no/atcvet/atcvet_index/) as adopted by Mayer and co-workers (2014). Documented formulations were converted into use-reports (UR) in accordance with our previously published methodology (Chellappandian *et al.* 2012). Consensus over treating illnesses was assessed by informant consensus factor (F_{ic}) using the following formula (Trotter and Logan, 1986).

$$F_{ic} = (N_{ur} - N_t)/(N_{ur} - 1)$$

Where N_{ur} is the number of UR for a particular illness category, and N_t is the total number of species mentioned for that particular illness category. This factor ranges from zero to one, where increasing values indicate high rate of informant consensus. Based on the informants' consensus, these illness categories were placed into three arbitrary groups in accordance with the previous work (Pandikumar *et al.* 2011).

To assess the importance of individual species under each illness category, the Index of Agreement Remedies (IAR) was calculated using the following formula:

$$IAR = (n_{ur} - n_a)/(n_{ur} - 1)$$

Where n_{ur} is the total number of UR registered for species and n_a is the number of illness categories that are treated with that species. The species with minimum two URs for an illness category are selected and their uses at national and international levels are discussed.

Results

Analysis of the data

The data on the prescribed medicinal plants, vernacular names of veterinary health conditions, and formulations are provided in Supplementary data 1-3. A total of 120 formulations were documented for the treatment of approximately 50 veterinary health conditions. These formulations involved 109 plant species, along with other biological (hen's egg and cow urine) and non-biological (slaked lime, salt and camphor) resources. The analysis yielded 304 use reports (URs); of them, 93.78% were plant based formulations.

Illness categories with high consensus

Alimentary tract ailments showed high consensus followed by dermatological ailments and poisonous bites. Within the alimentary tract ailments, antidiarrheals and appetite stimulants were the most frequently reported subcategories (Table 1). The *Cuminum cyminum*, *Curcuma longa*, *Papaver somniferum* and *Punica granatum* were frequently used for the treatment of diarrhea. *Piper nigrum*, *Zingiber officinale* and *Cuminum cyminum* were highly used as appetite stimulants (Table 2).
Foot-and-mouth disease, wounds and ulcers, and dermatological infections were the frequently cited subcategories under dermatological ailments. *Curcuma longa* and *Cocos nucifera* were used in the treatment of foot-and-mouth disease. *Curcuma longa* and *Acalypha indica* were highly used in the treatment of wounds and ulcers; *Acalypha indica*, *Azadirachta indica* and *Curcuma longa* were cited for treating various dermatological infections. *Aristolochia indica*, *Corallocarpus epigaeus*, *Piper betle* and *Piper nigrum* were highly cited for treating poisonous bites.

Table 1. Informant consensus among various veterinary illness categories treated by the traditional *Siddha* healers of Tiruvannamalai district of Tamil Nadu, India.

ATCvet code	Illness category	No. of plants	No. of UR	% UR	F_{ic}
QA	*Alimentary tract ailments*	39	74	24.34	**0.479**
QA01	Blue tongue disease	3	3		0.000
QA02	Acid related disorders	4	4		0.000
QA07	Antidiarrheals	25	38		0.351
QA15	Appetite stimulants	20	29		0.321
QB	*Blood ailments*	2	2	0.66	0.000
QB01	Thrombosis	2	2		0.000
QD	*Dermatological ailments*	34	64	21.05	**0.476**
QD02	Hair fall	2	2		0.000
QD03	Wounds and ulcers	14	21		0.350
QD06	Antibiotics for dermatological use	9	13		0.333
QD51	Illnesses of claws and hoofs	19	28		0.333
QG	*Genito-urinary ailments*	29	41	13.49	0. 300
QG01	Gynecological antiinfectives	8	8		0.000
QG02	Other gynecologicals	24	30		0.206
QG04	Urologicals	3	3		0.000
QM	*Musculoskeletal ailments*	38	54	17.76	0.302
QM01	Antiinflammatory & antirheumatic (Systemic)	23	29		0.214
QM02	Joint and muscular pain (Topical)	15	18		0.166
QM03	Muscle relaxants	2	3		0.500

QM05	Bone diseases	3	4		0.333
QN	*Nervous ailments*	2	2	0.66	0.000
QN03	Antiepileptics	1	1		0.000
QN07	Syncope	1	1		0.000
QP	*Parasites and insects*	18	23	7.57	0.227
QP02	Helminthes infestation	7	7		0.000
QP03	Ectoparasites	13	16		0.200
QR	*Respiratory ailments*	15	15	4.93	0.000
QR03	Obstructive airway diseases	15	15		0.000
QS	*Ailments of sensory organs*	7	9	2.96	0.250
QS01	Ophthalmologicals	7	9		0.250
QV	*Various ailments*	11	20	6.58	**0.474**
QV03	Poisonous bites	11	20		0.473

Table 2. Plant species with minimum two URs for the treatment of same illness category, number of URs and their IAR value.

Illness category	**Medicinal plants**	**Others**	
		Biologicals	**Non-Biologicals**
Alimentary tract ailments	*Piper nigrum* (7/0.785), *Cuminum cyminum* (6/0.714), *Curcuma longa* (5/0.840), *Zingiber officinale* (5/0.500), *Trigonella foenum-graecum* (3/0.750), *Cocos nucifera* (3/0.545), *Wrightia tinctoria* (3/0.500), *Allium sativum* (3/0.444), *Acorus calamus* (2/1.000), *Ferula asafetida* (2/1.000), *Papaver somniferum* (2/1.000), *Punica granatum* (2/1.000), *Trachyspermum ammi* (2/1.000), *Musa* x *paradisiaca* (2/0.500), *Piper betle* (2/0.500), *Allium cepa* (2/0.200),	--	--
Dermatological ailments	*Curcuma longa* (12/0.840), *Acalypha indica* (6/0.714), *Azadirachta indica* (4/0.666), *Cocos nucifera* (4/0.545), *Piper nigrum* (3/0.785), *Allium sativum* (2/0.444), *Trigonella foenum-graecum* (2/0.750)	--	Common salt (4/0.600)
Genito-urinary ailments	*Curcuma longa* (4/0.840), *Aloe vera* (3/0.375), *Raphanus sativus* (2/1.000), *Cocos nucifera* (2/0.545), *Embelia ribes* (2/0.500), *Sesamum indicum* (2/0.500), *Musa x paradisiaca* (2/0.500), *Wrightia tinctoria* (2/0.500), *Cissus quadrangularis* (2/0.200)	--	--
Musculoskeletal ailments	*Curcuma longa* (4/0.840), *Dodonaea viscosa* (3/1.000), *Azadirachta indica* (3/0.666), *Decalepis hamiltonii* (2/1.000), *Justicia tranquebariensis* (2/1.000), *Nigella sativa* (2/1.000), *Tamarindus indica* (2/1.000), *Vitex negundo* (2/1.000), *Allium sativum* (2/0.444), *Syzygium cumini* (2/0.500), *Zingiber officinale* (2/0.500)	Egg of *Gallus gallus domesticus* (2/0.500)	--
Parasites and insects	*Nicotiana tabacum* (2/1.000), *Citrullus colocynthis* (2/1.000), *Azadirachta indica* (2/0.666), *Ricinus communis* (2/0.500), *Aloe vera* (2/0.375)	--	--
Ailments of sensory organs	*Tabernaemontana divaricata* (3/1.000)	--	--
Various ailments	*Piper betle* (5/0.500), *Piper nigrum* (4/0.785), *Aristolochia indica* (2/1.000), *Corallocarpus epigaeus* (2/1.000)	--	--

Values given within the parentheses indicate number of URs and IAR value

Illness categories with average consensus

Four illness categories such as musculo-skeletal ailments, genito-urinary ailments, sensory organ ailments and ectoparasitic infections showed average consensus. Under musculo-skeletal ailments, *Dodonaea viscosa* was used for treating bone fractures. The species like *Allium sativum*, *Azadirachta indica*, *Justicia tranquebariensis*, *Zingiber officinale*, *Decalepis hamiltonii* and *Vitex negundo* were used for treating various inflammations. *Aloe vera* and *Raphanus sativus* were used for treating infertility; the flowers of *Tabernaemontana divaricata* were used for treating ophthalmological conditions. For treating ectoparasitic infections, *Azadirachta indica* and *Nicotiana tabacum* were commonly used. The leaves of *Wrightia tinctoria* were used to treat various infectious diseases like blue tongue, diarrhea, coccidiosis, mastitis and foot-and-mouth disease.

Discussion

Livestock plays a vital role in Indian economy; it is providing support for about 20.5 million people and contributing approximately 4.11% of national Gross Domestic Product. Alongside modern veterinary healthcare system, the use of traditional remedies for treating livestock ailments remains widespread in the rural regions of the country. Documentation and scientific validation of these leads are essential to strengthen the animal husbandry sector.

Among the ailments reported, diarrhea and bloat are the common reported veterinary health concerns. Diarrhea causes even mortality of the calves in the first few weeks of life (Radostits *et al.* 2000). Bloat is manageable, but it has significant impact in the animal health and economics (Rett *et al.* 2020). The highly cited antidiarrheal medicinal plants of this study like *Cuminum cyminum*, *Curcuma longa*, *Papaver somniferum* and *Punica granatum* are also well documented in Indian systems of traditional medicine for the treatment diarrhea in humans. Similarly, *Piper nigrum*, *Zingiber officinale* and *Cuminum cyminum* which are commonly used as appetite stimulants are recognised for their digestive and carminative effect. The use of *Piper nigrum* for the treatment of bloat in livestock has already been reported in ethnoveterinary surveys from Tamil Nadu (Ganesan *et al.* 2008), Odisha (Rautray *et al.* 2015) and Kashmir (Khateeb *et al.* 2015).

