



NAVS NEWS VIBES

NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)

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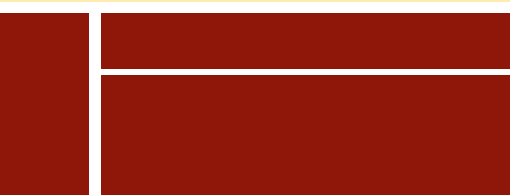
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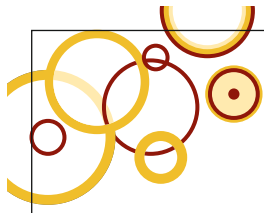


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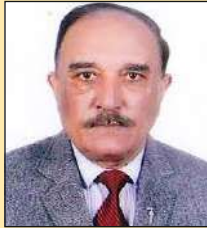
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Dear Esteemed Fellows
Greetings!

Veterinary education in India reflects a dynamic and forward-looking approach to meet the challenges of the 21st century. The progress has been observed through various phases, each marked by unique challenges, developments, and reforms. Year 1989 onwards saw the emergence of veterinary universities carved out from the State Agricultural Universities to give fillip to veterinary, animal and fisheries research in the country making a landmark in reorganizing and strengthening veterinary education. Today we have 77 Veterinary Colleges operating under government (60) and private sector (17) including those recognized (58) or provisionally recognized (19) by the Veterinary Council of India. All the 77 colleges are operating under 31 universities including 15 state veterinary universities; 09 state agricultural universities; three general universities, one central university, one deemed veterinary university and three private universities.

Changing phases of veterinary education in India need a comprehensive approach to address the transformational requirements of veterinary education in the country including:

- **Curriculum Modernization:** Introduction of updated and industry-relevant curriculum to incorporate emerging technologies, such as telemedicine, molecular diagnostics, and precision medicine.
- **Interdisciplinary Collaboration:** To promote and strengthen collaboration between veterinary institutions and other allied fields, including agriculture, biotechnology, and public health. Develop joint programs and research initiatives to address complex challenges at the intersection of animal and human health.
- **Technological Integration:** To emphasize on the incorporation of digital tools, artificial intelligence, and data analytics in veterinary education. Develop hands-on training programs for students in the use of advanced diagnostic and therapeutic technologies.
- **Practical Exposure:** To enhance practical training opportunities through partnerships with animal hospitals, farms, and research institutions. Implement mandatory internships and externships to provide students with real-world experience and skill development.
- **Global Perspective:** Promote international collaborations to expose students to best practices and diverse perspectives in veterinary medicine. Encourage faculty and student exchange programs to promote cross-cultural learning and research collaboration.
- **Ethical and Legal Training:** Build up the curriculum to include courses on animal ethics, welfare, and relevant legal frameworks. Equip students with the knowledge and skills to navigate ethical dilemmas in the practice of veterinary medicine.
- **Continuing Professional Development:** Establish a strong system for continuous learning for veterinary professionals. Encourage participation in conferences, workshops, and online courses to keep practitioners updated on the latest advancements in the field.
- **Research and Innovation:** Allocate resources for research grants and encourage faculty and students to engage in cutting-edge research projects. Create incubation centers to support the development of innovative solutions in animal healthcare and diagnostics.
- **Community Engagement:** Promote outreach programs to educate the community on the importance of veterinary care and preventive measures. Develop partnerships with local communities to address specific regional health challenges and ensure sustainable animal health practices.
- **Infrastructure Development:** Invest in state-of-the-art facilities, laboratories, and equipment to support practical learning and research. Ensure a conducive learning environment that fosters innovation and collaboration among students and faculty.

By addressing these requirements, veterinary education can evolve to meet the challenges of the 21st century and can contribute significantly to the health and well-being of the animals, humans, and the environment.

I look forward to receive your crucial annotations and beneficial suggestions at ldsinglanavs@gmail.com ; ldsingla@gmail.com to make NAVS News Vibes more informative, enriched and effervescent in the future.

Best regards

L.D. Singla

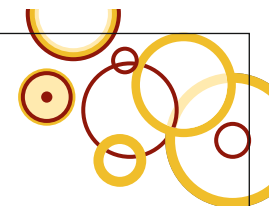
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HORIZON PRESIDENT'S VIEWS & VISION

Presidential address at Academy's 21st Annual Convocation cum Scientific Convention

Most Respected & Hon'ble Shri Parshottam Rupala Ji, Cabinet Minister of Fisheries, Animal Husbandry and Dairying, Esteemed chief guest of the inaugural function, Hon. Shri Gurmeet Singh Khudin ji, Cabinet Minister of Punjab for Agriculture, Farmers Welfare, Animal Husbandry, Fisheries, Dairy Development and Food Processing, Esteemed Guest of Honour, Dr Umesh Chandra Sharma, President of Veterinary Council of India, Dr Inderjeet Singh, Hon. Vice Chancellor (VC) Guru Angad Dev Veterinary and Animal Sciences University, Hon. VCs, Deans and Directors of Veterinary Universities, Former President of NAVS (I), DDG ICAR & VC, Dr KML Pathak, Immediate past president of the Academy and former VC Maj Gen Shrikant, Directors of National Institutes, Hon. Members of the Governing Council, Distinguished Fellows of the Academy, Ladies and Gentlemen...

Good morning & Namaskar!



I am honoured and privileged to address this August gathering of accredited intellectuals in Veterinary Sciences and the top dignitaries of the country sitting on the dias on the occasion of Academy's XXI Annual Convocation-cum-Scientific Convention held here at Guru Angad Dev Veterinary & Animal Science University, Ludhiana. Hon. Shri Parshottam Rupala Ji, is meticulously involved with his keen interest, guiding the growth and development of Animal Husbandry, strengthening the infrastructure for higher contribution of Gross Domestic Product (GDP) from the time he has taken over the Ministry. I must record my heartfelt gratitude to Hon. Rupala ji for allotting a good office space for NAVS (I) in DMS Complex appreciating the requirements and necessity of the elite scientific community of the veterinary profession which was suffering over the last 30 years without a proper office space even to meet and discuss significant professional matters. I also thank the Hon. Minister for recognizing the Academy for its expertise and talent pool for advising the ministry on matters of scientific importance.

Hon. Shri Gurmeet Singh Khudin ji, Cabinet Minister of Punjab has a vast experience of three decades in politics and he takes keen interest for the growth and development of the Animal Husbandry activities in Punjab. I express my gratitude for his keenness and development of Animal Husbandry which is normally a neglected sector despite of contributing a large proportion to the livelihood of farmers and socio-eco fabric Our special guest Dr Umesh Chandra Sharma is a very dynamic and thought-provoking President of VCI.

National Academy of Veterinary Sciences (India), a premier apex Pan Indian body constituting the elite veterinary professionals was established in 1993 by late Dr CM Singh who was a doyen of the veterinary profession. It is unfortunate that NAVS (I) did not get any support from Department of Agricultural Research and Education (DARE) and ICAR although veterinary education and research is a part and parcel of ICAR.

Animal Husbandry is a self-sustaining and fast-growing sector of our Country. Livestock contributes about 5% towards the National GDP with a high Gross Value Added (GVA) of about 8 per cent. Furthermore, nearly 10 crore households undertake livestock activities, which provide a year-round stream of both income and nutrition. We are the world's largest milk producer, second largest fish producer, a major exporter of buffalo meat, and have a flourishing poultry sector.

The farmers in the developed world are involved in large scale farming with thousands of heads and hence the production and supply chain regulations are more organized as against Indian Dairy Farmer who is at the mercy of multiplicity of factors. Although India is the largest producer of milk, our production per animal is still low. The genetic potential, nutrient utilization, disease control and improved management are still the major areas for optimization of productivity and efficiency in livestock production. Science and technology will offer opportunities for further innovation in the livestock production.

