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Indigenous Animal Health Care Practices from Garhwal Himalaya

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This communication carries valuable information on 31 species of ethno-veterinary plants, commonly used for the treatment of domestic animals by local people of Bhabar region.

Keyword: Ethno-Veterinary, Indigenous uses, Common Ailments, Bhabar Tract.

1. Introduction

Plants of ethno-veterinary significance have been identified by the folk through a process of experience over hundreds of years. In remote areas no organized veterinary medicinal aid is available therefore they depend mainly on local herbal medicines.

There are limited veterinary health centers in rural areas. Under such circumstances these people treat their domestic animals with plants remedies on the basis of their empiric knowledge. Ailments covered include- Attack of parasites (lice and kilns), Hoops and mouth diseases, wounds and cuts, Pneumonia, Flatulence, Fractured bone, Plants toxic to cattle.

The present survey was undertaken in the Bhabar tract of Garhwal. In Garhwal region, Bhabar extends from 78° 22'E longitude to 78° 32'E longitude and 29° 43' to 29° 48'N latitude, occupying 4320.403 hectare area in Tarai region. Extending from northwest to Southeast, the whole tract is about 132 km in length having the minimum and maximum width of 0.5 km and 6.0 km respectively. It is occupied by 48 villages.

Bhabar region having the inhabitants of mixed culture. The informations are collected from

ethnic groups like Boxas, Gujjars, Ayurvedic practitioners, herbal vendors, Vaidyas about medicinal plants used in animal ailments. Some of the important references on the use of medicinal plants in the treatment of animals are by Pal (1980 and 1991), Issar (1981), Anonymous (1986-1992), Reddy and Sudarshanam (1987), Sensarma (1989 and 1991), Jha *et al* (1991), Prasad and Pullaiah (1996).

2. Methodology:

The exploration studies were conducted based on the information gathered from tribal pockets and rural villagers, who depend mostly on forests for their needs and have sound knowledge over herbal remedies. The data were considered valid if the authors were satisfied with the efficacy of the remedies by follow up observations.

The present study has been conducted in two steps:

2.1. A survey was made in different villages of Bhabar region of Garhwal Himalaya. Local inhabitants were consulted for the ethno-veterinary uses of the plants.

2.2 The plants pointed out by local inhabitants were collected, identified botanically with the help of flora-Forest flora of the Chakrata, Dehradun and Saharanpur forest divisions Uttar Pradesh^[6], Herbaceous flora of DehraDun^[2], Flora of District Garhwal: North West Himalaya^[3].

3. Observation

The observation made during the field survey has been given in the following enumerations. The medicinal plant species have been described alongwith their families, local name and their various uses in domestic animals.

4-Discussion

Ethnoveterinary alternatives are an option for small – scale livestock farmers who cannot use the allopathic drugs because of expensiveness. They use the plants medicines because these are cheap and safe and are available in their nearby areas.

5. Results

Plant species and their uses are enumerated as under:

- **In the treatment of Wounds and Cuts:**

1-*Neolitsea cuipala* (Buch.-Ham.ex.D.Don)Kosermans, Lampatiya, Lauraceae, *Cinnamomum camphora* (L.)Presl, Kapoor, Lauraceae. Fruit paste with camphor is applied on infested wounds of cattle.

2-*Ranunculus pulchellus* C.Meyer, Kursingi, Ranunculaceae. Plant paste is applied on cuts and wounds of cattle.

3-*Holboellia latifolia* (Wallich) Hook.f. & Thomson, Gomphal, Lardizabalaceae. Paste of leaves is applied on wounds of cattle.

4-*Boschniakia himalaica* Hook.f. & Thomson, Ganelu, Orobanchaceae.

Poultice from plant applied externally on cuts and wounds of cattle.

5-*Roscoeia alpina* Royle, Jilsua, Zingiberaceae. Dried powder of leaves is applied externally in wounds and cuts of cattle.

6-*Phoebe lanceolata* (Nees)Nees, Kaula, Lauraceae. Berries used against wounds and sores.

7-*Peperomia tetraphylla* (Forster f) Hook & Arn., Tirpriya, Piperaceae. Crushed leaf extract applied on wounds and severe burns.

8-*Gypsophylla cerastioides* D.Don, Bakarchee, Caryophyllaceae. Poultice of plant applied on wounds.

- **Used to kill lice and Klins:**

9-*Cocculus laurifolius* DC., Tilpharya, Menispermaceae. Leaf juice is applied externally to kill lice and kilns of livestock.

- **In the treatment of Pneumonia:**

10-*Phytolacca acinosa* Roxb., Jagrya, Phytolaccaceae. Cooked grains given to cattle.

- **In the treatment of Hoops and mouth diseases:**

11-*Trichosanthes tricuspidata* Lour., Indrayan, Cucurbitaceae. Seed paste is applied externally on hoofs and mouth disease of cattle.

12-*Carissa congesta* Wight, Karaunda, Apocynaceae. Root paste is applied on toes of cattle in 'Khurpaka'.

