

NAVS NEWSLETTER

FOR PRIVATE CIRCULATION ONLY

NEW DELHI

OCTOBER, 2014



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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NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)

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 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 in February 2015 in Durg, Chhatisgarh
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2. EDITOR'S NOTE



THE 'GM' CONTROVERSY

The controversial issue of “**Genetically Modified (GM) Crops**” has recently been generating a lot of interest in the Indian sub-continent.

In 2013, the then Environment and Forests Minister Veerappa Moily, reversed the stance of his predecessor, Jayanti Natarajan (both of the previous UPA-2 government) and permitted field trials of genetically modified (GM) crops and urged the Supreme Court to let them go ahead with it in the interest of India's science and economy. The affidavit filed by the Agriculture Ministry junked a majority opinion by the court-appointed Technical Expert Committee in July 2013 for an indefinite moratorium on field trials until the Centre had tightened its regulatory mechanism. The committee had favoured trials only for research purposes, preferably in greenhouse. The government called this as an 'unscientific approach' and claimed that although the existing regulatory mechanism was dependable, they were open to all ideas of strengthening it further. "As a result of continuous oversight, no confirmed adverse effect from research, field trials or commercialization of GM crops have come to light. Hence, it is reiterated that there is no basis to accept the recommendation to halt the confined field trials on the pretext of additions in the existing system," it said. The government further said that any delay or stoppage of GM crop field trials will be a 'blow to Indian Science' and consequently, Indian farmers and economy as a whole will be the 'biggest loser.' "Roadblocks in conduct of field trials would have a cascading effect of setting back all the related fields of research, which were thus far on the upswing. This will have several cascading implications, including the compulsion to import GM food," stated the affidavit, adding that the ambiguity in the matter since the first PIL was filed in 2004 had also discouraged young scientists and researchers.

The new Central Government that took over in May 2014 seems to be echoing the views of the previous one. Although the effects of GM food have been fiercely debated globally and the Anti-GM activists in India have been mounting pressure on the government over the issue citing health risks, the government have told the Parliament that there is no ‘credible scientific’ proof yet to show that GM crops pose any risk to human health. In response to a routine question by a member, who sought to know if scientific research has shown any adverse effects of GM crops, the Minister of State for Agriculture Sanjeev Kumar Balyan, in a written reply said: “There is no credible scientific evidence proving that GM crops have adverse impact on environment, human health and livestock.” The advocates of GM foods in the global controversy argue that foods containing GM organisms pose no more harm or risk than ordinary foods -- frequently citing the case of American consumers who have been eating GM food for decades.

On the other hand, the anti-GM activists have argued that such technologies carry potential long term hazards, citing their own body of research. One such activist associated with the Alliance for Sustainable and Holistic Agriculture (ASHA) has stated that it was a blatant lie to say that there are no adverse effects of GM foods. In India, those opposing GMOs have prepared their own dossier of “peer reviewed” papers that have demonstrated unintended behavior of GMOs. However, one such study caused a major controversy when renowned academic publisher Elsevier withdrew a November 2012 study after it was found that the paper

did not meet scientific standards. “Most of their studies are poorly designed and don’t fulfill mainstream scientific requirements. The US FDA, The European Commission, after 20-year assessment, and Canadian Food Safety Agency have all found no evidence of any risk,” said Shantanu Shantaram, Professor at Iowa State University and former US biotech regulator.

G. Padmanabham, INSA senior scientist, Department of Biochemistry, Indian Institute of Science, Bangalore, feels that the flip flop of the government in permitting GM crops for trials is discouraging. He wants that India should not shut itself to GM crops and questions government’s stand: “We are not against GM crops, but their long term impact on health safety and biodiversity needs to be studied before trials are permitted”. “What is long term impact?” he retorts. “In our country GM technology has become synonymous with the use of Bt crops. *Bacillus thuringiensis* (Bt) has been in commercial use, first as a spray of spores, to be followed additionally by transgenic Bt crops (corn, cotton, soya bean, etc.) for nearly 75 years. Nearly 20 years of research went into using Bt gene as a biocide to combat major pests. Bt protein works only in the alkaline gut of the insect, but gets degraded in the acidic environment of animal or human.” “Million of people (in USA, Canada, China, etc.) and livestock have been consuming Bt corn for over 15 years. Europe imports GM foods. Would developed countries allow their population and livestock to be fed on unsafe food?” he asks.