I appeal to our Hon'ble Cabinet Minister Shree Parshottam Rupala Ji to entrust the policy matter reviews, monitoring the research projects sponsored by the Ministry for more efficient results to NAVS (I) since it has a very talented pool of senior scientists who can play a strategic role in

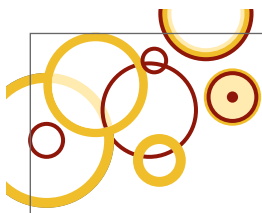
advising the Ministry on Scientific matters for increasing the productivity of livestock, poultry and other animals. Our field veterinarians require constant updating to keep abreast of the latest development in Science & Technology periodically with short courses ranging from 2 to 5 days. Although continued education is being done by different states, it needs to be systemized and pragmatic. I appeal to Hon. Cabinet Minister Shri Rupalaji to allot central funds from the Ministry to Veterinary Council of India so that a proper scheduling to train the veterinarians on a national basis can happen in a systematic manner. I assure the NAVS (I) can support and spearhead this programme on a constant basis with all the talent it has its disposal coordinating with VCI.

The Indian poultry industry, consisting mainly of broilers and layers was worth 1,75,000 crores in 2018 is growing at a CAGR of above 16% and is projected to reach 4,34,000 crores by 2024. The growth rates during the last few years for eggs and poultry meat are averaging more the 6% and 9% per annum, respectively despite major setbacks due to the corona pandemic that forced shutdowns and the later bird-flu outbreaks. Both these extreme events caused disproportionately high and undeserving setbacks to the poultry industry, but the bounce back has been impressive and exemplary. This was made possible by the largely organized and integrated structure of the industry which has given it an inherent resilience. The challenge posed by Covid was converted into an opportunity by the poultry business, spurring new business and market models to reach out to the consumers through delivery of value-added products.

The total production of milk in the country is 221.06 million tons with a Compound annual growth rate (CARG) of 6.2%. The egg production of the country is 129.60 billion at a CARG of 6.19%. The total meat production in the country is 9.29 million tons out of which 4.78 million tons is chicken contributing to 51.44% of the total meat production. The ownership of livestock and poultry are more evenly distributed with landless labour and marginal farmers strengthening the socio-economic fabric of the country.

The lack of the basic awareness and reorganization has plagued this sector in despite of being one of the fastest growing sectors of the economy which is at a CARG of 8.2% on par with manufacturing and much higher than the agriculture. There is no wonder that this sector has generally remained low in political and governance priorities. This gigantic sector has developed a strong entrepreneur and comparative environment since more than 60% of the end value of the output flows back to the primary milk producer.

Time and again it is emphases from several platforms that the budgetary allocations for the education and research have become scare compared to the contribution of this sector. There has to be paradigm shift in the outlook of the policy makers for this sector to do wonderfully well. At this juncture, I appeal to Hon. PM of India, Shri Narander Modi Ji, to form a separate council for research, education, extension and related activities in the veterinary and fisheries sector under the name Indian Council of Veterinary & Fisheries Research (ICVFR). I also appeal to Hon. Cabinet Min Shri Rupali ji to use his good office to take up this subject at higher levels. This council shall function under the direct control of Ministry of



Fisheries, Animal Husbandry & Dairying. The formation of new council under the leadership of a veterinary scientist who can lead and work with a sole objective of livestock and poultry development with comprehensive abilities to address the issues pertaining to veterinary research as a whole which is the need of the hour.

The present fractionated system of controlling veterinary education and research by ICAR is not able to yield proper dividends due to lack of concentration and leadership in such a complex activity. Veterinary Scientists don't get due recognition and are considered on par with graduates of basic science and other allied sciences. Curriculum of veterinary degree is 5½ years which is much longer than any other degrees comparable in the system. It is regretting to note that although outstanding veterinary scientists are available in the Country with a big network of 15 Veterinary Universities, besides the research organization, the appointments of directors without a basic degree in veterinary sciences is done due to a biased selections system which does not lay stress in the training of the multi various disciplines during the course of the 5½ years of veterinary degree. The leadership of non veterinarian at the helm of affairs in veterinary and animal research effects the growth and development of veterinary and animal husbandry activities due to lack of appreciation on the basic aspect of veterinary science. The Veterinarians should be involved in policy matters and decision making in matters pertaining to the development of Animal Husbandry activities. On a comparative note, you will not find a non medical professional occupying key position in the medical Institutions. The only solution for correcting these anomalies and to improve the livestock productivity is formation of the ICVFR under the Ministry of Fisheries, Animal Husbandry and Dairying.

Today entrepreneurship is driving Aatma Nirbhay Bharat. Entrepreneurs are driving the growth of the economy leveraging demographic inadequacies. Aspirations are to be converted into actions as a drive for entrepreneurial development. The veterinary graduates passing out of the veterinary universities should not aspire for government jobs since so many avenues are available starting from private practice up to development of MSME, which are the back bone of the Indian economy. They contribute 33% of manufacturing activity, 29% of GDP and 48% of exports employing 110 million people. At this juncture, I appeal to the Hon. VCs and the Veterinary Council of India who are heading the Education and Research at the State level to create entrepreneurial Eco System during graduate and post graduate levels.

Our ambition is to make NAVS (I) very a broad-based organization to support all the disciplines in Veterinary profession. Hence I appeal to different Veterinary Associations to become Institutional members of NAVS (I) which will help to exchange cross current information on the latest development in Science and Technology and integrate the necessary information into useful modules for the betterment of livestock and poultry production. I would request and appeal all respective Presidents of the associations to become Institutional member like our Veterinary Universities in the country.

The vision document of late Dr CM Singh states that NAVS (I) shall be scientific backbone of Veterinary Council of India since it has a big pool of talented Scientists in different disciplines of Veterinary Science and can serve as a think tank. During my tenure of 2½ years as a President of NAVS (I), I had an excellent cooperation from Dr Umesh Chandra Sharma ji, President of VCI. I am extremely thankful to him for having nominated the President / Secretary of NAVS (I) to the Governing Council of Indian Veterinary Association (IVA) for contributing the best from the Academy. The policy paper on paravet regulation, Minimum

Standards of Veterinary Practice and continued veterinary education have been vetted by the senior Fellows of the Academy. It has also been agreed that NAVS (I) will play a very important role in continued veterinary education.

NAVS (I) have conducted a two days National Workshop on Brain Storming Session "Strategy on Control & Eradication of Formidable Trans - Boundary Viral Diseases of Livestock- Foot & Mouth Disease "FMD", Lumpy Skin Disease "LSD" & African Swine Fever "ASF" on 14th & 15th November 2022 in collaboration with GADVASU, Ludhiana. Two policy papers on Trans-Boundary Viral Diseases of Livestock and Leptospirosis were evolved. These Papers were presented and released by Hon'ble Shri Parshottam Rupala Ji, Cabinet Minister of Fisheries, Animal Husbandry and Dairying. Academy has also published a policy paper on control & prevention of Rabies with joint collaboration of GADVASU. The Academy has participated on a seminar on One Health in February 2023 at NAAS complex, Delhi sponsored by Brooks India.

The Academy has inducted the three Corporate (International Healthcare Ltd, Vijayawada, Bentoli Agri Nutrition India Pvt Ltd, Chennai and Venkys (India) Ltd, Pune) & two Institutional members (Guru Angad Dev Veterinary and Animal Sciences University and Kerala Veterinary & Animal Sciences University) during this tenure to strengthen the Academy both financially and academically spreading its tentacles in all parts of the Country.

I am happy to announce that Tamilnadu Veterinary & Animal Sciences University, Chennai which is a leading Veterinary University of India has also become an institutional member last week.

The Academy has instituted the following Awards in tune with the objectives and promoting the knowledge the Veterinary Science, honour Senior Scientists of the fraternity and encourage the young and upcoming Scientists and Women Veterinarians.

