

NAVS NEWSLETTER

FOR PRIVATE CIRCULATION ONLY

NEW DELHI

JANUARY, 2015



HAPPY NEW YEAR 2015

OUR MISSION

"To consolidate and promote the views of scientific community on all policy matters related to Veterinary Science and Animal Husbandry in the welfare of India; to encourage better training and utilization of veterinary talent and enterprise in the country; to strive for advancement of livestock sector in the national economy; to promote animal welfare; to protect environment; and to safeguard the interests of the profession and to gain greater recognition and acclaim for it".

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 2. Second NAVS Convocation: 30th January 2000 at Pragati Maidan, **New Delhi**
 3. Third NAVS Convocation: 16th April 2002 at IVRI, **Izatnagar, U.P.**
 4. Fourth NAVS Convocation: 7th May 2005 at GBPUAT, **Pantnagar, Uttrakhand**
 5. Fifth NAVS Convocation: 5th May 2006 at JNKVV, **Jabalpur, M.P.**
 6. Sixth NAVS Convocation: 28th June 2007 at KVAFSU, **Bangalore, Karnataka**
 7. Seventh NAVS Convocation: 16 May 2008 at SKUAST, **Jammu, J & K**
 8. Eighth NAVS Convocation: 23rd January 2009 at SVVU, **Tirupati, Andhra Pradesh**
 9. Ninth NAVS Convocation: 30th October 2010 at NDRI, **Karnal, Haryana.**
 10. Tenth NAVS Convocation: 12th November 2011 at RAJUVAS, **Bikaner, Rajasthan.**
 11. Eleventh NAVS Convocation: 2nd November 2012 at DUVASU, **Mathura, U.P.**
 12. Twelfth NAVS Convocation: 28th January 2014 at LUVAS, **Hisar, Haryana**
 13. Thirteenth NAVS Convocation will be held on 28th February 2015 in **Durg, Chhatisgarh**
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2. EDITOR'S NOTE



2.1: GM Silk is Stronger than Steel

This is an interesting research that will have umpteen applications. The research findings published in the journal PLOS ONE as a paper titled “High-Toughness Silk Produced by a Transgenic Silkworm Expressing Spider (*Araneus ventricosus*) Dragline Silk Protein’ have shown that genetically modified silk is stronger than Steel. (<http://www.digitaljournal.com/.../gm.../article/401045>).

Silkworms have been modified to produce spider silk, creating a fabric that could be used in everything from bulletproof clothing to artificial tendons. At the University of Wyoming, scientists modified a group of silkworms to produce silk that is, weight for weight, stronger than steel. Different groups hope to benefit from the super-strength silk, including stronger sutures for the medical community, a biodegradable alternative to plastics, and even lightweight armor for military purposes. Thus GM silkworms have been made to spin super-strong silk.

Silk is of great value but it does not always make for the robust clothing. Scientists have genetically engineered silk worms to manufacture a tough, strong and durable form of silk. The idea for the work was based on the fact that some spiders' silk is five times as strong as steel. A research team wondered if they could harness that strength in order to manufacture a more durable cloth. Previous studies had shown that attempting to produce artificially long and strong fibers of the spider silk is not successful.

Instead a team of biologists took a different tract. They had the idea that a spider silk protein could be inserted into silkworms. From this concept, trials were undertaken using genetically modified silkworms. To do this, a spider (*Araneus ventricosus*) dragline protein gene was cloned and a transgenic silkworm was generated. One interesting thing about the spiders is that although they have various venoms, they will deliver a dry bite on 8 of 10 occasions. Females are inclined to bite more often than males. Transgenics is the process of introducing a gene from one organism (transgene) into another living organism so that the organism will exhibit a new property and transmit that property to its offspring: in this case a gene from a spider into a silkworm (Tim Sandle, Sep 3, 2014 in Science).

As The Scientist indicates, initial results have shown that a raw silk that is 53 percent tougher than the worms' native threads can be produced. Furthermore, the new threads are durable enough to be woven and sewn into a scarf and a vest. These clothes were produced in order to demonstrate the commercial feasibility of the cloth. The super-silk was subjected to machine reeling, weaving, and sewing to test its tensile strength.

While praising this amazing biodegradable and eco-friendly silk, some are wondering if this genetic modification is going to be transferred to next generation of silkworm?

2.2: We sincerely wish to thank the readers of the Newsletter for continuously inspiring us with their words of appreciation about the editorial efforts that go into its publication. In fact these words keep us going. Thank you for helping us in continuing to do whatever little we can do for the profession. We are grateful to the members of the Academy for their co-operation and assistance at all times. God bless all of you.

Prof. Dr. R.N. Kohli, Hon. Editor

3. LETTERS TO THE EDITOR

Thanks Prof. Dr. Kohli. The newsletter is highly educative and informative. I am happy also because you are also from PAU, Ludhiana

Dr. P.P. Gupta, drpgupta41@gmail.com

Just went through the Oct, 2014 issue of NAVS Newsletter and found it very informative dealing with all the important News and Views of the profession.

Dr. Gaj Raj Singh, drgajrajs@rediffmail.com

Thank you for making me aware about the changing scenario of Veterinary Education. Keep me updated regularly.

Dr Sudarshan Kumar <drsudarshandogra@yahoo.com>

Thank you Respected Dr. Kohli so much for forwarding the October Issue of the NAVS Newsletter. I really appreciate the efforts on your part in covering widely and inclusively almost all the important happenings in animal and veterinary sciences. Congratulations to all the NAVS Fellows and Executives who worked all these years and placed NAVS in a viable position. I wish all the success in future endeavors.

Dr. R. K. Singh, Director, Indian Veterinary Research Institute, Izatnagar, U.P..

Email: rks_virology@rediffmail.com; rks_virology@yahoo.com;

Thanks to Dr. Kohli for producing another grand edition of NAVS Newsletter. I would like to point out that this e- Newsletter is reaching the readers fast and is disseminating all the current issues related to Veterinary and Animal Science as quickly as possible. The newsletter is extremely successful in generating a brainstorming wave of feed backs and views. I am sure that the idea is similar in modality of making effective use of electronic media used by our Hon'ble PM Shri Narendra Modi. Many Kudos to you.

Dr.TK Gahlot, Director Clinic, Veterinary College, RAJUVAS, Bikaner

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The issue of NAVS Newsletter is increasing in size and quality. I wish it gets good readership among policy makers. Sir, while continuing to appreciate the yeomen service that you are doing to the profession, I only wish that the topics that you are projecting in the interest of the profession get a bit more spread in social net work also. I read the comments of Dr JS Bhatia and Dr. Jit Singh and could not resist sending my views.

Dr. Rama Kumar V., drmakumar@gmail.com.

Dear Dr. Kohli, As always, I appreciate and thank you for all the good and dedicated efforts you are putting in to generating the NAVS Newsletter regularly.

Dr. Srinivasan Ramanathan, Dean, Apollo College of Veterinary Medicine, Jaipur 302031 Rajasthan *E-Mail*: animaldr1@gmail.com

Dear Dr Kohli, I congratulate you for conducting the editorship of NAVS so nicely. I also speculate you may be short of staff hence facing problems in maintaining NAVS records. This

may be the reason of missing my e mail address, an old fellow of NAVS (1997) , and receiving the copy of Oct 2014 news letter through Shri Shekhar Dutt, former Governor of Chhattisgarh. May I now request you to up-date your mail addresses so that I may receive all correspondence directly from NAVS.

This mail is particularly to second the feelings of Dr J.S. Bhatia regarding career advancement scheme and paucity of senior level staff in every veterinary college. Looking to the present situation, as a board member of Chattisgarh Kamdhenu University, Durg, I suggested to create at least 3-4 seats in the university where eminent retired Veterinary Professors/scientists may be given honorary appointment of Professor of Emeritus with nominal remuneration so that these eminent scientists may participate in research and academic program of the university and may bring some new research schemes from international organizations. The idea was much appreciated by the Honorable Chancellor (Governor), but the Finance secretary has yet not cleared the proposal. Here I may remind that Dr Mahajan has been Professor of Emeritus in PGI, Chandigarh and Dr VP Sharma in IIT, Delhi since long after their retirement. It will be my pleasure if NAVS gives a serious consideration over the issue so that the program may be implemented in many veterinary universities.

Professor M. C. Agrawal, Former Emeritus Scientist, ICAR. 3/4, Datt Arcade Phase Three, South Civil Lines, Jabalpur-482001. E mail < mcagrawal@yahoo.com >

Respected Prof (Dr) Kohli, I am really happy to read the Academy's Newsletter as it gives me a lot of current news, information about veterinary sciences. Thanks to your hard and sincere efforts to the Academy as well as to the Veterinary Profession. You may note that I have received prestigious fellowship from German Research Foundation (DFG), Bonn, Germany for a Bilateral Collaborative Research Project on Therapeutic Effect of Mesenchymal Stem Cell in Orthopaedics under the banner of INSA (Indian National Science Academy)-DFG (German Research Foundation) Scientists' Exchange Programme. I joined here last month as a Faculty Guest Professor at Technical University of Munich (TUM), Munich, Germany.

Dr Swapan Kumar Maiti, NAVS Fellow, Principal Scientist, Indian Veterinary Research Institute, Izatnager-243122 (UP), India

Dear Dr. Kohli, if you recall, we exchanged a few e-mails several months ago. I am still looking forward to being elected as a Fellow of the Academy. A retired professional in India is willing to nominate me. I am still at a loss to know as to why do I need to pay \$500 to be elected as a fellow. I would rather donate the money to a charity. Let's have some dialogue, resolve this issue and alleviate my concerns. Just wanted to share this link about the meeting I am chairing: <http://www.cvent.com/d/p4qxpxp>; **Dr. Vijay Juneja**, Lead Scientist, Predictive Microbiology for Food Safety, Residue Chemistry and Predictive Microbiology, Eastern Regional Research Center, USDA-Agricultural Research Service, 600 E. Mermaid Lane, Wyndmoor, PA 19038, U.S.A. <http://www.arserrc.gov/>; <Vijay.Juneja@ars.usda.gov>

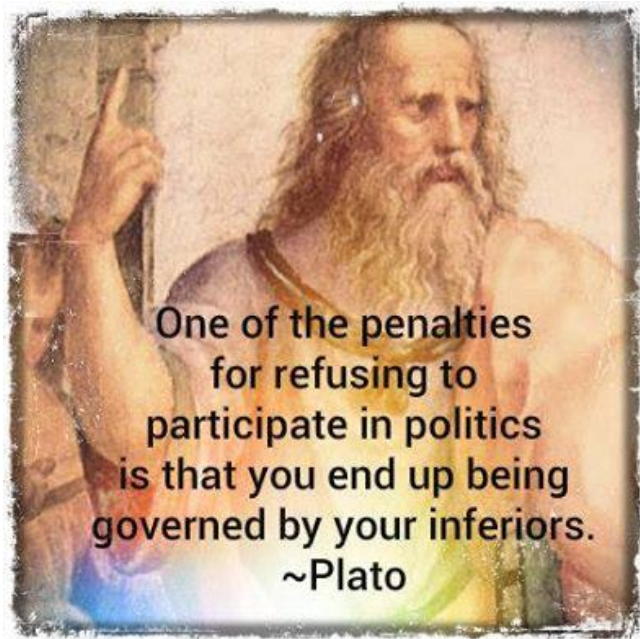
(Editor's reply: Your previous mail regarding the procedure for induction of Fellows/ Members into the Academy was forwarded to the President. This is also being forwarded to the concerned. Please contact them for further developments, as the issue is beyond my individual responsibilities as Honorary Editor. As you might have noticed, the portions of your mail that related to the Newsletter were included in the NAVS Newsletter).

