



NAVS NEWS VIBES

NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)

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Editor
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Dear Esteemed Fellows

Wish You A Very Happy Financial New Year 2023!

We all know that animal husbandry is a significant contributor to the economy of many countries. It generates employment opportunities, income, and foreign exchange through the export of animal-based products. In only about 2 percent of the world's total land surface, India has over 7.5% of the species of animals that the world holds. Recently, the Ministry of Fisheries, Animal Husbandry & Dairying has released the 'Basic Animal Husbandry Statistics 2022, showing an increase in the milk, eggs and meat productions in India. The contribution of livestock in the agriculture sector has been showing steady improvement that signifies its growing importance for the country's economy. India is the highest livestock owner of the world as per the 20th livestock census with the total Livestock population of 535.78 million showing an increase of 4.6% over Livestock Census-2012. India's cattle inventory amounted to about 308 million in 2022. While the global cattle population stood at over one billion, India has the highest cattle population followed by Brazil, China and the United States. Total milk production in India was 221.06 million tonnes in 2021-2022, keeping it the largest milk producing country in the world. The production has increased by 5.29% over the previous year. Top five major milk producing States are Rajasthan (15.05%), Uttar Pradesh (14.93%), Madhya Pradesh (8.06%), Gujarat (7.56%) and Andhra Pradesh (6.97%). The total egg production was 129.60 billion numbers, and it has increased by 6.19% than the previous year. Top five egg producing States are Andhra Pradesh (20.41%), Tamil Nadu (16.08%), Telangana (12.86%), West Bengal (8.84%) and Karnataka (6.38%) and these States together contribute 64.56% of total egg production in the country. The total meat production in the country was 9.29 million tonnes, increased by 5.62% as compared to the previous year. The meat production from poultry is contributing about 51.44% of the total production. The top five meat producing States are Maharashtra (12.25%), Uttar Pradesh (12.14%), West Bengal (11.63%), Andhra Pradesh (11.04%) and Telangana (10.82%). They together contribute 57.86% of the total meat production in the country. The total wool production in the country during 2021-22 was 33.13 thousand tonnes which has declined by 10.30% as compared to the previous year. The top five major wool producing States are Rajasthan (45.91%), Jammu and Kashmir (23.19%), Gujarat (6.12%), Maharashtra (4.78%) and Himachal Pradesh (4.33%). The value addition of sector grew at a compound annual growth rate of 7.93%. In 2020-21, the share of Livestock at constant prices in Agriculture Sector and total Gross Value Added was 30.13% and 4.9%, respectively. There is a need for Genetic Improvement of livestock through selective breeding and genetic engineering, leading to higher productivity, improved disease resistance, and better quality of animal-based products. May this financial year bring more success and boundless achievements.

I humbly request all the members, associate fellows and fellows of the Academy as well as other professionals to share their outstanding professional achievements (awards, honors, important assignments etc.) accompanied by good quality color photographs with high resolution (as a separate file in png/jpg/jpeg format) for inclusion in upcoming issues of the newsletter.

(Kindly send the information to : ldsinglanavs@gmail.com; ldsingla@gmail.com;))

I look forward to receive your crucial annotations and beneficial suggestions to make NAVS News Vibes more informative, enriched and effervescent in the future.

Best regards ,

L.D. Singla

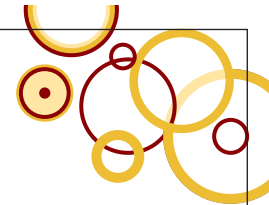
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HORIZON PRESIDENT'S VIEWS & VISION

My dear distinguished Fellows of the academy,

There is a great quote by Charlie Chaplin, "Who feeds a hungry animal feeds his own soul." It is True, my dear friends," however, at the same time Animal Nutrition is very important subject of discussion, especially in the ruminants as they convert human inedible and unpalatable sources of energy and protein into high quality protein food for human consumption despite of large variation in the conversion ratios among different species. The livestock sector is evolving in a response to rapidly ever increasing demand for livestock products due to exponential growth of human population, prosperity, health awareness and urbanization. On protein equivalency basis, animal products of human consumption are 2.15 times greater than plant sources besides having a better perspective when comparing the environmental impact and over all contribution to the mankind. Animal Nutrition is the essential links between the livestock production chain (animal protein production and processing) and crop cultivation.



The developing economies have overtaken the developed economies in terms of consumption and production of meat, milk and eggs. Poultry meat production has been the fastest growing sectors in the world. At this juncture, I must highlight that the animal husbandry sector in India is one of the fastest growing sectors of our economy at CAGR of 8.2% over the past 5 years. The poultry Industry in India has undergone a paradigm shift in structure and operations transforming from a backyard activity into a vibrant Industry. The egg production is around 114 billion and broiler production is 4.3 million tons per annum. The poultry market is expected to grow at a CAGR of 15.2% during 2021 to 2026.

The current value contribution of the dairy Industry is 8.5 lakh crores to the national GDP. The value contribution of milk alone is more than that of wheat and rice put together. The buffalo meat sector is fast growing along with the population of sheep and goat. According to the estimates of central statistics office (2019) the value of livestock sector output is around 31.25% of the agriculture and allied sectors.

The Indian animal feed Industry is over 50 years old. The Industry has undergone an exciting face of growth and this trend is expected to continue in the coming years. This is a sizable and scalable Industry which is still quite untapped and hence has a great potential to be evaluated on a global commercial level. The Indian animal feed market size has reached INR 956.7 billion and is expected to reach INR 1578.2 billion by 2028 exhibiting a growth rate CAGR of 8.2% during 2023-2028 (The International Market Analysis Research and Consulting group).

Modern animal production relies on the amalgamation of feeding systems that are derived from the compilation of research into models to predict nutrient needs and animal responses. Numerous such systems have been developed and all have strengths and weaknesses. For example, amino acid needs for poultry and swine can be closely defined whereas this data for ruminants is still at primitive stage due to the complexity of the production and digestive process. Therefore, the efficacy of these models must be continuously evaluated and challenged. Future research must use the latest tools to continue to provide new inputs to further refine and validate these systems.

One perpetual challenge for nutrition research is the ever-changing nature of the subjects and production systems. Animal production continually selects for genetic improvement which can substantially change productivity, the efficiency of nutrient use, and nutrient requirements. This process is critical for meeting the ever increasing world food needs.

The increasing demand for food must be met by increasing productivity and efficiency without impacting environment. Manipulations such as altering carcass composition towards quality leanness can improve efficiency but requires changes in amino acid nutrition.

Substantial effort has been expended in the study of the environmental impacts of intensive animal production. A major issue that has been highly scrutinized is methane production by livestock and its contribution to global greenhouse gas production. Our goal is to provide adequate research on these additional challenges as to how to provide the optimal nutrition that result in minimal nutrient excretion or emission. Nutrition that produces meat, milk and eggs with the lowest input has the least impact on the environment or mankind. Human health, environmental impact and product costs are all global concerns and these will drive consumer concerns and the need for animal nutrition research of the future. The use of by-product is critical to economical livestock production and research. Evaluation of new products and feed resources will continue to be a much needed and highly relative component of nutrition research.

Science & technology will offer opportunities for further innovation in livestock production. The key drivers are genomics, micro system, nano technology, information and communication technology. These main stream technologies are the foundation of many application technologies and are categorized by different dynamics.