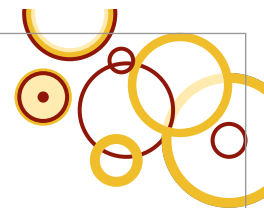
1. Dr CM Singh Award for Excellence in Veterinary Sciences which carries cash award of Rs.51,000/-
2. Dr DVR Prakash Rao Life Time Achievement Award-cum-Late Smt Sundari Prakash Rao Memorial Endowment Lecture award which carries cash award of Rs. 51,000/-
3. Dr Vallabh Mandokhot Memorial Award for Outstanding Young Woman Veterinarian which carries cash award of Rs. 41,000/-
4. Young Scientist Award which carries cash award of Rs. 31,000/-
5. Dr RK Sharma Memorial Award for Excellence in Veterinary Extension Education which carries cash award of Rs. 41,000/-
6. Dr. KK Baxi Senior Scientist Award for Excellence in Veterinary Sciences which carries cash award of Rs. 41,000/-

NAVS (I) has been publishing news vibes on a quarterly basis self-supported by advertisement from the corporate sector. These letters are being posted to all the Fellows and Government organizations which were well received. I profusely thank Dr. Inderjeet Singh, Hon. Vice Chancellor of GADVASU and his team for all their efforts in making arrangements for such a grand Convocation.

I conclude my address once again thanking all the dignitaries on and off the dais for sparing their valuable time and all the dear Fellows who have come a long way for attending this Convocation Cum Scientific session and making it a great success.

Jai Hind


(DVR PRAKASH RAO)



THE ACADEMY

EVENTS & ENDEAVOURS

Veterinary Varsity at Ludhiana organized XXI National Academy of Veterinary Sciences Convocation-cum-Scientific Convention

A two-day Convocation-cum-Scientific Convention on "Strategies for enhancing productivity of Dairy Animals" jointly organized by Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana and National Academy of Veterinary Sciences (India) (NAVS) was inaugurated on July 1st, 2023.



The chief guest of the inaugural function was Shri Parshottam Rupala, Hon'ble Minister for Fisheries, Animal Husbandry and Dairying, Government of India. S. Gurmeet Singh Khuddian, Hon'ble Minister for Agriculture, Animal Husbandry, Fisheries, Dairy Development and Food Processing, Govt. of Punjab was the Guest of honour. Function was presided over by Dr DVR Prakash Rao, President, NAVS (I) whereas Dr Umesh Chandra Sharma President VCI was a special guest.



Dr Inderjeet Singh, Vice-Chancellor, Guru Angad Dev Veterinary and Animal Sciences University welcomed the worthy guests and delegates and highlighted the role of animal husbandry sector in the Indian economy and contribution of Punjab state and the Veterinary University in the same.

S Gurmeet Singh Khuddian underlined the contribution of agriculture and animal husbandry wealth of Punjab state in the national economy. He urged the central government for policy interventions to prohibit milk adulteration causing harm to human health.

Sh Rupala Ji lauded the contribution of Vet Varsity in the upliftment of dairy and fishery farmers through generation and outreach of novel technologies. He informed the delegates about the current policies of the central government like Mobile Veterinary Vans for livestock farming community. He informed that deliberations have been made on the need for creation of a separate research council for animal husbandry and fishery sector.



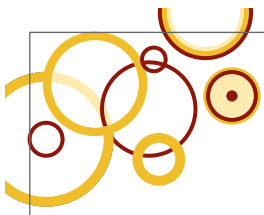
Academy governing council conducted the award ceremony. A total of four academy awards, 35 fellowships, 8 associate fellowships and 26 memberships were bestowed.

The valedictory function was graced by Dr O P Chaudhary, Joint Secretary (AW), Ministry of Fisheries, Animal Husbandry & Dairying, Govt. of India as Chief Guest. The event, which spanned two days, brought together prominent experts, industry professionals, and enthusiasts from around the country to discuss and exchange ideas on strategies for enhancing the productivity of dairy animals. The experts discussed different aspects in six important sessions i.e. Breeding, Health, Reproduction, Nutrition, Management and Extension, covering all the important issues of dairy animals.

Dr DVR Prakash Rao, President of NAVS(I) briefed about the role of academy for the growth of the animal husbandry sector, releasing different policy papers in context to different livestock and poultry diseases and emphasized the status of this sector at national and global levels. He emphasized the need for entrepreneurship development in this sector and the need for policy intervention for creation of a separate research council for veterinary and fishery sciences.

Dr Inderjeet Singh expressed words of appreciation and encouragement, praising the convention's impact on fostering a culture of innovation and collaboration.





He summarized the desired strategies for enhancing milk production. Dr Singh emphasized on practical solutions, extension specialists' contribution, availability of authentic data, infusion of the technology, focussed research, management practices in relation to climate change, indigenization of artificial intelligence with emphasis on the service delivery to the farmers.

Dr O P Chaudhary emphasized the importance of creating new knowledge and knowledge ecosystems. He commended the organizers for their efforts in bringing together such a diverse and knowledgeable group of individuals for deliberations on strategies for enhancing the productivity of dairy animals.



Dr Chaudhary lauded the activities of the University as an important stakeholder along with NAVS to frame policies for enhancing milk production per animal in India. He stressed the need for simple implementation procedures so that the research benefits should reach the farmers' doorstep. Dr Sarvpreet Singh Ghuman, organizing secretary of the convention expressed gratitude towards all the participants for making this event a success.

Donation for institution of "Senior Scientist Award for Excellence in Veterinary Sciences" By Dr KK Baxi

Dr KK Baxi, an elected fellow of NAVS (I) for the year 2004-05 and former Dean College of Veterinary Sciences, Ludhiana has offered for Institution of "Senior Scientist Award for Excellence in Veterinary Sciences" by paying Rs. 10,00,000/- (Rupees ten lakhs only) to the Academy. Dr Baxi having served the Profession for more than 37 years in Veterinary Teaching and Research at National and International levels was fascinated to avail the opportunity to offer Rupees Ten Lakhs for institution of the Academy Award.

Dr Baxi conveyed his sincere appreciations to the President NAVS(I) and his team for the efforts made for the up-liftment of the Veterinary Profession in the Country. He said "It is heartening to know that the academy has become a vibrant organization under the leadership of DVR Prakash Rao, President, NAVS (I). The academy has achieved recognition by participating at National level workshops/seminars to review and formulate the policies related to improvement of Veterinary Education System, Animal Disease Control through up gradation of skills & regulation of Veterinary Human Resource in the Country. The institution of various awards for excellence in Veterinary Teaching, Research and Extension in the recent past will certainly encourage the future generation of Veterinarians to promote Livestock Sector and boost National Economy."

The award will be named as Dr KK Baxi Senior Scientist Award for Excellence in Veterinary Sciences with cash award of rupees forty one thousand every year. Dr Baxi requested the Academy to accept Dr LD Singla Fellow and GC Member of NAVS(I) to represent him, as and when required as a member of selection committees/any other matter related to award in his absence.



Dr KK Baxi was honoured by Shri Parshottam Rupala, Minister for Fisheries, Animal Husbandry and Dairying, Government of India and S. Gurmeet Singh Khuddian, Minister for Agriculture, Animal Husbandry, Fisheries, Dairy Development and Food Processing, Govt. of Punjab during inaugural session of XXI National Academy of Veterinary Sciences Convocation-cum-Scientific Convention on 1st July, 2023.

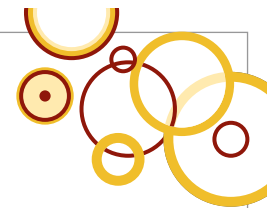


Dr DVR Prakash Rao, President, NAVS (I), Dr Inderjeet Singh, Vice Chancellor, Guru Angad Dev Veterinary and Animal Sciences University, Dr Sarvpreet Singh Ghuman, Organizing Secretary of Convocation-cum-Scientific Convention and Dr LD Singla, Editor NAVS(I) were also present on the occasion.