As usual, the October 2014 issue of NAVS was very informative. The write up on GM crops by your good self was very nice. Other interesting and informative write ups were on strategies for enhancing milk productivity of indigenous cattle by Dr KML Pathak and on need to support buffalo by Dr Rama Kumar. This newsletter is not only for news on various issues and activities but also stands for latest updates and exchange of views & opinions. In this particular issue your comments and views which came in phrases on a social networking site and a detailed note on the same by Dr. Rama Kumar (on need to support buffalo) was not only informative but of professional interest too. Sir, the note of Dr. Rama Kumar, raised very valid points, I would further like to add more as my point of view which, however, is not merely an opinion but based on facts.

Its Correct, Sir, there are many differences between cattle and buffalo which are very important from clinical point of view. This becomes more important as often we conduct research on cattle and/or buffalo and draw the conclusions for both species which leads to extrapolation of data form one species to another which may be injudicious. Although few studies are available yet the anatomy, physiology, and pharmacological responses of buffalo to most drugs have not been extensively investigated in true sense. There are so many differences which are likely to have immense implications in the mechanism of disease, drug response and clinical practice. The basic point is that there is need to study the anatomy & physiology of buffalo and also drug responses more exhaustively than what little has been done so far.

Concerning area specific mineral mixture, there is a need to study soil- plant-animal chain related to micro and macro elements region wise in each state of India. Mineral supplements or additives or other products as general formulations may not be productive uniformly and adverse reactions (e.g. with selenium and manganese) or deficiencies can occur and have been observed.

Dr. Jit Singh; <jitp48@gmail.com>



WE WISH OUR READERS A VERY HAPPY NEW YEAR 2015

4-: FROM THE PRESIDENT'S DESK

Some Important Animal Science Perspectives in India



Prof. Dr. K.M.L. Pathak

The world is in the midst of a global food crisis with the number of food-insecure people in the world increasing from 820 million in 2004-06 to 1020 million in 2009 (FAO 2009). The global population is predicted to increase to around 9.5 billion people in the year 2050. This will increase total food requirement by 70% to the present day needs. India, being a country in developmental transition, faces the dual burden of addressing pre-transition diseases like under-nutrition and infectious diseases as well as post-transition, lifestyle-related degenerative diseases such as obesity, diabetes, hypertension, cardiovascular diseases and cancers.

According to recent National Family Health Survey and UNICEF Reports, 46% of preschool children and 30% of adults in India suffer from moderate and severe grades of protein-calorie malnutrition as judged by anthropometric indicators. It should be borne in mind that the resources available for agricultural production are likely to decrease concurrently with increased population growth. Therefore, the impetus lies on the global livestock industry to face the challenge of both food and nutrition security by producing sufficient, nutritious, safe, affordable animal protein to meet consumer demand.

In a vast country like India with diverse agro-ecosystems, production and farming systems with their unique features and opportunities is a great advantage for livestock development. Seventy two percent of our population lives in the villages and more than 52% of which is directly dependent on agriculture while 42% are employed in agriculture. Indian economy is mainly agrarian and agriculture directly influences the life style of our rural population. Agriculture production has profound impact on rural economy, empowerment, social equity and poverty alleviation. The policy frame-work on planned support to agriculture in the form of research, education and extension with specific emphasis on irrigation, fertilizer, electricity, credit and price support have all paid good dividends. India has made significant investments in public sector agricultural research and extension. Today, the National Agricultural Research System in the ICAR is one of the most robust and largest in the world. Indian agriculture has made significant strides after independence demonstrating its unique resilience in becoming a significant contributor to the national economy. Increased food grain production through judicious use of Green Revolution Technologies, has been the corner stone of India's agricultural success. India's commitment to planned economic development in agriculture and allied sectors is a true reflection of the determination of the government through a network of public funded institutions under ICAR, State Agricultural and Veterinary Universities and NGOs to improve the economic conditions of our people. Further, this is an affirmation of the role of the government in bringing about this change and outcome through a variety of social, economic and institutional means. The strength of our economy is evident from the remarkable transition, a high growth path which has been achieved over different five year plan periods particularly in the last decade or so with record food grain production. The Eleventh Plan saw the economy accelerating steadily to achieve an average growth rate of over 7.9% for

the Plan period as a whole, with the highest ever achieved during 2010 over 10.4%, making India one of the fastest growing economies in the world.

Livestock sub-sector is one of the main pillars of India's agrarian economy, providing food, nutritional and livelihood security. Its ownership is highly egalitarian and the growth in the sub-sector is highly pro-poor. Livestock is an important source of livelihood for the farmers and rural poor people. The growth in this sub sector is expected to contribute to poverty alleviation, as the livestock elements are largely concentrated among the marginal and small farmers in rural areas. The livestock sector of India is both expanding as well as adapting to emerging socio-economic, environmental and technological forces. Indian livestock which includes 199.1 million cattle, 105.3 million buffaloes, 71.5 million sheep, 140.5 million goats, 11.3 million pigs is contributing substantially to social and economic well being of the country. India is the largest milk producer with an annual production of around 132 million tonnes. This milk is produced from around 75 million mostly small livestock owners – landless, marginal and small farmers-holding individually just 3-4 heads of cattle. Clearly, *India's milk production is not mass production of milk but milk production by masses*. Among agricultural commodities milk also has the highest economic contribution even more than paddy or wheat production in the country. The total meat production in India from sheep, goats, pigs, cattle and buffaloes is around 3 million tonnes. In addition the poultry production is a vibrant fast growing industry with an annual production of about 55 billion eggs and more than 2 million tonnes of chicken meat. As per the Central Statistical Organisation (CSO) estimates, the livestock sector contributed approximately 4.07% to GDP and over 27% to the agricultural GDP. Therefore, the importance of livestock in the economy is enormous and cannot be underestimated. The importance of livestock in India goes beyond the function of food production. It is also an important source of draught power, manure for crop production and fuel for domestic use.

Animal Science Division of ICAR is striving continuously to undertake new initiatives for innovative R&D and technology transfer to the industry and farmers. It coordinates and monitors research activities in its 19 Research Institutes and their Regional Centers. The main vision of the Division is to develop new technologies to support production enhancement, profitability, competitiveness and sustainability of livestock and poultry sector for food and nutritional security. The mission is to facilitate need based priority research in livestock and poultry sector in on-going and new emerging areas to support productivity increase, thereby reducing the gap between potential and actual yield in the current era of globalization to meet the challenges ahead.

While lauding India's livestock productivity we need to address the concern of its contribution to global warming. Food provides energy and nutrients, but its acquisition requires energy expenditure. The current global average meat consumption is 100 g per person per day, with about a ten-fold variation between high-consuming and low-consuming populations.

Modern relations between energy, food, and health are very complex, raising serious, high-level policy challenges. Worldwide, agricultural activity, especially livestock production, accounts for about a fifth of total greenhouse-gas emissions, thus contributing to climate change and its adverse health consequences, including the threat to food yields in many regions. To prevent increased greenhouse-gas emissions from this production sector, the intensity of emissions from livestock production must be reduced. The animal production system, which is vulnerable to climate change, is itself a large contributor to global warming through emission of

methane as a result of 'enteric fermentation' and 'anaerobic fermentation of animal waste' and the microbial processes of nitrification and de-nitrification of animal waste forming nitrous oxide, which are emitted to the atmosphere. The United Nations, Food and Agricultural Organization report titled 'Livestock's Long Shadow' (LLS) stated that 18% of anthropogenic greenhouse gases (GHGs) are directly and indirectly related to the world's livestock. Animal waste contributes about 0.4 million tons of nitrogen per year, or 7 percent of the total global emissions. The emissions are most acute in developing countries, where the increase in demand is expected to be greatest, and occur at a rate faster than increases in production, and where climate change is projected to have its greatest impact. However, the sharply different manure management practices in India, as compared to the western countries, lead to much lower methane emissions from manure. Responding to the challenge of climate change requires formulation of appropriate adaptation and mitigation options. The scope of decreasing methane from livestock therefore, largely lies in improving rumen fermentation efficiency. Although increasing the proportion of concentrates in the diet is an option but not feasible under our low input system, increasing forage digestibility and hence rumen efficiency is a challenge for the innovative researcher which transcends across different disciplines of agricultural and animal production. When the quality of milk producing animals is enhanced the farmers would be encouraged to be selective in rearing fewer livestock which will bring about a decrease in methane production.

This leads us to a very important aspect of feed conversion efficiency among different livestock. The efficiency with which various animals convert grain into protein varies widely with cattle in feedlots taking roughly 7 kg of grains to produce 1 kg in light weight. For pork, the figure is close to 4 kg of grain per kg of weight gain, for poultry it is just over 2 and for herbivores species of farmed fish (such as carp, tilapia and catfish) it is less than 2. Hence, the conversion of herbivore fish of feed into protein is very efficient. Hence there is tremendous scope for exploring the possibility for improving the efficiency of feed conversion among cattle and buffaloes through improved breeding and management practices.

Improving productivity in a huge population of low-producing animals is one of the major challenges faced by us. The average annual milk yield of Indian cattle is 1172 kg which is about 50% of the global average. Likewise, the meat yield of most species is 20-60% lower than the world average. There remains a huge gap between the potential and the realized yields in Indian livestock. Only 25-75% of the dairy animal's potential yield is actually realized in different regions of the country. This is understandably due to many constraints related to feeding, breeding, health and management besides a large percentage of cattle population which is unproductive.

Therefore, the society looks up to the specialists in Veterinary, Dairy, Fishery sciences to respond to these growing uncertainties and challenges with technology led solutions to these imperatives as drivers of change.

Dr. K.M.L. Pathak
(pathakkml@yahoo.co.in)

5: VET TRACKS

APPOINTMENTS, TRANSFERS, PROMOTIONS AND FELICITATIONS

5.1: Dr. V. K. Taneja retires as Vice-Chancellor of GADVASU, Ludhiana

After giving a new shape to Punjab's Livestock sector through research, academics and extension delivery system for concept of White and Blue Revolutions, Dr. VK Taneja retired as Vice-Chancellor of Guru Angad Dev Veterinary & Animal Sciences University in December 2014 after completing two successful terms. Dr Taneja, a renowned Veterinary Scientist and Policy maker, was appointed Vice-chancellor in December 2006.

Dr. V.K. Taneja has led the university through the commissioning of the new campus and in the renewal of the Animal Husbandry Sector in Punjab. Working closely with State Government, Dr Taneja through his initiatives has helped thousands more farmers to access knowledge of Animal Husbandry Sector. With his enormous efforts Dairy, Fish Farming, Poultry and Pig Farming has become a first choice of farmers in region.

In a long inning of 45 years' service (1969-2014), Dr. VK Taneja served as a teacher, researcher and scientific coordinator and held positions of Animal Husbandry Commissioner, GOI, Deputy Director General (Animal Science), Indian Council of Agricultural Research, New Delhi. He was associated with working group of Animal Husbandry and Dairying, Planning Commission, GOI from 10th plan onwards and was the Chairman, Working Group on Animal Husbandry & Dairying for 12th Five Year Plan.



A number of MoUs with national and international organizations in his tenure enhanced capacity to initiate and participate in state, national and global research agenda. Training and retraining of manpower remained his visionary priority throughout this period. Now GADVASU is one, amongst the best veterinary universities in the country and in a short span of 8 years have been accredited by ICAR, UGC and Association of Indian Universities. The University started functioning with only one Veterinary College in April 2006. Under his guidance, College of Dairy Science & Technology, College of Fisheries, School of Animal Biotechnology, School of Public Health at university campus, Veterinary Polytechnic at Kaljhrani (Bathinda), Three Regional Research and Training Centre at Talwara, Tarntaran and

Bathinda were established along with three Krishi Vigyan Kendras at Mohali, Tarntaran and Barnala. University provided affiliation to Khalsa College of Veterinary and Animal Sciences, Amritsar. Recently Foundation Stone of new Govt. Veterinary College was laid by S. Parkash Singh Badal at Rampura Phul which will be functional in two years.