Livestock production has faced and will face many opportunities and challenges in the future. The focus in the past was mainly on improving productivity and efficiency. This has led to profound structural changes in the livestock production sector. These include a transformation of a small holder mixed farms to large scale specialized farms, a shift in the geographic locus of demand and supplies to the developing economics and an increasing emphasis on Global sourcing and marketing. Further optimization of the productivity and efficiency in livestock production is potentially still possible. The genetic potential is only partially utilized. The exploitation of nutrients and nutrient resources appears to be low and uniformity in performance amongst the farms and in animals within the farm needs revamping. In conclusion, animal feed and nutrition are crucial for efficient, viable and economical livestock production.

Cordially your


(DVR PRAKASH RAO)

THE ACADEMY

EVENTS & ENDEAVOURS

16th Governing Council Meeting of the Academy

The 16th Governing Council (GC) meeting of NAVS (I) was held on 07 Feb, 2023 11.30 AM in online mode.

The meeting started with the welcome address by Dr DVR Prakash Rao, President NAVS (I). The President expressed his gratitude to all the GC members, Ex Officio members; (Dr BN Tripathi, DDG (Animal Science), ICAR, and Dr Umesh Sharma President VCI) of the Academy and the special invitees (Maj Gen Shri Kant SM, VSM (Retd), Past President, and Dr Nagendra Sharma, Ex VC, SKUAST, Jammu & President, Retired ICAR Scientists Forum) for taking out time from their busy schedules to attend the meeting

The President apprised the house regarding his recent interactions with Dr KN Selvakumar, VC Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) along with Dr Inderjeet Singh, VC Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). During the meeting VC TANUVAS agreed that TANUVAS will soon become an Institutional member of the Academy. The President said that he is interacting with two Vaccine Institutes to apply for Academy's membership. The President was invited as Guest of Honour by Indian Veterinary Association (IVA) to attend second Lady Vet Convention held at Nagpur on 20-21 Jan, 2023. Dr Umesh Sharma, President IVA has invited the President along with Secy Gen NAVS (I) to attend National Executive Meeting of IVA at Kerala on 25-26 Feb 2023 to discuss various issues about Animal Husbandry and Veterinary Sciences and to formulate suitable remedies.

Further, the President informed the house regarding his interaction with Shri Pushottam Rupala ji, Hon'ble Cabinet Minister of Fisheries, Animal Husbandry and Dairying. The Hon'ble Minister issued directions to the Secretary Department of Animal Husbandry and Dairying for the allotment of three rooms office space (along with furniture and ACs) at DMS Complex (previous Kamdhenu Office) at nominal rent of Rs. 10000/month.

Since, Kamdhenu Office has been closed for more than past two years, the rooms, ACs and furniture require extensive repairs and renovation. Further, we need to procure office equipment and pantry items for the new office. The shifting and establishment of new office will cost us more than Rs. 3.0 Lakhs. We have hired a part time office attendant for office maintenance wef 11 Jan, 2023.

The following agenda points were discussed:

1. **The next Convocation/AGM:** The Secy Gen informed the house that since the Convocation/AGM are annual features, the next Convocation/AGM will be held in June 2023 at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana.
2. **New Office-Renovation/Repair/Procurement of IT & Office Equipment/Shifting:** The renovation work of repairs and painting of door & windows, POP and painting of rooms and entrance gallery has already been completed.

The electric work will require re-wiring of rooms to link with separate Meter and UPS. There is an urgent need to shift three ACs and servicing and refilling of gas in all the five ACs, repairs of wooden floor skirting's, shifting of office etc. Further, there is requirement of procurement of a Refrigerator, a Microwave Oven, Crockery items etc for the pantry. The Office equipment like a Desktop Computer, Printer and UPS will be required to be procured. An approximate expenditure of Rs.3.2 Lakhs will be required for shifting and establishing the new office. The new office will be ready for inauguration by the first week of Mar, 2023.

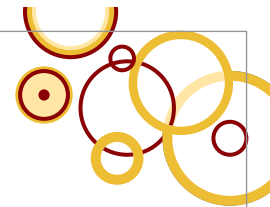
The GC members appreciated the efforts of President and Secy Gen for the allotment and renovation of new office. Dr Umesh Sharma, President VCI congratulated the President NAVS (I) for the achievement and informed the house that the VCI has Rs.30 Crores fund allotment for construction of VCI building, which will provide adequate space for NAVS (I) office. The President thanked Dr Umesh Sharma for the commitment. The GC members appreciated the progress on repair/renovation of new office and approved the proposed expenditure for pending repairs work/procurement of office equipment.

3. **Evaluation of Applications for various Awards:** The Secy Gen informed the house that we have received 29 applications for Fellows, 12 for Associate Fellows, 28 for Members, 04 for Dr CM Singh Award, 04 for Dr Vallabh Mandokhot Award and 14 for young scientist award as on 31 Jan, 2023. The Secy Gen suggested that since the Annual Convocation/AGM have been shifted to Jun, 2023, and hence the last date for receipt of applications for various awards should be extended up to 31 Mar, 2023. The GC members approved the proposal.
4. **Proposed joint activities with VCI, Other Academies/Associations/ Organizations:** There was a detailed discussion on the contemporary issues concerning Veterinary Profession like Role of VCI in National Education Policy, Continuing Veterinary Education, Establishment of Indian Council of Veterinary Research and Review of VCI Mandate to include Higher Veterinary Education.

It was resolved that separate committees for the above issues be constituted involving eminent veterinarians with relevant experience to present their recommendations. The VCI President will organize a workshop/seminar in collaboration with NAVS (I) to deliberate on the recommendations of the various committees to arrive at the final recommendations, eventually to be submitted to the concerned Govt Authorities.

5. Website/Newsletter -

- (a) **Website:** Mr Rahul, the representative of website designer informed the house that they have developed the new website as recommended by the committee which met online on 21 Jan, 2023. It was resolved that the links for both old and new websites will be forwarded to all the GC



members to seek their suggestions for designing the new website. The tentative date for launching the new website was fixed as 01 Mar, 2023.

(b) **Newsletter:** Dr LD Singla (New Editor) informed the house that there was a disruption of publication of last three issues of Newsletter because of non availability of the Editor Dr AK Pattnaik who had joined a private firm and was out of country for more than two months. The last two issues of the Newsletter will be published by mid Feb, 2023.

6. Any Other point with the permission of the Chair

(a) **Detailment of committee for destruction of old documents:** The President expressed his views that before shifting to the new office, there is a need to destroy the old documents and constituted the committee as under :

- | | | |
|------|--------------------------|----------|
| i. | Maj Gen ML Sharma (Retd) | Chairman |
| ii. | Dr Nem Singh | Member |
| iii. | Dr Ravindra Sharma | Member |

(b) **Denial of NPA to Veterinarians in ICAR Institutes:** Dr Nagendra Sharma, Ex VC, Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu & President, Retired ICAR Scientists Forum briefed the house regarding unjustified denial of NPA to Veterinarians in ICAR Institutes. The issue regarding the grant of NPA to Veterinarians is un-necessarily being delayed by the ICAR. The issue was deliberated in detail. Dr BN Tripathi, DDG (Animal Science) ICAR informed the house that the concerned financial authority in ICAR is likely to resolve the issue in due course. There was consensus among the GC members that we should take up the case through this Academy with the concerned authorities for resolving the issue immediately.

The President requested Dr Nagendra Sharma to forward a draft letter on behalf of the Academy for addressing the issue for submission to the concerned authority.

