

Traditional treatment for domestic animals in Kamrup Metro district of Assam, India

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Abstract

The paper deals with traditional herbal treatment of Cow, Horse, Buffalo, Goat, Fowl and Pig against different ailments/ complaints involving 30 plant species prevalent among the villagers of Kamrup Metro District of Assam. The paper emphasizes in depth study in this line and also for developing new or more efficacious remedies through further follow up investigation on these plants.

Keywords: Traditional treatment, Domestic animal, Kamrup Metro district.

INTRODUCTION

Assam is primarily an agriculture dependent state of India. For agricultural practices rural people are dependent on Cow and Buffalo. Goat provides milk and meat. Fowl provides egg and meat. Pig provides meat and is used mostly by all the tribal communities. Horse is for transport of commodities. Dung of cow, buffalo and horse are also used as bio fuel, biogas and bio fertilizer. Rearing of these animals also ensure economic security of the villagers.

The study area, Kamrup Metro District, lies between 90° 45' to 92° 15' East longitude and 25° 45' and 26° 15' North latitudes. The district is bounded by Meghalaya on the South-East, Kamrup Rural District on the North and West, Morigaon district on the East (Guha 2007). Very limited work has been carried out on herbal treatment of animals in Assam. However, some work were carried out by Borthakur *et al.*, 1996; Borthakur & Sharma, 1998 and Borthakur *et al.*, 2001. The aim of the present study is to document the traditional medicaments for domestic animals from 9 villages of Kamrup Metro District. Recipe

METHODOLOGY

Survey on the traditional treatment of domesticated animals was initiated by adopting the methodologies proposed by Jain (1989). Intensive field trips have been conducted in 9 villages (viz., Morokgolla, Garigaon, Jambari, Jarpara, Gorol, Majirgaon, Kendu kuchi, Rampur and Birkuchi) where people rear many domesticated animals and information have been collected since 2007. Information was collected with the help of local herbal healers treating such animals. Comprehensive questionnaires containing the local names of plants, parts used, ailments, dosage, method of preparation, administration were carefully documented through interviews with them and other elderly persons of the locality. The data thus generated during the field investigation were cross-examined and recorded properly. Prior information consent (PIC) of Community Chiefs (since all the ethnomedicinal recipes and traditional knowledge are community property) was obtained to put their practice in the public domain. The collected specimens were preserved following

the standard herbarium techniques (Jain & Rao 1977). The specimens were identified using standard literature like Kanjilal *et al.* (1934 – 40) and Bennet (1987). The specimens were deposited in the GU Herbarium, Department of Botany, Gauhati University for future reference.

RESULTS

30 plant species belonging to 30 genera and 21 families used for the treatment of domestic animals are represented in Table-1 for Cows, Table-2 for Horses, Table-3 for Goats, Table-4 for Buffalos, Table-5 for Fowls and Table-6 for Pigs.

Table 1: Traditional herbal treatment for Cows.

Botanical Name [Family]; Local Name; Parts used	Ailment/ Complaint	Preparation method	Dosage
<i>Nicotiana tabacum</i> L. [Solanaceae]; Tamak; Leaf	Maggots infected wounds	100 gm dry leaves in 15 ml water for 4 hours, sieve out the residue	Infusion is rubbed on skin with the help of a piece of cloth, twice daily, for a week
<i>Moringa oleifera</i> Lamk. [Moringaceae]; Sajina; Root	Maggots infected wounds	50 gm fresh root made into paste and mixed in 100 ml water	Mixture is applied to affected parts, once daily, for 10 days
<i>Brassica campestris</i> L. [Brassicaceae]; Sorih; Seeds	Mastitis	250 ml mustard oil mixed in 25 gm potash	Mixture is applied as massages on the milk pouch, thrice daily for 3 days
<i>Curcuma longa</i> L. [Zingiberaceae]; Haludi; Rhizome	Skin infection	100 gm fresh rhizomes made into paste	Paste is applied on affected parts, once daily, for a fortnight
<i>Sesamum indicum</i> L. [Pedaliaceae]; Til; Seeds	Lactagogue	200 gm seeds made into paste	Paste mixed with feed twice daily for 3 days
(a) <i>Oryza sativa</i> L. [Poaceae]; Chaul; Grains. (b) <i>Lens culinaris</i> Medik. [Fabaceae]; Masoor dali; Seeds	Lactagogue	500 gm cooked rice mixed with 100 gm boiled Lentil	Mixture is given as feed, twice daily for 5 days
<i>Carica papaya</i> L. [Caricaceae]; Amita; Fruit	Lactagogue	500 gm fresh fruit is boiled	Boiled fruits given twice daily for a week
<i>Cicer arietinum</i> L. [Fabaceae]; Beson; Seed powder	Reduced milk production	250 gm beson mixed with 10 ml water	Mixture is given thrice daily for 15 days
<i>Musa balbisiana</i> Colla. [Musaceae]; Atiya kol; Fruit	Dysentery	Ripe fruits	Two fruits twice daily for 5 days
<i>Glycosmis pentaphylla</i> Retz. [Rutaceae]; Bon nimu; Leaf	Intestinal worm	Fresh leaf juice	50 ml once daily for 10 days
<i>Dalbergia sissoo</i> L. [Fabaceae]; Sissoo; Leaf	Ring worm	200 gm fresh leaf-paste mixed with 20 gm table salt	Mixture is applied on affected parts once daily for 7 days
<i>Amaranthus spinosus</i> L. [Amaranthaceae]; Hati khutura; Twig	Quick placental discharge after delivery	500 gm fresh twig after removing spines	Thrice daily after delivery for 3 days
<i>Saccharum officinarum</i> L. (Poaceae); Kuhiyer; Leaf	Hasten placental discharge after delivery	10 nos fresh leaves and 200gm old jaggery.	Twice daily after delivery for 5 days.
<i>Triticum aestivum</i> L. (Poaceae); Gom; Fruit husk	Easy delivery	500gm fruit husk given with 5lit warm water.	Two days before delivery, thrice daily.
<i>Bombax ceiba</i> L. (Bombacaceae); Simul; Flower bud	Lactagogue	20 nos fresh flower buds are given.	Once daily for 30 days.
<i>Musa balbisiana</i> Colla. (Musaceae); Atiya kol; Fruit	Against constipation	2kg pseudostem are made into small pieces and given with fodder.	Twice daily for 10 days.
<i>Capsicum minima</i> L. (Solanaceae); Konjola; Fruit	Tonsillitis	10nos mature fruits are crushed and made into paste and given.	Once daily for 15 days.