President Addresses the 29th International Conference of WAAVP

The inaugural function of the 29th International Conference of World Association for the Advancement of Veterinary Parasitology on "Parasites; Global Impacts, Local Solutions" held from 20th to 24th August 2023 at Leela Palace, Chennai was graced by Dr DVR Prakash Rao, President NAVS(I) as Guest of honour.





Dr Rao in his special address stated that parasites have substantial global impacts on animal health, affecting livestock production and even human health through zoonotic diseases. The collaboration between veterinarians, farmers, researchers and policy makers is crucial for developing effective strategies to combat parasite related challenges in livestock and mitigate their impact on both animal health and productivity.



Dr Rao presented his views that integrated parasite management strategies, include proper sanitation, vaccination, quarantine measures, and targeted treatments that can help to minimize parasitic infections. By focusing on both global awareness and locally tailored approaches, we can enhance animal health, promote biodiversity, and safeguard public health in a harmonious manner. He wished the conference a great success.

Associate Fellow Trained on Large Animal Surgery from USA

Recently, the Associate Fellow of the Academy Dr Ashwani Kumar, Professor (Veterinary Surgery and Radiology), Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana acquired 16-days observational training on the Large Animal Surgery under the guidance of Dr Marie-Eve Fecteau at University of Pennsylvania, USA from the 15th to 30th September 2023.



During this training, Dr Ashwani observed the diagnostic and clinical workup, and surgical procedures such as arthroscopies of different joints, upper airway endoscopic and laser surgeries, diaphyseal and condylar fractures, neurectomies and colic surgeries. Besides, he also participated in the study of various modalities of advanced imaging including CT, MRI, computed radiography, nuclear scintigraphy and ultrasonography.

9th General Body Meeting of the Academy

The 9th General Body (GB) meeting of NAVS (I) was convened on 1st July, 2023 at 2.30 PM at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana.

President, Dr DVR Prakash Rao welcomed the Fellows and conveyed his gratitude for their presence. He apprised the house regarding the salient achievements of the Academy in the past one year. The milestone achievement was the allotment of furnished office accommodation to the Academy, at DMS Complex, New Delhi by the Ministry of Fisheries, Animal Husbandry and Dairying (Min of FAH&D), as recognition of the Academy as a "Technical Resource/Advisory Body". The President conveyed his satisfaction regarding the financial position of the Academy i.e Rs. 1.7 Cr (Approx). However, he emphasised the need of finding a regular source of funding from the Government by engagement of Academy's Technical Resources to support the Min of FAH&D.



General body meeting of NAVS(I) held at GADVASU, Ludhiana on 1st July, 2023.

The detailed minutes of the general body meeting of the academy have been uploaded on the NAVS(I) website (<http://www.navsindia.org>). However, salient points discussed during meeting are as under:

1. Amendment of NAVS (I) Rules & Regulations :

During the General Body Meeting held at MAFSU, Nagpur on 20th June, 2022, it was decided that the committee looking into the amendment be broadened and only the salient points which need immediate change, be considered for the amendment. Accordingly a committee was constituted. The committee deliberated the issue and recommended the changes which were approved by the Governing Council and General Body.

2. Review of Guidelines/Criteria of various Awards:

A committee constituted to review Guidelines/Criteria for Dr. R.K. Sharma Memorial Award, Dr Mandokhot Memorial Award and NAVS(I) Fellowship based on the recommendations of various evaluation committees recommended changes, which have been approved by the Governing Council and are available on the Academy website.

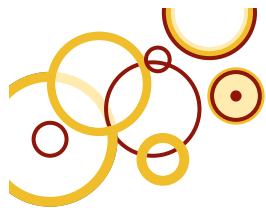
3. Ratification of various Awards :

(i) Fellowship/Associate Fellowship/Membership:

Out of 46 applications received for Fellowship Award covering two academic year i.e. 2021-22 & 2022-23 committee recommended grant of 35 awards. Out of 14 applicants received for Associate Fellowship Award, 08 have been qualified for the award. There were 38 applicants for Membership Award, 26 applicants have qualified for the award.

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.



(ii) Honours/Awards : The following Scientists/Researchers selected by various committees were approved by the GC:

- (a) Dr CM Singh Award: Dr AK Tiwari
- (b) Dr DVR Prakash Rao Life Time Achievement Award cum Late Smt Sundari Prakash Rao Memorial Endowment Lecture: Dr KM Bujarbaruah
- (c) Dr Vallabh Mandokhot Memorial Award: Dr Sonika Ahlawat
- (d) Young Scientist Award: Dr Nitin Mehta

4. Appointment of Editor NAVS (I) :

Dr DVR Prakash Rao, President NAVS(I) informed the house that Dr AK Pattanaik Editor has shown his inability to provide his services to the Academy because of his busy schedule in his new assignment. The President NAVS(I) proposed Dr LD Singla, Director Human Resource Management, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana as new Editor of the Academy. The GC approved appointment of Dr LD Singla as new Editor.

5. Dr KK Baxi Senior Scientist Award for Excellence in Veterinary Sciences:

The President apprised the house that Dr KK Baxi, Former Dean College of Veterinary Sciences, Ludhiana has offered Institution of above award by paying Rs. 10,00,000/- (Rupees ten lakhs only) to the Academy. The GB appreciated the gesture of Dr Baxi and accepted the offer.

6. Any Other Points

Dr DVR Prakash Rao, informed the house that it is inappropriate to ask for the applications for Dr CM Singh and Dr DVR Prakash Rao Lifetime Achievement Awards; since, the candidates for such awards are very senior Veterinarians. He proposed that the Search and Selection committee should nominate three candidates and select one by majority. The committee must be constituted by five members. The GB accepted the proposal unanimously.

20th Governing Council Meeting of the Academy

The 20th Governing Council (GC) meeting of NAVS (I) was held on 22nd August, 2023 at 12.00 noon through Online Mode. Dr DVR Prakash Rao, President NAVS (I) welcomed all the GC members and special invitees (Maj Gen Shri Kant SM, SVM (Retd), Past President and Brig JS Dharmadheeran). He apprised the house about his recent meetings with H'able Cabinet Minister Shri Rupalaji, Minister of Fisheries, Animal Husbandry and Dairying, Ms Alka Upadhyaya, Secretary Department of Animal Husbandry & Dairying (DAHD) and Dr Abhijit Mitra, Animal Husbandry Commissioner, DAHD on 9th & 10th August, 2023.

1. Progress on Points from Previous Meeting

(a) **Constitution of committee for formulating the Rules, Guidelines and Score Card pertaining to Dr KK Baxi, Senior Scientist Award:** A committee headed by Dr LD Singla with two members from Guru Angad Dev Veterinary & Animal Sciences University (Dr Yashpal Singh Malik and Dr (Mrs) Varinder Pal Uppal), was constituted to formulate Rules, Guidelines and Score Card for the above award.

(b) **Venue for next Convocation-cum-Scientific Convention of the Academy:** The President apprised the house that during last Annual General Body meeting. We had offers from LUVAS, Hisar and DUVASU, Mathura for hosting next Convocation-cum-Scientific Convention. The proposal of VC, LUVAS was accepted by the GC.

2. Agenda Points

(a) **Role of NAVS (I) in implementation of Continuing Veterinary Education (CVE) and Establishment of "Veterinary Extension Research Institute" at DMS Complex, New Delhi:** The President apprised the house that based on the concept notes received from GC members, he had submitted the proposal to the H'nble Cabinet Minister for grant of budget to the Academy for engaging NAVS (I) pool of experts for various training activities concerning Continuing Veterinary Education (CVE). The H'nble Minister after due deliberation with the President, expressed his views to prioritize initiation of proposal for the establishment of Indian Council of Veterinary Research and emphasized that the rest of the requirements of the Academy will fall in place. Accordingly, the President submitted a note on the subject to the H'nble Minister, which is likely to be deliberated in the forthcoming National Advisory Committee on Animal Husbandry and Dairying Sector meeting scheduled on 29th August, 2023. The President NAVS (I) has been invited to attend the above meeting as a member of the committee.