While explaining his thoughts for future **Dr Taneja** revealed that more dedication towards work brings about ample good results. Scientists should attempt for more research work and projects. We should keep in mind the needs of the farmers and end users. Right and effective education may be delivered to students and farmers. Effective and timely support from state machinery may reap more benefits. State should fulfill required funds for development. Need based research and extension activities are prerequisite condition of progress. 'Live everyday with new desire and handover the baton with transmitting new dreams to next generation, he added.'



Guru Angad Dev Veterinary & Animal Sciences University Teachers Association organized a warm farewell function on his departure. Dr V K Gandotra, President applauded his contribution whereas Dr P D Juyal, Registrar highlighted important points of his whole service career. Mrs. Aruna Taneja, wife of Dr Taneja, his daughter and grand daughter were also there to cherish the memorable moments. Dean, Directors, Heads of the Departments and faculty members attended the function.



The National Academy of Veterinary Sciences (India) wishes the very best for Dr. Taneja and the members of his family with this bouquet of flowers.

5.2: Honorary Doctorates to Shri Sushiel Agrawal by Università Popolare Degli Studi Di Milano, Italy

Shri Sushiel Agrawal, an Honorary Fellow of the Academy and Chairman of Indian Herbs, Saharanpur has been conferred with two Honorary Doctorate Degrees i.e. Degree of Honorius Causa – Doctor of Philosophy (Business Administration) and Doctor of Philosophy (Social Work) by Prof. Dr. Marco E. Grappeggia, President of Università Popolare Degli Studi Di Milano, Italy at their 113th Convocation in the august presence of Vice Chancellor, University Board Members and many distinguished guests on 5th October, 2014 at a glittering function held at the Spice Auditorium, Hotel Atlantis The Palm, Dubai. This university was established in 1901 and it is after many years, the University decided to confer the dual doctorate degree in this year, considering the achievements and accomplishments of Shri Sushiel Agrawal in these fields.



The Honorary degree of Doctor of Philosophy in Business Administration was conferred on him in recognition of his distinguished services during the last 45 years for successfully developing Veterinary Ayurveda as a science for animal health care and productivity enhancement which has now been recognized by more than 40 countries around the world. His work has been very unique with far reaching effects, as allopathic veterinary products have been reported to have many side-effects and their residues in milk, egg and meat cause harmful effects on humans also whereas the Ayurvedic Veterinary Medicines and Supplements developed at R & D Centre of Indian Herbs, Saharanpur under the guidance of Shri Sushiel Agrawal through modern scientific research are found to be completely safe, equally or more efficacious and very economical than allopathic veterinary products, for improving health and productivity of poultry and livestock.

Shri Sushiel Agrawal besides organizing modern scientific research on Herbal Veterinary Medicines and Feed Supplements on his own, was associated with planning and implementation of various research projects resulting into award of Post Graduate and Ph.D. degrees to 193 Veterinary Scientists for outstanding research on Indian Herbs' products and publication of more than 700 research articles in reputed national and international journals. Shri Sushiel Agrawal

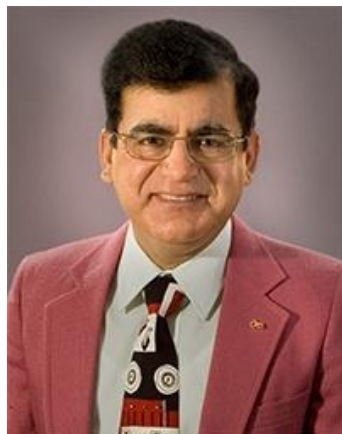
has himself authored 53 scientific research papers that were published in prominent journals related to veterinary medicine.

Shri Sushiel Agrawal has earlier been conferred with Hon'y Fellowship by the National Academy of Veterinary Sciences (India) in November 2012 for his valuable contribution to veterinary science. He has been honored with many awards such as National Awards for Outstanding Entrepreneurship (2007), for Outstanding R&D Achievements (2008), and for Manufacturing Outstanding Quality Products (2010) from Govt. of India and also State Awards for Excellent performance in Export (2008-09, 2004-05) and Product Quality Excellence (2009-10) from Govt. of U.P. He has also been honoured with AIMA – Dr. Juneja Award (2007) for Creativity and Innovation by All India Management Association, New Delhi (More than 100 year old Association of Business Managers).

The Hon'y degree of Doctor of Philosophy in Social Work has been conferred on him for his numerous and diversified social services through Lions International and his contributions for serving the disabled, destitute, helpless and less fortunate people. The Lions International, the world's largest service organization, had earlier honoured him with their highest award i.e. Ambassador of Goodwill Award at Hong Kong International Convention.

5.3: Dr. Vijay Juneja Chairs the Interagency Botulism Research Coordinating Committee (IBRCC) meeting

The Interagency Botulism Research Coordinating Committee (IBRCC) meeting is an annual national and international forum for presenting state-of-the-art research on botulinum toxin and the deadly disease it causes, botulism. The fundamental purpose of IBRCC is to provide a mechanism for coordination between federal and non-federal agencies to improve public health responses to, and medical countermeasures against, botulism in all its forms. IBRCC fulfills this purpose by providing a forum for presenting new research findings and for discussing current and emerging public health issues including biodefense preparedness. The member agencies of the IBRCC are (in alphabetical order): California Department of Public Health (CDPH), Centers for Disease Control and Prevention (CDC), U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID), U.S. Department of Agriculture (USDA), and the U.S. Food and Drug Administration (FDA). Meeting attendees come from federal, non-federal, state, academic, private sector and other research and public health institutions around the globe. For the past 50 years, the annual IBRCC meeting program has reflected the topics of interest and concern to the sponsoring agencies in their ongoing work to protect individuals and populations against the devastating effects of botulinum toxin.



This year's meeting of the Interagency Botulism Research Coordinating Committee (IBRCC) held from Sunday, October 26, 2014 to Wednesday, October 29, 2014 at Sheraton

Philadelphia Downtown Hotel, 201 North 17th Street, Philadelphia, PA 19103 USA, was chaired by Dr. Vijay Juneja, Lead Scientist, Predictive Microbiology for Food Safety, Residue Chemistry and Predictive Microbiology, Eastern Regional Research Center, USDA-Agricultural Research Service, 600 E. Mermaid Lane, Wyndmoor, PA 19038, U.S.A. He expressed his **gratitude to the Eastern Regional Research Center, Agricultural Research Service - USDA for encouragement and support of this meeting.** Dr. Vijay K. Juneja received a degree in Veterinary Medicine from G.B. Pant University of Agriculture and Technology, Pantnagar, India, and Ph. D. in Food Technology and Science from University of Tennessee, Knoxville, TN.

Dr. Juneja is among the world's leading authorities in food safety research and has served in leadership positions in professional societies, notably as Chair, IBRCC meeting, Philadelphia (1998, 2008); Chair, Institute of Food Technologists (IFT) Nonthermal Processing Division's Workshop, Philadelphia (2005); Co-chair, International Predictive Microbiology Conference, Washington, DC (2009). Vijay is recipient of several awards including the IAFP Grocery Manufacturers Association Food Safety Award (2013), Gold Medalist, 'Outstanding Mentor/Coach', Federal Executive Board, Philadelphia (2013); IFT Research and Development Award (2012); National Science Foundation Food Safety Leadership Award for Research Advances (2012); IAFP Maurice Weber Laboratorian Award (2005); ARS-North Atlantic Area (NAA) Senior Research Scientist of the year (2002); ARS-NAA Early Career Research Scientist of the year (1998). He is a Fellow of the IFT (2008), and American Academy of Microbiology (2013).

5.4: Professor H.M. Saxena invited for World University Rankings Survey



Dr. Hari Mohan Saxena, Professor of Immunology at GADVASU, Ludhiana has been invited to participate in the Times Higher Education World University Rankings (2015-16) Survey conducted by Times Higher Education, UK and

Elseviers under the Times Higher Education Global Institutional Profiles Project.

The participants were statistically selected for this survey from around the world and will represent researchers in their academic field and country. Only highly regarded individuals in their specialist fields are invited to take part in this survey. The survey will form a data source that provides the best informed and most effective resource to build profiles of academic institutions around the world. The results of the survey are used to create a picture of the global higher education and research landscape. Dr. Saxena is empanelled among the INSPIRE Mentors of the country by the Department of Science and Technology of Ministry of Science and Technology of India and is a recipient of Eminent Educationist Award of the Indus Foundation, Hyderabad, Lifetime Education Excellence Award with Medal of All India Business

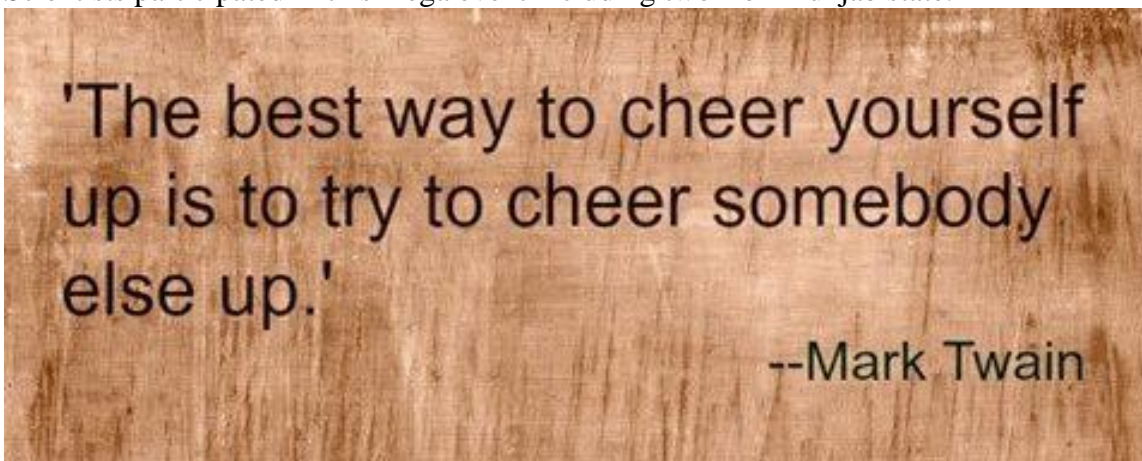
Development Association, and Bharat Shiksha Ratan Award of Global Society For Health and Educational Growth. (E-mail: hmsaxena@yahoo.com)

8.-.: Dr. Singla Attends Zoonosis Conference in Pakistan



Dr L.D. Singla, Professor-cum-head, Department of Veterinary Parasitology, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, participated in the "1st International Conference on Zoonoses-2014" held at Baha-ud-din Zakariya University, Multan, Pakistan as a member Organizing Committee and Invited Speaker. More than 150 epidemiologists, public health specialists, academicians, scientists, researchers, government officials, policy maker veterinarians, NGO's and research scholars from within the Pakistan and abroad participated in the conference. During the conference,

Dr. Singla delivered a key note lecture on "Toxoplasma gondii zoonoses: status, challenges and future directions." More than 30 per cent human population, all over the world is affected with this most successful pathogen and only 10-20 per cent immunosuppressive patients show the symptoms. The parasite is a major cause of abortions and behavioral changes in humans and animals. Dr. Singla in his lecture stressed upon that our focus should be to identify protective immunodominant antigens and use novel vaccine delivery systems to induce appropriate protective responses. He further stressed on the use of integrated approach combining molecular detection and genetic identification for the control and transmission of toxoplasmosis in animals and humans. Dr. Singla besides presenting the lead paper also acted as chairperson in the technical session on "one health action concept to control zoonoses." It was emphasized that there is a great role of Veterinary profession within the one health concept for early detection and control of zoonotic pathogens. It was concluded that one health concept without action will be empty slogan. He also acted as convener along with other Jury members for selection of best poster among the 28 presented during the conference. Three Indian Scientists participated in this mega event including two from Punjab state.