Table 2: Traditional herbal treatment for Horse

Botanical Name(Family); Local Name; Parts used	Name of the ailment/Complaint	Method of preparation	Dosages
<i>Sagittaria sagittifolia</i> L. (Alismataceae); Panikochu; Petiole	Intestinal worm	100gm fresh petiole given with fodder	Twice daily for 7 days.

Table 3: Traditional herbal treatment for Goat

Botanical Name(Family); Local Name; Parts used	Name of the ailment/Complaint	Method of preparation	Dosages
(a) <i>Nicotiana tabacum</i> L. (Solanaceae); Tamak; Leaf (b) <i>Cocos nucifera</i> L. (Arecaceae) Nariyel tel; Seed oil	Hair loss	Two dry leaves soaked in two lit water for two hours.	The infusion is rubbed on the affected parts with a clean cloth then massage with coconut oil.
(a) <i>Streblus asper</i> Lour. (Moraceae); Sorua; Leaf. (b) <i>Artocarpus heterophyllus</i> Lamk. (Moraceae); Kothal pat; Leaf	Lactagogue	Fresh leaves of both the plants are mixed together and given directly as fodder.	Twice daily for 30 days

Table 4: Traditional herbal treatment for Buffalo

Botanical Name(Family); Local Name;Parts used	Name of the ailment/ Complaint	Method of preparation	Dosages
<i>Drymaria cordata</i> Willd. (Caryophyllaceae); Laijabori; Twig	Wound	Fresh twigs are crushed and made into paste	The paste is applied on the affected parts and tied with a piece of clean cloth
<i>Calotropis procera</i> (Ait.) Roxb. (Asclepiadaceae); Akon; Latex	Stop bleeding after Leech bite.	Fresh milky latex applied on the affected parts	Applied 5 times at 5 minutes interval for 1 day

Table 5: Traditional herbal treatment for Fowl

Botanical Name(Family); Local Name;Parts used	Name of the ailment/ Complaint	Method of preparation	Dosages
<i>Cynodon dactylon</i> (L.) Pers. (Poaceae); Dubori bon; Whole plant	Bone dislocation	200gm fresh plant are crushed and made into paste	The paste is applied on the affected parts and tied with a piece of clean cloth for five days

Table 6: Traditional herbal treatment for Pig

Botanical Name(Family); Local Name;Parts used	Name of the ailment/ Complaint	Method of preparation	Dosages
<i>Colocasia esculenta</i> (L.) Schott (Araceae); Kochu; Leaf	Weak health	Boiled leaves are given as feed	Once daily or as and when necessary
<i>Sapindus mukorossi</i> Geartn. (Sapindaceae); Monichal; Fruit	Against lice	Body washes with dry fruit	Once daily or as and when required
<i>Nasturtium officinale</i> R.Br. (Brassicaceae); Pani sag; Whole plant	Weak health	Fresh plants are given directly as fodder.	Once daily or as and when required
<i>Citrus limon</i> (L.) Burm f. (Rutaceae); Gol nemu; Fruit	Dysentery	One mature fruit is made into small pieces and given	Thrice daily for two days along with feed
<i>Girardinia zeylanica</i> Decne. (Urticaceae); Churat; Tender shoot	Weak health	Tender shoots boiled properly and then given with feed	Once daily or as and when required
<i>Allium sativum</i> L. (Liliaceae); Nohoru; Tuber (clove)	Cough	5 small cloves and one crab are crushed and made into paste and given	The paste given with feed, twice daily, for 3 days

DISCUSSION

30 plant species belonging to 30 genera and 21 families used for treatment domestic animals have been recorded. Out of these, 20 species belong to 20 Genera and 14 families under Dicot and 10 species belonging to 10 Genera and 7 families under Monocot. The recorded information include 18 plant species used for treatment of cow, 01 plant species used for treatment of Horse, 4 plant species used for treatment of Goat, 02 plant species used treatment of Buffalo, 01 plant species used for treatment of Fowl and 06 plant species used for treatment Pig.

CONCLUSION

Very limited work has been carried out on herbal treatment of domestic animals and there is immense scope in this field for further study. The detailed recording of prescribed doses, administrations and relevant aspects of the prescriptions can led to the development of new or alternative drugs through further investigations on phytochemistry, pharmacognosy, pharmacology, toxicity and clinical aspects. Some of the plants which have been used for treatment animals recorded in the present study viz., *Girardinia zeylanica*, *Sagittaria sagittifolia*, *Glycosmis pentaphylla*, *Drymaria cordata*, *Calotropis procera* and *Streblus asper* are under anthropogenic pressure and need urgent attention to conserve these plants.

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