



Studies on some ethnoveterinary practices in Dhemaji district of Assam

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Abstract

Objective: To examine the ethnoveterinary practice in Dhemaji district, Assam, India. **Methods and materials:** Field survey trials was used to collect data. **Results and Conclusion:** Altogether 35 numbers of herbal medicines that are used to treat various diseases by different ethnic groups of people of this district are discussed. Further studies are required to confirm the dosage of the herbs before these are commercially exploited.

Key words: ethnoveterinary, indigenous, Dhemaji.

1. Introduction

Domestic animals are being treated for various ailments with century-old herbal medicines in many Indian villages. Such medicines are time-tested, commonly available, economical and user-friendly. Dhemaji is one of the districts of Assam with an approximate population of 4.5 lacs. It is situated between 27°- 28° N and 94°- 96° E. Due to its backwardness, herbal medicines are extensively used here to treat domestic animals. Therefore, this study was undertaken to collect first hand information on different plants used as veterinary medicines by local dwellers, mainly Mising, Nepali Ahom, Chutia, Bengali and Sonowal. The information

available on ethnoveterinary in India includes contribution of few workers [1-5]. The data in this report are based on the information gathered in the field during 1998-2000.

2. Materials and methods

The data are based on first hand information gathered from practitioners of veterinary medicines and through personal observation of the authors in the use of herbs. Farmers, cattle growers, housewives and veterinary practitioners were interviewed. The information are presented in the form of name, parts used, ailment and usage. The study area mainly

includes Dhemaji and Jonai Sub-Division. The areas selected for studies are Jonai, Dimow, Silapathar, Dhemaji and Gogamukh. Voucher specimens are collected and preserved in the department of Botany, Dhemaji College.

The plants are arranged in alphabetical order with their botanical name, family, local name and traditional use (Ln = Local name, A = Assamese, N = Nepali, B = Bengali, H = Hindi, S = Sanskrit, E = English).

3. List of medicinal plants

1. *Abelmoschus moschatus* (L) Medic (Malvaceae)

Ln: A-Gorokhia-Korai S-Gandapura, H-Maskdana E-Musk mellow.

Parts used: Seed, root.

Usage: Seeds are made into powder by grinding. 10g of this powder is mixed with 50ml of water and used as diuretic in cattle. The roots are also pounded, mixed with water and used in the same way as seeds.

2. *Abrus fruticulous* Wall. ex Wt & Arn (Fabaceae)

Ln: A-Bogalatumoni, S-Karanjika, N-Seto rati, H-Safed Gunchi, E- Craps eye (white).

Parts used: roots.

Usage: 10ml root extract is given twice a day to adult cattle in cough. It is also used as a diuretic.

3. *Acacia catechu* (Linn.f) Wild. (Mimosaceae)

Ln: A-Khair, N-Khayar, S-Khadirah, H-Khair, E-Cutch tree.

Parts used: Leaves.

Usage: 20ml decoction of leaves is mixed with some common salt and given twice a day in dysentery.

4. *Acorus calamas* L (Araceae)

Ln: A-Bos. N-Bojho.

Parts used: Rhizome.

Usage: About 500 gm of rootstock pounded

with 50 gm rock salt, mixed with 100 ml of water, and is given in dyspepsia twice daily till cured.

5. *Aegle marmelos* (L) Correa (Rutaceae)

Ln: A-Bel. N-Bel

Parts used: Fruit.

Usage: About 500 gm pulp of ripe fruit given orally twice daily in dysentery.

6. *Alangium chinense* (Lour) Harms. (Alangiaceae)

Ln: A-Sikamorolia, N-Phaledo.

Parts used: roots.

Usage: Root extract is applied on wounds of cattle caused by dog- or jackal-bite for few days till cure.

7. *Allium cepa* L (Liliaceae)

Ln: A-Piyaz. N-Piyaz

Parts used: Bulb

Usage: 10 gm of bulb extract mixed with 100 ml of mustard oil is given in cough.

8. *Allium tuberosum* Roxb. (Liliaceae).

Ln: A-Aphutia naharu, N- Ekpoti lasun, E-Garlic.

Parts used: Bulb.

Usage: 20ml of garlic juice is given twice in whopping cough.

9. *Aloe barbadensis* (Liliaceae)

Ln: A-Chal kunwari, N-Gheukumari, B-Ghritakumari, H-Ghikavar, E-Indian aloe.