(b) **Updation of list of NAVS (I) Fellows:** The Secretary General, NAVS (I) Maj Gen ML Sharma (Retd) apprised the house that the updated list of Fellows (as on 15th August, 2023) has been circulated to all the Fellows. Subsequently, there has been further requests from some of the Fellows for carrying out changes in address/email id. An updated list as on 23rd August, 2023 will be forwarded to the Returning Officer and the same will be uploaded on NAVS (I) website. The issue regarding any further change of address before dispatch of Ballot Papers by the Returning Officer was also deliberated. It was resolved the request of change of address will be accepted up to 30th September, 2023 only.

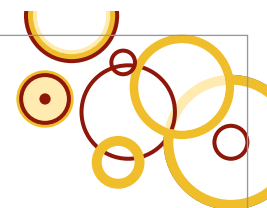
INSTITUTIONAL LIFE MEMBERS (NGO)



CORPORATE LIFE MEMBERS



This newsletter 'NAVS News Vibes' is published by the National Academy of Veterinary Sciences (India), Admin Block, Room No - 5, DMS Complex, Shadipur, West Patel Nagar, New Delhi - 110008, India



IN FOCUS:

AFRICAN SWINE FEVER

African Swine Fever-a constant menace to the Indian piggery industry



Rajib Deb



Vivek Kumar Gupta

ICAR-National Research Centre on Pig, Guwahati, Assam, India

Piggery sector in India

As per 19th livestock census of India, there are about 10 million pigs which makes up 2% of total livestock population and 6.7% of total meat production in the country.

Origin of African swine fever

African Swine Fever (ASF) was described for the first time 100 years ago. It is a highly infectious and fatal pig disease that originated in Sub-Saharan Africa and has since spread to many parts of Europe and Asia. The World Organization for Animal Health (WOAH) reported the deaths of 8.20 million pigs between 2016 and 2020, with Asia accounting for 82% of all global cases.

Epidemiological cycles of ASFV

The four different epidemiologic cycles that make up the ASF epidemiology are (i) the sylvatic, (ii) the tick-pig, (iii) the domestic, and (iv) the wild boar-habitat cycle, which was only identified in Europe.

ASF situation with special emphasis to India

African swine fever was first described in Kenya in 1921. The virus remained limited to Africa prior to the mid-twentieth century, when it spread to Europe, South America, and the Caribbean. A second expansion out of Africa spread to the Republic of Georgia, the Russian Federation, and again into Europe, where it had previously been eradicated, with the exception of Sardinia. It remains enzootic in Sub-Saharan Africa, but the recent expansion out of Africa has now spread to Asia, including China in 2018, where half of the world's pig production occurs.

In May 2020, India reported first epidemic in Arunachal Pradesh to the WOAH, later the disease has spread to several other states, including Assam, Mizoram, Andhra Pradesh, Gujarat, Himachal Pradesh, and West Bengal.

ASF has resulted in both economic losses and disruption of the food chain in several countries, with no effective vaccines or cures available and often with nearly 100% mortality. Although the exact number of pigs killed in India as a result of ASF is unknown, official and media reports indicate that approximately 54,150 pigs have died as of July 2021. A study by the researchers from ICAR-National Research Center on Pig could estimate the extent of losses caused by this devastating disease in the region. Using a conservative estimate that each infected pig would have transmitted ASF to two more pigs, which would then be culled, the direct losses due to animal loss are INR 2.76 billion (US\$ 37.32 million). Other direct losses include the cost of disposing of contaminated in-contact materials such as feed and bedding (INR 8.12 million, US\$ 0.11 million), foregone export revenue (INR 180.6 million, US\$ 2.47 million), expenses incurred for carcass culling and

disposal (INR 1000, US\$ 13.51 per animal), and risk reduction measures such as the use of disinfectants on farm premises (INR 11.40, US\$ 0.15 per animal). The cost of antigen and real-time PCR-based tests to detect ASF ranges from approximately INR206 (US\$ 2.78) to INR700 (US\$ 9.46) per sample, respectively.

Indian Council of Medical Research (ICMR) and The Indian Council of Agricultural Research (ICAR) have also been working together to develop a vaccine to protect pigs against ASF. The spread of the disease has had a significant impact on the pork industry in India, which is the fourth largest pork-producing country in the world. The ICAR has set up a National ASF Control Centre to coordinate efforts to control the spread of the disease and provide technical support to pig farmers.

Prevention and control

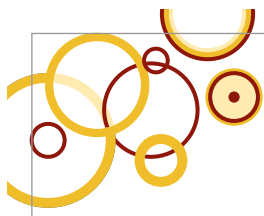
Prophylaxis: There is no commercially available vaccination to combat African swine fever, which is damaging to the swine industry. Due to technological challenges, gaps in understanding about the virulence factors of the ASFV, and the fact that ASF was regarded as an "exotic" illness in industrialized nations; the development of vaccines against the ASFV has been virtually largely overlooked. The recent spread of the virus to Europe and Asia, which poses a danger to the world's swine industry, has, however, drastically altered the situation. ASF vaccine development efforts are continuing using several vaccination approaches. Gene-deleted vaccines among them have demonstrated promising outcomes in inducing efficient immune responses. Implementing alternative preventive measures is crucial and necessary if there are no effective vaccinations available for the disease.

Control Zone: One of the first steps to be taken when there is an ASF incursion into a country is zoning. The declaration of contaminated zones, monitoring zones, and free zones within a country is known as zoning. The affected zones should put into practice two goals to stop the spread of infection: (i) quarantine and limits on livestock movement; and (ii) eliminating infection sources as rapidly as possible through the killing of possibly contaminated pigs, secure disposal of corpses, and disinfection. Therefore, stopping the spread of the illness by prohibiting the admission of pigs and pig products from the infected zones are two acts that are related to active disease surveillance and disease-free zones, respectively.

Quarantine facility: According to the Government of India-initiated Animal Quarantine and Certification Services, quarantine measures to manage the disease, including pig-movement controls and bans on the sale of possibly contaminated pig products, should be adhered to properly. The confined duration is determined by the time it takes for a disease to incubate, and for the monitoring of pig diseases, a standard quarantine period of three weeks is established.

Disallowance of Scavenging Systems in Pig Production: The producers' limited ability to devote money and time, as well as the nature of scavenging pig production, typically place restrictions on the deployment of biosecurity measures in scavenging pig production systems. Scavenging systems should place a high priority on actions linked to the introduction of fresh piglets from unknown sources, monitoring the health condition, and unexpected mortality of scavenger pigs, especially regarding illnesses of concern.

Biosecurity: In order to prevent the introduction of novel or previously unidentified pathogens into a farm, lessen the impact of endemic illnesses in a region, and prevent the spread of infectious diseases to surrounding farms, biosecurity of pigs at backyard and small-scale farms should be well managed. The three main components of biosecurity at the farm level are segregation, cleaning, and disinfection. The key elements of segregation include putting quarantine procedures in place for newly introduced animals, restricting the entry of pigs from other farms, markets, or villages, properly fencing the farm



area to keep out people, animals, and birds that could act as mechanical vectors for ASF transmission, and maintaining adequate distances between farms.

Prevention of inter-state transfer: The prohibition of interstate movement of domestic pigs from the affected regions to a different part of the country should be given top priority in light of the first outbreak of ASF in the Indian states of Assam and Arunachal Pradesh as such movement may spread the infection to new geographic locations. The incubation period for sub-acute and chronic variants of ASF may take 3-4 weeks to complete. In such circumstances, pig merchants may take advantage of a lengthy incubation time and bring contaminated stock to purchasers from a different state to disease-free zones rather successfully. In order to improve animal infectious disease surveillance, reporting, and research, mechanisms must be developed to track the health condition of relocated pigs (domestic and wild pigs) and to increase their traceability.