- **In the treatment of flatulence:**

13-*Pedicularis hoffmeisteri* Klotzsch, Haldyaphul, Scrophulariaceae. Root infusion is given to cattle.

14-*Lonicera angustifolia* Wallich ex DC., Gulnar, Caprifoliaceae.

Fruits are given orally to relieve from gastric troubles of cattle.

• **In the Treatment Fractured Bone:**

15-*Litsea glutinosa* (Lour) Robinson, Singaru, Lauraceae.

Plaster made from the bark applied on fractured bone.

16-*Ulmus wallichiana* Planchon, Chamarmora, Ulmaceae.

Plaster used for fractured bones is made by boiling the bark in water.

17- *Debregeasia longifolia* (Burm.f.) Wedd., Tusara, Urticaceae.

Plaster made from pillverised bark for bone fracture.

18-*Debregeasia salicifolia* (D.Don)Rendle., Syanra, Urticaceae.

Plaster made from the bark for bone fracture.

19-*Gonostegia hirta* (Blume)Miq., Atainyaa, Urticaceae.

Roots used plaster on fractured bones.

20-*Chonemorpha fragrans* (Moon) Alston, Moorva, Apocynaceae.

Leaves paste useful in bone injuries.

• **Plants toxic to the Cattles:**

21-*Cryptolepis buchananii* Roemer and Schultes, Dudhi-bel, Asclepiadaceae.

Leaves believed to be toxic to cattle.

22-*Vincetoxicum hirundinaria* Medikus, Bagmirchi, Asclepiadaceae.

Plants are poisonous to live stock.

23-*Cestrum aurantiacum* Lindley, Raat ki rani, Solanaceae.

Unripe fruits are supposed to be poisonous to cattle and sheep.

24-*Nicandra physalodes* (L.)Gaertner, Tambukya, Solanaceae.

Leaf believed to be poisonous for cattle.

25-*Vervascum chinense* (L.)Santapau, Gaderitamakhu, Scrophulariaceae.

Leaf believed to be poisonous to livestock.

26- *Senecio graciliflorus* DC., Kikrat, Asteraceae. Plant believed to be poisonous to cattle.

27-*Arisaema tortuosum* (Wallich) Schott in Schott & Endl., Bag-Mungri, Araceae.

Plant believed to be poisonous to cattle.

28-*Xylosoma longifolium* Clos, Katrai, Flacourtiaceae.

Young leaves believed to be poisonous to cattle.

29-*Kalanchoe integra* (Medikus) Kuntze, Bishkaphra, Crassulaceae.

The plant is poisonous to cattle.

30-*Arachne cordifolia* (Decne)Hurusawa, Bhatia, Euphorbiaceae.

Leaves believed to be poisonous to cattle.

5. Conclusion:

The present research paper is an attempt to enlist the herbal plants of veterinary use with the help of locals. In this investigation 31 herbal plants have been documented which are used to cure different ailments of animals.

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5. References

1. Anonymous, 1986-1992. The useful plants of India. C.S.I.R., New Delhi.
2. Babu CR (1977). Herbaceous flora of Dehradun. Pub. & Inf. Directorate, CSIR, New
3. Gaur RD (1999). Flora of District Garhwal North West Himalaya. Trans-Media Srinagar(Garhwal).Delhi.
4. Issar RK. (1981). Traditionally important medicinal plants and folklore ofUttaranchal.Himalaya for animal treatment. J.Sci.Ris. Pl. Med. 2:61-66.

5. Jha V, Choudhary UN , Saraswati KC.et al 1991. Botanical aspects of an ethnoveterinary prescription in Mithila, North Bihar, India. *Ethnobotany* 3 : 101-104.
6. Kanjilal, U.N. (1928). Flora of Chakrata, Dehradun & Saharanpur Forest Division U. (3rd ed-revised by Basant Lal) Manager of Publ. Govt. of India Press, Delhi.
7. Pal DC.,1980. Observations on the folklore about plants used in veterinary medicine in Bengal, Orissa and Bihar. Bull. Bot. Surv. India. 22(1-4) : 96-99.
8. Pal DC.1991. Plants used in treatment of cattle and birds among tribals of eastern India in S.K.Jain (Ed.). Contribution to Indian *Ethnobotany*. Sci. Publ., Jodhpur: 285-297.
9. Reddy KJ , Sudarshanam G. et. al.1987. Plants used as veterinary medicine in Chottar district of Andhra Pradesh, India. Int. J. Crude Drug Res. 25 (3) : 145-152.
10. Sai Prasad P, Pullaiah T et. al.1996. Folk veterinary medicine of Kurnool district, Andhra Pradesh, India. *Ethnobotany*, 8: 71-74.
11. Sensarma P. 1989. Plants in the Indian Purans- An ethnobotanical investigation. Naya Prokash, Calcutta.
12. Sensarma P. 1991. Herbal veterinary medicines in an ancient Sanskrit work the Garuda Purana. *Ethnobotany* 3 (1 and 2): 83-87.