



**7th World  
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Science City, Kolkata  
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Supported by



**MINISTRY OF AYUSH  
GOVERNMENT OF INDIA**



2nd International Seminar on  
**Veterinary  
Ayurveda**  
(Mrugayurveda)

1st December 2016, Science City, Kolkata



Organiser



**WORLD  
AYURVEDA  
FOUNDATION**

AN INITIATIVE OF VIJNANA BHARATI

## 2nd International Seminar on **Veterinary Ayurveda** (Mrugayurveda)

### Current source of veterinary resource in India

Indian livestock sector today have 185 million cattle, 98 million buffaloes, 124.5 million goats, 6 million sheep, 343 million poultry, 13.5 million pigs, 1.6 million equines, 6.3 million camel and have the world share of 16% cattle and 57% buffaloes (rank-I), 18% goat (rank- II), 6% sheep (rank-III). The livestock sub-sector has a significant role in rural economy. Dairying especially is of vital importance to the livelihood security of rural poor. Around 80% of the bovine owners in India belong to the Below Poverty Level (BPL) population. They consist of landless, marginal and small farmers. For the dairy farmer, cattle feed accounts for more than 70 per cent of the total cost of milk production. Animal disease continues to be a major drain on farmer's income. Modern veterinary care reaches to only 20% of livestock owners.

### Challenges of veterinary medicine

It is estimated that approximately Rs 50 billion annually is lost on account of livestock diseases in India. The high treatment cost, inaccessibility and indiscriminate use of antibiotics and hormone, which leads to user-unfriendly effects such as high antibiotic and hormone residues in the milk and other animal products, are serious limitations of modern veterinary management. Veterinary services have a crucial role in controlling highly contagious diseases and zoonotic infections, which have implications for human health as well as that of livestock.

The presence of drug residues in milk, meat and eggs can cause allergies, anaphylactic shocks and toxicity in consumers. It also results in development of drug resistant microorganisms that are difficult to treat.

Bacterial resistance to antibiotics is much more a threat to animal and human health than the low levels of residues, which may be found in animal foods. The drug resistant pathogens like salmonella occurring in animal foods may be transferred to and be pathogenic in man and can cause illness and death (Khoda, 2005). All the anti-microbial drugs administered to cows can enter the milk to some degree. A drug administered to a milk-producing animal has a withdrawal period, during which the drug residue should fall, below a predetermined level. A residue can be the drug itself or its metabolites. The testing of residue is of significance for ethical, public health, dairy technological and environmental reasons (Merai and Boghra, 2004).



## Veterinary services have a crucial role in controlling highly contagious diseases and zoonotic infections...

### Ethno-veterinary traditions of India

Ethno-veterinary or the folk medicine pertaining to animal health care is as old as the domestication of various livestock species. Archeological evidences indicate that the ancient Egyptian had used various methods including application of herbs for treatment of animal diseases nearly over 4 millennia ago and it is believed that during that period the physicians had knowledge of more than 250 medicinal plants and 120 mineral salts Far away from Egypt, one of the world's richest and most efficient ethno-veterinary health traditions exists in the villages of India. Veterinary science in India has a documented history of around 5000 years. There exists codified veterinary knowledge in the form of medical texts, manuscripts on various aspects of veterinary care such as health management of cattle, horses, birds and elephants. The codified medical traditions share a similar worldview as that of the oral folk traditions, but they also contain sophisticated clinical theory apart from practical therapies. The veterinary and animal husbandry practices were present and grown in the Vedic, Puranic and extending beyond Epic periods.

India has a rich medical heritage which is in two streams codified and non codified/oral tradition. Mrugayurveda is the codified system exists in the form of text and manuscripts on various aspects of veterinary care in the livestock health management.

### Veterinary Ayurveda Tradition in India

ShalihotrasAshwashastra (1800 BC) is considered as the first works on Veterinary science. Hastyayurveda (1000 BC) by Palakapya is most ancient text on Elephants. Pashuvaidyamattuvagadam, a Tamil book based on ancient Tamil palm leaves manuscript discuss over 250 diseases in cattle and their management. Matsyapurana, Garudapurana, Agnipurana, Brahmanandapurana and Lingapurana have veterinary information. Arthashastra by Koutilya describes cattles, buffaloes, goat, horse, elephants and other animal rearing. It also gives the detailed account of welfare practices of livestock and regulations for the protection of wild life. The non-codified or oral tradition also exists in India, in the form of Local health traditions which is practiced by the local vaidya's.

There are local healers (Pashuvaidyas) who are knowledgeable and experienced in traditional veterinary health care spread all over the country. The folk health practices largely remain undocumented and are passed on from one generation to the other by word of mouth. They use the locally available medicinal plants for treatment of animals. The local healers are very popular in their communities and the farmers generally consult them. The ethno-veterinary systems are eco-system and ethnic-community specific and therefore, the characteristics, sophistication, and intensity of these systems differ greatly among individuals, societies, and regions. These local veterinary health practices are accessible, affordable and culturally acceptable.



