Ethnobotanic Medicine of Rajasthan For Curing Veterinary Diseases

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Abstract

In Rajasthan the tribal communities have been using several medicinal plants to cure veterinary diseases. Detailed field collections were carried out from Jodhpur, Jaisalmer, Sriganganager, Nagaur and Bikaner districts. Twenty Ethnobotanic medicinal plant species have been selected for research work. The major tribes Bhils, Garasia, Saharia, Meena, Damor, Patelia, Kanjar, Gadolia luhar etc. prefer traditional medicines for the treatment of veterinary diseases. The present investigation is aimed to create awareness about the ethnobotanic medicinal value of the plants and their uses to draw the attention of pharmacologists, phytochemists and pharmaceuticals.

Key Words: ethnobotanic medicine, tribal communities, pharmaceuticals, veterinary diseases.

INTRODUCTION:

In our nation, domestication of cattle and pet animals is quite old. Ethno-veterinary medicine (EVM)[1] refers to people's traditional knowledge about animal health care and production . This phrase acknowledges the cultural context of customary behaviours, which are as long as livestock and other animal species have been domesticated. Due to the lack of modern medicine in ancient times, primitive man relied on nearby medicinal plants to treat a variety of ailments afflicting his animals. As a result, numerous ethno-veterinary techniques and herbal remedies were discovered and verified in later ages based on experiences gained over time. The Bhils, Garasia, Saharia, Meena, Damor, Patelia, Kanjar, Gadolia Luhar, and other significant tribes are found in Rajasthan. These tribes still favour using conventional herbal cures as home remedies for the care of animals and pets. The most distinctive veterinary profession was found in India, where a well developed ancient system of veterinary practises was used. According to renowned indologist P.V. Vartak, two Pandavas named Nakul and Sahadev used veterinary medicine to heal animal illnesses. Numerous workers have made admirable efforts in the direction of ethno-veterinary medications [2–7]. Few researchers have examined the ethno-veterinary features of the herbal plants in Rajasthan [8–12].

OBSERVATIONS AND DISCUSSION:

Mostly tribal communities give fresh or dry plant parts as fodder or mixed with cattle feed to treat the diseases of livestock. These people usually use herbal medicines to treat most common veterinary diseases like diarrohoea, after-birth retention, prolapse of uterus, constipation, rheumatism, indigestion, blood in urine, fever etc

Following is an enumeration of the eighteen significant ethno-veterinary medicinal plants of Rajasthan that have been chosen

1. Euphorbia microphylla Heye.
   Family : Euphorbiaceae
   Local Name : Chhoti dudhee
   Habit : Annual Herb
   Parts Used : Whole plant
   Ethnoveterinary Medicinal Uses:
   •Crushed whole plant is given to eat with chapatti to treat excessive bleeding after delivery.

2. Gloriosa superba Linn.
   Family : Liliaceae
   Local Name : Kalihari
   Habit : An Annual Clinbe
   Parts Used : Roots, Tubers
   Ethnoveterinary Medicinal Uses:
   • Roots paste or juice is applied against maggots in wounds and external abscess.
   • The extract of tuber is applied on uterus of animals in vulvo-vaginal uterine-prolapse.

3. Grewia tiliaefolia Vahl.
   Family : Tiliaceae
   Local Name : Farangdee
   Habit : Shrub
   Parts Used : Roots
   Ethnoveterinary Medicinal Uses :
   • Root infusion is given to treat bone fracture.

4. Jatropha curcas Linn.
   Family : Euphorbiaceae
   Local Name : Ratanjot
   Habit : Small Tree
   Parts Used : Latex, Roots
   Ethnoveterinary Medicinal Uses:
   • Latex is used as antiseptic during uterus setting to treat uterus dislocation.
   • Latex is applied on wound to treat bleeding from fresh wound.
   • Root decoction is given to animals once in a day for three days for early cure of fractured bone.

5. Leptadenia pyrotechnica (Forsk.) Decne.
   Family : Asclepiadaceae
   Local Name : Kheemp
   Habit : Shrub
   Parts Used : Whole plant
   Ethnoveterinary Medicinal Uses :
   • Whole plant is crushed to get infusion and given to uterus prolapsed, stomach disorders.

6. Mimosa pudica Linn.
   Family : Mimosaceae
   Local Name : Chhuimui
   Habit : Herb
   Parts Used : Roots
   Ethnoveterinary Medicinal Uses:
   - Root extract is given to animals especially ox suffering from neck tumor as a result of continuous ploughing by the Yoke. After giving extract for three days, ox is given rest for about six days and ox is completely recovered.