Dermatological ailments were another major category with high consensus. The application of *Curcuma longa*, *Azadirachta indica* and *Acalypha indica* was frequently reported for the treatment of dermatological ailments. These plants have commonly been used in Indian systems of traditional medicine for treating various dermatological ailments (Pandikumar *et al.* 2011; Mutheeswaran *et al.* 2011, 2014). The leaves of *Wrightia tinctoria* were extensively used in *Siddha* system of traditional medicine for the treatment of dermatological ailments, mainly psoriasis; in veterinary application, it has been used to treat various infectious diseases like diarrhea, coccidiosis, mastitis etc.

Musculo-skeletal ailments were commonly treated using *Allium sativum*, *Azadirachta indica*, *Dodonaea viscosa*, *Vitex negundo* and *Zingiber officinale*, which have also been used for treating human musculo-skeletal disorders (Esakkimuthu *et al.* 2021). Ectoparasites like flies, ticks and mites affect almost all the livestock populations worldwide; many of them are vectors and zoonotic causing severe damage to their productivity (de Leon *et al.* 2020). The use of *Azadirachta indica* and *Nicotiana tabaccum* to manage the menace of arthropods infestation among the livestock was documented (Wanzala, 2017; Quadros *et al.* 2020). Overall, this survey reveals a commonality in the use of medicinal plants for both human and veterinary healthcare among the healers of Tiruvannamalai district. Since most of these species are in human use and their safety is known, they hold significant potential for the development of validated veterinary healthcare products.

Conclusion

This study systematically documented the *Siddha*-based ethnoverterinary knowledge in Tiruvannamalai district of Tamil Nadu. Alimentary tract ailments had got high consensus followed by dermatological ailments and poisonous bites. In the case of alimentary tract ailments, antidiarrheals and appetite stimulants had high consensus and UR. In the case of dermatologicals, foot-and-mouth disease had high UR. Four illness categories viz., musculo-skeletal ailments, genito-urinary ailments, sensory organ ailments as well as parasites and insects had average consensus.

Some of the highly cited claims were: *Cuminum cyminum*, *Curcuma longa* (Diarrhea), *Piper nigrum*, *Zingiber officinale* (Appetite stimulants), *Curcuma longa* (foot-and-mouth disease), *Curcuma longa*, *Acalypha indica* (Wounds and ulcers), *Piper betle*, *Piper nigrum* (Poisonous bites), *Allium sativum*, *Azadirachta indica* (Musculo-skeletal disorders), *Aloe vera* and *Sesamum indicum* (Gynaecological ailments). This study indicated that many of the highly reported claims had support from their human usage; systematic validation of these claims could lead to the development of affordable, plant-based veterinary remedies.

Declarations

List of abbreviations: F_{ic} - Informant Consensus Factor; IAR - Index of Agreement Remedies; UR - Use Report

Ethics approval and consent to participate: The protocols were reviewed and accepted by the Research Advisory & Ethics Committee of Xavier Research Foundation, St Xavier's College, Palayamkottai, Tamil Nadu, India.

Consent for publication: Obtained

Availability of data and materials: Data will be shared upon a reasonable request.

Competing interests: The authors declare that they have no conflict of interest.

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Author contributions: VP and JG did the field work, analyzed the data and prepared the draft of the manuscript. TSS, PP and SI conceived the study, developed the methodology, analyzed the data, wrote and finalized the manuscript.

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Supplementary data 1: Medicinal plants used by the traditional *Siddha* healers of Thiruvannamalai district of Tamil Nadu, India for the treatment of various veterinary ailments

Plant name, Family & Voucher No.	Vernacular name	Parts used	Illnesses treated	Illness categories	Total UR	IAR
Abrus precatorius L. Fabaceae VP-19228	*Kuṉṟimaṇi*	Se. (1)	Bone fracture (1)	QM05 (1)	1	0.000
Abutilon indicum (L.) Sweet Malvaceae VP-19023	*Tutti*	Lv. (2)	Peptic ulcers (1), Maggot wounds (1)	QA02 (1), QD03 (1)	2	0.000
*Acacia nilotica (*L.) Delile Fabaceae VP-19077	*Karuvēlam*	Lv. (1)	Lumps (1)	QM02 (1)	1	0.000
Acalypha fruticosa Forssk Euphorbiaceae VP-19192	*Ciṟuciṉṉi*	Lv. (1)	Anorexia (1)	QA15 (1)	1	0.000
Acalypha indica L. Euphorbiaceae VP-19005	*Kuppaimēṉi*	Lv. (8)	Peptic ulcers (1), Wounds (2), Maggot wounds (1), Dermatological infections (1), Cowpox (1), Foot-and-Mouth Disease (1), Hemorrhagic septicaemia (1)	QA02 (1), QD03 (3), QD06 (2), QD51 (1), QR03 (1)	8	0.714
Achyranthes aspera L. Amaranthaceae VP-19205	*Nāyuruvi*	Lv. (1)	Dystocia (1), Dog bite (1)	QG02 (1), QV03 (1)	2	0.000
Acorus calamus L. Acoraceae VP-19092	*Vacampu*	Rh. (2)	Diarrhea of calves (1), Bloat (1)	QA07 (1), QA15 (1)	2	1.000
Allium cepa L. Amaryllidaceae VP-19072	*Veṅkāyam*	Bl. (6)	Diarrhea (1), Indigestion (1), Edema (1), Dysphonea (1), Stye (1), Dog bite (1)	QA07 (1), QA15 (1), QM01 (1), QR03 (1), QS01 (1), QV03 (1)	6	0.200
Allium sativum L. Amaryllidaceae VP-19002	*Pūṇṭu*	Bl. (10)	Diarrhea (1), Indigestion (2), Cow pox (1), Foot-and-Mouth Disease (2), Mastitis (1), Pain in leg (1), Edema (1), Hemorrhagic septicaemia (1)	QA07 (1), QA15 (2), QD06 (1), QD51 (2), QG01 (1), QM01 (2), QR03 (1)	10	0.444
Aloe vera (L.) Burm.f. Xanthorrhoeaceae VP-19020	*Kaṟṟāḻai*	Gel (7), La. (2)	Anorexia (1), Thrombosis (1), Wounds (1), Mastitis (1), Infertility (2), Edema (1), Helminthes infestation (1), Ticks (1)	QA15 (1), QB01 (1), QD03 (1), QG01 (1), QG02 (2), QM02 (1), QP02 (1), QP03 (1)	9	0.375
Andrographis paniculata (Burm.f.) Nees Acanthaceae VP-19190	*Nilavēmpu*	Lv. (4)	Indigestion (1), Helminthes infestation (1), Conjunctivitis (1), Poisonous bites (1)	QA15 (1), QP02 (1), QS01 (1), QV03 (1)	4	0.000
Anethum sowa Roxb. Apiaceae VP-19117	*Catakuppai*	Se. (1)	Hemorrhagic septicaemia (1)	QR03 (1)	1	0.000

Areca catechu L. Arecaceae VP-19216	*Kamuku*	Sd. (1)	Pain in joints (1)	QM01 (1)	1	0.000
Aristolochia indica L. Aristolochiaceae VP-19104	*Īsvaramūli*	Le. (2)	Poisonous bites (2)	QV03(2)	2	1.000
Asparagus racemosus Willd. Asparagaceae VP-19007	*Catāvari*	Tu. (1)	Helminthes infestation (1)	QP02 (1)	1	0.000
Azadirachta indica A.Juss. Meliaceae VP-19029 & VP-19030	*Vēmpu*	Lv. (7), Oil (3)	Hair fall (1), Wounds (1), Cow pox (2), Joint pain (1), Edema (1), Edema in chest (1), Ticks (2), Dysphonea (1)	QD02 (1), QD03 (1), QD06 (2), QM01 (2), QM02 (1), QP03 (2), QR03 (1)	10	0.666
Azima tetracantha Lam. Salvadoraceae VP-19176	*Caṅkaṉ*	Le. (1)	Poisonous bites	QV03 (1)	1	0.000
Bambusa bambos (L.) Voss. Poaceae VP-19206	*Mūṅkil*	Sh. (1)	Dystocia (1)	QG02 (1)	1	0.000
Brassica nigra (L.) K.Koch Brassicaceae VP-19223	*Kaṭuku*	Sd. (1)	Edema (1)	QM02 (1)	1	0.000
Cadaba fruticosa (L.) Druce Capparaceae VP-19071	*Viḻuti*	Lv. (1)	Retained placenta (1)	QG02 (1)	1	0.000
Calotropis gigantea (L.) Dryand. Apocynaceae	*Erukku*	Le. (1)	Lice (1)	QP03 (1)	1	0.000
Cardiospermum halicacabum L. Sapindaceae VP-19194	*Muṭakkattāṉ*	Lv (2)	Bloat (1), Edema (1)	QA15 (1), QM01 (1)	2	0.000
Carissa carandas L. Apocynaceae VP-19211	*Kaḷākkāy*	Lv. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Casuarina equisetifolia L. Casuarinaceae VP-19151	*Cavukku*	St. (1)	Pain in joints (1)	QM01 (1)	1	0.000
Chrysopogon zizanioides (L.) Roberty Poaceae VP-19152	*Veṭṭivēr*	Rt. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Cicer arietinum L. Fabaceae	*Koṇṭaikkaṭalai*	Sd. (1)	Wound (1)	QD03 (1)	1	0.000