Usage: The leaf pulp mixed with little water and little rock salt can be given twice daily in chronic diarrhea and dysentery to adult cattle and once to young cattle.

10. *Alternanthera ficoidea* (L) Br (Amaranthaceae)

Ln: A-Brindaban, N-Bhringi jhar

Parts used: Whole plant.

Usage: The decoction of the whole plants mixed with root extract of *Mirabilis jalapa* Linn, and the volume is made 40 ml and given twice in inflamed lymph nodes.

11. *Amaranthus gangeticus* Linn.
(Amaranthaceae)

Ln: A-Rangamoricha, N-Rato sag, B-Denga, H-Lal sag, E-Red amaranth.

Parts used: Roots.

Usage: 10 ml decoction of root is given to cows from the fourth day of parturition at least for a period of 10 days as health tonic.

12. *Antidesma acidum* Retz. (Euphorbiaceae).
Ln: A-Abutenga, N-Archal.

Parts used: Leaf, root.

Usage: The decoction of 30g leaf and root is mixed, and volume is made upto 60ml with water. This solution, with a dose of 20ml per day is given to adult cattle in dysentery for three times. For calf, the dilution is made upto 100ml and given for 5 days.

13. *Artocarpus heterophyllus* Lam (Moraceae).
Ln: A-Kathal, N-Katahar, B-Kathal, H-Kathal, E-Jackfruit

Parts used: Root.

Usage: The decoction of root is a good remedy for diarrhoea. It will be more effective if mixed with *Averrhoa carambola* L. fruit juice and given 20ml daily for 3 times. This preparation also acts on dysentery.

14. *Azadirachta indica* A Juss (Meliaceae)

Ln: A-Neem N-Neem

Parts used: Leaf, fruit.

Usage: 10 gm of leaf and 10 gm of turmeric are mixed together to make paste and is given in constipation.

15. *Bixa orellana* Linn. (Bixaceae).

Ln: A-Jorot goch, N-Sindure, B-Sindure, H-Sinduria, E- Arnotta plant.

Parts used: Seeds.

Usage: 20ml of seed wash is given once a day for 3 days in intermittent fever.

16. *Bombax ceiba* (L) SW (Bombaceae)

Ln: A-Simalu N-Simal.

Parts used: Stem bark.

Usage: Slime obtained by crushing the stem bark is applied to vagina to facilitate parturition.

17. *Calotropis gigantea* (L) R Br. (Asclepiadaceae)

Ln: A-Akon N-Ank, B-Akanda, H-Ak, E-Gigantic swallow wort.

Parts used: Latex.

Usage: The white latex of the leaf is applied to treat hump sore. Care should be taken so that the latex is not be applied in other parts except the wound.

18. *Canabis sativa* L. (Cannabaceae).

Ln: A-Bhang, N-Bhang, B-Bhang, H-Ganja, E-Indian hemp.

Parts used: leaf, seeds.

Usage: Paste of the leaf, about 15g is given in diarrhoea and dysentery as single dose 10 g seeds are pounded and mixed with little water and given as carminative.

19. *Canavalia gladiata* (Jacq.) DC (Fabaceae).

Ln: A-Kamtal Urahi, N-Tarbare Simbi, H-Khad sampal, E-Sward bean.

Parts used: Fruits.

Usages: Pod, pounded and paste mixed with little rock salt is given to cattle once in a day for 7 days in anthrax.

20. *Cassia fistula* L (Caesalpiniaceae)

Ln: A-Sonaru, N-Rajbriksha, B-Sundali, H-Girimala, E- Indian laburnum.

Parts used: Fruit.

Usage: 10 gm of fruit pulp, mixed with 50 ml of water is given as diuretic. The pulp is also used in anthrax.

21. *Clerodendrum serratum* (Linn.). Moon (Verbenaceae).

Ln: A-Nangal bhanga, N-Bharangi, H-Bharangi.

Parts used: Roots.

Usage: 15g root paste, mixed with 5g turmeric (*Curcuma longa* L.) given to cattle in vitiated

condition of anorexia. Root paste with jaggery is given to cow or buffalo during lactation.

22. *Crinum asiaticum* L (Amaryllidaceae)

Ln: A-Bon Naharu N-Hade Lasun, H-Nagdamani.

Parts used: Bulb.