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### Subject for discussion

The use of antibiotics and other chemical products have in fact been banned for animal health care in many countries. The world is looking for safer herbal alternatives. Thus, ethno-veterinary science of India has great potential to address current challenges faced by veterinary medicine as it has decentralized local resource based applications which are safe, efficacious and create no adverse effects in the animals. However, they are facing the threat of rapid erosion.

The urgent revival of these traditional veterinary practices is a high priority in the light of the constraints of modern medicine and the benefits of these practices. So we need to have a high level gathering to review this traditional medicine in Animal Health Management.

Evaluate the present status of the codified veterinary Ayurveda & prepare annotated list of literature available in India

**The key activities to be undertaken are as follows:**

- Document and rapidly assess the ethno-veterinary practices and medicines to short-list a number of eco-system specific packages of ethno-veterinary remedies that is safe, efficacious and cost-effective for their promotion across representative locations in the country.
- Promote the use of eco-system specific package of ethno-veterinary remedies to meet the primary health care needs of livestock & reduction in the cost of health care among the milch animals of dairy farmers.
- Prepare appropriate medicinal formulations for selected products as per the Ayurvedic references and standardize (herbs, products and processes) herbal veterinary products for the short-listed conditions for wider use.
- Conduct clinical trials according to the research protocol and recommendations by the Technical Advisory and Ethical Committee for production and marketing of the standardized herbal veterinary products by a number of community owned enterprises located across the country.
- Reduction in the antibiotic and hormone residues in the milk and other animal products by using the safe, effective and standardized products based on time tested local traditions.

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### Objectives of the International Seminar

1. To prepare a white paper on status of Veterinary Ayurveda medicine in India.
2. Create awareness in Global scenario on Use and Abuse of Antibiotics.
3. To develop research concepts on Ayurveda veterinary medicine.
4. To document EVP at National level
5. To conduct Trans-disciplinary research to bridge the gap between Shastra (Ayurveda) and science (Veterinary).
6. To develop cost effective, safe and efficacious Ayurveda/Ethno-veterinary products.
7. To mainstream the traditional knowledge in Veterinary Curriculum.

### Inauguration (Proposed)

1. AYUSH Minister, Govt of India
2. Agricultural Minister, Govt of India



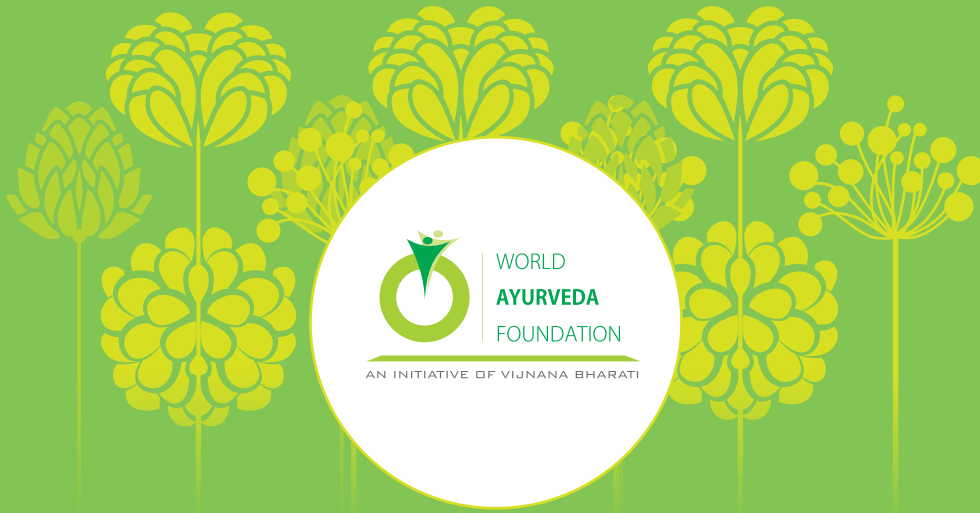
## 2nd International Seminar on Veterinary Ayurveda (Mrugayurveda)