VP-19243						
Cissus quadrangularis L. Vitaceae VP-19113	*Piraṇṭai*	St. (6)	Bloat (1), Infertility (1), Retained placenta (1), Foot and mouth Disease (1), Edema (1), Helminthes infestation (1)	QA15 (1), QG02 (2), QD51 (1), QM01 (1), QP02 (1)	6	0.200
Citrullus colocynthis (L.) Schrad. Cucurbitaceae VP-19196	*Kumaṭṭikkāy*	Fr. (3)	Hair fall (1), Insect bite (2)	QD02 (1), QP03 (2)	3	0.500
Citrus limon (L.) Osbeck Rutaceae VP-19195	*Elumiccai*	Fr. (1)	Bloat (1)	QA15 (1)	1	0.000
Cleome gynandra L. Cleomaceae VP-19242	*Nallavēḷai*	Fl. (1)	Stye (1)	QS01 (1)	1	0.000
Cocos nucifera L. Arecaceae VP-19136	*Teṉṉai*	Fl. (5), Fr. (6), Oil (1)	Diarrhea (2), Indigestion (1), Mastitis (1), Foot-and-Mouth Disease (4), Edema due to dysuria (1), Edema (1), Seizure (1), Dyphonea (1)	QA07 (2), QA15 (1), QD51(4), QG01 (1), QG04 (1), QM02 (1), QN03 (1), QR03 (1)	12	0.545
Colocasia esculenta (L.) Schott Araceae VP-19207	*Cēmpu*	Tu. (1)	Retained placenta (1)	QG02 (1)	1	0.000
Corallocarpus epigaeus (Rottler) Hook.f. Cucurbitaceae VP-19244	*Karuṭakkiḻaṅku*	Tu. (2)	Poisonous bites (2)	QV03 (2)	2	1.000
Coriandrum sativum L. Apiaceae VP-19046	*Taṉiyā*	Sd. (3)	Wound (1), Dystocia (1), Pain in legs (1)	QD03 (1), QG02 (1), QM01 (1)	3	0.000
Crateva religiosa G.Forst Capparaceae VP-19121	*Māvilaṅkam*	Lv. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Crotalaria verrucosa L. Fabaceae VP-19019	*Kilukiluppai*	Lv. (1)	Dystocia (1)	QG02 (1)	1	0.000
Cullen corylifolium (L.) Medik. Fabaceae VP-19193	*Kārpōkarici*	Lv. (1)	Bloat (1)	QA15 (1)	1	0.000
Cuminum cyminum L. Apiaceae VP-19048	*Cīrakam*	Se. (8)	Diarrhea (3) Dysentery (1), Indigestion (2), Foot-and-Mouth Disease (1), Edema (1)	QA07 (4), QA15 (2), QD51 (1), QM 01 (1)	8	0.714
Curcuma aromatica Salisb.	*Kastūri mañcaḷ*	Rh. (2)	Foot-and-Mouth Disease (1), Pain in joints (1)	QD51 (1), QM01 (1)	2	0.000

Zingiberaceae VP-19167						
Curcuma longa L. Zingiberaceae VP-19076	*Mañcaḷ*	Rh. (26)	Peptic ulcers (1), Diarrhea (3), Dysentery (1), Wounds (4), Gangrene (1), Dermatological infections (1), Cowpox (1), Mastitis (1), Infertility (1), Dystocia (1), Retained placenta (1), Foot-and-Mouth Disease (5), Edema (2), Edema in chest (1), Lumps (1), Ticks (1)	QA02 (1), QA07 (4), QD03 (5), QD06 (2), QD51 (5), QG01 (1), QG02 (3), QM01 (1), QM02 (3), QP03 (1)	26	0.840
Decalepis hamiltonii Wight & Arn. Apocynaceae VP-19217	*Naṉṉāri*	Rt. (1)	Pain in joints (1), Edema (1)	QM01 (2)	2	1.000
Dodonaea viscosa (L.) Jacq. Sapindaceae VP-19222	*Virali*	Lv (3)	Edema (1), Bone fracture (2)	QM02 (1), QM05 (2)	3	0.500
Drimia indica (Roxb.) Jessop. Asparagaceae VP-19204	*Nariveṅkāyam*	Bu. (1)	Dystocia (1), Lumps (1)	QG02 (1), QM02 (1)	2	0.000
Eleusine coracana (L.) Gaertn Poaceae VP-19225	*Rāki*	Se. (1)	Edema in the neck (1)	QM02 (1)	1	0.000
Elytraria acaulis (L.f.) Lindau Lamiaceae VP-19198	*Nilakaṭampai*	AP. (1)	Maggot wounds (1)	QD03 (1)	1	0.000
Embelia ribes Burm.f. Primulaceae VP-19161	*Vāyvilaṅkam*	Fr. (1)	Mastitis (1), Dystocia (1), Pain in joints (1)	QG01 (1), QG02 (1), QM01 (1)	3	0.500
Ferula asafoetida Karst. Apiaceae VP-19153	*Peruṅkāyam*	Re. (2)	Diarrhea (1), Bloat (1)	QA07 (1), QA15 (1)	2	1.000
Ficus religiosa L. Moraceae VP-19001	*Aracu*	Le. (1)	Dysentery	QA07 (1)	1	0.000
Gymnema sylvestre (Retz.) R.Br. ex Sm. Apocynaceae VP-19114	*Ciṟukuṟiñcān*	Lv. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Heliotropium indicum L. Boraginaceae VP-19221	*Tēḷ koṭukku*	AP. (1)	Edema (1)	QM02 (1)	1	0.000
Indigofera tinctoria L. Fabaceae	*Avuri*	Lv. (3)	Indigestion (1), Maggot wounds (1), Syncope (1), Poisonous bites (1)	QA15 (1), QD03 (1), QN07 (1), QV03 (1)	4	0.000

VP-19188						
Jasminum angustifolium Willd. Oleaceae VP-19210	*Kāṭṭumallikai*	AP. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Jasminum sambac (L.) Aiton Oleaceae VP-19209	*Mallikai*	Fr. (1)	Suppression of lactation (1)	QG02 (1)	1	0.000
Justicia tranquebariensis L.f. Acanthaceae VP-19219	*Tavacimuruṅkai*	Lv. (1)	Pain in joints (1), Edema (1)	QM01 (2)	2	1.000
Lagenaria siceraria (Molina) Standl. Cucurbitaceae VP-19214	*Curaikkāy*	Fr. (1)	Edema due to dysuria (1)	QG04 (1)	1	0.000
Lantana camara L. Lamiaceae VP-19231	*Uṉṉi*	Le. (1)	Ticks (1)	QP03 (1)	1	0.000
Lawsonia inermis L. Lythraceae VP-19199	*Marutāṇi*	Lv. (1)	Cow pox (1)	QD06 (1)	1	0.000
Leucas aspera (Willd.) Link Lamiaceae VP-19233	*Tumpai*	AP. (1), Fl. (1), Le. (1)	Lice and Ticks (1), Conjunctivitis (1), Poisonous bites (1)	QP03 (1), QS01 (1), QV03 (1)	3	0.000
Madhuca longifolia (J.Koenig ex L.) J.F.Macbr. Sapotaceae VP-19213	*Iluppai*	Lv. (1)	Foot-and-Mouth Disease (1)	QD51 (1)	1	0.000
Mangifera indica L. Anacardiaceae VP-19110	*Māṅkāy*	Se. (1)	Diarrhea (1)	QA07 (1)	1	0.000
*Manilkara zapota (*L.) P.Royen Sapotaceae VP-19187	*Cappōṭṭā*	Fr. (1)	Dysentery (1)	QA07 (1)	1	0.000
Marsilea quadrifolia L. Marsiliaceae VP-19215	*Ārai*	Lv. (1)	Pain in legs (1)	QM01 (1)	1	0.000
Mimosa pudica L. Fabaceae VP-19203	*Toṭṭāccuruṅki*	Lv. (1)	Utrine Prolapse (1)	QG02 (1)	1	0.000
Mollugo nudicaulis Lam.	*Paṟpāṭakam*	WP. (1)	Diarrhea (1)	QA07 (1)	1	0.000