6. VIEW POINT

(Views expressed by contributors are personal)

6.1: Some Suggestions for Veterinary Council of India Srinivasan Ramanathan

I want to submit some of my humble thoughts on the reforms needed for the IVC Act to make it more relevant for today and expand the veterinary medical educational sector. No matter which study we look at whether it is of ICAR or other state funded study on the manpower needs for the veterinary sector we all can agree that we need more veterinary medical professionals to meet the demands in every state of our country. So conservatively we can say that each state in the union can start at least 2 or 3 more veterinary colleges to meet the demand by year 2525. Every state must address this issue in a practical and pragmatic study of the manpower needs and geographic needs to see where the new veterinary colleges must be started so that some of the underserved regions of the state can benefit. Once the specific number and their locations are defined the state can opt to start their own government college (as it is currently done in Tamil Nadu state where the Honorable CM has announced and provided the funding to start two (2) more government colleges in the deep southern districts (Thanjavur and Thirunelveli) of the state). Alternatively the state can invite private educators in a Public Private Partnership (PPP) mode.

1. So the exact number and the location of the new veterinary colleges must be determined first by the state with deliberate, and clear thinking and then the NOCs must be given only to those professionally and financially competent to undertake the establishment of the new veterinary colleges.
2. Those groups who have obtained an NOC from the state government can then approach the state veterinary university (SVU) for affiliation. However if there is no veterinary university in the given state they can affiliate with the (SAU) agricultural university.
3. At every step the VCI and Government of India AH Dept. must be kept in the loop and informed of the progress of the proposed new veterinary college. After the state NOC and university affiliation the VCI can do the first inspection to see that the proposed college has the adequate teaching staff and infrastructure facilities for the given number of students. Of course the VCI must develop the modus operandi and the details of the time frame within which one must submit the application or Letter of Intent (LOI) to start a new veterinary college and the time within which they will send their team to inspect the facilities.
4. Right from the first inspection the VCI must revisit the college every year at least once and if needed more than once to evaluate and reevaluate the progress of the college and give their approval to start the next year. After all the infrastructure facilities and MSVE standards including faculty are met by the concerned college the

VCI must recommend the name of the college included in the government gazette. Once that recommendation is made by the VCI the Govt. of India Ministry of AHD&F must not delay unnecessarily any time and publish the name in the govt. gazette and declare the concerned college recognized. Once the official recognition is given by the VCI there is no need to get annual approval from them to admit students every year thereafter.

5. While the first year is getting admitted the college must start developing the second year infrastructure and the departments for the next year as well as the ILFC and all the required number of different species of animals and poultry in the farm.
6. By the time the new college is finishing their 3 year they must be developing their TVCC so that the forth and final year students get the benefit of the clinical training. At every level of development VCI must inspect and make sure all the infrastructure and manpower requirements as specified in MSVE standards are met or exceeded in these colleges. As the VCI is doing their ongoing inspections every year in the development of the new college they can name the stages of recognition as follows after the end of each year of development and inspection by VCI.
 - a. Proposal stage – First year
 - b. Developing Stage – Second Year
 - c. Reasonable Assurance Stage – Third Year
 - d. Provisional Recognition Stage – Fourth year
 - e. Official and Final Recognition – Final and Fifth year
7. On the manpower issue of faculty numbers VCI should enforce that these new colleges are following the Balaraman committee report that requires only 56 teachers for UG teaching. This is even more critical in light of the fact that these new colleges are going to face the real danger of not able to have even 56 teachers because of the shortage in veterinarians with PG training in many veterinary subjects. Not only we are short on the number of colleges to be able to produce the needed graduates we don't have enough PG programs to produce the needed teachers for another 10 years!! Another point noteworthy to mention here is that the intake of new students in the first year must be increased to 100 students per college so that it becomes economically a viable institution in due course of time. After 5 to 10 years we can increase the teaching staff if the college wants to start PG and PhD programs as per the MSVE standards. Not all private colleges may want to start PG or PhD programs and such institutions can be allowed to function with 56 teachers as they will be teaching only UG students. There is no need to have PG or PhD programs in ALL private veterinary colleges.
8. Another point on the 6 months of internship for the final year last semester is that the colleges must be allowed to choose their own internship locations whether they are government owned or private so that students get the best clinical and farm training

before they graduate!! Similarly training must be allowed in both private and government farms and other facilities to give the students best exposure possible.

9. A word about the examinations under the current VCI (MSVE) regulations. We are spending a large amount of time on internal and external exams. Some how if we can reduce it will make it more easier to teach and more enjoyable for the students also.
10. In light of the location, the requirement about staff quarters auditorium, canteen, etc., which don't have any direct impact on the education must be relaxed or removed so that colleges can divert their financial resources in more needed and essential infrastructure as well other lab facilities and the like.
11. In the inspection methodology we can make it more objective by giving specific marks for the various infrastructure developments, man power availability and other educational academic matters which are critical areas for any educational institution. Similarly marks can be deducted for lack of auditorium, playground, staff quarters etc.. Those colleges that obtain the passing marks (fixed like 75 or 80) and if the inspection report is justified in giving that passing mark then the particular college must be recognized even though it is deficient in the non critical areas of lacking auditorium or canteen! The inspection team must focus mainly on the critical areas (academics, infrastructure facilities like lecture theaters, labs, faculty strength, ILFC and TVCC) and grade the college. The non critical areas can be mentioned, but deficiencies in these non critical areas (like auditorium, staff quarters, canteen etc...) can not be used to grade the college in a negative way!!
12. Finally let there be a feeling of one profession, one medicine and one united India wherein our personal differences and regional biases don't come in the way of working together in a positive productive way for our common good, animal welfare and ultimately for our chosen great profession.

(Dr. Srinivasan Ramanathan, is the Founder, Managing Trustee & Dean, Apollo Animal Medical Group Trust, Apollo College of Veterinary Medicine, Agra Road, Jaipur 302031 Rajasthan INDIA. Web site:www.apollocolvet.org; sriram@apollocolvet.org; animaldr1@gmail.com. Views expressed by contributors are personal)

"Let us raise a standard to which only the wise and honest can repair"

-- George Washington

Beautiful things are not always good ~ but good things are always beautiful!

6.2: Veterinary Educational Policies: A Rejoinder

Rama Kumar V.

I read with interest the learned notes of Dr. J.S. Bhatia and Dr. Jit Singh (Oct. 2014 issue). Unfortunately, the fact about shortage of professionals was identified even before 2000. It was in view of shortage of teachers that the proposal on minimum standards of Post graduate education was prepared and submitted by VCI to the central govt. in 2000. Today 19 colleges have been additionally established all over India without caring for the norms. The argument that there is no regulation prescribed for **regulating veterinary practice** is only partially true as a regulation that was prepared after a three year long zonal and National debate is still lying in cold storage since 2000-2001. It is also not true that the present IVC Act 1994 or rules made there under, do not provide norms for establishing a new veterinary college (as projected by Dr. Jit Singh). If only President VCI or AHC could call for the files relating to the successful establishment of Pondicherry veterinary college under a general university or the action taken by then President VCI to nip in the bud attempts to start sub-standard veterinary colleges in Darbhanga (Bihar) or in Goa, one could realize the possibilities within the frame work of IVC ACT, 1984 (52, of 1984) itself. There is need only for administrative and professional will. With a professional as central minister and the establishment of a single party rule in centre, there are opportunities that could be effectively used by NAVS (I). As both AHC and President VCI, along with the DDG (Animal Science) ICAR are *ex-officio* members of NAVS (I) it is worth discussing the issues in the Academy. Now to the points that have been raised:

1. BEFORE 2000, there are 36 veterinary colleges affiliated to 28 Universities in India. These colleges together they admitted 1878 students annually. Out the 36 Veterinary Colleges where Regulation, 1993 (MSVE) was to be implemented, some could do so only by 1998 That time two colleges of Tamil Nadu were still to adopt it though they admitted three times more students. Central govt. had recognized the qualification even before the inspections were carried out as per law. Now, to the facts considered before 2000 when Dr Bhatia represented ICAR in VCI.
2. One reported difficulty was the non-availability of teachers. Against the requirement of 3,780 teachers for teaching BVSc & AH (alone) in 36 colleges, only 2182 are in position. Many if not most among these are engaged in P.G teaching, research, extension or allied services. Since teachers of SAU's are to devote 1/3 time in research/ extension, the effective strength is 1,500 (less than half of what is required).
3. The bare minimum prescribed that time was 5 teachers each in the 17 departments (emphasis minimum) and one teacher for every 5-10 students for the practical classes. This could not be maintained as large senior teachers were retiring with the feeder cadre were not being replenished. (in most cases due to lack of administrative and political will.)
4. Less number of professionals seeks higher education due to the poor incentives for post-graduate study and poor career prospects for professionals in veterinary colleges under State Agriculture Universities (SAU) as compared to their counterparts in the field who by and large are equated to the medical and dental professionals. Many professionals therefore preferred to pursue field jobs after P.G. education.

5. Agricultural Services Recruitment Board (ASRB) did not have talent test or recruitment test for some of the 17 (minimum) subjects prescribed in MSVE Regulation.
6. The physical facilities and funding necessary to meet the operational expenses of practical as prescribed (in MSVE) for teaching of Under Graduate, especially the practical did not figure in the priority list or the perspective plans of SAU's (though after deliberation, ICAR had earmarked such funds).
7. Location away from community hindered the effective functioning of many Veterinary Colleges. Most SAU's established under "land grant pattern" were built on large agricultural land holdings away from the human habitation. Naturally, they lacked opportunity for (**in situ**) study of the husbandry pattern (i.e. the feeding systems, breeding practices, economy of management, animal health care) adopted by the community in the region/ locality. Veterinary medical attendance with opportunity to attend to sick animals (in crisis or routine) was poor as some colleges were located away from human and animal population.
7. Facilities to conduct farm training was poor or not arranged in many SAU's, whose mindset was more biased to management of dairy animals in organised farms. Some SAU's established large livestock farms in the animal science departments of the agricultural colleges as part of ICAR schemes to which casual visit was allowed to veterinary students. These farms were often ridden with economic liabilities and health hazards like the brucellosis and tuberculosis and were unsuitable models for hands on training.

In the west the animals are raised in farms away from human habitat; it is a part of food production (called animal agriculture or animal production). India's system is animal husbandry where animals are essentially reared in millions of small holdings alongside the human dwellings. The system is not grain based and do not put animals to compete with man for food.
8. Though Zoo & wild animal health care and management are part of veterinary education, arrangement for 'hands on' training is often not forthcoming. The national and State zoos of the country, lack proper Veterinary support almost uniformly when tested by the Supreme Court of India. A tripartite agreement among veterinary council, central zoo authority and universities was suggested subsequently and Central Zoo Authority (CZA) is supporting establishment of some regional centres in selected Veterinary Colleges. But they are yet to be optimally used.
9. Teaching Veterinary complexes located in urban areas have limited farm animal attendance and those located in rural have very few cases of companion animals.
10. Diagnostic facility, which is an important element of the veterinary medical instruction, is a casualty by itself. Majority of veterinary colleges do not have functioning diagnostic equipments like the ECG, X-ray, endoscopy, imaging units of proper capacity and other equipment of vital diagnostic importance (like blood analyser). The 24 hr clinics and casualty units for the critically ill animals with support system were almost absent or present in books only. Sufficiency of medical attendance in number and quality, facilities for night duties of veterinary staff and students are necessary for inculcating professionalism in trainees.

Emerging demands from a Veterinary Professional

- Further to globalization of food trade and markets, there is the need for food safety, public health, disease surveillance and monitoring.
- Increased demands for animal products (as cropping had reached a saturation point); this will force need to improve productivity (not mere production) and product quality.
- New technologies especially Biotechnology and Information and Communication Technology (IT/ICT) can be optimally used to animal production and veterinary services and provide marketing opportunity.
- Growing concern for animal welfare almost was disproportionate to requirement and specialized need of professionals in animal ethnology and Ecology.
- Greater emphasis on poverty alleviation through agricultural diversification with emphasis on animal production will created new demands from the veterinary profession.

