Ethnoveterinary plants of Jhansi district, Uttar Pradesh

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The paper describes 46 ethnoveterinary plants of Jhansi district of Uttar Pradesh. Plant species are reported along with plant parts and some local formulations used medicinally for the treatment of various animal diseases and disorders.

Keywords: Ethnoveterinary practice, Medicinal plants, Livestock, Jhansi, Uttar Pradesh

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Livestock industry provides for a major source of livelihood for many people worldwide, particularly the rural poor in developing countries. Ill health is a major constraint to livestock production and development in rural and pre-urban communities, where a half of the world's livestock population is found. Most of these communities live in marginal areas affected with endemic pathogens, vectors and diseases. These areas are not easily accessible to modern veterinary services and people are less economically endowed albeit coping with enormous animal health problems. The role of ethnoveterinary medicine in livestock development is beyond dispute. The potential effectiveness of the traditional animal healthcare practices embodied in native and local communities has been recognised and documented.

In ancient India, animal treatment like Hasty Ayurveda, Aswa Ayurveda, Ghora ndana and other Nidanas was mostly confined to Ayurveda. In Jhansi district, beside agriculture, animal husbandry is the main occupation of the rural peoples. Goats, sheep, buffaloes, cows, camels and donkeys are the main cattle of rural people in the region. The rural people have their own system of herbal veterinary medicines practiced since the ancient time. Jhansi district lies between 25° 27’ North latitude and 78° 35’ East longitude and about 275 m above sea level. However, the district remains largely unexploited in respect of ethnoveterinary aspect; hence the study was undertaken.

Methodology
Frequent field trips were made to the different villages situated in the remote areas during 2006-2007. The folklore medico-veterinary information was collected through personal interviews with vaidyas, hakims, sadhus, bhagats, tribals and experienced old men. The identity of collected specimens was confirmed by matching two plants with the flora of the region. The specimens are collected and are deposited in the Department of Botany, Institute of Basic Sciences, Bundelkhand University, Jhansi.

Enumeration
Plant species are enumerated by its Latin name, followed by family, local names, folk uses are described with the method of preparation and dosage.

**Acacia nilotica** (L.) Willd. ex Delile (Mimosaceae), **Babool**
Flower powder of *Acacia nilotica* mixed with water is given orally to animal twice a day to cure jaundice.

**Aegle mormelos** (L.) Corr. (Rutaceae), **Bael**
*Aegle mormelos* pulp mixed with water is filtered; thereafter sore milk is added. The prepared product is applied twice a day to cure burn of effected body parts of the animal.
Allium cepa L. (Alliaceae), Piyaz
Bulb extract of plant is dropped into eyes of animal(s) twice a day to expel the insects from eyes.

Allium sativum L. (Liliaceae), Lahson
Bulb of Allium cepa and seeds of Allium sativum are ground well and squashed and filtrate is dropped into nostrils twice a day to cure bronchitis.

Aloe barbadense P. Mill. (Liliaceae), Ghikumari
Aloe barbadense pulp mixed with sore milk and water is applied twice a day to cure burns of the animal.

Amaranthus viridis L. (Amaranthaceae), Chaulai
Amaranthus viridis seeds mixed in water is given to animal twice a day to cure tympany.

Annona squamosa L. (Annonaceae), Sharifa
Leaf paste of Annona squamosa mixed with lime is applied on the wound and bandaged to cure foot disease.

Arachis hypogaea L. (Fabaceae), Mungphali
Seed oil of Arachis hypogaea mixed with salt is given twice a day in twitching of animal.

Azadirachta indica A. Juss. (Meliaceae), Neem
Fresh leaves of Azadirachta indica and salt are ground together and boiled in water; lukewarm decoction is put into eyes of the animal twice a day to remove insects from the eyes.

Balanites aegyptica (L.) Del. (Balanitaceae), Hingota
Balanites aegyptica seed paste mixed with water is given to animal twice a day to cure tummy.