09.30am to 10.30 am	<b>INAUGURATION</b>	
<b>SESSION I</b>	Contemporary relevance of Veterinary Ayurveda to main stream in Veterinary curriculum	
10.30 am to 10.50 am	Key Note <b>Dr B Ashok,</b> Secretary, Department of AYUSH, Kerala	The relevance of Ayurveda in Veterinary medicine: an Update and an outline of ways forward.
10.50 am to 11.05	Lead Speaker 1 <b>Dr P Ram Manohar,</b> Research Director, Amrita Center for Advanced Research in Ayurveda	Ayurveda for Animals
11.05 am to 11.20 am	Lead Speaker 2 <b>Dr G G Gangadharan,</b> Director, MSR Indic centre for Ayurveda and Integrative Medicine, Bangalore	Veterinary Ayurveda its roots and Manuscripts.
11.20 am to 11.40	Lead Speaker 3 <b>Dr. M.N.B. Nair</b> Emeritus Prof, Transdisciplinary University, Bangalore.	Trans Disciplinary University Experience in mainstreaming EVP with TANUVAS.
11.40 am to 12.00 pm	Lead Speaker 3 <b>Prof. Punnia murthy</b> Prof and Head, Herbal Training Centre, VUTRC, Thanjore, TANUVAS.	Ethno Pharmacology.
12.00 pm to 12.15 pm	Lead Speaker 4 <b>Dr. Katherine vanthoof</b> Natural Livestock Farming, Holland	Use and Abuse of antibiotics, Role of Alternative Medicine in Improving the quality of animal products.
12.15 pm to 12.30 pm	Lead speaker 5 <b>Dr. N. N. Sasi</b> Director, AH, Govt of Kerala	Review the policies to mainstream Traditional Knowledge to Veterinary curriculum, Experience from Kerala
12.30 pm to 12.45 pm	Lead speaker 6 <b>Dr. Marion Jonson</b> Senior Scientist, BHU Future Farming Centre, Lincoln, Aotearoa New Zealand.	Traditional New Zealand Medicine – Herbs for Goat Farming.
12.45 pm to 01.00 pm	Lead speaker 7 <b>Dr. Angela Escosteguy</b> Director, IBEM, Brasil.	Brazilian experience in Traditional medicine for livestock.
1. pm to 1.15 pm	Lead speaker 8 <b>Dr. N. P. Dakshinkar</b> Dean, Nagpur Veterinary College, Nagpur.	Practice to theory – To mainstream Traditional Knowledge.
1.15 pm to 1.30 pm	Lead speaker 9 <b>Dr. Teffese Mesfin</b> Veterinarian, ESAP, Ethiopia.	African Traditional Knowledge for Livestock.
1.30 - 2.00pm	<b>Lunch</b>	
2..00 – 2.10 pm	Lead speaker 10 <b>Prof Alwar,</b> Veterinary Ayurveda manuscripts Sanskrit Scholar, TDU.	Veterinary Ayurveda manuscripts

2.10 – 2.20 pm	Lead speaker 11 <b>Dr. A.V. Harikumar,</b> Senior Manager (Animal Health) NDDDB, Anand, Gujarat. Fishery Sciences, Kolkata.	Need to review and mainstream Veterinary Ayurveda for sustainable Dairy farming.
02.20 – 02.30	Lead speaker 12 <b>Prof. T. K. Mandal</b> Head, Deptt. of Veterinary Pharmacology & Toxicology. West Bengal University of Animal and Fishery Sciences, Kolkata.	Efficacy of some herbal formulation in burn wound of pigs
02 .30– 2.40	Lead speaker 14 <b>Prof. N.R. Pradhan</b> Deptt. of Veterinary Medicine West Bengal University of Animal and Fishery Sciences, Kolkata.	Uses of Herbal Medicines in Veterinary Practice
02.40 – 02.50	Lead speaker 15 <b>Prof. Chandana Barua</b> Deptt. of Veterinary Pharmacology & Toxicology College of Veterinary Sciences Khanapara, Guwahati.	Use of ethnoveterinary medicine and its future prospects
<b>SESSION II</b>	Scientific paper presentation (10)	
3.00- 5. 00		
3.00 – 3.10	Paper 1	4.00 – 4.10 Paper VII
3.10 – 3.20	Paper II	4.10 – 4.20 Paper VIII
3.20 – 3.30	Paper III	4.20 – 4.30 Paper IX
3.30 – 3.40	Paper IV	4.30 – 4.40 Paper X
3.40 – 3.50	Paper V	3.40 – 3.50 Conclusion by Chair
3.50 – 4. 00	Paper VI	
<b>SESSION III</b>	Panel discussion	
5.00 – 6. 00	Policy, Advocacy on Research, Education and Outreach programs on Veterinary Ayurveda. Moderator : Dr MNB Nair, Emeritus Prof, Transdisciplinary University	
Panel Members	President,VCI. Secretary, Ministry of Ayush Secretary, Ministry of Agriculture. Dr Rehaman, DDG, Animal Division, ICAR. VC , Transdisciplinary University, Bangalore VC, West Bengal University of Animal and Fisheries Sciences, Kolkata. Prof Punniamurthy, TANUVAS Dr Katherine Vanthoof, NLF, Holland Dr GG Gangadharan Dr P Ram Manohar Dr N N.Shashi, Director, AH, Govt of Kerala. Dr. C. Balachandran, Dean, Madras Veterinary Colege, Chennai. Dr. N. P. Dakshinkar,Dean, Nagpur Veterinary College, Nagpur. Dr. Geethakrishnan, HOD, Integrative Medicine & Holistic Therapies. Vd. Rajesh Kotecha, Founder, Chakrapani Ayurveda Clinic & Research Center, Jaipur - 302004, India	

for Further communication  
Convenor, Associated Event

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