Aizoaceae VP-19186						
Momordica balsamina L. Cucurbitaceae VP-19239	*Ciṟupākal*	Le. (1)	Poisonous bites	QV03 (1)	1	0.000
Morinda tinctoria Roxb. Rubiaceae VP-19245	*Nuna*	Lv. (3)	Edema (1), Thrombosis (1), Indigestion (1)	QA15 (1), QB01 (1), QM02 (1)	3	0.000
Moringa oleifera Lam. Moringaceae VP-19125	*Muruṅkai*	Lv. (2)	Infertility (1), Conjunctivitis (1)	QG02 (1), QS01 (1)	2	0.000
Mukia maderaspatana (L.) M.Roem. Cucurbitaceae VP-19200	*Mucumucukkai*	Lv. (1)	Mastitis (1)	QG01 (1)	1	0.000
Murraya koenigii (L.) Spreng. Rutaceae VP-19026	*Kaṟivēppilai*	Lv. (2)	Diarrhea (1), Infertility (1)	QA07 (1), QG02 (1)	2	0.000
Musa x paradisiaca L. Musaceae VP-19119	*Vāḻai*	Fl. (3); Fr. (2)	Blue Tongue Disease (1), Diarrhea (1), Retained placenta (1), Foot-and-Mouth Disease (1), Yellow urine (1)	QA01 (1), QA07 (1), QG02 (1), QG04 (1), QD51 (1)	5	0.500
Nelumbo nucifera Gaertn. Nelumbonaceae VP-19056	*Tāmarai*	Rh. (1)	Dystocia (1)	QG02 (1)	1	0.000
Nicotiana tabacum L. Solanaceae VP-19232	*Pukaiyilai*	Le. (2)	Lice and Ticks (2)	QP03 (2)	2	1.000
Nigella sativa L. Ranunculaceae VP-19097	*Karuñcīrakam*	Sd. (1)	Pain in legs (1), Edema (1)	QM01 (1), QM02 (1)	1	1.000
Ocimum americanum L. Lamiaceae VP-19212	*Nāytuḷaci*	Lv. (1)	Foot-and-Mouth Disease (1), Lice (1)	QD51 (1), QP03 (1)	2	0.000
Ocimum tenuiflorum L. Lamiaceae VP-19080	*Tuḷaci*	Lv. (1)	Cow pox (1)	QD06 (1)	1	0.000
Ormocarpum cochinchinense (Lour.) Merr. Fabaceae VP-19241	*Elumpoṭṭi*	Le. (1)	Hemorrhagic septicemia	QR03 (1)	1	0.000
Oryza sativa L.	*Arici*	Se. (1)	Edema (1)	QM02 (1)	1	0.000

Poaceae VP-19224						
Papaver somniferum L. Papaveraceae VP-19142	*Kacakacā*	Se. (2)	Diarrhea (2)	QA07 (2)	2	1.000
Pergularia daemia (Forssk.) Chiov Apocynaceae VP-19189	*Vēlipparutti*	Lv. (2)	Indigestion (1), Edema (1)	QA15 (1), QM02 (1)	2	0.000
Phyllanthus amarus Schumach. & Thonn Euphorbiaceae VP-19093	*Kīḻānelli*	WP. (1), Lv. (1)	Dysentery (1), Conjunctivitis (1)	QA07 (1), QS01 (1)	2	0.000
Piper betle L. Piperaceae VP-19191	*Veṟṟilai*	Lv. (10)	Indigestion (1), Bloat (1), Cow pox (1), Dystocia (1), Edema (1), Hemorrhagic septicaemia (1), Poisonous bites (5)	QA15 (2), QD06 (1), QG02 (1), QM01 (1), QR06 (1), QV03 (5)	11	0.500
Piper cubeba L. Piperaceae VP-19062	*Vālmiḷaku*	Fr. (1)	Hemorrhagic septicaemia (1)	QR03 (1)	1	0.000
Piper longum L. Piperaceae VP-19058	*Tippili*	Rt. (1)	Hemorrhagic septicaemia (1)	QR03 (1)	1	0.000
Piper nigrum L. Piperaceae VP-19004	*Miḷaku*	Fr. (15)	Peptic ulcers (1), Diarrhea (1), Indigestion (4), Bloat (1), Gangrene (1), Cowpox (1), Foot-and-Mouth Disease (1), Edema (1), Poisonous bites (4)	QA02 (1), QA07 (1), QA15 (5), QD03 (1), QD06 (1), QD51 (1), QM01 (1), QV03 (4)	15	0.785
Psidium guajava L. Myrtaceae VP-19111	*Koyyā*	Lv. (1)	Diarrhea (1)	QA07 (1)	1	0.000
Punica granatum L. Punicaceae VP-19087	*Mātuḷai*	Fr. (2)	Diarrhea (1), Coccidiosis (1)	QA07 (2)	2	1.000
Raphanus sativus L. Brassicaceae VP-19202	*Muḷḷaṅki*	Tu. (2)	Infertility (2)	QG02 (2)	2	1.000
Ricinus communis L. Euphorbiaceae VP-19208	*Āmaṇakku*	Oil (3)	Retained placenta (1), Helminthes infestation (1), Ticks (1)	QG02 (1), QP02 (1), QP03 (1)	3	0.500
Rosa x damascena Mill. Rosaceae VP-19236	*Rōjā*	Fl. (1)	Dysphonea (1)	QR03 (1)	1	0.000

Sesamum indicum L. Pedaliaceae VP-19185	*El*	Oil (2); Se. (1)	Blue Tongue Disease (1), To deliver dead calf (1), Infertility (1)	QA01 (1), QG02 (2)	3	0.500
Sesbania grandiflora (L.) Pers. Fabaceae VP-19197	*Akatti*	Lv. (2)	Wound (1), Edema (1)	QD03 (1), QM01 (1)	2	0.000
Spinacia oleracea L. Amaranthaceae VP-19220	*Pacaḷi*	Lv. (1)	Edema (1)	QM01 (1)	1	0.000
Styrax benzoin Dryand Styracaceae VP-19237	*Cāmpirāṇi*	Re. (1)	Dysphonea (1)	QR03 (1)	1	0.000
Syzygium cumini (L.) Skeels Myrtaceae VP-19120	*Nāval*	Sd. (2)	Diarrhea (1), Sprain (1), Muscle spasam (1)	QA07 (1), QM03 (2)	3	0.500
Tabernaemontana divaricata (L.) R.Br. ex Roem. & Schult. Apocynaceae VP-19238	*Nantiyāvaṭṭai*	Fl. (3)	Conjunctivitis (3)	QS01 (3)	3	1.000
Tamarindus indica L. Fabaceae VP-19226	*Puḷi*	Fr. (1), Se. (1)	Sprain (1), Bone fracture (1)	QM03 (1), QM05 (1)	2	1.000
Tephrosia purpurea (L.) Pers Fabaceae VP-19021	*Koḻiñci*	Rt. (1)	Diarrhea (1)	QA07 (1)	1	0.000
Terminalia chebula Retz. Combretaceae VP-19087	*Kaṭukkāy*	Fr. (1)	Diarrhea (1)	QA07 (1)	1	0.000
Thespesia populnea (L.) Sol. Ex Correa Malvaceae VP-19230	*Pūvaracu*	Se. (1)	Helminthes infestation (1)	QP02 (1)	1	0.000
Trachyspermum ammi (L.) Sprague Apiaceae VP-19042	*Ōmam*	Sd. (2)	Diarrhea (1), Bloat (1)	QA07 (1), QA15 (1)	2	1.000
Trichodesma indicum (L.) Lehm. Boraginaceae VP-19178	*Kaviḻttumpai*	Lv. (1)	Gangrene (1)	QD03 (1)	1	0.000
Trichosanthes cucumerina L. Cucurbitaceae VP-19229	*Puṭal*	Le. (1)	Helminthes infestation (1)	QP02 (1)	1	0.000

Trigonella foenum-graecum L. Fabaceae VP-19146	*Ventayam*	Se. (5)	Diarrhea (3), Foot-and-Mouth Disease (2)	QA07 (3), QD51 (2)	5	0.750
Tylophora indica (Burm.f.) Merr. Apocynaceae VP-19240	*Nañcaṟuppāṉ*	Le. (1)	Hemorrhagic septicemia	QR03 (1)	1	0.000
Vigna mungo (L.) Hepper Fabaceae VP-19201	*Uḷuntu*	Sd. (1)	Infertility (1)	QG02 (1)	1	0.000
Vitex negundo L. Lamiaceae VP-19218	*Veṇṇocci*	Lv. (1)	Pain in joints (1), Edema (1)	QM01 (2)	2	1.000
Withania somnifera (L.) Dunal Solanaceae VP-19014	*Amukkirā*	Rt. (1)	Edema (1)	QM01 (1)	1	0.000
Wrightia tinctoria R.Br. Apocynaceae	*Veppālai*	Lv. (7)	Blue Tongue Disease (1), Diarrhea (1), Coccidiosis (1), Mastitis (1), Dystocia (1), Foot-and-Mouth Disease (1), Pain in joints (1)	QA01 (1), QA07 (2), QG01 (1), QG02 (1), QD51 (1), QM01 (1)	7	0.500
Zingiber officinale Roscoe Zingiberaceae VP-19070	*Cukku*	Rh. (7)	Diarrhea of calves (1), Indigestion (1), Anorexia (1), Bloat (1), Pain in legs (1), Edema (1), Hemorrhagic septicaemia (1)	QA07 (2), QA15 (3), QM01 (2), QR03 (1)	7	0.500

Supplementary data 2: List of various veterinary illnesses treated by the traditional *Siddha* healers of Thiruvannamalai district of Tamil Nadu, India

