

VETERINARY USE OF PLANTS AMONG TRIBALES OF ORISSA**MALAYA K. MISRA AND SUDHANSU S. DAS***Ecology & Floristics Laboratory, Department of botany, Berhampur University, Berhampur-760 007, Orissa.***Received: 23 April, 1996****Accepted: 4 July, 1996**

Abstract: *The paper reports the uses of 20 plants against 10 animal diseases in Ganjam district of orissa. Besides, Plants used for milching of cattle are described.*

Introduction

Although in India use of plants as medicine can be traced back to the Vedic period the real foundation of ancient medical science started with the writing of eight division of ayurveda, probably between 2500 and 900 B.C there is no mention of veterinary use of plants in the ancient literature. Therefore, it is difficult to trace the ailments of animals, although there is no authentic record, one can assume that the use of plants as medicines for animal diseases might have started when the domestication of animals started and draught power was used in agriculture. About 85 percent people of India live in villages. Most of them depend on traditional or folk medicines or household remedies for the treatment of diseases the or their domestic animals suffer from. In rural India and tribal societies use of plants as veterinary medicines are very common and some sporadic reports from different parts of India are available on the use of plants for the treatment of animal diseases 1-6.

In this paper an attempt was made to collect information on the use of plants by the tribal of Ganjam district for the treatment of animal diseases.

The study area and methods

For the present study, Ganjam district was selected. Ganjam is the southern most district of Orissa. The tribals and the rural area of the district use indigenous plants available in their surroundings, as medicines, for the treatment of different diseases their cattle suffer from. Most of the information incorporated here are collected from sabar tribe of Ganjam district.

Field studies were conducted in the tribal areas of the district particularly in tumba area to collect information on the use of plants against animal diseases. These medicinal plants, as far as possible, were collected, processed, dried and after poisoning the herbaria were prepared and deposited in the herbarium of the botany department of Berhampur University. The plants were properly identified with the help of floras.

The plants are arranged alphabetically along with their family name (in parentheses) and Oriya (Or) name. This is followed by brief description of the species and then the native veterinary uses along with method of application are given.

Enumeration of Plants

**1. *Abrus precatorius* Linn.
(PAPILIONACEAE/FABACEAE)**

Or: Kaincha

The tribals believe that cataract of cattle is cured when the root of the plant is tied on a thread and put around the neck of the cattle. This is done in Saturday after a process of purification of the cattle with dhup.

**2. *Aegle marmelos* Correa
(RUTACEAE)**

Or: Bela

Leaves along with leaves of *Datura metel* are boiled and thick decoction is prepared. The decoction is applied on the foreleg joint arch of the cattle suffering from black-quarter disease. The decoction is also administered orally to the diseased animal.

**3. *Azadirachta indica* A. Juss.
(MELIACEAE)**

Or: Limba, Nema

1. Neem Leaves boiled in marking nut oil and the oil is applied on the fore-leg joint arch of the cattle suffering from black quarter disease.

2. A piece of neem stick is inserted into the palatal foramen of the cattle suffering from glossitis

**4. *Bambusa bambos* (L) Voss
(GRAMINEAE/ POACEAE)**

Syn: *Bamusa arundinacea* Willd.

Or: Kanta Baunsa.

Young bamboo leaves along with green fodder are fed to cow and goat after delivery for the early removal of the placenta.

**5. *Bombax ceiba* Linn.
(BOMBACACEAE)**

Syn: *Salmalia malabaricum* (DC.) Sch
Bombax malararicum (DC).

Or: Simuli, Buru

The bark after removal of the prickles is made into a paste. In case of fracture of bone or severe sprains, the paste is applied on the affected area externally and a bandage cloth may also be tied. The treatment is continues for 5 days.

**6. *Cassia fistula* Linn.
(CAESALPINIACEAE)**

Or: Sunari, Swarnajhari.

The leaves of the plant along with leaves of banana. (*Musa paradisiacal*) and bel (*Aegle marmelos*) are mixed with cow dung boiled and made into a paste. The paste is applied on the foreleg joint of the cattle suffering from black quarter disease. Te dose is for four days.

**7. *Cassia occidentalis* Linn
(CAESALPINIACEAE)**

Or: Bada chakunda

Leaves of this plant and old tamarind (*tamarindus*) pulps are mixed and a paste is prepared, the paste is administered orally to cattle for the earl discharge of placenta after delivery.

**8. *Cissus quadrangularis* Lin
(AMPELIDACEAE)
(syn: *Vitis quadrangularis* Wall.)**

Or: Hadabhanga lata.

The quadrangular stems of the plant are fried in sesamum or groundnut oil. The fried internodes are tied with bandage cloth on the above fracture points of the cattle. Then few drops of warm karanja (*Pongamia pinnata*) oil are poured on it. Massaging is prohibited during the treatment period.