Bambusa arundinacea (Retz.) Willd. (Poaceae), Bans
Dried leaves of Bambusa arundinacea mixed with lukewarm water is given to animal twice a day to cure retard placenta or to facilitate easier removal of placenta after delivery.

Bauhinia variegata L. (Fabaceae), Kachanar
Crushed root mixed with urine of black cow and paste is applied twice a day on the eyelids of the animal to treat blindness.

Bryonopsis laciniosa L. (Cucurbitaceae), Shivlingi
Seed powder of Bryonopsis laciniosa mixed with pure ghee is given orally to pregnant animals with the help of a bottle for abortion.

Buchanania latifolia Roxb. (Anacardiaceae), Chironji
Root bark powder of Buchanania latifolia with cow milk is filtered and given to animal twice a day during backbone fracture.

Butea monosperma (Lam.) Taubert (Fabaceae), Dhak
A mixture of seed powder of Butea monosperma, salt and water is given to animal twice a day for deworming.

Calotropis procera (Willd.) Dryand ex W. Ait. (Asclepiadaceae), Akkaua
Paste of Calotropis procera latex and Arachis hypogaea seed oil mixed with red lead is rubbed on the tumour externally twice a day to cure tumour.

Cannabis sativa L. (Cannabinaceae), Bhang
Cannabis sativa leaf powder mixed with whey and water is given to animal twice a day to cure loose motion.

Capsicum annuum L. (Solanaceae), Mirch
Paste of Capsicum annuum fruits, Allium sativum seeds, Piper nigrum seeds, Cuminum cyminum seeds and alum mixed water is given to animal twice a day to cure the dullness in animals.

Capsicum frutescens L. (Solanaceae), Lalmirch
Mixture of Capsicum frutescens fruit powder and rock salt and Gur (jaggery) is given to animal twice a day to cure lunacy.

Coriandrum sativum L. (Apiaceae), Dhania
Seed power of Coriandrum sativum mixed with leaf of Lawsonia inermis and water kept in a pitcher overnight is given to animal twice a day to cure loose motion.

Carissa carandas L. (Apocynaceae), Karonda
Carissa carandas root paste mixed with Cocas nucifera oil is applied twice a day on maggot wound.

Citrus limon (L.) Burm. f. (Rutaceae), Nimbu
Citrus limon fruit juice is dropped in the eyes of the animal twice a day to check or cure blindness.

Curcuma longa L. (Zingiberaceae), Haldi
Mixture of Curcuma longa rhizome powder, rock salt and pure ghee is fed to the suffering animal to cure the swelling of teats (nipple).

Dalbergia sissoo Roxb. ex DC. (Fabaceae), Shisham
Leaf paste of Dalbergia sissoo mixed with water is given to animal twice a day to cure blisters and leg sore.
**Datura metel** L. (Solanaceae), *Dhatura*

*Datura metel* root powder is given to the animal twice a day to check bleeding of any part of the body due to maggot infection.

**Ficus glomerata** Roxb. (Moraceae), *Gular*

Fruits of *Ficus glomerata* is given to the animal twice a day to facilitate easier removal of placenta after delivery.

**Gymnema sylvestre** (Retz.) Schultes (Asclepiadaceae), *Gudmar*

*Gymnema sylvestre* fresh leaf paste is applied on the eyelids twice daily to cure cataract.

**Helianthus annuus** L. (Asteraceae), *Surajmukhi*

Fine seed powder of *Helianthus annuus* is mixed and boiled with coconut oil. Cotton dipped in prepared material is tied on testis to relief in swelling of testis.

**Helicteres isora** L. (Sterculiaceae), *Marorphali*

A mixture of *Helicteres isora* fruit powder, *Cuminum cyminum* seed powder and whey is given to animal twice a day to cure dysentery.