Prevention on illegal transportation of pork and pork products: The ASF virus can be spread through pork and pork products (raw/frozen/dried/undercooked), where the virus can persist for an extended period of time. It is advised that passengers' bags be thoroughly checked at the border/customs. The consequences of bringing pork and pork products from ASF-infected countries/regions should be clearly stated at the border/customs entry, including airports and seaports, and passengers should be instructed to discard pork products in designated disposal areas or hand over to customs personnel.

Surveillance: The best strategy to prevent ASF is by early disease identification, which is also essential to preserving the health of animals. In order to establish an accurate diagnosis quickly, laboratory diagnosis for ASF detection as well as differentiation of ASF from diseases with comparable symptoms such as CSF, acute salmonellosis, swine erysipelas, porcine dermatitis and nephropathy syndrome, and Aujeszky's disease should be implemented. The most popular method for determining the etiology of ASF at this time is polymerase chain reaction (PCR), which works by amplifying the viral DNA fragment found in the sample.

Elimination of the infected animals: Pigs with ASF must be killed/slaughtered as soon as possible using humane techniques that should cause instantaneous death or immediate loss of consciousness that lasts till death.

Actions taken by India

In June 2020, the Department of Animal Husbandry and Dairying issued the Disease Control Strategy Plan as advice to state and territorial governments for ASF prevention, control, and containment. Individual ASF discovered areas conduct control measures in accordance with the guidelines. Meghalaya State has issued a SOP for the movement of live pigs to/through Meghalaya. According to the media, Manipur State has banned the import of pigs from outside the state and Myanmar; Meghalaya State designated five districts as outbreak epicenters to implement prevention and control measures; and Bodoland Territorial Council in Assam State is negotiating with the Danish Government to establish India's first pig schools.

Summary

The ASF in India most likely originated from a neighboring nation that shares a border with India. To identify the origins of the current outbreak, genetic characterization and molecular evolutionary research are still being done. ASF is a highly infectious disease that kills 100% of pigs and wild boars, resulting in massive economic losses for pig breeders. There is no commercially available vaccination. Therefore, it is important to carefully analyze the risk factors associated with ASF. The disease should be controlled right away with containment measures, and then a comprehensive research strategy on monitoring and sero-epidemiology of ASF on domestic and wild pig populations should be established. To more properly evaluate these dangers in the Indian context, research on biological vectors' roles in the maintenance and spread of ASFV is particularly crucial.

INSTITUTIONAL LIFE MEMBERS



Bihar Animal Sciences University
Patna



Dau Shri Vasudev Chandrakar Kamdhenu Vishwavidyalaya, Durg



Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana



Kamdhenu University
Gandhinagar



Karnataka Animal, Fishery & Veterinary Sciences University, Bidar



Kerala Veterinary and Animal Sciences University
Pookode



Khalsa College of Veterinary & Animal Sciences
Amritsar



Lala Lajpat Rai University of Veterinary & Animal Sciences
Hisar



Maharashtra Animal & Fisheries Sciences University
Nagpur



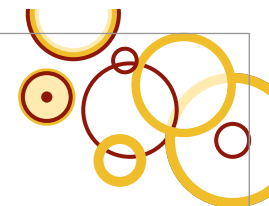
Rajasthan University of Veterinary & Animal Sciences
Bikaner



Sri Venkateshwara Veterinary University
Tirupati



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



BEYOND THE BOUNDARIES

AFRICAN SWINE FEVER

Veterinary Services: Delivering Against Odds



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

The veterinary services of India have "a very competent and professional staff of veterinarians, veterinary para-professionals and other highly qualified specialists in appropriate positions" This is how the World Organisation for Animal Health (WOAH) evaluates the Human Resource manning the challenging domain of animal health and disease management. But at the same time it recognises the serious gaps and inadequacies in infrastructure, investment and manpower availability. A dichotomous situation indeed: a high quality professional manpower struggling against inadequate physical and financial resources.

We discussed threadbare last month the why and how of the critical importance of animal health and established that the most effective and economic approach to protect human health is to control zoonotic pathogens at their animal source. This should surely build a strong case for strengthening the veterinary institutions and services, as also strong institutionalized and harmonized collaboration at local, regional and global level between the veterinary, health and environmental governance. Developing countries like ours have much greater stakes in a strong "One Health" system, an approach that recognizes that the health of people is closely connected to the health of animals and our environment, which is shared. Our agriculture is characterised by small holdings and mixed farming systems resulting in uncomfortably close proximity of animals and humans, so the one health approach is all the more critical for us. It is imperative that health and disease surveillance must incorporate all domestic animals, particularly livestock and poultry.

Where do we stand in attaining the goal of a robust "One Health" regime; and how strong and adequate is our animal health governance, especially in comparison with the health sector? After all "One Health" calls for a hand in hand relationship.

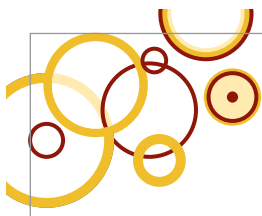
As of December 2021, we had 10.41 lakh doctors at a doctor: patient ratio of 0.74:1000 for a population of 1.40 billion. The WHO recommendation is a minimum doctor patient ratio of 1:1000. However, the government claims that the statement that we are below the WHO recommendation is a myth as including the registered AYUSH doctors, we have one doctor for every 854 people, thus having a much better than the recommended ratio. Against this we have a meagre about 70,000 veterinarians tending to the health and disease management of an identical size of livestock and poultry population.

What should be the ideal or even reasonable ratio is a question no one has asked, much less answered since the year 1976 when the National Commission on Agriculture recommended one veterinary doctor per 1000 adult cattle/animal unit (ACU). Please note that unlike doctors, the ratio in case of veterinarians is not per animal but determined per cattle/animal unit. What is this artificially and quite illogically created unit? Here is what it says. One ACU equals one cattle or buffalo; ten sheep/goats constitute one unit, and similarly five pigs are equivalent to one cattle unit. Not a whiff of poultry or camel or ponies or mules or dogs. How crazy would it sound if planning for health services were to be based on such an assumption, say five children or ten infants equal one adult? (Paediatricians may suddenly be left with little to do). Size of the animal appears to have been the only criterion for fixing this norm. Is it not a high time to shed this unscientific burden of 1976 and establish norms based on science and rationale? Even if the 1976 norms were to be applied, in the absence of anything better, we require 1.25 lakh veterinarians as against the 70,000 today. Further, this figure has been computed to the exclusion of poultry. Why? Human concern, in recent times, has been dominated by diseases affecting poultry. And what is our response? Culling? Do we need a doctor to tell us that to kill is the treatment? And what about fish? Is it not an animal? Who is authorised to cure it? It is the veterinarian. But we don't even train him for this.

1.9 lakh health institutions exist in the government sector supported by a vast network of private medical facilities. On the other hand, there are only about 65,000 veterinary institutions across India, half of them rudimentary and the private sector is as negligible as being non-existent. More than 600 medical colleges but only 58 recognised veterinary colleges. Against this backdrop, it is a Herculean challenge to augment and strengthen the veterinary infrastructure and services in the country, but we need to do so nonetheless, in right earnest to protect human health and secure the nutritional requirements of our burgeoning population.

Medically speaking, all humans have identical body organs but each of the animal species is different, making the veterinarian's task complex; and then the wild animals too are his domain. In veterinary medicine, there are hardly ever any indoor patients. The doctor is always on house call. Indoor patients, though seldom, are the domestic pets; rarely ever the food producing or otherwise economically relevant animals. How many times have you come across a cow or a buffalo or a chicken admitted in a hospital? Posing the same question about fish would be too absurd.