Vernacular name of the illness	Related Biomedical terminology	ATCvet code	Illness category
Nīla nākku nōy	Blue tongue disease	QA01	Alimentary tract ailments
Kuṭal puṇ	Peptic ulcers	QA02	Alimentary tract ailments
Kukkai nōy	Coccidiosis	QA07	Alimentary tract ailments
Kaḷiccal	Diarrhea	QA07	Alimentary tract ailments
Kaṉṟu kaḷiccal	Diarrhea of calves	QA07	Alimentary tract ailments
Veḷḷai kaḷiccal	Diarrhea with mucous	QA07	Alimentary tract ailments
Rattak kaḷiccal	Dysentery	QA07	Alimentary tract ailments
Paci inmai	Anorexia	QA15	Alimentary tract ailments
Vayiṟu uppicam	Bloat	QA15	Alimentary tract ailments
Ajīraṇam	Indigestion	QA15	Alimentary tract ailments
Rattakkaṭṭu	Thrombosis	QB01	Blood ailments
Muṭi koṭṭutal	Hairfall (in dogs & cats)	QD02	Dermatological ailments
Tīrāta puṇkaḷ	Gangrene	QD03	Dermatological ailments
Puḻu vaitta puṇ	Maggot wounds	QD03	Dermatological ailments
Kāyam, Puṇ	Wounds	QD03	Dermatological ailments
Am'mai nōy	Cowpox	QD06	Dermatological ailments
Tōl nōykaḷ	Scabies	QD06	Dermatological ailments
Kōmāri nōy	Foot-and-Mouth Disease	QD51	Dermatological ailments
Maṭi nōy	Mastitis	QG01	Genito-urinary ailments
Cuka īṉal	Dystocia	QG02	Genito-urinary ailments
Ciṉai piṭikkāmai	Infertility	QG02	Genito-urinary ailments
Nañcukkoṭi veḷiyēṟamai	Retained placenta	QG02	Genito-urinary ailments
Pāl vaṟṟa	Suppression of lactation	QG02	Genito-urinary ailments
Iṟanta kaṉṟu piracavikka	To deliver dead calf	QG02	Genito-urinary ailments
Karuppai veḷittaḷḷutal	Utrine prolapse	QG02	Genito-urinary ailments
Mañcaḷ ciṟunīr	Yellow urine	QG04	Genito-urinary ailments
Neñcu vīkkam	Edema in chest	QM01	Musculo-Skeletal ailments
Mūṭṭu vīkkam	Edema in joints	QM01	Musculo-Skeletal ailments
Mūṭṭu vali	Pain in joints	QM01	Musculo-Skeletal ailments
Kāl vātam	Pain in legs	QM01	Musculo-Skeletal ailments
Vīkkam	Edema	QM01	Musculo-Skeletal ailments
Kaḻuttu vīkkam	Edema in the neck	QM02	Musculo-Skeletal ailments
Kaḻalai	Lumps	QM02	Musculo-Skeletal ailments
Tacai Piṭippu	Muscle spasms	QM03	Musculo-Skeletal ailments
Cuḻukku	Sprain	QM03	Musculo-Skeletal ailments
Elumpu muṟivu	Bone fractures	QM05	Musculo-Skeletal ailments

Valippu	Seizures	QN03	Neural ailments
Mayakkam	Syncope	QN07	Neural ailments
Kuṭal pūcci	Helminthes infestation	QP02	Parasites & insects
Pēṉ	Lice	QP03	Parasites & insects
Uṇṇi	Ticks	QP03	Parasites & insects
Toṇṭai aṭaippāṉ	Hemorrhagic septicemia	QR03	Respiratory ailments
Iraippu	Dysphonea	QR03	Respiratory ailments
Kaṇ nōykaḷ	Eye ailments	QS01	Eye ailments
Kaṇ civappu ,Pīḷai kaṭṭal	Eye inflammation	QS01	Eye ailments
Kaṇ kaṭṭikaḷ	Stye	QS01	Eye ailments
Nāy kaṭi	Dog bite	QV03	Bites
Pūcci kaṭi	Insect bites	QV03	Bites
Viṣa kaṭi	Poisonous bites	QV03	Bites

Supplementary data 3: Veterinary formulations used by the traditional *Siddha* healers of Thiruvannamalai district of Tamil Nadu, India

S.No	Ingredients	Mode of preparation	Doses & Duration	Illnesses treated	Number of UR	ATCvet code
1.	Fruits of *Musa x paradisiaca* L. (1 No), Oil of *Sesamum indicum* L. (100 mL.)	Mixed well and applied over the tongue	2-3 times a day, till cure	Blue Tongue Disease	1	QA01
2.	Leaves of *Wrightia tinctoria* R.Br.	Leaves are boiled with 10 volumes of water and then the decoction is filtered	25-50 mL., twice a day for three days	Blue Tongue Disease	1	QA01
3.	Leaves of *Abutilon indicum* (L.) Sweet. (50 g), Leaves of *Acalypha indica* L., (50 g), Fruits of *Piper nigrum* L. (6 Nos), Rhizomes of *Curcuma longa* L. (5 g)	Ground well and mixed with 250 mL of water	Given orally, once a day for 5 days	Peptic ulcers	1	QA02
4.	Cleaned flowers of *Musa* x *paradisiaca* L. (50 g), Tender flowers of *Cocos nucifera* L. (50 g), Rhizomes of *Curcuma longa* L. (5 g), Pulp of *Terminalia chebula* Retz. fruits (5 g)	The ingredients are pounded well and made as a bolus	Balls are covered with castor oil leaves and given in three times a day for 5 days	Diarrhea	1	QA07
5.	Cotyledons of *Mangifera indica* L. (100 g), Honey (20 g)	The kernels are pounded well, mixed with honey and given	Twice a day, for 3 days	Diarrhea	1	QA07
6.	Dried rhizomes of *Acorus calamus* L. (10 g), Dried rhizomes of *Zingiber officinale* Roscoe (50 g), Tender leaves of *Psidium guajava* L. (200 g)	Ground well and made as a bolus	Given orally, for 1-2 times	Diarrhea of calves	1	QA07
7.	Leaves of *Wrightia tinctoria* R.Br.	Chopped leaves (500 g) are boiled in 3 L., of water and the decoction is filtered	100 - 200 mL., twice a day for three days	Diarrhea	1	QA07
8.	Leaves of *Wrightia tinctoria* R.Br.	Chopped leaves (500 g) are boiled in 3 L., of water and the decoction is filtered	10 mL., twice a day for three days	Coccidiosis	1	QA07
9.	Root of *Tephrosia purpurea* (L.) Pers. (75 g), Jaggery of *Saccharum officinarum* (25 g)	Pounded well and made as a bolus	100 g., given orally, twice a day for 1-2 days	Diarrhea	1	QA07
10.	Seeds of *Cuminum cyminum* L. (10 g), Seeds of *Papaver somniferum* L. (10 g), Seeds of *Trigonella foenum-graecum* L. (10 g), Fruits of *Piper nigrum* L. (5 g), Rhizomes of *Curcuma longa* L. (5 g), Resin of *Ferula asafoetida* H.Karst. (5 g), Bulbs of *Allium cepa* L. (5 g), Bulbs of *Allium sativum* L. (5 g), Leaves of *Murraya koenigii* (L.) Spreng. (3 g), Jaggery of *Borassus flabellifer* L. (100 g)	The first six ingredients are slightly fried, pounded with the other ingredients and made into small balls	Salt is applied on the tongue and the drug is orally given as a single dose	Diarrhea	1	QA07

11.	Seeds of *Cuminum cyminum* L. (50 g), Seeds of *Trigonella foenum-graecum* L. (50 g), Rhizomes of *Curcuma longa* L. (50 g), Tender flowers of *Cocos nucifera* L. (50 g), Jaggery of *Borassus flabellifer* L. (50 g)	Pounded well and given	100 g., twice a day, for 3 days	Diarrhea	1	QA07
12.	Seeds of *Papaver somniferum* L. (50 g), Tender, unripe fruits of *Punica granatum* L. (50 g)	Pounded well and made as a bolus	50 g., given orally, twice a day for 1-2 days	Diarrhea of calves	1	QA07
13.	Seeds of *Syzygium cumini* (L.) Skeels (100 g), Seeds of *Trachyspermum ammi* (L.) Sprague (100 g)	The ingredients are shallow fried and powdered	About 20 g. of the powder, covered within the betel leaves are given to goats	Diarrhea	1	QA07
14.	Tender fruits of *Manilkara zapota* (L.) P.Royen	Pounded well	50 g., given orally, twice a day for 1-2 days	Dysentery	1	QA07
15.	Tender fruits of *Punica granatum* L.	Pounded well	50 g., given orally, twice a day for 1-2 days	Dysentery	1	QA07
16.	Tender leaves of *Ficus religiosa* L. (50 g), Seeds of *Trigonella foenum-graecum* L. (50 g)	Pounded well	50 g., given orally, twice a day for 1-2 days	Dysentery	1	QA07
17.	Whole plants of *Mollugo nudicaulis* Lam. (50 g), Seeds of *Cuminum cyminum* L. (25 g)	Pounded well	50 g., given orally, twice a day	Diarrhea	1	QA07
18.	Whole plants of *Phyllanthus amarus* Schumach. & Thonn. (100 g), Seeds of *Cuminum cyminum* L. (10 g), Rhizomes of *Curcuma longa* L. (25 g)	The ingredients are pounded well, mixed with rice flour and made as a bolus	Twice a day; watering is restricted for 2 h after administration of the bolus	Dysentery	1	QA07
19.	Aerial parts of *Andrographis paniculata* (Burm.f.) Nees (100 g), Jaggery of *Saccharum officinarum* L. (100 g), Seeds of *Cuminum cyminum* L. (100 g), Bulbs of *Allium sativum* L. (50 g), Fruits of *Piper nigrum* L. (10 g)	The ingredients are ground well and made as a bolus	50 (goats) – 200 g (cows) of the bolus given orally; once a day for 5 days	Indigestion	1	QA15
20.	Dried rhizomes of *Zingiber officinale* Roscoe (25 g), Fruits of *Piper nigrum* L. (10 g), Leaves of *Piper betle* L. (50 g), Stems of *Cissus quadrangularis* L. (20 g), Common salt (25 g)	Crushed ingredients are made as decoction with 500 mL of water	Orally in the morning	Bloat	1	QA15
21.	Gel of *Aloe vera* (L.) Burm.f. (50 g), Leaves of *Acalypha fruticosa* Forssk. (25 g), Dried rhizomes of *Zingiber officinale* Roscoe (5 g), common salt (10 g)	Ground well and made as a bolus	100 g., given orally, twice a day for 1-2 days	Anorexia	1	QA15
22.	Leaves of *Indigofera tinctoria* L. (25 g), Leaves of *Pergularia daemia* (Forssk.) Chiov. (25 g), Bulbs of *Allium sativum* L. (25 g), Fruits of *Piper nigrum* L. (25 g), Dried rhizomes of *Zingiber officinale* Roscoe (25 g)	The ingredients are pounded well and made as a bolus	Orally given, thrice a day for five days	Indigestion	1	QA15