**Hibiscus rosa-sinensis** L. (Malvaceae), *Gurhal*

Hibiscus rosa-sinensis bark decoction is given twice a day in twitching of animal.

**Hyoscyamus niger** L. (Solanaceae)

*Hyoscyamus niger* oil is applied on the wound with the help of cotton twice a day to remove the maggot from the wound.

**Jatropha curcas** L. (Euphorbiaceae), *Ratanjot*

Milky sap of *Jatropha curcas* is applied on the animal shoulder thrice a day to cure maggot wound or yolk sore.

**Lawsonia inermis** L. Naud. (Lythraceae), *Mehendi*

Dried *Lawsonia inermis* leaf powder mixed with water is given to animal twice a day to cure haematuria.

**Linum usitatissimum** L. (Linaceae), *Linseed*

A mixture of gun powder, lime water and *Linum usitatissimum* seed oil is applied on the affected portion of the animal twice a day to cure burns due to fire.

**Mimosa pudica** L. (Mimosaceae), *Lajwanti*

Fresh leaf paste of *Mimosa pudica* is fed to animal with 1 to 2 chapattis, twice a day to cure maggot wound.

**Musa paradisiaca** L. (Musaceae), *Kela*

Paste of *Musa papadisiaca* and sugar candy in water is given to animal twice a day to cure the blisters and hoof sore(s).

**Oryza sativa** L. (Poaceae), *Rice*

Mixture of rice bran and *Gossypium* sp seeds is given to animal thrice a day to cure the cough.

**Pongamia pinnata** (L.) Pierre (Fabaceae), *Karanja*

A mixture of phosphorus powder and seed oil of *Pongamia pinnata* is given to animal twice a day to cure ringworm.

**Sorghum vulgare** Pers. (Poaceae), *Jawar*

Seed flour of *Sorghum vulgare* mixed with whey is given to animal twice a day to cure loose motion.

**Saccharum officinarum** L. (Poaceae), *Sugarcane*

*Saccharum officinarum* leaf is given to the female animal twice a day to cure retard placenta or to facilitate easier removal of placenta after delivery.

**Syzygium jambos** (L.) Alston (Myrtaceae), *Jamun*

Filtrate of *Syzygium jambos* bark powder in water mixed with whey is given to animal twice a day to cure haematuria.

**Tegetus erecta** L. (Asteraceae), *Genda*

Suspension of *Tegetus erecta* flower powder mixed with water is given to animal, twice a day to cure hydrophobia.

**Trigonellan foenum-graecum** L. (Fabaceae), *Methi*

Decoction of fine methi seed powder in water is given two times daily to treat twitching.

**Vigna radiata** (L.) R. Wilczek (Fabaceae), *Moong*

*Vigna radiata* seed powder mixed with *Arachis hypogea* oil is given to animal twice a day to cure cough.

**Withania somnifera** (L.) Dunal (Solanaceae), *Ashwagandha*

Decoction of *Withania somnifera* root powder, *Hyoscyamus niger* seed powder, *Bambusa arundinacea* leaf powder, Gur and *Zingiber officinale* powder mixed together and boiled in milk is given to animal twice a day to cure retard placenta.

**Ziziphus jujuba** (L.) Lam. non Mill. (Rhamnaceae), *Ber*

Paste of *Zizyphus jujuba* leaf and *Linum usitatissimum* oil is applied on the affected portion of the animal to cure burn.

**Discussion**

The investigation reveals that 46 plant species belonging to 26 families are commonly used as
veterinary medicine by different ethnic communities of Jhansi district. Out of the total species, 12 species of tree, 07 species of shrubs and 27 species of herbs are used to cure different ailments of animals. The local people are highly dependent on the herbal remedies. The plant species are commonly available in the region and play special role in folk medicine. There is an urgent need for biochemical analysis and pharmaceutical investigations of plant species used by the people of this region to formulate and standardize the medicine for sustainable use.

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