The Parliamentary Standing Committee of the Union Ministry of Fisheries, Animal Husbandry and Dairying in its 2021 report titled 'Status of Veterinary Services and Availability of Animal Vaccine in the Country' has expressed concern that testing and treatment facilities for veterinary diseases was "woefully lacking" and expressed that it "was extremely worrying" given that instances of zoonotic diseases were increasing and becoming fatal for humanity. The Committee noted that skilled people were needed at the grassroots level to solve this problem and that while some states did have mobile veterinary units in



villages for basic testing facilities, however, most of them were inefficient due to either paucity of funds or lack of resources. The Committee further expressed "utter dismay" that no Veterinary Hospitals / Dispensaries were strengthened or established over the past five years under the centrally sponsored scheme for establishment and strengthening of veterinary hospitals/dispensaries.

It is indeed true that the exponential increase in livestock population in the country has far outstripped the infrastructure, facilities and manpower offering veterinary care. We must recognise that, besides posing a serious threat to human health, this inadequacy in veterinary infrastructure not only affects the quality of Livestock and outreach of government schemes and programmes but also hampers the growth potential of the Livestock Sector, depriving us of its economic benefits.

However, there is a bright silver lining too to these dark clouds.

The WOAH mission is to improve animal health and welfare worldwide; and veterinary services are the key to achieve this mission. Recognising this, the WOAH has developed international Standards on both the quality of veterinary services, as well as technical competencies for animal health and veterinary public health management. Based on these principles and standards, the WOAH has developed the Performance of Veterinary Services (PVS) Pathway, its "flagship capacity building platform for the sustainable improvement of national Veterinary Services." Following a request to the WOAH from the Government of India, both an intensive and extensive evaluation of the Veterinary Services (VS) was conducted during the year 2018-19 by a team of independent international professionals, and this included field visits and interactions with stakeholders all across India. According to the WOAH, India PVS evaluation "was the most complex of any yet undertaken by WOAH and presented many challenges." The report recognizes that "much of India's animal health and veterinary public health services are provided by the diverse array of 29 states and seven Union Territories." "Compounding these challenges further is that India has the second largest human population in the world and very large livestock and poultry populations, much of which is managed by smallholder operations. India has a very large and diverse livestock economy with a remarkable growth record; policy support is strong for the continuing growth of the agricultural sector including livestock. Most of India's livestock production continues to come from small rural owners with few animals managed extensively but there is increasing application of extension services and technologies to promote the productivity and sustainability of this sector. There is also increasing livestock production through medium and large sized enterprises, particularly for poultry. All sectors of the livestock and poultry industries recognise the importance of animal health for efficient and profitable production."

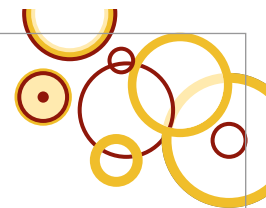
Overall the assessment of the veterinary services of India against the WOAH standards is that they operate at a "variable level" with some great strengths and unique approaches but also some significant limitations; there are opportunities for improvement.

The greatest strength, to reiterate, is the competent professional force delivering despite severe limitations; opportunities for improvement, as always, are boundless.

REFLECTIONS

THE ISSUE THAT WAS

- This is one of the best issues of NAVS NEWS VIBES in all branches of its coverage but the Editorial and President's Desk are particularly enlightening with newer ideas for incorporation in the NAVS Agenda for future. *[Dr R N Kohli, Founder Editor NAVS]*
- Thank you, sir, for the wonderfully edited July 2023 issue of NAVS News Vibes. I especially liked the Editor's desk, written so nicely and paving the way for the progressive and catalytic role of NAVS(I) in the holistic development of veterinary research, education and profession at large. It was quite interesting to read the 'Horizon-President's View & Vision' section, especially the narration as to how he was able to convert the human non-veg food residues/waste into a commercially successful multinutrient poultry feed supplement, making him a successful entrepreneur in a veterinarian. It's an inspiring story indeed. *[Dr Rajveer Singh Pawaiya]*
- I express my sincere appreciation for your steadfast dedication to crafting a newsletter that not only informs but also engages and delights both NAVS(I) members and professional colleagues. Your contributions are pivotal in upholding the high standards we aim for. *[Yashpal Singh Malik]*
- Dear sir, I would like to express my heartfelt gratitude for your dedicated efforts in bringing forth the 10th edition of NAVS News Vibes. Your commitment and hard work have played a pivotal role in making this publication a valuable resource for our esteemed Fellows and Members. The content and presentation of this newsletter are truly commendable, and I'm confident that our readers will find it insightful and engaging. Your attention to detail and dedication to quality shine through in every aspect of this publication. *[Subhash Verma]*
- As usual under your editorship, this issue is also impressive by its coverage of a variety of topics. After a long time, it feels nice to read the article on trypanosomiasis by you and your colleagues. *[Dr Satpal Ahuja]*
- Articulated nicely *[Dr. Suresh S Honnappago; 09868248530]*
- Very dedicated editor. Congratulations *[Dr Neelam Bansal]*
- Congratulations, I am delighted to see such a quality newsletter. *[Dr. Rameshwar Singh, VC, BASU, Patna]*
- Excellent edn. Sir. Hattsoff to you *[Dr SK Tiwari]*
- Sir, Kudos to you for the excellent newsletter. Professional information encased in a visually appealing frame do speak of your bravura in editing the newsletter. *[Dr Sandeep Ghatak]*
- The information given in NAVS News letter is very relevant for all veterinarians as continuing veterinary education. *[Dr M P Gupta]*



SPLENDOUR SHINING FELLOWS

Padma Shri Dr Mahendra Pal felicitated

Dr Mahendra Pal, a globally renowned scientist and distinguished academician, was felicitated by Dr Ranjan Das, Director of All India Institute of Hygiene and Public Health (AIHH&PH), Kolkata on 14th August 2023 during the concluding ceremony of "Azadi Ka Amrit Mahotsav". Dr Pal is an alumnus of this Asian Pioneer Institute in Public Health. He obtained his Masters in Veterinary Public Health degree from this institute in 1975 with First Position. He had an opportunity to visit his Alma Mater nearly after five decades. National Academy of Veterinary Sciences (India) wish Prof Mahendra Pal and elected fellow of 1997, a very happy and healthy long life and with that he may continue to contribute more to the scientific community.



L to R 1. Dr Debashis Dutta, Dean, AIHH&PH, Kolkata 2. Dr Ranjan Das, Director, AIHH&PH, Kolkata, 3. Dr Chanchal Bhattacharyya, Nodal officer Zoonotic & Infectious Diseases, 4. Prof Mahendra Pal

Professor Nandi gets ICAR National Professorship

Dr Samit Kumar Nandi, Professor and Former Head, Department of Veterinary Surgery and Radiology, West Bengal University of Animal & Fishery Sciences, Kolkata and Fellow of NAVS has been awarded ICAR National Professorship. He joined the said post on 22nd August 2023 for a tenure of 5 years. Earlier Prof Nandi received the Rafi Ahmed Kidwai Award for Outstanding Research in Agricultural Sciences 2021 in the category of Animal & Fisheries Sciences of ICAR New Delhi. Congratulations to Dr Nandi, Fellow of NAVS for National Professorship of ICAR



LEST WE FORGET: OBITUARY

Father of India's Green Revolution Passes away

A key architect of the country's 'Green Revolution', the legendary agricultural scientist, Dr MS Swaminathan passed away peacefully at his residence in Chennai on September 28, 2023. He was 98. Dr Swaminathan was born on August 7, 1925 in Kumbakonam district of Tamil Nadu and played a significant role in the overall growth of Indian agriculture in independent India.



Dr. M.S. Swaminathan is known as the "Father of Green Revolution in India", for his leadership and success in introducing and further developing high-yielding varieties of wheat and rice in India.