**9. *Cleistanthus colinus* (Roxb.) Benth
(KUPHORBIACEAE)**

Or: Karada

The bark of the plant is made into a paste and applied to the hoof of the cattle suffering from foot and mouth diseases, then few drops of fig (*ficus racemosa*) latex is put on it and covered with a cloth this is repeated twice a day for 4 days.

10. *Dolichos biflorus* Linn.
(PAPILIONACEAE/ FABACEAE)
Or: Kolatha

1. Decotion of seed is given orally to cattles for good milching after delivery.
2. Decoction of the whole plant along with seeds is given orally to the cattle suffering from dysentery

11. *Erythrina variegata* Linn.
(PAPILIONACEAE/FABACEAE)
(syn: *Erythrina indica* Lam)
Or: Paladhua, Minjari.

The bark of the tree is made into a paste and applied to sore of goat by tying with the help of a cotton cloth.

12. *Momordica charantia* Linn.
(CUCURBITACEAE)
Or: Kalara

Leaves of the plant mixed with salt and administered to cattle after deliver for teas removal of placenta.

13. *Mucuna prurita* Hook
(PAPILIONACEAE/ FABACEAE)
(Syn: *Mucuna pruriens* Baker non. DC.)
Or: Baidanka

The root of the plant is administered orally with straw to kill and remove the intestinal worms of cattle.

14. *Nicotiana tabacum* Linn.
(SOLNACEAE)

Or: Dhuanpatra.

Processed tobacco leaves are crushed and made into a paste with saw-dust (wood). The past s applied on the hoof of the cattle affected with foot and mouth disease.

15. *Paederia scadens* (Lour.) Merr.
(RUBIACEAE)
Or: Prasaruni

The leaves are boiled and cooked with finger-millet (Ragi) flour and made into a jelly like paste locally called jau (Khir) This Khir is fed orally to milch to stimulate and enhance milk production.

16. *Pergularia daemia* (Forsk) Chiov
(ASCLEPIADACEAE)
Or: Uturuli

The juice of the plant is extracted and mixed thoroughly with sesamum oil. The oil-juice mixture is gently rubbed on all sides of the same time that mixture (oil) is also messaged on the back –bone. During the treatment period a good bath is done to the animal regularly.

17. *Ricinus communis* Linn.
(EUPHORBIACEAE)
Or: Jada.

Leaves along with common salt made into a paste and administered orally to cattles twice after delivery for the removal of placenta.

18. *Semecarpus anacardium* Linn.F.
(ANACARDIACEOUS)
Or: Kalabhalia

1. Warmed marking nut oil (the tar-like oil is extracted from the pericarp of the fruit) is applied on the abscess of the cattle for a rapid cure.

2. Warmed oil is applied on the hoof of the cattle suffering from foot and mouth disease.
3. The punctured fruit is rubbed on the mouth of the goat suffering from anterotoxaemia.
4. Kernel oil is also used for cough. The oil is applied on the pharyngeal wall with the help of a long stick in alternate days this treatment is very much useful for goats.

19. Terminalia chebula Retz.
(COMBRETACEAE)
Or: Harida.

1. The decoction of the fruit is applied on the hoofs of the cattle suffering from foot and mouth disease.
2. The decoction is also used for washing the ulcer (wound) of the animal externally.

20. Terminalia tomentosa W. & A.
(COMBRETACEAE)
Or: Sahaja, Sahame

Bark decoction is applied to wash to hoofs of the cattle suffering from foot and mouth disease.

Table 1: List of cattle disease and plants used against them.

	Animal disease	Plant used against the disease
1	Abscess, ulcer and sore	Erythrina variegata Semecarpus anacardium Terminalia chebula
2	Anterotoxaemia	Semecarpus anacardium
3	Black-quarter	Aegle marmelos Azadirachta indica Cassia fistula Datura metel Semecarpus anacardium
4	Bone fracture	Bombax ceiba Cissus quadrangularis
5	Cataract	Abrus precatorius
6	Deliver and removal of placenta	Bambusa bambos Cassia occidentalis Dolichos biflorus Momordica charantia Ricinus communis Tamarindus indicus
7	Dysentery	Dolichos biflorus
8	Foot and mouth disease	Ficus racemosa Nicotiana tabacum Semecarpus anacardium Terminalia tomentosa
9	Glossitis	Azadirachta indica Pergularia daemia
10	Intestinal worm	Mucuna prurita Semecarpus anacardium
11	Milching	Paederia scandens Dolichos biflorus

Discussion

The study revealed that there are 10 types of animal diseases that are being treated by the plant resources available in the area. Besides, some plants are used for milching of cow (Table 1). Single plant/ plant part or a combination of plants/ plant parts are described for the treatment of animal diseases.

It is very difficult to judge the effectiveness of the folk-medicines. The purpose of this paper is not to prescribe any remedies for animal diseases but to document the uses and draw the attention of plant chemists and pharmacologists for further scientific research in this line. The information provided in this paper is limited and further survey in this line dealing with all communities of the state will definitely reveal a quite good amount of information on the veterinary uses of plants.

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