As a consequence of these factors, in the next 10-15 years, major changes would be needed in veterinary services. Veterinary education and manpower needs would also have to change to meet demands of these new services. This calls for a review of current veterinary education in the country and planning for the future. There is an urgent need to remedy through funding, infrastructure and capacity development of the veterinary faculty to remedy current weaknesses and further developing veterinary education in the country.

Requirements (Institutional and financial)

To remedy the inherent location and allocation defect, shifting and strengthening of teaching Veterinary clinical facility to suitable rural sites and regular visits to backyard farms is prescribed*. It is estimated that an investment of **15-30 crores per college** would be needed to re-establish clinical facilities that provide experience for serving rural and smallholder producers. **Additional investment** will be needed by many colleges for developing proper indoor wards, emergency clinical facility (casualty), duty rooms for interns, residential accommodation for doctors, residents, animal transport system, ambulatory clinics etc.

Farms: Strengthening the livestock farm facilities and providing for *in situ practical* in the backyard animal husbandry, on the lines prescribed, would **require an investment of 13-14 crores per college. **provided under (first) MSVE regulation in 1996**

Prevention of cruelty to animals act and CPCSEA Rules and animal welfare rules as they are now being implemented can lead to virtual close down of the activities of many veterinary colleges. It would be a matter of shame, if physical facility for the teaching of courses like zoo and wild animal health care and management (with linkage, transport etc.) and the laboratory animal health care and management (Laboratory. Animal facility) at the BVSc. & AH level in a Veterinary college is ridden with technical defects and is legally untenable. Though **there is no ban on experimentation on animals**, some veterinary colleges are being asked to close down experiments and may face prosecution if, they are unable to abide by the provisions of law i.e. CPCSEA Rules, 1998 and other animal welfare laws. Transport and communication for training

in Zoo & wild life and, establishment/ strengthening of laboratory animal facility and laboratories as per requirement of CPCSEA rules 1998, bio-medical wastes (management and handling) rules, 1995 issued under environment (protection) Act, 1986 for disposal of animal materials and animal wastes in veterinary colleges would involve additional **investment of 12-14 crores per college.**

(Dr. Rama Kumar V., drramakumar@gmail.com; Former Secretary, V.C.I)

6.3: Increasing Export – A Major Challenge for the Dairy Industry

R. S. Khanna

Import-Export Policy

It was in 1992, that the Government of India created a history, for the modernizing dairy sector, by permitting export of dairy products. But this was for the namesake because there was no export. Thereafter, both the import and export of dairy products was based on ad hoc decisions. There was no consistency in the policy and most decisions came either as surprises or as shocks. The import of milk products was not done in keeping the welfare of either the industry or the milk producer. The decision to allow or not either import or export were based on the government concern to tame food inflation. The inconsistency in government policy on dairy exports and uneven policy on export incentives was a major impediment to export of dairy products. It is necessary to realize that international trade in dairy products is limited to few buyers as distributors, traders and institutional customers. Importers expect a steady flow of products from the importers in India. They have to prove themselves as reliable and regular suppliers.

India's dairy production and consumption is critically balanced. There is not much scope to create any surplus for exports on a continuing basis. The government policy did seem to hurt those dairy plants that were exporting casein. Invariably, the pitch for easing exports has been sharp when the local price of dairy products, mainly the milk powders, was low in India as compared to the international market. Thus the dairy exports from India are dictated by the comparative prices. Such a situation cannot remain true throughout. Internationally, New Zealand (NZ) dairy sector dictates the international prices. During 2013-14 the exports were good because the exports from NZ nosedived due to botulinum scare. This is not likely to happen during 2014. In fact with the recovery in NZ and the strengthening rupee, Indian dairies would find it difficult to compete even if government allows exports and gives incentive.

Of course the quality of raw milk and SOP of testing products prior to exports will always come in the way of exports. Except for 4-5 dairy units, most exporters are fly by night operators. They damage the industry more than supporting it and the Brand India.

Therefore, the Government was repeatedly approached by the Indian Dairy Association and the captains of the industry to declare a consistent policy on import and export of dairy products for a period of at least three years. To control the market price of liquid milk, the Government was also approached to build a buffer stock of milk powders, on the lines of wheat

and rice. The policy on export in fact was to 'ban and lift the ban'. The need for a consistent policy for import and export of dairy products was based on the logic that for exporting any product, the domestic manufacturer has to develop relationships with international clients over a long time and give assurances of continuing to make supplies of products, and to build confidence in the quality of products. These factors are needed by the dairy product importer to develop additional strength in the infrastructure for milk procurement, product manufacture, product quality, consistency in product development and product manufacturing capacity. In the event the Government continued with a policy of banning the export and lifting the ban at will, no dairy industrialist would develop any new facilities to meet with the international requirements.

The Government brought out a major shift through a notification issued on June 8, 2012, permitting export of all dairy products. It was further strengthened by an assurance from the Department of Dairy Development, in a meeting held during February 2014, that the policy generally would be to have free import and export of dairy products. The imports were, however, subject to tariff regimentation. The industry expressed gratitude and the result was that there was a boom in export of dairy products during 2013-14. Some of the observations from the data on dairy exports are discussed.

Performance in Dairy Export

The data on export of dairy products during the fiscal 2011-12, 2012-13, 2013-14 shows that dairy products have been exported to 114 countries including many developed countries. It is important to note that export of dairy products picked up only after June, 2012 when the government lifted the ban. Obviously, policy shift did make a significant impact. The data for 2013-14 shows the real boom in export of dairy products. Compared to the exports worth Rs. 3318.57 Crore during 2013-14, the exports during April-June 2014, was Rs. 471.51 Crore (www.apeda.gov.in). There are many reasons for the slow down in export. During 2013-14, the dairy products from New Zealand were reported to have contained botulinum. This prompted most developed nations to ban export of all dairy products from New Zealand. This has now subsided. In fact despite the botulinum scare production of dairy products in New Zealand continued and there was a stock pile. The excess of stocks has caused a severe drop in the current international prices of most dairy commodities across the world. For example, during 2013 the prices of skim milk powder were as high as US Dollar 4,200 per ton and these have now ruling between US Dollar 2600-2800 per ton. At these prices no dairy from India can compete because the prices of skim milk powder and butter in India are far higher and the prices being paid to the milk producers are also high.

The value of export of dairy products has never been consistent to any country and has been negligible to most of the developed nations. Some countries bought very small quantities as samples. In value terms 80% of all export was limited to ten countries. The Indian dairy industry could consider these ten countries for a long term relationship for the purpose of export of dairy products. These countries are: United Arab Emirates, Egypt, Saudi Arabia, Singapore, Bangladesh, Nepal, Pakistan, Iran, Yemen Arab Republic, Algeria,

Pre-requisites to Enhance Export

The analysis of data above has shown that a consistency in the import-export policy and grant of financial incentives to the dairy industry are extremely important for dairy export. It has also confirmed that the Indian dairy industry is dependent on the prices as dictated in the international market. New Zealand dairy industry is undisputed international market and price leader. Indian dairy industry is not strong enough to dictate prices. In addition, the dairy industry needs to improve standards of quality. The quality of raw milk and standard operating procedures (SOP) of testing milk and milk products, prior to export, need to be improved. Except for a few dairy units, most exporters are fly by night operators. Majority of the dairy factories are relatively small with limitation on skills and resources to implement and monitor international dairy norms. Whilst Export Inspection Agency (EIA) approved factories are only permitted to export, approvals are lenient and norms often violated. Recent experiences with Indian dairy export shipment being rejected in Middle East and North African markets due to Aflatoxin and Antibiotic quality issues are an example. HACCP and EIA Certification is no guarantee for quality and more intensive certification mechanism needs to be implemented to ensure adherence and compatibility with international standards. There is need to develop Disease Free Zones of dairy cattle. Exporting dairy plants must prepare themselves to get Certificates clearly mentioning that the milk for export production has been procured (from disease free zones. This also needs setting up of corporate and large organized dairy farms that will improve efficiency and bring in requisite quality standards and control in production of raw milk. This can easily co-exist with the existing small farmer model for whom dairy is a secondary income source.

Export demand for Indian milk powders is mainly for 100% Cow Milk products! The Indian Government and Industry needs to work on promoting buffalo milk as no different in nutrition values from cow milk and with better minerals and whey proteins. Buffalo Milk Product needs to be promoted in export markets not only as directly interchangeable with cow milk but also more suitable for products like mozzarella cheese and acid casein. A Board or Agency independent or under APEDA needs to be established to promote and market Indian buffalo milk products in the world markets.

It can be concluded that the Government and the dairy industry needs to work in tandem on many issues concerned with export of dairy products. Dairy industry should not expect the windfall to recur through rare accidents as a matter of routine.

(Dr. R. S. Khanna, dr.rskrsk@gmail.com)

7. NAVS NEWS

7.1: ICAR-NAVS Expert Consultation Meet on "Strategies for Enhancing Milk Productivity of Indigenous Cattle" held on October 20, 2014



As you are aware, our Hon'ble Prime Minister during the 86th Foundation Day Celebration of ICAR had emphasized the need for conservation of indigenous cattle and desired that all attempts be made for enhancing its milk productivity potential. An expert consultation meet to discuss the advantages of indigenous cattle rearing in terms of its adaptability, disease resistance and milk attributes, etc. was held in New Delhi to deliberate the issues concerning both improvement of milk productivity and conservation of indigenous cattle germ plasm, scientific advancement made in the identified disciplines and to prepare a road-map for enhancing milk productivity of Indigenous cattle. It was a one-day interactive Consultation Meet of experts and other stakeholders on "Strategies for Enhancing Milk Productivity of Indigenous Cattle". The programme was jointly organized by Indian Council of Agricultural Research (ICAR) through National Bureau of Animal Genetic Resources (NBAGR), Karnal, Central Institute for Research on Cattle (CIRC), Meerut and National Academy of Veterinary Sciences (NAVS) at National Agricultural Science Centre (NASC) Complex, Dev Prakash Shastri Marg, New Delhi **on October 20, 2014.**

The interactive meet provided a platform considering suitable changes in policies, legislation, institutions framework for technology development and capacity building. A report on the recommendations of the event is awaited.

7.2: Honorary NAVS Fellowship Awarded to Dr. Sanjeev Kumar Balyan

Hon'ble Minister of State for Agriculture and Food Processing Industries, Government of India, Dr. Sanjeev Kumar Balyan was conferred the Honorary Fellowship of NAVS (I) on 20th October 2014 at the ICAR-NAVS Expert Consultation Meet on "Strategies for Enhancing Milk Productivity of Indigenous Cattle" held in New Delhi.



Dr Sanjeev Kumar Balyan took over as Minister of State for Agriculture and Food Processing Industries. Dr. Sanjeev Kumar Balyan is 41 year old and this is his first term as Member of Parliament. Dr. Balyan represents Muzaffarnagar constituency in Uttar Pradesh in the newly constituted 16th Lok Sabha. Dr. Sanjeev Kumar Balyan (41) was born in Village Kutbi, Post Kutba, Distt. Muzaffarnagar (Uttar Pradesh) and is resident of the same place. By profession, Dr Balyan is a veterinary doctor. He did his B.V.Sc. & A.H. (1994), M.V.Sc. (1997) and Ph.D. (2005) (Anatomy) from Choudhary Charan Singh Haryana Agriculture University, Hisar. He was also an Assistant Professor there before joining the Haryana Government as a veterinary surgeon. His spouse is also a Veterinary Doctor. Dr. Balyan resigned the job about two years ago to become a partner in a real estate firm (A2Z Builders & Developers) and also join the BJP.