Dr Swaminathan worked closely with two Union Agriculture Ministers, C. Subramaniam (1964-67) and Jagjivan Ram (1967-70 & 1974-77) for the success of the 'Green Revolution,' a programme that paved the way for quantum jump in productivity and production of wheat and rice. Dr Swaminathan was a recipient of the Padma Shri in 1967, Ramon Magsaysay Award in 1971 and Padma Bhushan in January 1972.

He became Director General of the Indian Council of Agricultural Research. When Indira Gandhi became the Prime Minister again in 1980, he was appointed as Member (Agriculture, Rural Development, Science and Education), Union Planning Commission, and, for a few months, he served as the Deputy Chairman of the body.

Between 1982 and 1988, he headed the International Rice Research Institute, Philippines. By the time he returned to India in 1988, he had received many more awards and honours, both in India and outside. In 1987, he became the first to get the World Food Prize and the first foreigner to receive the Golden Heart Presidential Award of Philippines. Two years later, he was conferred with the Padma Vibushan.

In November 2004, the Union government made Dr Swaminathan chairman of the National Commission on Farmers. Popularly known as the Swaminathan Commission, the panel submitted five reports in two years to the Centre. Its main recommendation was that minimum support price should be at least 50% more than the weighted average cost of production.

Dr Swaminathan was a nominated member of the Rajya Sabha from 2007 to 2013. The first World Agriculture Prize, instituted by the Indian Council of Food and Agriculture, was given to him in October 2018.

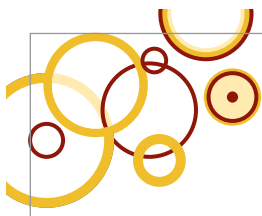
Ian Wilmut, Famed Scientist Who Led the Creation of Dolly the Sheep, Died at 79

Ian Wilmut, the embryologist most known for cloning Dolly the sheep, passed away at age 79 from complications of Parkinson's Disease, according to news from the University of Edinburgh. Wilmut's work represented a milestone in the field of regenerative medicine and stem cell research.



Knighted in 2008, Sir Ian Wilmut revolutionized the field of cloning, stem cell research, and regenerative medicine.

Born to teachers in a Warwickshire village in 1944, Wilmut was originally interested in agriculture but later switched to animal science studies at the University of Nottingham. After a summer job with biologist Christopher Polge at the University of Cambridge, Wilmut became fascinated with cryopreservation. He pursued a doctoral degree studying freezing techniques for animal semen and embryos with Polge. Wilmut and Polge applied the knowledge they gained to help the first live birth from a frozen embryo: a calf named Frostie.



In 1973, Wilmut joined the Animal Breeding Research Organization, which later became the Roslin Institute. He initially worked on genetically modifying sheep to produce milk that contained therapeutic proteins. This led him to search for a more efficient method of sheep breeding using a nuclear transfer method, or animal cloning.

He worked alongside cell biologist Keith Campbell, who observed that one critical step in cloning was synchronizing the cell cycles in the donor and recipient cells. Soon, Wilmut's team created the first successful sheep clones in 1995 using nucleic material from cultured embryonic cells. The following year, by building further upon their previous technology, he and his team introduced the nucleus from the cell of an adult mammary gland into an adult egg cell, and the famous Dolly was born. The achievement made headlines as it was the first time a mammalian clone was generated using adult tissue.

ACADEMIA

SCHOLASTIC CONNECTIONS

The 2023 Nobel Prize in Physiology or Medicine jointly to Katalin Karikó and Drew Weissman

The Nobel Prize in Physiology or Medicine 2023 has been awarded to Katalin Karikó and Drew Weissman for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19.

The discoveries by the two Nobel Laureates were critical for developing effective mRNA vaccines against COVID-19 during the pandemic that began in early 2020.



Malaria vaccine big advance against major child killer

Malaria kills mostly babies and infants, and has been one of the biggest scourges on humanity. In 2021, there were 247 million cases of malaria and 619,000 people died, most of them were children under the age of five. More than 95% of malaria is found in Africa.

A cheap malaria vaccine that can be produced on a massive scale has been recommended for use by the World Health Organization (WHO). The vaccine has been developed by the University of Oxford and is only the second malaria vaccine to be developed. It has taken more than a century of scientific effort to develop effective vaccines against malaria.

It is almost two years to the day since the first vaccine - called RTS,S and developed by GSK - was backed by the WHO.

The world's largest vaccine manufacturer - the Serum Institute of India - is already lined up to make more than 100 million doses a year and plans to scale up to 200 million doses a year. So far there are only 18 million doses of RTS,S.

The WHO said the new R21 vaccine would be a "vital additional tool". Each dose costs \$2-4 (£1.65 to £3.30) and four doses are needed per person. That is about half the price of RTS,S.

The two vaccines use similar technologies and target the same stage of the malaria parasite's lifecycle. However, the newer vaccine is easier to manufacture as it requires a smaller dose and uses a simpler adjuvant (<https://www.bbc.com/news/health-66985273>)

New Book by Dr PK Gupta entitled Nanotoxicology in Nanobiomedicine

The book by Dr PK Gupta, Former Head of the Division of Pharmacology & Toxicology at Indian Veterinary Research Institute, Izatnagar is published by Springer Nature.

This book may help change the face of various therapies, diagnostics, imaging, tissue grafting, therapeutics, immunotherapy, and drug delivery



in veterinary and medical fields in the very near future. The book is an essential guide and will attract readers from academia, industry, and government from a broad field, including students of medicine, dentistry, veterinary, biology, and toxicology; agricultural scientists; food packaging industrialists; nanotechnologists; as well as nanomaterial scientists and individuals with interest in nanotoxicology and nanotechnology. Congratulations to Prof PK Gupta, for this remarkable feat.

TIDBITS

SOUPCON

World's first live parasitic worm found in Australian woman's brain

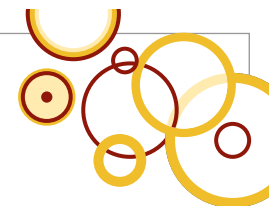
In the first case of its kind, Australian doctors discovered a live parasitic roundworm measuring 8 centimetres within the brain of a 64-year-old woman who was experiencing symptoms of memory loss and depression. This alive and wriggling roundworm (*Ophidascaris robertsi*) was taken out from the brain after surgery.



This particular type of worm is typically associated with snakes, particularly carpet pythons native to regions like Australia, Indonesia, and Papua New Guinea. This marks the first recorded instance of a snake parasite being found in a human. Although the woman had no direct contact with snakes, she resided near a snake-populated lake.

Speculation suggests that the worm's eggs could have been inadvertently ingested through edible grasses, like New Zealand spinach, collected for cooking. The medical team had to navigate uncharted territory since the parasitic infection had never been observed in humans before. They meticulously adjusted the patient's medication regimen over several months to address her symptoms.

The Centre for Disease Control and Prevention initially reported this unusual case, serving as a testament to the unpredictability of medical anomalies [<https://www.indiatoday.in/world/story/in-worlds-first-live-parasitic-worm-found-in-australian-womans-brain-2427969-2023-08-29>]



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, 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.



IECC Camps Luniyavas donkey fair

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 (EWPs) 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:

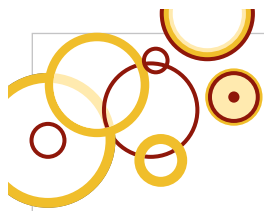
- Advocating the revision of Glander's Compensation- From INR 50 to 25,000 for horses and INR 16000 for mules/donkeys
- Inclusion of Equids in Livestock under the National Livestock Mission Schemes and thereby making them eligible for equine insurance.
- Advocating the issue of Animal Welfare Board of 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

Zydus AHL

For the First Time in India

VetPlasma™

PLASMA VOLUME EXPANDER

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.



Restores Blood Volume Saves Life

Animal Pharm
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Award Winner 2015, 2016, 2018
Best Company-India, Africa, Middle East

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