17th Governing Council Meeting of the Academy

The 17th Governing Council (GC) meeting of NAVS (I) was held on 15 Mar, 2023 at 11.00 AM at DMS Complex, Shadipur, New Delhi. Dr DVR Prakash Rao, President NAVS (I) welcomed the GC Members, Ex Officio member (Maj Gen Anil Rana, Offg DGRVS IHQ, MoD (Army) of the Academy) and special invitees (Maj Gen Shri Kant SM, VSM (Retd), Past President, Dr Inderjeet Singh, VC, GADVASU, Ludhiana and Dr Azad Kaushik, Professor Extension Education, Canada) & thanked them for sparing their time to attend the Inauguration function of the Academy's New Office & GC meeting.

The President congratulated all the GC members for the establishment of New Office of the Academy in DMS Complex. Dr MP Yadav thanked the President for his efforts in pursuing the Govt for the allotment of such a spacious office in one of the prime location and mentioned that it is a historical event of our Academy.

The following agenda points were discussed:

1. Progress on points from the last meeting

(a) **Evaluation of applications for various awards:** The Chairmen of Various Committees need to decide the dates of evaluation in consultation with their members. The President requested that the process be completed by 30

April, 2023 to enable us to prepare the requisite Certificates/Citations well in time before the Convocation.

(b) **Progress on website:** The vendor gave a brief presentation on progress of the website. The link of new website will soon be communicated to the GC members for their perusal of the contents and feed back for the amendments.

(c) **Proposed joint activities with VCI, other Academies/Associations/Orgs:** The President and Secretary General, on invitation, attended a seminar on the "Role of CSO's in the promotion of one health in India: a Futuristic Prospective" organized jointly by The Brooke India & International Laboratory Research Institute on 14 Feb, 2023 at NASC Complex, New Delhi. The President and Secretary General also attended a workshop on 25-26 Feb, 2023 at Thiruvananthapuram, Kerala on invitation of Dr Umesh Chandra, President IVA. The workshop was attended by representatives of State Veterinary Associations. The agenda of discussion was to identify various issues pertaining to veterinary services and to formulate suitable remedies. The President IVA emphasized on the point of involvement of NAVS (I) in CVE and invited President and Secretary General of NAVS (I) to be Ex-Officio members of IVA.

2. **Fixation of date of Convocation-cum-Scientific Convention:** After due deliberations, the dates of Convocation-cum-Scientific Convention to be held at GADVASU, Ludhiana were decided as "1-2 July, 2023"

3. **Selection of Theme of Scientific Convention:** After due deliberations, the Theme of Scientific Convention was decided as "Strategies for Enhancing Productivity of Indigenous Dairy Animals". The President desired that he would like to have an online zoom meeting with the VC GADVASU to deliberate and finalize various topics/speakers. Further, it was clarified that the AGM will be held after Convocation.

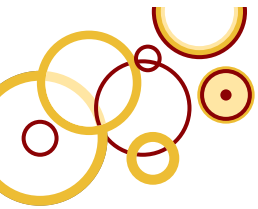
4. **Boarding and Lodging:** The various issues were discussed and it was decided that the expenditure on Boarding and Lodging of GC members will be borne by the host. The GC members will not be required to pay registration fee. Similarly, the awardees attending Convocation function only will not be required to pay the registration fee. The awardees will make their own travel arrangements.

5. Any other points with the permission of the Chair:

(a) The Secretary General informed the house that CEO, Brooke India has offered to pay Rupees Four Lakhs to the Academy for the conduct of Seminars/Workshops/ Other joint Activities on "One Health and Improvement of Animal Health Systems".

(b) Dr AC Varshney suggested that the applicants, who are not considered for the Fellowship, be allowed to apply twice with additional inputs by paying fifty percent Application Processing Fee. The proposal was approved.

(c) Maj Gen Shri Kant SM, VSM (Retd) suggested that we should request VCI to write to Vice Chancellors of various Veterinary and Agriculture (having Veterinary Colleges) Universities to consider award of four points for NAVS (I) Fellowship and two points for NAVS (I) Associate Fellowship in their 'Score Card' for promotion/selection for various faculty appointments.



Union Minister inaugurated the new office of NAVS (I)

Shri Purushottam Rupala ji, Hon'ble cabinet Minister of Fisheries, Animal husbandry and Dairying inaugurated the new office accommodation of National Academy of Veterinary Science (India) located in the premises of Delhi Milk Scheme, west Patel Nagar campus on 15 Mar, 2023.



In his inaugural speech Shri Rupala ji emphasised that, though India is number one in milk production globally, yet per animal milk production is much lower than many countries. Therefore, the increase in productivity of animals through latest technologies such as *in vitro* fertilization which are limited to laboratories need to be transferred to field so as to improve our indigenous breeds. The academy should act as a nodal agency to advise the ministry to tackle various emerging issues in livestock breeding, management, health and production utilizing its think tank of experts.



The minister desired that there is a need of having periodical interactions between the academy and Department of Animal husbandry and Dairying (DAHD) at various levels to review ongoing programmes of the government and suggest mid-course corrections.

The ceremony was well attended by eminent veterinarians and administrators from ministry, academy, ICAR and other government / non government organizations.



Shri RK Singh, secretary and Dr OP Chaudhry, joint-secretary, DAHD addressed the gathering and reiterated the need of integration of academy with industry, veterinary institutions and DADH. Dr DVR Prakash Rao, president of NAVS(I) expressed thanks to Shri Purushottam Rupala ji with folded hands for providing much needed space to the academy

President at XII Biennial Conference of Animal Nutrition Association at Mathura

The 12th Biennial Conference of Animal Nutrition Association on the theme, "New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals" was held from 16-18 February, 2023 at Pt. Deen Dayal Upadhyay Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Ansundhan Sansthan, Mathura.



Dignitaries released the conference compendium of the conference

Keeping in view the significant contribution at International level and a very long experience of Research Industry and Administration Dr DVR Prakash Rao President, NAVS (I) was invited as chief guest of the inaugural function, who inaugurated the conference.



Dr DVR Prakash Rao President, NAVS (I) along with other dignitaries inaugurated the conference

The conference was attended by researchers, teachers, post-graduate research scholars, entrepreneurs and policy planners involved in animal production from across the country. The conference was aimed at flagging off some of the issues like search for newer unconventional feeds including herbal and microbial feed additives, organic mineral supplements for better bio-availability and improved health and production of designer livestock products by modifying the rumen microbes with the use of conventional and advanced bio-techniques through a series of theme talks, plenary lectures, technical sessions and round table discussion.

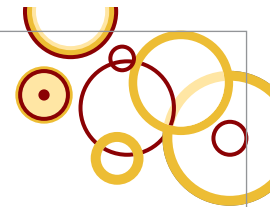
INSTITUTIONAL LIFE MEMBERS (NGO)



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SPLENDOUR SHINING FELLOWS

Prof Dr Mahendra Pal Conferred with Padma Shree Award in Science

It is a matter of immense pleasure that Prof Dr Mahendra Pal was conferred with the Padma Shri Award, one of the most coveted and prestigious awards, by the Honorable President of India on 22 March, 2023 for his last 50 years pioneer, significant and outstanding contribution in the field of Veterinary Public Health and Mycology.