7.3: XIII NAVS Convocation-cum-Conference on “Strategies for Enhancing Rural Economy through Livestock Development” to be held at DURG, Chhattisgarh, on 28th February, 2015

The 13th NAVS Convocation-cum-Conference on “Strategies for Enhancing Rural Economy through Livestock Development” will be held at College of Veterinary Science & Animal Husbandry, Kamdhenu Vishwavidyalaya (CGKV), Durg, Chhattisgarh, on 28th February, 2015. The event is being organized jointly by Chhattisgarh Kamdhenu Vishwavidyalaya (CGKV), Durg and the National Academy of Veterinary Sciences (NAVS), New Delhi. The programme will include Key Note addresses on subjects related to the theme of the Conference and a Convocation Ceremony for induction of Fellows/Members into the Academy. All the Fellows and Members of NAVS (I) are cordially invited to participate in the event. A formal announcement and invitation will be issued by the Organizing Secretary (Dr. S. P. Tiwari, Dean, COVS of CGKV: Email: drsptiwari@gmail.com) and / or Dr. Rishendra Verma, Secretary General, NAVS (I) (Email rishendra_verma@yahoo.com). For further details: Please contact the Organizing Secretary (drsptiwari@gmail.com.) and / or Dr. Rishendra Verma, Secretary General, NAVS (I) (Email rishendra_verma@yahoo.com)

8. NATIONAL & INTERNATIONAL VETERINARY NEWS

8.1: XXXVIII Annual ISVS Congress Held at BIKANER

The Rajasthan University of Veterinary and Animal Sciences (RAJUVAS) hosted the XXXVIII Annual Congress of Indian Society for Veterinary Surgery (ISVS) along with an International Symposium on “New horizons of Camel Surgery and Large Ruminant Surgery” at Bikaner from 15-17 October, 2014. It was organized by the Department of Veterinary Surgery & Radiology of the University.

Sh. Giriraj Singh, MP, Nawada (Bihar) & Former Minister of Animal Husbandry, Govt. of Bihar, was the chief guest at the inaugural function, which was presided over by Prof. (Dr) Col. A.K. Gahlot, RAJUVAS Vice-Chancellor. Dr. Dipak Kumar De and Dr. Thilagar, the ISVS President and Secretary, respectively, and Prof. B.K. Beniwal, Dean, College of Veterinary and Animal Science and Prof. T.K. Gehlot, Director Clinic, RAJUVAS, also graced the occasion. The chief guest Sh. Giriraj Singh, MP (now a minister in the central Government) called upon the scientists to develop techniques for improvement of the milk production like the other developed countries. Prof. A.K. Gahlot, Vice-Chancellor, RAJUVAS, in his presidential address said that the Department of Veterinary Surgery and Radiology, CVAS, Bikaner was the first in India to start experimental surgery in live animals. RAJUVAS also stands pioneer in developing camel surgery at National and International level.



During the ceremony, M.R. Patel field veterinarian award was given to Dr. Sanjay J. Gayakwad and the young surgeon award was given to Dr. Brihaspati Bharati. The best paper award were given to Malik Aby Rafee, Parminder Kour, Dr. Sudeesh S. nair, M. G. Thorat, S. Kathivel, Madhu D. N., Thotta N. Ganesh, Neelima Tiwari, Sherin B. Sarangom and S. Kathivel. During three day conference technical session on Anesthesiology, Radiology and Imaging Techniques, Equine Surgery, Large Animal Surgery, Small Animal Surgery, Avian Surgery, Orthopedic Surgery and Wild and Zoo Animal Surgery. The organizing secretary Dr. T. K.

Gahlot gave a vote of thanks. A General Body meeting of ISVS was also held in the afternoon, where Dr. Thilagar, Secretary ISVS presented the annual report of the society.

8.2: A RARE MOTHER

A Rare case of a Holstein Cow giving birth to Quadruplet (four) heifer calves has recently been reported by Anna Lanfresch and John Zuppan, dairy farmers from Orlando, California.



Here we may consider the difference between identical and fraternal twins. There are two types of twins identical (monozygotic) and fraternal (dizygotic). Identical (monozygotic) twins form when a single fertilised egg (ovum) splits in two. Fraternal (dizygotic) twins develop from two eggs fertilised by two sperm, and are no more alike than individual brothers or sisters (siblings) born at different times. To form identical twins, one fertilised egg (ovum) splits and develops two babies with exactly the same genetic information. This differs from fraternal twins, where two eggs (ova) are fertilised by two sperm and produce two genetically unique calves, who are no more alike than individual siblings born at different times.

With regard to the present case, what are the odds of all female quadruplet calves being born and actually surviving the birth? That would be 1 in 179.2 million, according to HLN affiliate KRCR. A local veterinarian confirmed they are indeed quadruplets. KRCR reports that Dr. Michael Karle ran DNA tests using the calves' hair and learned that two of them are identical twins, while the other two are fraternal. Dairy farmer John Zuppan told the Chico Enterprise Record that in his 69 years on the job, this is a first. Karle first thought the cow was only having one pair of twins, which is rare enough. He said twins are born about 1 percent of the time. So he was especially stunned to see her give birth to quadruplets. "I couldn't believe my eyes. I just kept looking and looking and looking. I finally came to the conclusion there were four new babies from one cow," Karle told HLN affiliate KFSN. Karle says each Holstein calf weighed a little less than usual at birth -- only 60-65 pounds instead of the common 85 pounds -- but that they are otherwise in good physical shape. Zuppan says the rare family of bovine sisters will be raised together, staying on the farm to join the dairy herd when they're older.

8.3: ICAR Salutes the Winner of World Food Prize

Indian Council of Agricultural Research (ICAR) Salutes and Congratulates Dr. Sanjaya Rajaram, Winner of World Food Prize. Dr. Sanjaya Rajaram, an eminent Indian crop scientist is being honored with the coveted World Food Prize at 2014 Borlaug Dialogue being held in Des Moines, USA from October 15-17. As we all know, Dr. Borlaug had special affinity for India. He not only promoted wheat breeding in India, but also encouraged good agricultural scientists of India.



Dr. Sanjay Rajaram is currently a Senior Scientific Advisor at the ICARDA and is well known for his significant contributions to global wheat production. His research has helped to feed millions of people through the development of more nutritious varieties that are resistant to disease and adaptable to a wide range of climatic conditions. He has developed nearly 480 wheat varieties that have been released in 51 countries across six continents and have been widely adopted by small- and large-scale farmers alike. These varieties are being grown on estimated 58 million hectare of farms. Dr. Rajaram originally belongs from a small farming community in Uttar Pradesh and had privilege of working for many years alongside the Nobel Laureate Dr. Norman E. Borlaug, the ‘Father of the Green Revolution’.

NAVS (I) joins ICAR in congratulating and complimenting Dr. Rajaram for the global recognition of his contributions.

8.4: Owner of Champion Murrah Bull turns down Rs. 7 Crore offer

A big crowd of gawkers has gathered around Yuvraj, a giant 1400kg Murrah bull that was crowned champion at Meerut's All India Cattle Show by a 10-member jury, startled as much by the animal's size as by his owner's refusal to sell it for a mind-boggling Rs 7 crore.

Yuvraj, a giant 1400kg Murrah bull, stretches to 14 feet in length and a couple of notches over 5 feet 9 inches in height.



Hurrah for Murrah: Yuvraj, the giant bull, whose owner has refused to sell him for Rs 7 crore

As Yuvraj chews on unconcerned, owner Karamvir Singh, who has brought him up "like a son", says he doesn't really need the money. "I earn close to Rs 50 lakh a year from Yuvraj," he smiles. "Everything in life is not about money." " Yuvraj drinks 20 litres of milk a day, gobbles 5kg of apples and 15kg of very fine quality cattle feed," says Karamvir. "He also takes a 4km-walk daily. I spend more than Rs 25,000 on his upkeep. A farmer from Chandigarh did offer me Rs 7 crore, but I don't think I am ready to sell Yuvraj." Ravinder Sangwan, senior scientist at Sardar Vallabh Bhai Patel Agriculture University where the competition for India's top bull was held, has an explanation why Yuvraj is a cash cow that Kurukshetra-based Karamvir Singh may not want to part with. "Yuvraj is a perfect specimen of the Murrah breed," Sangwan says. "It generates 3.5 to 5 ml of very high quality semen everyday which is diluted to increase the volume to 35ml. Now, 0.25ml, which is one dose of semen used for artificially inseminating Murrah buffaloes, costs close to Rs 1,500. So, ideally in a single day, a dairy farmer can earn roughly about Rs 2,10,000. And since Yuvraj's mother was a high yield buffalo, said to be producing close to 25 litres of milk a day, Yuvraj's semen is in great demand in almost all the northern states. I am not surprised at the offers being made."

"He has earned the Best Animal trophy and there's a reason for that," says Prof Rajvir Singh, head, Animal Husbandry department at Meerut. "The jury had scrutinized 30 characteristics that include morphological trait, semen quality, genetic history and even the quantity of milk that its mother used to yield. On all parameters, Yuvraj has shown excellence."

Regarding the Murrah breed, Sangwan said, "The Murrah is a world famous high-yield breed found to have its origin in Haryana's Rohtak and Jind districts. It is also found in west UP." Besides the Murrah there were other breeds that participated in the national-level cattle show, like the Tharparker, Brown Swiss, Gir and Jersey varieties. Yuvraj, of course, came tops.

8.5: Breakthrough in Pasture Development Technology at RAJUVAS

According to press note No. 1127 Dated 12-10-2014 RAJUVAS got success in preparing planting material from pasture seeds using hydroponics technology and developed Sewan grass seedlings in 7 days through soilless cultivation.

Some of the grasses available in India have high nutritional value and are very important in arid environments because they provide forage, which maintains both wild mammals and livestock. One such grass is sewan, found in western Rajasthan. Sewan rangelands are spread in

the low rainfall (50-150 mm) zone of Bikaner, Jaisalmer and Barmer districts. Sewan (*Lasiurus indicus*) is the most important perennial grass of western region of Rajasthan and has good drought tolerance capacity. Like other arable crops, proper time of sowing of grasses is of prime importance and success is dependent on it, whether it is renovation of old degraded pastures or establishment of new grasslands. However, there are major issues and problems in sowing of Sewan seed. Seed cannot be sown by seed drill and plough due to its very low weight. Further, seed have less reserve nutrient in their endosperms which also inhibit their proper germination. When sewan seed is broadcasted, most of them do not germinate as they are picked up by ants, rats, birds and even termites. Alternative technology was used by making pellets in cow dung and to be broadcasted in the field after rain or just before rain. It should be protected from wind in the early stages of establishment. Scientists working on it found great difficulty in rejuvenating pasture in the Rajasthan in different Projects, however, pasture land already having *Lasiurus indicus* grass when protected have shown good growth in reestablished stalks of *Lasiurus indicus*. Vice-Chancellor of RAJUVAS, Prof. (Dr.) Col. A.K.Gahlot advised the scientists to work for this breakthrough technology of preparing planting material of this Golden Grass. Livestock Feed Resource Management and Technology Centre (LFRMTC) of RAJUVAS, Bikaner chased the progress of existing technology and taking a clue from the use of hydroponics technology in preparing planting material for rice crop, scientists of this center RAJUVAS engaged themselves in developing planting material from seeds of sewan grass popularly known as the king grass of the desert. Sewan has a high protein content of 7-11 per cent and the butter and milk from cattle fed on sewan has a distinctly darker shade of yellow and highly enriched. This grass is relished by ruminants like cattle, buffalo, sheep, goat and camel but has not withstood heavy grazing and eventually degraded. Sewan is cut and stored by villagers for use in times of drought and scarcity. Stored sewan can last for around 8-10 years without losing much of its nutritive value. Since, last few months, scientists of RAJUVAS under the leadership of Prof. R.K. Dhuria, Principal Investigator, LFRMTC worked hard to develop planting material of this grass through hydroponics technology and at last they have got first success. Vice-Chancellor, Prof. (Dr.) Col. A.K. Gahlot states that this breakthrough has opened doors for technology driven pasture development programme in Rajasthan State. Vice-Chancellor said that hydroponics is a technique of cultivation of plants without soil, using water as a medium to supply all the requisite nutrients. In the Hydroponics machine, crop can be grown in controlled environmental conditions with a temperature range of 15-32°C and a relative humidity of 80-85%. Controlled light is let in through suitably glazed windows. Crop is grown in multilayer shelves and planting material is ready in 7-8 day continuous cycle. Vice-Chancellor, Prof. A. K. Gahlot also informed development of this break-through technology to Sh. Prabhulal Saini, Minister for Agriculture and Animal Husbandry, Govt of Rajasthan. Sh. Prabhulal Saini appreciated the efforts of RAJUVAS and said that it could be a viable tool to give another push to the ambitious pasture development programmes of the State leading to better availability of monsoon herbage for precious livestock of the State. He conveyed his appreciation of the relentless efforts of team RAJUVAS to act as a catalyst for animal husbandry sector of the State. He added that with this break through, Rajasthan has become the first state of the country to achieve this success. He advised the VC of RAJUVAS to refine this technology by next rainy season so that it can be applied in larger areas of the north-west Rajasthan of Arid agroclimatic zone. He further added that funds shall not be any constraints in the efforts of the University.