7. Tridax procumbens Linn.
   Family : Asteraceae
   Local Name : Kalali
   Habit : Annual Herb
   Parts Used : Leaves
   Ethnoveterinary Medicinal Uses:
   - Leaf juice is used to treat bleeding from fresh wounds.
   - Also treat maggots in wounds.

8. Alianthus excelsa Roxb.
   Family : Simaroubaceae
   Local Name : Ardu, Adua
   Habit : Tree
   Parts Used: Leaves, Bark
   Ethnoveterinary Medicinal Use:
   - Leaf paste is applied on body to control ticks and lice.
   - Bark with goat's milk paste is applied to treat nose rope wound.

9. Aristolochia bracteata Retz.
   Family : Aristolochiaceae
   Local Name : Kidamari
   Habit : A creeping climber
   Parts Used : Leaves
   Ethnoveterinary Medicinal Uses;
   - Leaf juice is used to treat wounds, maggots in wounds.
   - In very little quantity this juice is given to treat tympanitis.

10. Cassia auriculata Linn.
    Family : Leguminosae
    Local Name : Anwal
    Habit : Shrub
    Parts Used : Leaves
    Ethnoveterinary Medicinal Uses:
    - Leaf paste is applied externally on hooves.
    - Infusion of leaves given internally to treat foot-and-mouth disease
    - Leaves and Jaggery is given to cure tympanitis.

11. Cassia occidentlis Linn.
Family : Leguminosae
Local Name : Malvi punwad
Habit : Annual Herb
Parts Used : Leaves, Seeds
Ethnoveterinary Medicinal Uses:
- Leaf paste is applied to treat eczema and other skin disorders.
- Seed powder is mixed with cattle feed and given to increase milk production.

12. Clerodendrum phlomoidis Linn.
Family : Verbenaceae
Local Name : Arni, Anni
Habit : Shrub
Parts Used : Roots, Leaves
Ethnoveterinary Medicinal Uses;
- Leaf paste is applied to hooves rot, maggots in wounds.
- Paste is prepared by mixing equal amount of leaves of this plant with leaves of neem (Azadirachta indica). This paste is applied externally on the skin of animals for killing ectoparasites like lice and ticks.
- Decoction of mixture of roots and leaves is used to give water bath to animals to cure body swelling and bodyache.

13. Cosmostigma racemosa (Roxb.) Wt.
Family : Asclepiadaceae
Local Name : Raidodi
Habit : A shrubby twiner
Parts Used : Pods
Ethnoveterinary Medicinal Uses:
- Powdered pods mixed with curd are given orally twice a day to sheep and goats suffering from gastroenteritis.

14. Costus speciosus (Koen.) sm
Family : Costaceae
Local Name : Mahalakari
Habit : A perennial Herb
Parts Used : Rhizome
Ethnoveterinary Medicinal Uses:
- Rhizome is given orally to domestic animals in rheumatism.

15. Vitex negundo Linn.
Family : Verbenaceae
Local Name : Nagad, Nirgundi
Habit : Shrub
Parts Used : Roots, Leaves
Ethnoveterinary Medicinal Uses:
- Root juice is applied to treat mastitis.
- Leaf juice is used externally for wound healing.

16. Xanthium strumarium Linn.
Family : Asteraceae
Local Name : Andhayo, Bichhu-buti
Habit : Annual Herb
Parts Used : Leaves Ethnoveterinary Medicinal Uses:
- Leaf juice is used externally for wound healing and maggots in wounds.
- Crushed stem bark decoction is given to treat dysentery and diarrhoea.

17. Crinum asiaticum Linn.
Family : Amaryllidaceae
Local Name : Jahari kanda
Habit : A Bulbous Herb
Parts Used : Bulbs
Ethnoveterinary Medicinal Uses:
- Extract of bulbs mixed with curd is given orally to animals in flatulence.
- The poultice of tuber is tied locally for various skin diseases, warts etc.

18. Delonix elata Gamble.
Family : Caesalpiniaceae
Local Name : Handeda
Habit : Tree
Parts Used : Stem Bark
Ethnoveterinary Medicinal Uses:
- Crushed stem bark decoction is given to treat dysentery and diarrhea

CONCLUSION:

Ethnoveterinary medicines are of specific value in developing countries where allopathic veterinary medicines are often beyond the reach of livestock producers. At present we have to develop eco-friendly and cost-effective medicines for veterinary disease treatment. Proper management and value addition researches should be done to revive the traditional methods and develop advanced technologies to manufacture drugs and herbal medicines for livestock health care.

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