Prof Dr Mahendra Pal, born on 10 April, 1946, is a distinguished academician, and internationally renowned scientist with outstanding contribution in Veterinary Public Health and Microbiology. He obtained BVSc and AH (College of Veterinary Science, Mathura), MVPH (All India Institute of Hygiene and Public Health, Calcutta), PhD (Faculty of Science, Kumaon University, Nainital) and DSc (Faculty of Science, Utkal University, Bhubaneswar in 1969, 1975, 1981, and 2008, respectively. Prof Pal served in Veterinary and Medical Institutes in India and abroad, published over 610 papers and authored 9 books besides 11 book chapters. He guided many students at DVM, MSc, MVSc and PhD level in India and Ethiopia; and also developed Narayan stain, APRM agar, sunflower seed medium (Pal medium), PHOL stain, which are widely used for the studies of fungal pathogens. Prof Pal is the "First Indian Veterinarian" to become Japan Society for the Promotion of Science Visiting Scientist at University of Tokyo, Japan. He elucidated the role of many fungi and actinomycetes, which are implicated in the aetiologies of various clinical disorders of animals and humans.

Prof Pal is the recipient of several awards and prizes, such as Distinguished Teacher Award, Jawaharlal Nehru Award, Lifetime Achievement award, Luis Pasteur Award of Excellence, Sandoz Medical Times Quiz, Best Review article, Best Research paper, Best Paper presentation, and International Achievement Award etc. He has established

for the "First Time" the prevalence of *Cryptococcus neoformans* in the environment of New Zealand, Nepal, and Djibouti. Prof Pal reported the first isolation of *Candida albicans* from mastitic milk of camel, *Aspergillus fumigatus* from pneumonic lungs of chicks, and *Trichophyton verrucosum* in dermatitis of camel in Ethiopia. His one paper on COVID-19 has over 650 citations, and another article on microbial spoilage of fish was read by more than 35,000 scientists of the world.

Recently, The Indian Association of Veterinary Public Health Specialists has instituted an award in his name "Prof. Mahendra Pal Zoonoses Award". He launched the PhD programme for first time in Veterinary Public Health at Addis Ababa University, Ethiopia, and also at College of Veterinary Science, Anand, Gujarat, India. His biography is published in World's Who and Who. He is associated with several international societies and has collaboration with scientists of Germany, Poland, Greece, Hungary, USA, Spain, Brazil, Ethiopia, Japan, and South Korea. Prof Pal was awarded "Fellowship" by the Korean Society of Veterinary Clinical Medicine, Seoul, South Korea for his pioneer and commendable work in Veterinary Public Health.

Congratulations to Dr. Mahendra Pal for the conferment of the highly prestigious Padma Shri Award in Science.

Dr PL Narayana Rao Gold Medal to Dr Randhawa

The Indian Society for Veterinary Medicine (ISVM) Conferred Dr PLNarayana Rao Gold Medal-2019 on Dr SNS Randhawa Former Director of Research, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana for outstanding achievements in Veterinary Medicine and outstanding contributions to the Indian Society for Veterinary Medicine during his professional life on the occasion of 39th Annual Convention of the Society held at GB Pant University of Agriculture and Technology, Pantnagar during 22-24 February, 2023. Dr. Randhawa was also honoured by ISVM in recognition of his outstanding contribution to teaching, research, clinical achievements, effective administration, leadership and sustained commitments towards the development of Veterinary Medicine discipline in different capacities on the occasion of inaugural function of the 39th Annual convention on 22 February, 2023. Congratulations to Dr Randhawa, Governing Council Member and Fellow of NAVS(I) for recognition by The Indian Society for Veterinary Medicine.



Respect the Vets: They Protect Your Health Too



Tarun Shridhar
Former Secretary, Ministry of Fisheries,
Animal Husbandry and Dairying,
Government of India

The earliest human contact with animals, besides being a survival necessity in search of food, is also a saga of bravery. But what is less known is that this symbiotic relationship with animals is the historical onset of most human diseases.

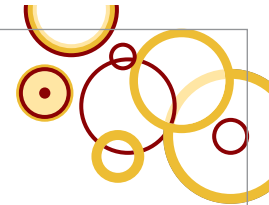
The ancient Greek philosopher and physician Hippocrates, considered one of the most outstanding figures in the history of medicine and traditionally referred to as the "Father of Medicine" in recognition of his lasting contributions to the field, was the first in the recorded history of civilization to recognize the relationship between human and animal health. The central idea of Hippocratic philosophy is the principle of wholeness, that knowledge of nature is possible only when it is correctly approached as a whole; in a nutshell it recognizes that human health, animal health and environmental health are parts of a whole body. Hippocrates advocated that administration of medicine should rest on the foundation of this holistic understanding. The concept of "One Health", though a recent entrant in the medical lexicon is, in fact, a recognition of what Hippocrates said circa 400 BC in his treatise "On Airs, Waters and Places" urging physicians to consider all aspects of a patient's life including the environment. Disease, according to him, was an outcome of an imbalance between man and environment. "One Health" is an approach that recognizes that the health of people is closely connected to the health of animals and our environment, which is shared.

Historical evidence indicates that veterinary medicine originally developed in response to the needs of pastoral and agricultural man along with human medicine. The evidence further points towards the likely existence of the veterinary profession throughout a large area of Africa and Asia in around 2000 BC. Ancient Egyptian literature includes monographs on both animal and human diseases. Evidence of the parallel development of human and veterinary medicine is found in the writings of Hippocrates on medicine and of Aristotle, who described the symptomatology and therapy of the diseases of animals, including man. Early Greek scholars discovered parallels and similarities of medical problems among the many animal species, and thus taught both human and veterinary medicine. Alexander the Great, in the 4th century BC,

designed programs involving the study of animals. Several medical writings of the Romans established that some of the most important early observations and scientific studies on the natural history of disease were made by scholars who wrote chiefly about agriculture, particularly the aspect involving domesticated animals.

Veterinary literature from the Greek and Roman civilizations contains reference to herd factors in disease. It was widely recognized that contagion is an outcome of groups of animals kept together, therefore, both quarantine and slaughter used to be the preferred strategies to control outbreaks of livestock diseases. Rinderpest, then commonly known as cattle plague, was the most significant livestock disease from the 5th century onwards until control methods were developed. And it was the serious outbreaks of the Rinderpest that prompted the establishment of the first veterinary college in the world in the year 1762, the École Nationale Vétérinaire in Lyon, France. Many aspects of animal diseases are best understood in terms of population or herd phenomena; herds of livestock, rather than individual animals, are vaccinated against specific diseases, and housing, nutrition, and breeding practices are related to the likelihood of illness in the herd.

Animals have long been recognized as agents of human disease. Man has either been bitten or stung, kicked or gored by animals for as long as he has been on earth. In addition, the early man sometimes became ill or even died after eating the flesh of dead animals. But it is in more recent times that man has discovered that many invertebrate animals too are capable of transmitting causative agents of disease from man to man or from other vertebrates to man. The recent COVID pandemic is a glaring example. Animals, which act as hosts, agents, and carriers of disease, are the important medium causing and perpetuating human illness. In this regard, the work of Louis Pasteur is of fundamental significance. It guided veterinary science towards concern for foods of animal origin leading to the study of microorganisms and their identification with diseases in man and other animals. Efforts were directed toward protecting humans from diseases of animal origin, primarily those transmitted through meat or dairy products. Modern principles of food hygiene were first established for the dairy and meat-packing industries in the 19th and early 20th centuries, and have now been generally applied to foods of animal origin in particular, and other food processing industries in general. The veterinary profession, now, assumed a major role in food-hygiene programs. Gradually, the eradication of animal diseases, rather than their control, become increasingly important; and in the present day combating zoonoses, and contributing to



assured, hygienic, safe and nutritious food supply have become the indispensable services of veterinary science.