23.	Leaves of *Morinda tinctoria* Roxb. (50 g), Bulbs of *Allium cepa* L. (4 Nos), Fruits of *Piper nigrum* L. (12 Nos).	Ground well, mixed with 100 mL., of water	Given orally, 1-2 times	Indigestion	1	QA15
24.	Seeds of *Cullen corylifolium* (L.) Medik. (10 g), Seeds of *Trachyspermum ammi* (L.) Sprague (10 g), Rhizomes of *Acorus calamus* L. (5 g), Resin of *Ferula asafoetida* H.Karst. (5 g), Leaves of *Cardiospermum halicacabum* L. (10 g), Fruit juice of *Citrus limon* (L.) Osbeck (50 mL)	The ingredients are ground well, mixed with lemon juice and 200 mL of water	Orally in the morning	Bloat	1	QA15
25.	Seeds of *Cuminum cyminum* L. (25 g), Jaggery of *Saccharum officinarum* L. (25 g)	The ingredients are pounded well and made as a bolus	Orally given, thrice a day for five days	Indigestion of calves	1	QA15
26.	Tender flowers of *Cocos nucifera* L., Leaves of *Piper betle* L. (7 Nos), Fruits of *Piper nigrum* L. (1 g)	Ground well and made as a paste	Given twice a day, for 1-2 days	Indigestion	1	QA15
27.	Dried latex of *Aloe vera* (L.) Burm.f., Egg white	The latex is ground well in egg white and applied externally	Applied externally, till cure	Thrombosis	1	QB01
28.	Leaves of *Morinda tinctoria* Roxb. (10 g)	Cut into small pieces and heated with sesame oil	Fomented on the affected area	Thrombosis	1	QB01
29.	Fruit pulp of *Citrullus colocynthis* (L.) Schrad. (100 g), Leaves of *Azadirachta indica* A.Juss. (100 g)	Ground well, mixed with 100 mL of water and filtered	Applied topically on the dogs and cats	Hair fall	1	QD02
30.	Leaves of *Acalypha indica* L.	Leaves are ground well	Applied externally, till cure	Maggot wounds	1	QD03
31.	Aerial parts of *Elytraria acaulis* (L.f.) Lindau (50 g), Camphor (1 g)	Ground well and made as a paste	Applied externally, till cure	Maggot wounds	1	QD03
32.	Gel of *Aloe vera* (L.) Burm.f. (100 g), Rhizomes of *Curcuma longa* L. (25 g), Oil of *Azadirachta indica* A.Juss. (25 ml)	The ingredients are ground well and made as a paste	Applied topically, till cure	Wounds	1	QD03
33.	Leaves of *Abutilon indicum* (L.) Sweet	Ground well and made as a paste	Applied externally, till cure	Maggot wounds	1	QD03
34.	Leaves of *Acalypha indica* L. (50 g), Rhizomes of *Curcuma longa* L. (5 g), Common salt (5 g)	Ground well and made as a paste	Applied topically, twice a day, till cure	Wounds	1	QD03
35.	Leaves of *Acalypha indica* L. (50 g), Rhizomes of *Curcuma longa* L. (5 g), Common salt (5 g)	Ground well and made as a paste	Applied topically, twice a day, till cure	Wounds	1	QD03
36.	Leaves of *Indigofera tinctoria* L.	Crushed leaves are made as a decoction	Used to wash wounds, till cure	Maggot wounds	1	QD03
37.	Leaves of *Sesbania grandiflora* (L.) Pers.	Ground and made as a paste	Applied topically, till cure	Wounds	1	QD03

38.	Leaves of *Trichodesma indicum* (L.) Lehm. (100 g), Fruits of *Piper nigrum* L. (10 Nos). Rhizomes of *Curcuma longa* L. (5 g)	Ground well and made as a paste	Applied topically	Gangrene	1	QD03
39.	Seeds of *Cicer arietinum* L. (25 g), Rhizomes of *Curcuma longa* L. (5 g).	Powdered	Applied externally, till cure	Wounds	1	QD03
40.	Seeds of *Coriandrum sativum* L., Butter (q.s.)	The seeds are crushed well and made as a paste with butter	Applied topically, till cure	Wounds	1	QD03
41.	Leaves of *Acalypha indica* L. (50 g), Rhizomes of *Curcuma longa* L. (5 g), Common salt (5 g)	Ground well and made as a paste	Applied topically, twice a day, till cure	Dermatological infections	1	QD06
42.	Leaves of *Acalypha indica* L. leaf (20 g), Leaves of *Azadirachta indica* A.Juss. (20 g), Leaves of *Ocimum tenuiflorum* L. (20 g), Rhizomes of *Curcuma longa* L. (20 g), Leaves of *Lawsonia inermis* L. (20 g), Bulbs of *Allium sativum* L. (20 g), Oil of *Azadirachta indica* A.Juss. (500 mL)	All the ingredients except oil are pounded well, mixed in neem oil, boiled under small flame and filtered.	Topically applied on the wounds/blisters; thrice a day for 5 days	Cowpox	1	QD06
43.	Leaves of *Piper betle* L. (10 Nos), Fruits of *Piper nigrum* L. (10 Nos), Table salt (10 g), Jaggery of *Saccharum officinarum* L. (50 g)	The ingredients are pound well and made as a paste	Applied on the tongue; once for 3 h, till cure	Cowpox	1	QD06
44.	Aerial parts of *Jasminum angustifolium* Willd. (100 g), Leaves of *Carissa carandas* L. (100 g), Slaked lime (20 g).	The ingredients are ground well and made as a paste	Applied topically, till cure	Foot-and-Mouth Disease	1	QD51
45.	Endosperm of *Cocos nucifera* L. (100 g), Rhizomes of *Curcuma longa* L. (10 g), Stem of *Cissus quadrangularis* L. (5 g)	The ingredients are crushed and made as a bolus	The bolus is covered with castor oil leaves and given orally; thrice a day for 5 days	Foot-and-Mouth Disease	1	QD51
46.	Fruits of *Piper nigrum* L. (10 g), Seeds of *Trigonella foenum-graecum* L. (10 g), Seeds of *Cuminum cyminum* L. (10 g), Rhizomes of *Curcuma longa* L. (10 g), Bulbs of *Allium sativum* L. (5 g) , Jaggery of *Borassus flabellifer* L. (50 g), Endosperm of *Cocos nucifera* L. (50 g)	The ingredients are pounded well and made as a bolus	The bolus is covered with the leaves of *Ricinus communis* and given orally; thrice a day for 5 days	Foot-and-Mouth Disease	1	QD51
47.	Leaves of *Acalypha indica* L. (100 g), Bulbs of *Allium sativum* L. (20 g), Rhizomes of *Curcuma longa* L. (50 g), *Madhuca longifolia* (J.Koenig ex L.) J.F.Macbr.) oil (500 mL)	The first three ingredients are crushed, mixed with oil, boiled under small flame and filtered	Diseased part is washed with the decoction of turmeric containing salt. Then the oil is applied externally till cure	Foot-and-Mouth Disease	1	QD51
48.	Leaves of *Crateva religiosa* G.Forst. (100 g), Rhizomes of *Curcuma longa* L. (25 g), Endosperm of *Cocos nucifera* L. (100 g)	Ground well and given as a bolus	Given orally, Twice a day for 3 days	Foot-and-Mouth Disease	1	QD51