RAJUVAS (Rajasthan University of Veterinary & Animal Sciences), Bikaner is a newly constituted body established under section (3) of section 1 of the Rajasthan University of Veterinary and Animal Sciences Act, 2010 by Government of Rajasthan. The university came in to existence on 13th day of May, 2010.

8.6: New Building for Fisheries College at GADVASU

To provide well equipped facilities and adequate space for efficient working in college of fisheries of Guru Angad Dev Veterinary and Animal Sciences University, construction of the new building of College of Fisheries has been started, for which the foundation stone was laid down by the Vice Chancellor of GADVASU, Dr VK Taneja, on Dec 3rd, 2014. For last 6 years, College of Fisheries has been based and working in available buildings with an associated farm area. On the occasion Dr. Taneja added that College of Fisheries will not only serve the State but also the northern region by producing scientifically trained quality human resource and generating need based region specific technologies for higher sustainable fish production from both culture and capture sector.

Dr. Asha Dhawan, Dean, College of Fisheries, said that the new building will have state of the art teaching, research and extension facilities to corroborate the mandate of different departments. She further added that the new college building will have well equipped laboratories to conduct research in major areas like fish nutrition, fish microbiology, fish biotechnology, disease diagnosis, soil and water testing, aquatic ecology, fish processing and value addition etc., besides having an aqua house and museum. She revealed that besides green and white revolution, Punjab has also recorded voluminous growth in blue revolution in the recent past. Presently with fish productivity of over 6t/ha/yr, Punjab holds the honour of having the highest productivity in the nation. Further, there is still ample scope of developing fisheries in the State in view of aquaculture resources available in the form of village ponds and waterlogged waste lands. To cater the fast growing fisheries sector in the State, College of Fisheries, one of the constituent's colleges of GADVASU was established in 2008 with the mandate to impart quality education for developing technically trained fisheries human resource, technology generation and its dissemination.

Dr. SPS Sangha, DSW cum Estate Officer informed that the building of College of Fisheries will be spread on an area of 60,000 sqft with 3 floors. The project will be completed in 12 months with a cost of about 7.78 crores.

Dr. P D Juyal, Registrar, Dr S N S Randhawa, Director Research, Dr Harpal Singh Sandhu, Dean College of veterinary Science, Dr Sushil Prabhakar, Controller of Examinations, HOD's of different departments and a large number of faculty members and employees of university graced the occasion.

8.7: International One Health School at GADVASU: Scientists highlight emergence of new diseases, pathogens and health implications.

An 'International school on One health' inaugurated on November 05, 2014 is going on in Guru Angad Dev Veterinary & Animal Sciences University. Dr. Jatinder Paul Singh Gill, Organizing Secretary of this event and Director, School of Public Health & Zoonoses discussed the emergence and reemergence of zoonotic pathogens such as Ebola across the globe and highlighted the need to formulate combined international strategies for prevention and control of

these diseases on the second day of this event. The role of deforestation, climate change, changing eating habits were discussed for emergence of new diseases.



On this occasion, **Dr. M.S. Oberoi**, Sub-Regional Manager, FAO of the United Nations delivered his lecture on the emerging threats of Ebola virus particularly in view of the ongoing global outbreak of Ebola virus infections. Important lectures on emerging zoonotic parasites were delivered by Dr. Emily Jenkins, Canada who is a renowned scientist in food borne and zoonotic parasitology. In addition, Dr. Ashok Kumar from Indian Veterinary Research Institute, Izatnagar provided insight on emerging vector borne viruses. Delegates were also educated for the important role of biosafety and biosecurity in the modern world. In addition to this, a book entitled "Diseases transmitted from animals to humans (In Punjabi)" authored by Dr Rajnish Sharma, Dr B B Singh Dhaliwal and Dr J P S Gill was also released on this occasion. Dr. Vikram Misra, Head, Veterinary Microbiology, Western College of Veterinary Medicine, University of Saskatchewan, Canada, informed that bats have some special characters such as being the only mammal to fly long distances, living in big clusters and having certain anti viral mechanisms which make them suitable hosts for number of emerging viral zoonotic pathogens such as Ebola, Nipah, Hendra and Corona etc. Dr. Manish Kakkar from Public Health Federation of India discussed about the One Health Initiative which takes into account the combined health of humans, animals and environment and policies being undertaken in India. Culling practices for zoonotic control and bioethics issues in India were discussed by Dr. GN Gongal from the WHO regional office of South East Asia. Dr. Meenakshi Singh from Food Safety Standards Authority of India discussed Food safety issues and regulations of Food safety standards being implemented in India. Dr. Naveen Gupta, Central Research Institute, Kasauli indicated the emergence of rickettsial diseases like scrub typhus in certain pockets in India. Dr. PK Malik, Scientist and Head, Wildlife Health Management, Wildlife Institute of India highlighted the role of India's wildlife in the emergence and reemergence of zoonotic pathogens, risk factors and public health implications in India.

8.8: GADVASU Surgeons Impress at Surgery Conference

The Faculty and postgraduate students of the Department of Veterinary Surgery & Radiology, Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana won three Gold Medals at 38th Annual Congress of Indian Society of Veterinary Surgery (ISVS) and International Symposium. The subject of the Congress was "New Horizons of Camel Surgery and Large Ruminant Surgery" held at Rajasthan University of Veterinary and Animal Sciences

(RAJUVAS), Bikaner, Rajasthan. The conference was attended by more than 450 surgeons from all over India and abroad. The GADVASU surgeons and PG students presented 10 research papers in various sessions. Dr. N. S. Saini, Professor-cum-Head, presented a lead paper in the Ruminant Surgery Session entitled "An Approach to the Diagnosis and Treatment of Surgical Disorders of Forestomach in Ruminants" which was highly appreciated by the senior colleagues and delegates.

8.9: GADVASU Pathologists win laurels at Anand Conference

Senior Pathologists from Guru Angad Dev Veterinary & Animal Sciences University participated in the 31st Annual Conference of Indian Association of Veterinary Pathologists (IAVP) and National Symposium on 'Impact of Climate change on Pathobiology of Diseases of Animals, Poultry and Fish' organized by the Anand Agricultural University, Gujarat, India. They bagged three prestigious National Awards in different categories. Apart from members of the GADVASU faculty members, three Ph.D and two MVSc students also attended the conference and presented research papers on important diseases of animals.

8.10: A new Veterinary College to come up at Rampura Phul (Bathinda)

S. Parkash Singh Badal, Chief Minister of Punjab laid the foundation stone of a new Veterinary College at Rampura Phul. Dr V K Taneja, Vice-Chancellor of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, officers of the university a large number of faculty members joined the auspicious occasion. An Exhibition was also

arranged by university to showcase different activities and research.



The establishment of new Veterinary College and Hospital will definitely help in increasing the economy of farmers by providing timely help and guidance concerning early diagnosis, treatment and control of infectious, parasitic, managemental or other diseases concerning nutritional deficiency prevalent in this part of Punjab as well as providing means to improve management practices for preventing occurrence of these diseases in future through vaccination or adopting other improved animal health aspects. It will also help the farmers of the area to go for diversification in terms of adopting animal husbandry programmes and better job opportunities by exploring the choice of Veterinary profession as an alternative to agriculture. It will fetch better returns from investment towards establishing a viable and profitable dairy or fishery unit and seeking time to time guidance or inputs in terms of breeding or artificial insemination and management of good quality animals free from parasitic and other infectious

diseases. Dr Taneja said that there is provision for spending funds to the tune of about 70.0 crores for establishing infrastructure of new Veterinary College and Hospital including residences for faculty and employees and separate hostels for boys and girl students.

8.11: New Veterinary University Formed for Telangana State

Orders have been issued for bifurcation of Sri Venkateswara Veterinary University, Tirupati and establishment of new Veterinary University in Telangana State as ‘Sri P.V. Narsimha Rao Telangana State University for Veterinary, Animal and Fisheries Sciences’ located at the existing campus at Rajendranagar, Hyderabad, by adaptation of Sri Venkateswara Veterinary University, Act 2005 (Act No. 18 of 2005).

8.-: News Reports from Veterinary Council of India

56 Vet colleges by next year, says VCI chief

DEEPENDER DESWAL
THIRUPATI, 12 DECEMBER

The Veterinary Council of India (VCI) is in the process to revise its affiliation norms to set up veterinary colleges in view of the shortage of veterinary doctors in the country.

Talking to The Tribune, VCI chairperson Dr Umesh Sharma said there was a shortage of 50 per cent veterinary doctors for healthcare of livestock. "At present, there are 12 universities and 36 colleges in the country. We hope to start 56 new colleges by next year to offer the degree of Bachelor of Veterinary Sciences and Animal Husbandry (B.V.Sc. & A.H.)"

At present, there are 12 universities and 36 colleges in the country. We hope to start 56 new colleges by next year to offer the degree of Bachelor of Veterinary Sciences and Animal Husbandry (B.V.Sc. & A.H.)" he said, adding that to prepare good vet doctors, the new colleges and institutes also need teachers. Dr Sharma said the state governments should provide funds to government colleges and universities to help them in preparing better doctors and carry out research.

He said the VCI hopes to fulfil the shortage of veterinary doctors by 2020 by setting up colleges across the country.

Asked about the newly set up Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS) at Hisar, the VCI chairperson said he had not visited the varsity but the state government must provide funds for the infrastructure for the university.



VETERINARY COUNCIL OF INDIA
(A Statutory body of the Government of India)
August Kranti Bhawan, B.C. Place, New Delhi-65

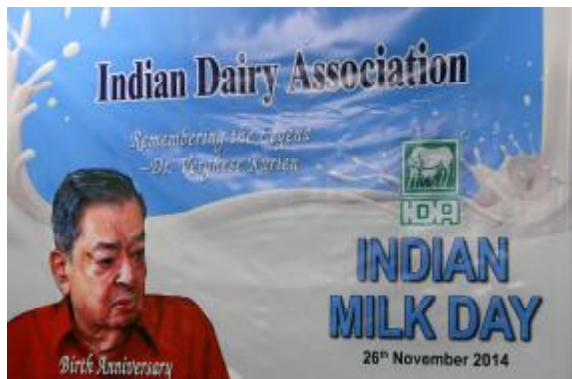
PUBLIC NOTICE

The Veterinary Council of India hereby brings to the notice of all public, guardians and students that the Council has not allowed admission to the B.V.Sc. & A.H. degree course for the academic session 2014-15 at the following Veterinary Colleges in the State of Rajasthan:-

1. College of Veterinary Science, Navania, Udaipur
2. Apollo College of Veterinary Medicine, Jaipur
3. Mahatma Gandhi Veterinary College, Bharatpur
4. M.B. Veterinary College, Dungarpur
5. Arawali Veterinary College, Sikar

Date: 03.11.2014 **Secretary**

8.13: NATIONAL MILK DAY CELEBRATED



Indian Dairy Association observed 26th November, Late V. Kurien's birth anniversary, as India's NATIONAL MILK DAY at IDA House, New Delhi. The eminent participants, many of whom had worked with Dr. Kurien, recollected the contributions made by the 'Milkman of India' for bringing about the white revolution.