According to the World Health Organization (WHO) and also the World Organization for Animal Health, commonly known by its French acronym OIE, 60% of existing human infectious diseases are zoonotic i.e. they are transmitted to humans from animals either through direct contact or through food, water and environment; 75% of emerging infectious human diseases have an animal origin. Of the five new human diseases appearing every year, three originate in animals. If this is not scary enough, 80% biological agents with potential bio-terrorist use are zoonotic pathogens. It is estimated that zoonotic diseases account for nearly two billion cases per year resulting in more than two million deaths; more than HIV/AIDS and diarrhea. One fifth of premature deaths in under developed countries are incriminated to diseases transmitted from animals to humans. And all the pandemics in recent history, including the recent one which has thrown our lives out of gear.

In the face of demographic challenges, increased international trade and the effects of climate change, animal health is more fundamental than ever to the development and well-being of human populations around the world. Livestock constitutes 40% of the value of global agriculture, and supports the income and livelihoods of one fifth of the global population, mostly in developing countries. Obviously, animal diseases can significantly impact the economy and livelihood of a vast multitude. The global burden of animal diseases, though difficult to measure, is huge. It quite evidently leads to a burden of human diseases, impacts food security, dents the economy etc., but as the recent pandemic has demonstrated it also stroke at the basic fabric of the society and its lifestyles: a zoonotic micro pathogen has brought the entire mankind on its knees and forced it into a self imposed lock-up.

This should surely build a strong case for strengthening the veterinary institutions and services. The most effective and economic approach for protecting the human health is to control zoonotic pathogens at their animal source. Not only does it call for close institutionalized and harmonized collaboration at local, regional and global level between the veterinary, health and environmental governance, but also greater investment in the animal health infrastructure. Developing countries like ours have much greater stakes in strong One Health systems on account of small agricultural holdings and mixed farming systems resulting in uncomfortably close proximity of animals and humans. This prompts the researchers for health and disease surveillance to incorporate domestic animals, livestock and poultry too. Humans require a regular diet of animal protein from milk, eggs, meat etc., and protein deficiency is

a public health concern. Thus loss of food animals on account of their poor health or disease too becomes a public health issue even though there may be no disease transmission; and we lose 20% of our animals this way. A veterinarian today, therefore, protects the health of both animals and people. Besides addressing the health concerns, the welfare needs of every species of animal too are his domain. Moreover, as a manager of animal husbandry, he also plays critical roles in rural livelihoods and economy, environmental protection, food safety, and hence public health.

The size of our human and livestock, including poultry populations, is almost the same. A network of nearly two lakh health institutions across different levels in the government sector form the backbone of health governance, further supported by a large number of private health facilities ranging from village medical practitioners to multi-speciality hospitals. On the other hand only 65,000 veterinary institutions tend to the health needs of 130 + crore animals; and this figure includes 28,000 mobile dispensaries and first aid centres i.e. institutions having bare minimum facilities. Private sector presence in the veterinary services in the country is negligible; close to being non-existent. Unlike a physician, a veterinarian is always on a house call on account of the logistic challenge of transporting the livestock to the hospital. There could not be a stronger case for expanding and reinventing the entire veterinary service sector to aim at reaching each and every livestock farmer, not only for treatment of animal diseases but for prevention, control and surveillance to minimize the threat to human health. Early detection of diseases and infections at animal source can prevent their transmission to humans and also prevent introduction of pathogens into the food chain. So a robust animal health system is the first and a crucial step in human health.

Should it not, therefore, be a matter of concern that investment in veterinary services remains low on the governance agenda? How many more, and how severe pandemics would we need to understand that investment in animal health is an investment in human health too. After all, the universally recognised definition of "One Health" states, "human health and animal health are interdependent and bound to the health of the ecosystems in which they exist."

DISCLAIMER:

The views expressed by various authors in this publication are their own and not necessarily that of the NAVS(I). Further, news items related to selected scientific and academic advances published in this newsletter are sourced from varied sources, including scientific journals, newspapers, websites etc. They are solely meant for developing educational awareness among the members of the Academy.

BEYOND THE BOUNDARIES: ROLE OF CSOs

Promotion of One Health in India: Role of Civil Society Organizations



Dr. D.V.R. Prakasha Rao
President
National Academy of Veterinary Sciences (India)

While addressing One Health Seminar on "Role of CSO in the promotion of One Health in India: A Futuristic Perspective" organized by The Brooke India & International Laboratory Research Institute held on 14 Feb, 2023 at NASC Complex, New Delhi., Dr DVR Prakasha Rao President, National Academy of Veterinary Sciences (India) expressed his views that one Health is a collaborative, multi-sectoral and trans-disciplinary approach - working at the local, regional, national and global levels with a goal of achieving optimal health recognizing the interconnection between people, animals, plants and their shared environment. The core of One Health approach is rooted in acknowledging and understanding the inter dependence of human and natural systems to obtain optimal health for people, animals and the environment. According to the centre for disease control and prevention, about 60% of known infectious diseases in human and 70% of all emerging infectious diseases are caused by pathogens that originate in animals. The Antibiotic-Resistant Microbes can also be effectively transmitted from animals to humans and cause diseases in human which may not respond to available antibiotics. The potential solution to these problems can only be understood when human, animal and environmental health questions are evaluated in an integrated and holistic manner. The FAO, WHO & OIE under their tripartite agreement and in collaboration with UNICEF and the World Bank, have developed a joint strategic framework to implement the One Health approach.

In India efforts have been made to bring human and animal health together. There have been instances of collaboration at national and state levels to combat specific diseases or to overcome disease outbreaks. ICMR & ICAR have collaborated for joint research priorities mostly to control disease outbreaks. The Integrated Disease Surveillance Project launched in 2004 for disease outbreak detection and rapid response functions has generated lot of information on flow of certain disease outbreaks but the programme was unable to integrate human and animal surveillance. A multi-disciplinary road map to combat Zoonoses (2008) was laid to create an integrated mechanism for surveillance, detection and treatment of zoonoses. It identified several strategies for research and actions, but an integrated surveillance involving human, domestic and wildlife for long

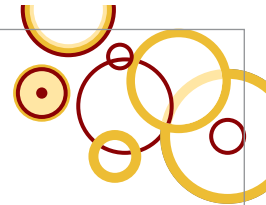
term monitoring on a large scale has failed to materialize. As a result, the burden and dynamics of emerging and re-emerging infectious diseases is yet to be understood. But recently there have been several proactive steps which acknowledge the relationships between biodiversity loss, changing land use patterns and zoonotic diseases.

The Government of India decided to set up a dedicated centre under ICMR to control zoonotic diseases - the centre for One Health at Nagpur in MAFSU campus and also constituted a National Expert Group on One Health to promote multi-sectoral, transdisciplinary, collaboration and cooperation to adopt and implement a One Health framework India has combated several zoonotic diseases and has a robust institutional network for biomedical research which can lead and operationalise the One Health approach. It is important to develop databases and models with a consolidated approach of ecologists, field biologists, epidemiologists and other scientists involved in the working of animal health.

The strategy element involves

- Improving the capacity for public health actions in major stakeholders of Human health, animal health and environment management.
- Understanding and responding to the drivers that threaten health - optimizing the effectiveness of public health systems in achieving these goals within each sector.
- Institutionalize strong, continuous and mutually beneficial coordination and collaboration between all stakeholders through multi-disciplinary and multi-institutional joint planning and implementation.