49.	Leaves of *Ocimum americanum* L., Rhizomes of *Curcuma aromatica* Salisb., Roots of *Chrysopogon zizanioides* (L.) Roberty, Leaves of *Gymnema sylvestre* (Retz.) R.Br. ex Sm., Leaves of *Wrightia tinctoria* R.Br. (in equal quantities)	The ingredients are pounded well and made as a bolus	50 g. of the bolus is covered with castor leaves and given orally. Twice a day for five days	Foot-and-Mouth Disease	1	QD51
50.	Seeds of *Trigonella foenum-graecum* L. (10 g), Rhizomes of *Curcuma longa* L. (10 g), Jaggery of *Saccharum officinarum* L. (50 g), Endosperm of *Cocos nucifera* L. (50 g)	The ingredients are pounded well and made as a bolus	The bolus is covered with castor oil leaves and given orally; thrice a day for 5 days	Foot-and-Mouth Disease	1	QD51
51.	The fruits of *Musa* x *paradisiaca* L. (5 Nos), Clarified butter (50 g), Jaggery of *Saccharum officinarum* L. (300 g)	The ingredients are made as a bolus	The bolus is covered with castor oil leaves and given orally; thrice a day for 5 days	Foot-and-Mouth Disease	1	QD51
52.	Gel of *Aloe vera* (L.) Burm.f. (200 g), Rhizomes of *Curcuma longa* L. (50 g), Hydrated lime (5 g)	The ingredients are ground well and mixed with 500 mL of water	Applied topically, thrice a day	Mastitis	1	QG01
53.	Tender flowers of *Cocos nucifera* L., Leaves of *Mukia maderaspatana* (L.) M.Roem., Fruits of *Embelia ribes* Burm.f., Leaves of *Wrightia tinctoria* R.Br., Bulbs of *Allium sativum* L. (in equal quantities)	The ingredients are pounded well and made as a bolus	50 g. of the bolus is covered with castor leaves and given orally. Twice a day for five days	Mastitis	1	QG01
54.	Bulbs of *Drimia indica* (Roxb.) Jessop., Leaves of *Crotalaria verrucosa* L., Leaves of *Achyranthes aspera* L., Rhizomes of *Nelumbo nucifera* Gaertn., Seeds of *Embelia ribes* Burm.f., Leaves of *Wrightia tinctoria* R.Br., Seeds of *Coriandrum sativum* L. (in equal quantities)	The ingredients are pounded well and made as a bolus	50 g. of the bolus is covered with castor leaves and given orally. Feed is avoided for 3-4 h after medication	Dystocia	1	QG02
55.	*Cissus quadrangularis* L.	Stems are tied around the neck	--	Retained placenta	1	QG02
56.	Flowers of *Jasminum sambac* (L.) Aiton	Ground and made as a paste	Applied topically on the udder	Suppression of lactation	1	QG02
57.	Flowers of *Musa x paradisiaca* L. (100 g), Boiled tubers of *Colocasia esculenta* (L.) Schott (100 g), Oil of *Ricinus communis* L. (50 g).	The first two ingredients are pounded well, mixed with the oil and made as a bolus.	The bolus is covered with castor leaves and given to the animals as single dose (both cows and goats)	Retained placenta	1	QG02
58.	Leaves of *Cadaba fruticosa* (L.) Druce (250 g), Rhizomes of *Curcuma longa* L. (5 g)	Chopped leaves and turmeric are made as decoction with 2 liters of water	100-200 mL., twice daily	Retained placenta	1	QG02
59.	Leaves of *Moringa oleifera* Lam. (100 g), Jaggery of *Saccharum officinarum* L. (50 g)	The ingredients are pounded well and made as a bolus	Orally given in the morning, for five days after the administration of formulation 48.	Infertility	1	QG02

60.	Leaves of *Murraya koenigii* (L.) Spreng. (100 g), Rhizomes of *Curcuma longa* L. rizhome (25 g), Jaggery of *Saccharum officinarum* L. (50 g)	The ingredients are pounded well and made as a bolus	Orally given in the morning, for five days after the administration of formulation 50.	Infertility	1	QG02
61.	*Mimosa pudica* L.(50 g)	Ground well and given with Goat's milk	Orally, 1-2 times	Utrine prolapse	1	QG02
62.	Oil of *Sesamum indicum* L. (100 mL), Egg (2 Nos.), Flour of *Vigna mungo* (L.) Hepper flour (100 g), Jaggery of *Saccharum officinarum* L. (100 g)	The ingredients are pounded well and made as a bolus	Balls kept in castor leaf and fed for 3 times a day for 5 days	Infertility	1	QG02
63.	Seeds of *Sesamum indicum* L. (250 g), Jaggery of *Borassus flabellifer* L. (250 g)	Ground well and given	Orally, 1-2 times	To deliver dead calf	1	QG02
64.	Stem of *Cissus quadrangularis* L. (100 g), Jaggery of *Saccharum officinarum* L. (50 g)	The ingredients are pounded well and made as a bolus	Orally given in the morning, for five days after the administration of formulation 49.	Infertility	1	QG02
65.	Tubers of *Raphanus sativus* L. (100 g), Gel of *Aloe vera* (L.) Burm.f. (100 g), Jaggery of *Saccharum officinarum* L. (100 g)	The ingredients are pounded well and made as a bolus	Orally given in the morning, for five days	Infertility	2	QG02
66.	Young shoots of *Bambusa bambos* (L.) Voss. (250 g), Rhizomes of *Curcuma longa* L. (5 g), Leaves of *Piper betle* L. (6 Nos)	Ground well, made as a paste, mixed with 200 mL., of water	Given orally, 1-2 times	Dystocia	1	QG02
67.	Pith of *Musa x paradisiaca* (250 g)	Ground well and the juice is extracted	Given orally, for 1-2 times	Yellow urine	1	QG04
68.	Tender fruits of *Lagenaria siceraria* (Molina) Standl. (100 g), Jaggery of *Saccharum officinarum* L. (50 g), Endosperm of *Cocos nucifera* L. (50 g)	Ground well and made as a paste	Given orally, twice a day for 3 days	Edema due to dysuria	1	QG04
69.	Aerial parts of *Justicia tranquebariensis* L.f.	Ground and made as a paste	50 g., twice a day	Pain in joints, Edema	1	QM01
70.	Green twigs of *Casuarina equisetifolia* L., Fruits of *Embelia ribes* Burm.f., Leaves of *Wrightia tinctoria* R.Br., Seeds of *Areca catechu* L., Rhizomes of *Curcuma aromatica* Salisb. (in equal quantities)	The ingredients are crushed and made as a bolus	100 g. of the bolus is covered in castor leaves and fed; thrice a day for 5 days	Pain in joints	1	QM01
71.	Leaves of *Marsilea quadrifolia* L. (25 g), Bulbs of *Allium sativum* L. (20 g), Seeds of *Coriandrum sativum* L. (10 g), Seeds of *Nigella sativa* L. (10 g), Fresh rhizomes of *Zingiber officinale* Roscoe (10 g)	The ingredients are pounded well and made as a bolus	Orally given, thrice a day for five days	Pain in legs	1	QM01

72.	Leaves of *Spinacia oleracea* L., Leaves of *Cardiospermum halicacabum* L., Leaves of *Sesbania grandiflora* (L.) Pers., Fresh tubers of *Withania somnifera* (L.) Dunal (in equal quantities)	The ingredients are pounded well and made as bolus	100 g. of the bolus is covered in castor oil and fed; thrice a day for 5 days	Edema	1	QM01
73.	Roots of *Decalepis hamiltonii* Wight & Arn. (10 g), Leaves of *Azadirachta indica* A.Juss. (10 g), Leaves of *Vitex negundo* L. (10 g)	Pounded ingredients are boiled in water till its volume is reduced to 500 mL.	Thrice a day for 15 days	Pain in joints, Edema	1	QM01
74.	Stem of *Cissus quadrangularis* L. (20 g), Leaves of *Piper betle* L. (10 Nos), Bulbs of *Allium cepa* L. (20 g), Dried rhizomes of *Zingiber officinale* Roscoe (20 g), Bulbs of *Allium sativum* L. (20 g), Fruits of *Piper nigrum* L. (5 g), Seeds of *Cuminum cyminum* L. (5 g), Rhizomes of *Curcuma longa* L. (5 g), Jaggery of *Borassus flabellifer* L. (100 g)	The ingredients are pounded well	Salt is applied on the tongue and the drug is orally given as a single dose	Edema	1	QM01
75.	Aerial parts of *Heliotropium indicum* L.	Ground and made as a paste	Applied topically, till cure	Edema	1	QM02
76.	Bulbs of *Drimia indica* (Roxb.) Jessop	Ground and made as a paste	Applied topically	Lumps	1	QM02
77.	Dried latex of *Aloe vera* (L.) Burm.f., Egg white	The latex is ground well in egg white and applied externally	Applied externally, till cure	Edema	1	QM02
78.	Egg (2 Nos.), Slaked lime (20 g), Flour of *Eleusine coracana* (L.) Gaertn. (100 g)	The ingredients are ground and made as a paste	Topically applied for 5 days	Edema in the neck	1	QM02
79.	Leaves of *Azadirachta indica* A.Juss. (100 g), Rhizomes of *Curcuma longa* L. (5 g)	Ground well and made as a paste	Applied topically, till cure	Edema in chest	1	QM02
80.	Leaves of *Dodonaea viscosa* (L.) Jacq.	Ground and made as a paste	Applied topically, till cure	Edema	1	QM02
81.	Leaves of *Morinda tinctoria* Roxb. (10 g)	Cut into small pieces and heated with sesame oil	Fomented on the affected area	Edema	1	QM02
82.	Seeds of *Brassica nigra* (L.) K.Koch (50 g), Husk of *Oryza sativa* L. (50 g), Rhizome of *Curcuma longa* L. (5 g)	Ground well and applied externally	Topically, till cure	Edema	1	QM02
83.	Seeds of *Nigella sativa* L. (10 g), Leaf juice of *Pergularia daemia* (Forssk.) Chiov. (100 mL), Oil of *Cocos nucifera* L. (300 mL).	Leaf juice and powdered black cumin seeds are mixed with oil, boiled under small flame and filtered	Applied topically, till cure	Edema	1	QM02
84.	Tender leaves of *Acacia nilotica (*L.) Delile (100 g), Rhizomes of *Curcuma longa* L. (2 g)	Ground well and made as a paste	Applied topically, till cure	Lumps	1	QM02
85.	Bark of *Syzygium cumini* (L.) Skeels	Ground well and made as a paste	Applied topically on the affected part, till cure	Sprain, Muscle spasms	1	QM03