Usage: Paste of the bulb is mixed with 100 ml of water and given as a diuretic.

23. *Curculigo orchoides* Gaertn (Hypoxidaceae).

Ln: A-Nagini, N-Tamuli, H-Musali.

Parts used: Root.

Usage: 10g of root decoction, mixed with water and given twice a day in cough and fever for 3 days.

24. *Curcuma aromatica* Salisb (Zingiberaceae)

Ln: A-Keturi N-Kachud.

Parts used: Rhizome.

Usage: Juice of the rhizome is applied on scabies twice daily for a week.

25. *Erythrina variegata* Linn. (Fabaceae)

Ln: A-Madar, N- Phaledo, H-Pankara, E-Indian coral tree.

Parts used: Bark.

Usage: 10 g paste of bark, mixed with little turmeric, applied on eye in conjunctivitis, the disease is termed in Nepali as 'Phulo pareko'

26. *Ficus glomerata* Roxb. (Moraceae).

Ln: A-Jam dimaru, N-Khasreto, B-Dumur, H-Gular, E-Cluster fig.

Parts used: Bark.

Usage: The decoction of the bark, mixed with pounded Fennel (*Foeniculum vulgare* Mill) given 10ml each day to lactating cows as galactagogue.

27. *Fucus religiosa* L. (Moraceae)

Ln: A-Anhot N-Peepal

Parts used: Stem bark and leaves.

Usage: 10gm stem bark and 20gm leaves are mixed to form paste and is given in constipation for 3 days.

28. *Justicia adhatoda* L. (Acanthaceae)

Ln: A-Boga bahok, N-Asuro.

Usage: 20gm of leaf is mixed with 20gm of *Curcuma longa* and extract is made from it, given in bronchitis seven days.

29. *Mangifera indica* L (Anacardiaceae)

Ln: A-Aam N-Anp.

Parts used: Fruit.

Usage: 10ml juice of ripe mango mixed with 10ml extract of *Centella asiatica* and is given in constipation.

30. *Meyna laxiflora* Robyns. (Rubiaceae)

Ln: A-Kotkora, N-Maidal, B-Mowna gach

Parts used: Seeds.

Usage: 15g dry seeds of the fruit are pounded and mixed with rhizome extract of Bosh (*Acorus calamus* L) and is given to the adult cattle twice a day for 3 days in cough.

31. *Oroxylum indicum* (L) Kurr. (Bignoniaceae)

Ln: A-Bhatghila N-Totola.

Parts used: Bark.

Usage: The barks are made into paste and applied on cut wounds for early healing.

32. *Ricinus communis* Linn. (Euphorbiaceae)

Ln: A-Era, N-Adi, H-Erandi, E-Castor,

Parts used: Seed

Usage: 10g seed is pounded and given with a little rock salt as laxative. It also promotes urination.

33. *Sterculia villosa* Roxb. (Sterculiaceae)

Ln: A-Udal, N-Odal, B-Jangli badam, H-Jangli badam.

Parts used: Root.

Usage: Decoction of 15g root is prepared with 60ml of water and is given 20ml everyday in dysentery.

34. *Streblus asper* Lour. (Moraceae)

Ln: A-Saura, B-Thangne, B-Shaorah, H-Siora, E-Siamese rough bush.

Parts used: Leaf fruit.

Usage: Leaves given as feed after delivery to hasten removal of placenta. 10g leaf and 10g fruit are pounded and the paste and is applied on eyes for 4 days in conjunctivitis.

35. *Xanthium strumarium* L (Asteraceae)

Ln: A-Agora, B-Gagra, H-Okra, E-Cocklebur.

Parts used: Seed.

Usage: 10g paste of the seed is applied on hump sore. Nepali people apply on any type of wound in the body.

4. Results and conclusion

Analysis of the data revealed that 35 ethnomedicinal uses are known for the treatment of different diseases of domestic cattle like cough and cold, dysentery or diarrhoea, fever,

dog bite, hump sore, anthrax etc. Tribe-wise analyses of folk drugs have been studied. The use of these plants are almost same in all Indian communities, especially Mising, Ahom, Bengali, Nepali, Chutia and Sonowal.

Altogether, 35 numbers of herbal medicines that are used to treat various diseases by different ethnic groups of people of Dhemaji district of Assam is presented. Further studies are required to confirm the dosage of the herbs before these are commercially exploited.

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