There is a strong policy impetus for the One Health cross sectoral approach to address the complex challenges of zoonotic diseases in the developing countries. A study has been conducted for addressing the gap by exploring the facilitators and barriers for successful convergence between human, animal and environmental health sectors in India. India has proven challenging partly due to relatively limited practical guidance and understanding on how to foster and sustain cross sector collaborations. Despite the wide spread acknowledgement of the importance of cross sectoral collaboration, a myriad of factors operated either to constrain or to facilitate the success of cross sectoral convergence at different stages of cross sectoral action. The participants identified the lack of supportive policies, conflicting departmental priorities and limited institutional capacities as major barriers that hamper effective cross sectoral collaboration on zoonotic disease control. The importance of strengthening the existing national policy frameworks as a first step for leveraging cross sectoral capacity for improved diseases, Surveillance and interventions requires the contextual adaptation of One Health approach in a manner that is sensitive to underlying socio political, institutional and cultural context that determines and shapes outcomes of cross sector collaborative arrangements.



There are well defined complimentary roles played by different agencies within the health system with NCDC, ICMR & ICAR responsible for research innovation having the over arching responsibility for zoonoses control and prevention with the hierarchical and sectoral defined structure. However the picture is complete and contested with zoonotic disease response coalesced in a political and hierarchical environmental which shapes individual roles and key collaborative outcomes. This complicity is epitomized at two levels. The first layer of complicity relates to somewhat silo-ed functioning of the respective agencies under three different sector ministries. The NCDC & ICMR are focal human health agencies under MOH & FW promoting human well being. By contrast the animal science division of ICAR operated under Ministry of Agriculture and the department of Animal Husbandry and Dairying (Veterinary sector) under Ministry of Fisheries, Animal Husbandry & Dairying focusing on animal health to boost food production and safety. The wildlife sector falls under Ministry of environment. This fragmentation and disparate sectoral affiliations makes cross sectoral convergence difficult to achieve the different goals and power dynamics between the departments and Ministries.

CSOs advocate for people's rights and demands, provide clarity and relief to those in need by pressing the Government and private sector to ensure public safety, education, environmental responsibility, social health and economic rights. CSOs can play an important role in enhancing transparency and good Governance in developing countries by contributing to increased public debates on issues surrounding the formulation and implementation of Government budgets as well as in supporting greater transparency of public revenues.

The major problem which a State usually faces is to communicate effectively with the masses. This problem arises due to a prevailing disconnect between the aspirations and needs of citizen and the policies of the States. Civil society is widely used by the State since they can fill the gap. The Civil society organizations play a major role in communicating health care to the masses. Members of these organizations generally come from the local community. They speak the local language and are aware of the local cultural sensitivities since they have a firsthand knowledge regarding a demographic of the area. They tend to develop a friendly rapport with the local community which makes the process of communication much more effective. CSOs involve the stakeholders at every stage of planning and execution of the project. Their execution strategy is not very rigid unlike Government project where there is a scope for course correction based on feedback. They also play a role as whistle blowers when they find some deficiencies.

The CSOs in India played a very important role in communicating health to the masses. The provision of proper health care is one of the greatest priorities to the Government in the developing Countries like India but the resources and expertise with the Government is limited. Thus CSOs can really have a great involvement in health communication, feed back to the policy makers which can help to aid to tune their schemes, campaign and content.

INSTITUTIONAL LIFE MEMBERS



Lala Lajpat Rai University of Veterinary & Animal Sciences
Hisar



Dau Shri Vasudev Chandrakar Kamdhenu Vishwavidyalaya, Durg



Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura.



Rajasthan University of Veterinary & Animal Sciences
Bikaner



Maharashtra Animal & Fisheries Sciences University
Nagpur



Bihar Animal Sciences University
Patna



Karnataka Animal, Fishery & Veterinary Sciences University, Bidar



Sri Venkateshwara Veterinary University
Tirupati



Kamdhenu University
Gandhinagar



Kerala Veterinary and Animal Sciences University
Pookode



Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana



Khalsa College of Veterinary & Animal Sciences
Amritsar

FOOD FOR THOUGHT

ANIMAL WEALTH AND DISEASE CONTROL

Animal Husbandry's Share Increases by 40% in Budget 2023-24

The animal husbandry sector received a boost in the Union Budget 2023-24 announced by Finance Minister Nirmala Sitharaman on February 1, 2023. Allocations to the sector increased by almost 40 per cent, compared to the revised estimates of the financial year (FY) 2022-23. The Department of Animal Husbandry and Dairying received an allocation of Rs 4,327.85 crore, an increase from Rs 3,105.17 crore in 2022-23 revised estimates. A significant part of the total allocation went to the livestock health and disease control programme (Rs 2,349.71 crore). The country, for the last three years, has been reeling under the effect of two deadly livestock diseases-Lumpy Skin Disease and African Swine Fever. Allocation under the scheme witnessed an increase of 69 per cent. The allocation under it in FY2022-23 was Rs 1,390.02 crore. The livestock sector was also reeling under a severe fodder crisis, with farmers facing a shortage of dry fodder. Funds under the programme are kept for supplementing the activities of the state governments for sustainable livestock health by providing central assistance under various immunization, skill development and the creation of veterinary infrastructure. The provision also included grants to the Veterinary Council of India and state veterinary councils. The National Livestock Mission, meant for sustainable development of the livestock sector, especially cattle, ruminants and other small livestock, was allocated Rs 410 crore. Substantial allocations are essential to give a boost to the increasing contribution of the livestock sector to economic growth. The sector grew at a compound annual growth rate of 7.9 per cent to 2020-21 from 2014-15 at constant pace. An agriculture credit target will be increased to Rs 20 lakh crore with a focus on animal husbandry, dairy and fisheries. Meanwhile, the Department of Fisheries also saw an increase in allocation by 38.4 per cent. Finance Minister also announced the launch of a new sub-scheme of Pradhan Mantri Matsya Sampada Yojana with a targeted investment of Rs 6,000 crore to enable further activities of fishermen, fish vendors, and micro and small enterprises, improve value chain efficiencies and expand the market. (Source: Down to Earth, Feb. 01, 2023).

Customs Duty on Import of Warmblood Horses Waived

In a move that may give a major fillip to Equestrian Sports in the country, the finance ministry has waived off custom duty on the import of warmblood horses. "Custom duty on warmblood horses imported by sportsperson of outstanding eminence for training purpose has gone from 30% to 0%," the note from the ministry stated. In addition, the 10% other duties and 1% cess has also been waived off.

"It is much needed relief for riders and the Equestrian Federation of India (EFI) is truly thankful to the sports and finance ministry for paying heed to this demand," EFI secretary-general Col Jaiveer Singh said. The federation, Singh said, has been demanding the waiver for over two years.

"As of now, import of warmblood horses incur duties of 41%. This include 30% custom duty, 10% other duties and 1% cess.

This 41% will now come to naught, so riders can use that money to import better horses. Overall, this will help spread the sports," Singh added.

Warmblood horses typically include thoroughbreds, Arabians and Draft bloodlines and are known for their intelligence and temperament, making them ideal choices in equestrian.

Depending on the breed and the quality of the horses, a rider pays anywhere between €1000-200,000. "I am sure the number of people taking to equestrian will see a major fillip. Exemption of import duties will make the sport more accessible," said Singh. (*Hindustan Times; February 02, 2023*)

Canine parvovirus treatment receives conditional approval

The U.S. Department of Agriculture (USDA) has granted a conditional license for the first therapeutic solution to treat canine parvovirus (CPV). Canine Parvovirus Monoclonal Antibody-Elanco's first monoclonal antibody treatment-is a single, intravenous dose used to treat clinical signs caused by parvo in sick puppies and dogs, regardless of vaccination status.