86.	Pulp of *Tamarindus indica* L.	Pulp is smashed with water, filtered, boiled under small flame and concentrated	Topically applied, till cure	Sprain	1	QM03
87.	Leaves of *Dodonaea viscosa* (L.) Jacq. (q.s.)	The decoction of the leaves is concentrated under low flame and applied externally	Applied externally till cure	Bone fractures	2	QM05
88.	Seeds of *Tamarindus indica* L. (100 g), Seeds of *Abrus precatorius* L. (50 g)	Ground well, mixed with 100 mL., of water and made as a paste	Applied on a cloth and tied over the fractured part	Bone fractures	1	QM05
89.	Endosperm of *Cocos nucifera* L. (100 g)	Pounded well and given	Twice a day for 10 days	Seizure	1	QN03
90.	Leaves of *Indigofera tinctoria* L. (20 g), Common salt (q.s)	The leaves are crushed well, and the juice is extracted	1-2 drops in the eyes	Syncope	1	QN07
91.	*Andrographis paniculata* (Burm.f.) Nees (50 g)	The leaves are crushed and made a bolus	The bolus is covered with castor oil leaves and given orally; once a day for three days	Helminthes infestation	1	QP02
92.	Gel of *Aloe vera* (L.) Burm.f. (100 g), Oil of *Ricinus communis* L. (q.s.)	Ground gel is mixed with castor oil and made as a bolus	The bolus is covered with castor oil leaves and given orally; once a day for three days	Helminthes infestation	1	QP02
93.	Stem of *Cissus quadrangularis* L. (100 g), Leaves of wild *Trichosanthes cucumerina* L., Seeds of *Thespesia populnea* (L.) Sol. ex Corrêa. (in equal quantities)	The ingredients are powdered and made as a jam with jaggery	About 25 g., of the jam is covered with castor oil leaves and given orally; thrice a day for 5 days	Helminthes infestation	1	QP02
94.	Tubers of *Asparagus racemosus* Willd. (15 g)	Pounded well and mixed with 500 mL. of water	Given in the morning, for 3 days	Helminthes infestation	1	QP02
95.	Aerial parts of *Leucas aspera* (Willd.) Link	The juice is extracted	Applied topically, till cure	Lice, Ticks	1	QP03
96.	Fruit pulp of *Citrullus colocynthis* (L.) Schrad.	Ground well and made as a paste	Applied topically	Insect bites	2	QP03
97.	Gel of *Aloe vera* (L.) Burm.f. (100 g), Leaves of *Azadirachta indica* A.Juss. (100 g), Rhizomes of *Curcuma longa* L. (5 g), common salt (5 g)	The ingredients are ground well and made as a paste	Applied topically, till needed	Ticks	1	QP03
98.	*Lantana camara* L. (500 g), Urine of cow (q.s.)	The leaves are boiled in 3 L. of water and concentrated to 1 L. The decoction is mixed with equal volume of cow urine	Sprayed over the affected area	Ticks	1	QP03
99.	Leaves of *Calotropis gigantea* (L.) Dryand., *Ocimum americanum* L. (in equal quantities)	Ground well, mixed with water	Applied externally, till cure	Lice	1	QP03

100.	Leaves of *Nicotiana tabacum* L.	Processed tobacco (250 g) is made into decoction with 2 L. of water, and diluted to 5 L.	Sprayed over the affected area	Ticks	1	QP03
101.	Oil of *Ricinus communis* L. (100 mL), Oil of *Azadirachta indica* A.Juss. (100 mL), Camphor (100 g), Common salt (100 g)	Camphor and salt are ground well and made as a paste	Applied topically	Ticks	1	QP03
102.	Powdered leaves of *Nicotiana tabacum* L.	Powdered	Applied topically, till cure	Lice, Ticks	1	QP03
103.	Bulbs of *Allium cepa* L. (150 g), Flowers of *Cocos nucifera* L. (150 g), Petals of *Rosa x damascena* Mill. (150 g).	The ingredients are pounded well and made as a bolus	Thrice a day, orally, till cure	Dysphonea	1	QR03
104.	Leaves of *Acalypha indica* L. (30 g), Bulbs of *Allium sativum* L. (30 g), Leaves of *Piper betle* L. (30 g), Camphor (3 g)	The ingredients are made into a paste	100 g. orally given thrice a day, for three days	Hemorrhagic septicemia	1	QR03
105.	Leaves of *Azadirachta indica* A.Juss. (100 g), Resin of *Styrax benzoin* Dryand. (10 g)	The ingredients are ground well and made a paste	100 g., twice a day	Dysphonea	1	QR03
106.	Leaves of *Tylophora indica* (Burm. f.) Merr. (100 g), Leaves of *Ormocarpum cochinchinense* (Lour.) Merr. (50 g)	Ground well and mixed with 500 mL. of water	Given orally, Twice a day for 3 days	Hemorrhagic septicemia	1	QR03
107.	Seeds of *Anethum sowa* Roxb. ex Fleming (100 g), Fresh rhizomes of *Zingiber officinale* Roscoe (100 g), Fruits of *Piper cubeba* L.f. (50 g), Roots of *Piper longum* L. (50 g)	Ground well and mixed with 500 mL. of water	Given orally, Twice a day for 3 days	Hemorrhagic septicemia	1	QR03
108.	Aerial parts of *Andrographis paniculata* (Burm.f.) Nees.	Crushed and the juice is extracted	Few drops of the juice is dropped in the eyes	Conjunctivitis	1	QS01
109.	Flowers of *Cleome gynandra* L. (50 g), Bulbs of *Allium cepa* L. (5 g)	Ground well and the juice is extracted	Few drops, poured into the eyes, for few days	Stye	1	QS01
110.	Flowers of *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schult.	Crushed and the juice is extracted	Few drops of the juice is dropped in the eyes	Conjunctivitis	2	QS01
111.	Flowers of *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schult. (50 g), Flowers of *Leucas aspera* (Willd.) Link flower (10 g)	Ground well and juice is extracted	Few drops of the juice is dropped	Conjunctivitis	1	QS01
112.	Leaves of *Moringa oleifera* Lam., Leaves of *Phyllanthus amarus* Schumach. & Thonn. (in equal quantities)	Crushed and the juice is extracted	Few drops of the juice is dropped in the eyes	Conjunctivitis	1	QS01

113.	Aerial parts of *Andrographis paniculata* (Burm.f.) Nees (10 g), Leaves of *Piper betle* L. leaf (10 g), Fruits of *Piper nigrum* L. (2.5 g)	The ingredients are ground well and made as a bolus	Given orally twice a day for three days	Poisonous bites	1	QV03
114.	Leaves of *Achyranthes aspera* L. (100 g), Bulbs of *Allium cepa* L. (50 g)	The ingredients are pounded well	50 g., twice a day till cure; also applied topically as poultice	Dog bite	1	QV03
115.	Leaves of *Aristolochia indica* L. (50 g), Leaves of *Piper betle* L. (9 Nos)	Ground well and mixed with 100 mL., of water	Given orally, for 1-2 times	Poisonous bites	1	QV03
116.	Leaves of *Azima tetracantha* Lam. (100 g), Fruits of *Piper nigrum* L. (5 g), Leaves of *Piper betle* L. (10 Nos)	Ground well, made as a paste and diluted with 50 mL. of water	50 (goat) – 200 (cow) mL., as single dose	Poisonous bites	1	QV03
117.	Leaves of *Indigofera tinctoria* L. (50 g), Leaves of *Piper betle* L. (5 Nos), Leaves of *Momordica balsamina* L. (25 g)	The ingredients are crushed, boiled with 500 mL of water and the decoction is filtered	100 mL., orally twice a day for 5 days	Poisonous bites	1	QV03
118.	Leaves of *Leucas aspera* (Willd.) Link (50 g), Common salt (1 g)	Ground well and the juice is extracted	Orally, 1-2 times	Poisonous bites	1	QV03
119.	Tubers of *Corallocarpus epigaeus* (Rottler) Hook.f. (25 g), Leaves of *Piper betle* L. (5 Nos), Fruits of *Piper nigrum* L. (10 Nos)	Ground well and mixed with 100 mL., of water	Given orally, twice a day for 3 days	Poisonous bites	1	QV03
120.	Tubers of *Corallocarpus epigaeus* (Rottler) Hook.f., (10 g), Leaves of *Aristolochia indica* L. (10 g), Fruits of *Piper nigrum* L. (1 g)	The ingredients are ground well and made as a bolus	Given orally twice a day for three days	Poisonous bites	1	QV03