8.14: Camel Declared Rajasthan's State Animal

Respecting the Rajasthan government's decision to adopt Camel as the state animal, Anjuman Society of Khandan-e-Amiriya (ASKeA) in Tonk district has decided to stop its 150-year-old tradition of sacrificing camel on the day of Eid-ul-Zuha. "There would be no more camel sacrifice on Eid-ul-Zuha and the 150-year-old tradition of Khandan-E-Amiriya of Tonk ends now to save the animal and to maintain peace and communal harmony in the Tonk district," informed Nawab Hamid Ali Khan, a senior member of royal family and General Secretary of ASKeA. The tradition of sacrificing camel had begun in 1864 by the then ruler of Tonk Nawab Ibrahim Ali Khan IV. During that period the entire state was governed under Shariat Law (Islamic law). This practice had begun keeping in mind the poor people of Tonk who could not enjoy and afford to have sacrificial meat on Eid-ul-Zuha, he said. In earlier history of Nawab, two camels were sacrificed which was later reduced to one in 90s.

8.10: A Forthcoming Book on Veterinary Education

Dr Jitendra Singh Bhatia, Former ADG (EDU), ICAR, has intimated that his book 'A glimpse of Veterinary Education in India' was in the press and shall be published by mid January 2015. This book has been planned as a referral document covering various phases of its development since time immemorial. It covers chapters on History of Veterinary Education in Indian Sub-continent, available resources pertinent to this sector, strategies for resource management, gap analysis and possible measures to bring reforms in overall growth of livestock sector. Some reflections toward Post Graduate education have also been briefly covered. Education through private sector and feasibility to explore 'Public Private Partnership' in veterinary education has been attempted with the view to add new dimensions to educational set up. Possible approach in stream lining and managing lower education and continuing education programs has been suggested. A chapter on regulatory and governance mechanisms in managing the affairs of veterinary educational system provides insight to the existing system.

Under the changing scenario, re-tuning of educational system has become inevitable to make it more responsive for faster development and growth. Inputs from subject matter specialists, especially on clinical healthcare and diagnostics including imaging, livestock instructional units and transfer of technological practices have been added. This is done in order to make composite projections of veterinary educational institution that forms the sound base for establishment and operation of a college.

This document will be equally relevant guiding force for the national and regional planning and regulatory bodies, the academic and scientific institutions, including universities, institutions, colleges, faculty and scientific personals and students etc. Everyone from the professional circuit can draw benefit from it, in not only getting acquainted with various facets of progressive development but would use it as a useful tool in reshaping veterinary education policies and programs in this country under the umbrella of global developments.

9. SCIENCE, HEALTH & SOCIETY

9.1: Kailash Satyarthi Wins Nobel Peace Prize

Soft-spoken, articulate, passionate and amiable, 60-year-old Indian activist Kailash Satyarthi, below, who has kept low-profile in fight against child labour was recently named joint winner of the 2014 Nobel peace prize along with the Pakistani teenager Malala Yousafzai.



Kailash Satyarthi, the seventh Indian to win the Nobel peace prize, was described as “little known” in India by the *Hindustan Times*, a leading local newspaper. This is not entirely true; the activist is a familiar figure for journalists and campaigners working on child labour matters. Trim, soft-spoken, articulate, passionate and amiable, Satyarthi has kept a low profile. He worked with Guardian Films on a documentary about modern-day slavery in Assam. In the film, he led a raid to rescue a girl trafficked from a tea estate into domestic slavery in Delhi. During filming, he explained the dangers of his work.

“In my own case I have my broken leg and my broken head and my broken back and my broken shoulder, so different parts of my body have been broken while I was trying to rescue children. “I lost two of my colleagues – one was shot dead and one was beaten to death. Most of my junior colleagues have been beaten up many, many times. So it is not an easy game. “It is a challenge definitely and I know that it is a long battle to fight, but slavery is unacceptable, it is a crime against humanity. I’m not talking in legal terms, morally I feel I cannot tolerate the loss of freedom of any single child in my own country so I am a kind of restless person in that sense. We cannot accept this to happen.” In his 34 years as an activist, Satyarthi has freed tens of thousands of young Indians, some just five or six years old, forced into servitude by unscrupulous agents, businessmen, landowners and brothel owners.

Born in Vidisha, in Madhya Pradesh state, Satyarthi, the son of a police officer, studied electrical engineering at a government college. In 1980 Satyarthi founded the Bachpan Bachao Andolan (Save the Childhood Movement) and began raiding factories, brick kilns and carpet-making workshops where children and their indebted parents often pledge themselves to work for decades in return for a short-term loan. In the late 1990s, Satyarthi was a lead organiser of the Global March Against Child Labour, aimed at raising consciousness about millions of children abused worldwide in a form of modern slavery. Academics remember him excoriating government officials who claimed at international conferences that the problem did not exist in India. He also founded RugMark, an international scheme that tags all carpets made in factories certified as child labour-free. More recently he has launched operations to rescue girls sold into abusive forced marriages and helped turn hundreds of villages into rehabilitation centres to teach trades to abused teenagers. “India has hundreds of problems and millions of solutions,” the Nobel laureate said. His child-friendly villages are changing rural India. The Nobel winner's NGO, Bachpan Bachao Andolan, champions children's rights by tackling education and poverty in tandem. (Photograph: Chandan Khanna/AFP/Getty Images)

9.2: Six Reasons Turmeric May Be The World's Most Important Herb

There is a medicinal spice so timelessly interwoven with the origins of human culture and metabolism, so thoroughly supported by modern scientific inquiry, as to be unparalleled in its proven value to human health and well-being.

Indeed, turmeric turns the entire drug-based medical model on its head. Instead of causing far more side effects than therapeutic ones, as is the case for most patented pharmaceutical medications, turmeric possesses hundreds of potential *side benefits*, having been empirically demonstrated to positively modulate over 160 different physiological pathways in the mammalian body.

While no food or herb is right for everyone, and everything has the potential for unintended, adverse side effects, turmeric is truly unique in its exceptionally high margin of safety vis-à-vis the drugs it has been compared with, e.g. hydrocortisone, ibuprofen, chemotherapy agents. Furthermore, nothing within the modern-day pharmaceutical armamentarium comes even remotely close to turmeric's 6,000 year track record of safe use in Ayurvedic medicine.

Despite its vast potential for alleviating human suffering, turmeric will likely never receive the FDA stamp of approval, due to its lack of exclusivity, patentability and therefore profitability. Truth be told, the FDA's "gold standard" for proving the value of a prospective medicinal substance betrays the age old aphorism: "he who owns the gold makes the rules," and unless an investor is willing to risk losing the 800+ million dollars that must be spent upfront, the FDA-required multi-phased double-blind, randomized clinical trials will not occur.

In GreenMedInfo.com, they have reviewed over 5,000 study abstracts from the National Library of Medicine's bibliographic database known as MEDLINE and have discovered over 600 potential health benefits of turmeric, and/or its primary polyphenol known as curcumin.

Some of the most amazing demonstrated properties include:

- Destroying Multi-Drug Resistant Cancer
- Destroying Cancer Stem Cells (arguably, the root of all cancer)
- Protecting Against Radiation-Induced Damage
- Reducing Unhealthy Levels of Inflammation
- Protecting Against Heavy Metal Toxicity
- Preventing and Reversing Alzheimer's Disease Associated Pathologies

Again, what is so amazing is not that turmeric may have value in *dozens of health conditions simultaneously*, or that it may improve conditions that are completely resistant to conventional treatment, but that there are over six hundred additional health conditions it may also be valuable in preventing and/or treating. Consider also the fact that turmeric grows freely on the Earth, and you will understand why its very existence threatens billions of dollars in pharmaceutical industry revenue.

Learn more about this research in the [video](#) (keeping in mind that it is several years old and needing some updating), and please spread the information to others who may benefit from learning more on the topic). (Source: Mai Biatster in Featured, Health Tips August 14, 2014)

9.3: Make milk adulteration punishable with life imprisonment: SC

The Supreme Court urged the state governments to make necessary amendments to their laws to make production and marketing of adulterated milk, which is injurious to human consumption, an offence punishable with life imprisonment. The court was hearing a public suit which said samples collected by the Food Safety and Standards Authority of India in 2011 revealed large-scale sale of adulterated milk across the country. (Source: IANS, New Delhi, Modified: December 06, 2013)

10. FORTHCOMING EVENTS

Calendar of Conferences, Conventions and Symposia in India and abroad

Get your event listed in this section by mailing complete details to the Editor: rnkohli@gmail.com

10.1: 33rd Annual Convention of ISVM & National Symposium on “DIMENSIONS IN VETERINARY MEDICINE, TECHNOLOGICAL ADVANCES, ONE HEALTH CONCEPT & ANIMAL WELFARE CONCERNS: Pookode, Wayanad, Kerala; January 22-24, 2015 For further details please visit: www.isvm2015.in or Contact Organizing Secretary: ajithkumar@kvasu.ac.in

10.2: 12th Agricultural Science Congress: NDRI, Karnal, Haryana; February 3-6, 2015. National Academy of Agricultural Science (NAAS) is organizing the **12th Agricultural Science Congress** to be held at **National Dairy Research Institute (NDRI), Karnal from Feb 3-6, 2015**. An Exhibition -- ASC India Expo -- is also being organized along with the Congress. For further details please visit: <http://agricongress2015.in/> or Email: prabal.mmactiv@gmail.com

10.3: 43rd Dairy Industry Conference: Kolkata; 19th to 21st Feb, 2015.

The **43rd Dairy industry conference** of Indian Dairy Association will be held at Science City Auditorium in Kolkata from 19th to 21st Feb, 2015. The theme of the conference is: **Dairying for Rural Prosperity**. For details & Registration contact: Mr. T.K. Das; Email: tapan.k.das1953@gmail.com (cell: 09836264433)

10.4: Agrovision South: Belgaum; 21st -23rd February 2015

The inaugural edition of AGROVISION South in Belgaum is scheduled to be held from 21st - 23rd February 2015 at Belgaum Exhibition Complex, Autonagar, with the core theme: **"Building sustainable Livelihood and increasing Farmers Income and SMEs role in food processing"**. **"Agrovision"** - regarded by some to be the largest Agricultural Summit of central India, is expanding its wings to South India. This important meeting is expected to be attended by Agriculture Industry/Corporate, Government Organizations, Policy makers, Academia, Small scale industries & the Media. Details from: **Agrovision South** <agrovision.south@mmactiv.in>; and samanth.anikar@mmactiv.in

10.5: XIII NAVS Convocation-cum-Conference on “Strategies for Enhancing Rural Economy through Livestock Development”: DURG, Chhattisgarh, on 28th February, 2015

The event to be held at College of Veterinary Science & Animal Husbandry, Anjora, Durg, is being organized jointly by Chhattisgarh Kamdhenu Vishwavidyalaya (CGKV and the National Academy of Veterinary Sciences (NAVS), New Delhi. For further details: Please contact the Organizing Secretary (drsptiwari@gmail.com.) and / or Dr. Rishendra Verma, Secretary General, NAVS (I) (Email <rishendra_verma@yahoo.com>)

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