The Canine Parvovirus Monoclonal Antibody decreases mortality and may provide faster resolution of the symptoms, thus limiting the need for hospitalization and is less physically and emotionally taxing than traditional supportive therapy, according to an announcement from Elanco.

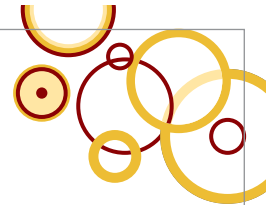
The treatment can be administered to dogs 8 weeks or older with CPV, according to a May 2 Elanco announcement. It is expected to be available to veterinarians for direct purchase through Elanco, pending individual state approvals.

CPV is a highly contagious virus that can affect all dogs, but unvaccinated dogs and puppies younger than 4 months old are the most at risk, resulting in a fatality rate greater than 90% if left untreated.

The virus affects dogs' gastrointestinal tracts and is spread by direct dog-to-dog contact and contact with contaminated faeces, environments, or people. This makes treatment especially important in animal shelters where parvovirus can quickly spread through puppies and young dogs in large numbers.

Dr. Kristin Zersen, assistant professor of emergency and critical care at Colorado State University College of Veterinary Medicine & Biomedical Sciences' Veterinary Teaching Hospital, said, "With traditional treatments, there can be unpredictable outcomes with potentially high costs. With the Canine Parvovirus Monoclonal Antibody, puppies may feel better faster and go home sooner."

No specific drug is available that will kill the virus in infected dogs, and treatment is intended to support the dog's body systems until the dog's immune system can defeat the viral infection. Treatment has generally consisted of intensive care efforts to combat dehydration by replacing electrolyte, protein and fluid losses, controlling vomiting and diarrhea, and preventing secondary infections. Treatment in private practice settings can cost up to several thousand dollars and last for days,



making it an unaffordable option for many pet owners.

In the treatment efficacy study, none of the 28 puppies treated with the Canine Parvovirus Monoclonal Antibody died and all had significantly faster times to resolution of vomiting, inappetence, and lethargy.

Dr Jeanette O'Quin, Associate Professor in the Department of Veterinary Preventive Medicine at The Ohio State University College of Veterinary Medicine, said if treatment works as well in practice as it did in the research trials, "then it could have huge impacts on how we treat parvo. Shortening the time that intensive treatment is needed could make treatment more affordable for clients. Even shortening hospitalization by a single day could significantly reduce costs of supportive care and make treatment accessible to more people."

Dr O'Quin says she sees great potential for the use of monoclonal antibodies in treating canine parvovirus.

"For this product to be effective in improving access to care among those who can't afford parvo treatment, it will also need to be affordable," she added. (https://www.avma.org/news/canine-parvovirus-treatment-receives-conditional-approval?dm_i=6TGE,T53A,3CKQ6Y,3KPTF,1)

Chattishgarh State government makes pest control products from 'Gaumutra'

The Chhattisgarh government is purchasing 'Gaumutra' (cow urine) from farmers in the state. Chief Minister Bhupesh Baghel had launched the Gaumutra purchase scheme on July 28, 2022. This is the first-of-its-kind scheme in the country, under which cow urine is being purchased at the rate of Rs 4 per kg from the cattle owners. The cow urine purchased under this scheme is used to make pest control product Bramhastra (liquid Pesticide/insecticide) and 'Jeevamrut' (liquid organic fertilizer). The move is aimed at minimizing use of expensive chemical pesticides and promoting organic farming. In addition, it also aims to minimize residues of chemical pesticides in food items which destroy its nutritional value and cause harmful effects on human health. Agricultural scientists suggest that cow urine insecticide is alternative to chemical pesticides. These pesticides are effective against leaf eating, fruit piercing and stem borer pests.



Jeevamrut (organic fertilizer) & Bramhastra (pesticide) made from Gaumutra were sold for ₹25.74 Lakh (by Jan 31, 2023). By Jan 31, 2023, 1.26 Lakh liters Gaumutra (cow urine) has been purchased.

More than twenty one thousand (21,008) liters pesticide 'Bramhastra' and Forty seven thousand (47,447) liters liquid organic fertilizer 'Jeevamrut' has been produced. Farmers have earned ₹5 Lakh by selling Gaumutra.

Chattisgarh government made a technical advisory committee for use of cow's urine in agriculture under the chairmanship of Dr Om Prakash Mishra, Director Research and Professor and Head Veterinary Physiology, Dau Shri Vasudev Chandrakar Kamdhenu University, Durg. He is a fellow of National Academy of Veterinary Science.

ACADEMIA

SCHOLASTIC CONNECTIONS

Indian Veterinary Association organized Lady Vet Convention at Nagpur

Conference with the theme of "Stepping into the New Era of Women Empowerment" was organized by the Lady Vet Wing of Indian Veterinary Association on 20-21 January, 2023 in collaboration with Maharashtra Animal and Fisheries Sciences University (MAFSU), Nagpur. The Chief Guest of the program was Shri Sunil Ambekar, National Speaker, Rashtriya Swayamsevak Sangh, whereas Dr Nitish Bhardwaj a renowned Actor and former Member of Parliament was special guest. Dr Umesh Chandra Sharma, President Veterinary Council of India & Indian Veterinary Association, Dr. DVR Prakash Rao President NAVS(I) and Dr NP Dakshinkar, Vice Chancellor Dau Shri Vasudev Chandrakar Kamdhenu Vishwavidyalaya, Durg were the guests of honour. The Chairman of the programme was Dr AM Paturkar, Vice Chancellor MAFSU, Nagpur. At the beginning of the program, enlightened dignitaries expressed their views on the new era of women empowerment and the contribution being made by women veterinarians. Mr. Nitin Gadkari, Union Minister, Government of India, through his video message, praised this programme organized in the direction of women empowerment and for preparing a road map for future development work and the concept of economic progress of the country through animal husbandry

More than 400 women veterinarians and IVA office bearers, veterinarians, entrepreneurs, and eminent social personalities from different states across the country attended the programme. A high level dialogue and brainstorming was done on the efforts and contribution of women veterinarians in the direction of women empowerment in this two-day program. A message of economic empowerment of women, progress of the country and social harmony in the field of animal husbandry and dairy was given and was been taken to every corner of the country.

One Health Approach for Overall Well-being Worldwide

Brooke India in collaboration with International Livestock Research Institute (ILRI) conducted a seminar on One Health on theme "Role of Civil Society Organizations in the promotion of One Health in India-A Futuristic Perspective" on 14 February, 2023. The seminar aimed to foster collaboration between multiple disciplines for better knowledge sharing and support regarding animal, human and environmental health.



Dr DVR Prakash Rao, President NAVS(I) delivered key note address

The importance of the One Health approach was widely discussed to maintain environmental balance and reduce the risk of zoonotic diseases. Emphasis was also laid on the need to strengthen communication channels across sectors to ensure greater protection for vulnerable populations, thus ensuring overall well-being worldwide.

TIDBITS SOUPCON

Indian-American Mathematician CR Rao Honored with Math 'Nobel Prize' at the Age of 102

Calyampudi Radhakrishna Rao, an Indian-American mathematician and statistician retired at the age of sixty and went to live with his daughter in America along with his grandchildren. There, at the age of 62, he became a professor of statistics at the University of Pittsburgh and at the age of 70, he became the head of the department at the University of Pennsylvania. Got US citizenship at the age of 75. Got National Medal for Science, a White House honor, at the age of 82. Recently, at the age of 102, he received the Nobel Prize (equal) in Statistics. In India, the government has already honoured him with Padma Bhushan (1968) and Padma Vibhushan (2001).



Prof Rao says: No one asks after retirement in India. Colleagues also respect power and not scholarship. At the age of 102, receiving a Nobel prize while in good physical condition, it is probably the first example that should be taken into account by all of us!

A new home for Ludhiana's birds



Bhagwan Mahavir Jeev Trust is constructing two huge colourful eye catching seven-storey bird towers (each 45 feet high) on the top of a building nearby Partap Singh Wala, Ludhiana. These bird towers first of its kind will house more than 2,500 birds and the building below would serve as a specialized veterinarian hospital for treating injured and sick birds. The project is aimed at providing respite to birds, who find it difficult to build their nests in the industrial town of Ludhiana amidst ongoing deforestation in the name of development. A

spiritual connect for the trust president Rakesh Jain says, giving a home to these birds helps him connect with God. This businessman tells, "It is my dream project, as there is a special place for animals in Jainism. The birds these days have vanished from thickly populated areas due to fewer trees, so I wanted to give these homeless birds a perfect home." The colourful towers are also catching the attention of those visiting Govind Godham to pay obeisance to Lord Krishna at the temple here. (<https://timesofindia.indiatimes.com/city/ludhiana/a-new-home-for-ludhianas-birds/articleshow/99235990.cms?from=mdr>)

Enroute Indian History: The nawab who loved dogs

The Maharajas and the Nawabs of India have always been a topic for discussion because of their luxurious lifestyle. The Nawab of Junagadh, Nawab Mahabat Khan III, Rasul Khan, was the last ruling nawab of the princely state of Junagadh in British India from 1911 to 1948 who was a significant figure in the history of the Indian state of Gujarat. He is best known for his contributions to the conservation of the Gir lion and breeding of Gir cows.

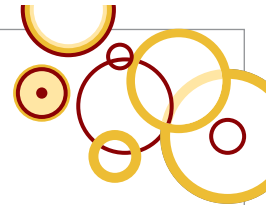


During his rule, he was a strong advocate for the protection of the Gir lion. He established the Gir Forest National Park in 1965, which played a crucial role in the conservation of the Gir lion and other wildlife in the region.

Muhammad Mahabat Khan III also played a key role in the breeding of Gir cows, which are a breed of cattle native to Gujarat.

He was known for his extravagant love for dogs, and he once owned over 2000 high-pedigree dogs. He was so passionate about his dogs that he kept personal servants and telephone arrangements for each of them, along with separate rooms. If a dog had lost its life, it would have been buried in the cemetery with all the rituals, Chopin's funeral march was played, and a state of mourning was declared. A white-tiled hospital with a British vet attended to their ailments. The wedding of one particular favourite dog cost the nawab an equivalent of two crores rupees in current value. Even the viceroy of India was invited to this wedding (but he didn't turn up).

When India become independent, and his efforts at joining Junagadh to Pakistan failed, the nawab left for Karachi with all his wives, and dogs! (<https://grin.news/the-nawab-who-loved-dogs-caa88c9557a9>)



BROOKE HOSPITAL FOR ANIMALS (INDIA)

An Organisation Committed to Equine Health & Welfare and the Development of the Marginalised Equine Owning Community

Brooke Hospital for Animals (India) or Brooke India (BI) is an affiliate of the Brooke, which is a United Kingdom-based international equine charity, focusing on the welfare and care of equines (horses, donkeys and mules). Brooke's vision is of a world in which working horses, donkeys and mules are free from suffering and have a life worth living.



Renu Devi, equine owner from Sonipat, with her mule

BI's journey in India towards equine welfare started two decades back when it was registered as a Section 8, Not for Profit Company under the Companies Act. Equids in India mostly work in harsh environments like Brick Kilns and face never-ending health troubles. This situation was mainly due to a lack of financial resources and knowledge on good management practices amongst the equine owners and insufficient understanding of equine health care by Local Health Providers (LHP).

BI's initial step as an intervention involved providing free veterinary services at different congregation points and organising Intensive Equine Care Camps (IECC) to spread awareness on welfare oriented husbandry practices and preventable injuries & diseases. From 2006 onwards, BI started focusing on establishing permanent intervention units and started expanding its operations to other states such as Andhra Pradesh, Rajasthan,



IECC Camps Luniyavas donkey fair

Hyderabad and other parts of Uttar Pradesh. The BI team also introduced Community Engagement for exploring sustainable solutions for equine welfare and community development. This period saw the formation of male and female Self Help Groups called Equine Welfare Groups, the use of Participatory Rural Appraisal tools and increasing community participation. BI team saw the congregation of equines, equine owners, traders and local service providers at Equine Fairs as an excellent opportunity for a large-scale intervention. BI teams intervened to spread awareness on equine welfare issues, provide quality training on equine care and ensure equine welfare-friendly facilities and resources at these fairs.

BI teams also focused on strengthening the local service delivery system for working equines, including quality farriery services for hoof care, accurate and appropriate veterinary first aid during health emergencies, hair clipping, and welfare-friendly saddlery material. They also ensured compassionate handling while

delivering any of the services. These interventions were incorporated in Brooke's Theory of Change, in 2016. This theory promotes strengthened animal health policy environment and thriving equine owning communities.



Equines working at Brick Kilns

Currently, BI operates directly through 32 Equine Welfare Projects (EWP) across 10 States and Union Territories in India, thereby reaching out to approximately 3.16 lakhs working equids and the equine owning community that owns/rears them. BI has multi-disciplinary teams with core strengths in Animal Health & Welfare, and Community Development, including Human behaviour Change, Gender Empowerment, Livelihoods and Resilience. Some of the notable achievements made by the team over the years include:

- Advocating the revision of Glander's Compensation- From INR 50 to 25,000 for horses and INR 16000 for mules/donkeys
- Inclusion of Equids in Livestock under the National Livestock Mission Schemes and thereby making them eligible for equine insurance.
- Advocating the issue of Animal Welfare Board of India (AWBI) advisories for Equine Fairs, Shrines & Pilgrim sites
- Introducing BI's innovative projects for ensuring sustainable availability of green fodder, through Azolla cultivation and Hydroponics techniques successfully across its intervention areas.
- BI teams worked throughout the COVID 19 pandemic. They supported the community by providing emergency treatments, alternative livelihood options, first aid kits and feed & fodder for the equines.

In the upcoming years, BI will focus on strengthening the Community Based Organisations, linkages with government welfare schemes, have robust disaster response capacity, advocate policy revisions on equine welfare issues, and enhancing the knowledge and skills of veterinary students on animal welfare, compassionate handling and upskilling the local farriers and animal health providers.



Quality Farriery Services

BI's team is proud of its journey and aspire to keep bringing a positive change for vulnerable and marginalised working equines and the rural communities, whose lives we have not touched yet.

Introducing

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For the First Time in India

VetPlasma™

**PLASMA
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INDICATIONS AND USAGE

VetPlasma is used primarily to treat acute hypovolemia & shock in conditions like Blood loss, diarrhoea, etc

DOSAGE AND ADMINISTRATION

Daily dose and rate of infusion depend on the animal's blood loss, hemodynamics and on the hemodilution effects

Recommended Dose:

Large Animals (Cattle & Horse) :

8-10 ml/kg body weight/day, up to maximum 20 ml/kg

Small Animals (Dog, Cat, Pig, Sheep & Goat) :

10-20 ml/kg body weight/day

Administer by intravenous infusion only.

The initial 10 to 20 ml should be infused slowly, keeping the animal under close observation due to possible anaphylactoid reactions

PRESENTATION

250 ml & 500 ml plastic bottle.



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