In a rebuttal, Pushpa M. Bhargava, founder director of the Centre for Cellular and Molecular Biology, Hyderabad, states that Bt cotton is far from having been an unqualified success in India. It has worked only in irrigated areas and not in rain fed regions that represent two-thirds of the area under cotton cultivation. Out of over 270,000 farmers’ suicides, a substantial number has been of Bt cotton farmers. In Andhra Pradesh there have been deaths of thousands of cattle that grazed on the remnants of Bt cotton plants after harvesting of cotton. Resistance to pests in Bt cotton has developed over the years, the number of secondary pests have increased, and the soil where Bt cotton has been grown over a prolonged period has become incapable of sustaining any other crop. She recommends the use of established alternatives such as integrated pest management for cotton, instead of using ‘untested Bt technology’ and alleges that the Central government departments that have been acting as peddlers of GM technology -- probably in collusion with the MNCs marketing GM seeds -- have shown little respect for law. Thus, Bt cotton seeds were sold to farmers before they were formally approved in 2002, but nothing was done about it. It is further argued by her that 90 percent of the member countries of the United Nations, including almost all countries of Europe haven’t permitted GM crops or unlabelled GM food. Once the labeling is there, people will not buy the food. In the United States, where GM foods like corn and soya have been consumed for over 15 years, there has been a continuous rise in the incidence of disorders of the gastrointestinal tract. While this does not establish a cause and effect relationship, it does not rule out this possibility. There are over 500 research publications by scientists of indisputable integrity, who have no conflict of interest, that establish harmful aspects of GM crops on human, animal and plant health and on the environment and biodiversity. On the other hand, virtually every paper supporting GM crops is by scientists who have a declared conflict of interest or whose credibility and integrity can be doubted.

While a recent paper by Indian scientists showed that Bt gene in both cotton and Brinjal leads to inhibition of growth and development of the plant, Bangladesh has approved the commercial cultivation of Bt brinjal. Twenty small farmers planted Bt brinjal in four different regions of Bangladesh and have benefitted by 30% increase in yield and 80% decrease in

pesticide spray. While praising Bangladesh's boldness to go ahead, G. Padmanabhan states that all the data India generated over a period of eight years only led to embargo of even a trial Bt brinjal cultivation in the country. Pushpa M. Bhargava says that the argument that we need GM technology to feed the increasing population of India is fallacious. Even with low productivity, which can be increased, we even now produce sufficient grain in the country to take care of our requirements, if only we do not allow 40% of our food produced to be wasted. And we can double our food production by using non-GM technology, such as molecular breeding.

The anti-GM activists claim that we have no guidelines that could be scientifically valid and stringent enough for testing GM crops for safety. For example, few chronic toxicity tests have been done anywhere on GM food crops. Whenever these tests have been done, GM food has been shown to lead to cancer. Some of them suspect that US would like to control food production around the world by marketing patented GM seeds. They feel that to control our agriculture, one need to control only seeds and agro-chemicals. The MNCs that sell GM seeds that are protected by intellectual property rights also sell agro chemicals. If we allow such MNCs to control our seed production, we would surely de facto lose our freedom.

On the other hand, GM-promoters feel that India has formulated very strict guidelines for the conduct of GM trials. All that we need is to make the Genetic Engineering Approval Committee (GEAC) autonomous and make state and district level monitoring committees more effective to conduct field trials.

The NDA government has recently (August 2014) decided to allow scientific trials of some GM crops (which it had earlier put on hold), but would strictly adhere to all norms governing such field evaluation. The government is of the view that "progress of science" itself can not be stopped and there is a distinction between scientific evaluation and approval for commercialization. The GEAC, a regulatory panel under the environment ministry, had recently recommended field trials of 15 GM crops, including rice, chickpea, brinjal and mustard. The environment ministry is headed by Prakash Javadekar.

3. LETTERS TO THE EDITOR

Dear Prof. Kohli, HATS off to your solo efforts. I will urge the Governing Council to place on record appreciations for the excellent work done by you. I am sure Academy will continue to be benefitted by your benevolent efforts in times to come. **Dr Jitendra Singh Bhatia** (bhatiajs05@rediffmail.com), Former ADG (EDU), ICAR, 8, Khalsa College, GT Road, Amritsar, Punjab, MOB-09316612588

Dear Dr Kohli, your contribution to the profession as an Editor is worth recording. At this age working still strong we all salute you & wish you all the success in your endeavors. Regards!
Dr. Suresh Honnappagol, Animal Husbandry Commissioner, Government of India.
sskvafsu@yahoo.co.in

Your valuable services will show the path to other professionals in time to come.
Dr. Jagdish P. Mittal (jpmitalvet@gmail.com)

Yet another edition of NAVS Newsletter is before Vets of India with a full flavor of your editorial excellence. Kudos to the Editor of the Newsletter for meticulously depicting the activities of the veterinary profession at national and global level in. Unfolding every page gives you the suspense of discovering a new news and perhaps this is the reason that anybody who starts reading it, can not abort it midway.

Dr. T.K. Gahlot <tkcamelvet@yahoo.com> (Director of Clinic, RAJUVAS, Bikaner)

Dear Professor Kohli, I enjoyed going through the July 2014 issue of NAVS Newsletter and am impressed by your dedication for the cause of NAVS. I once again salute you for the same.

Dr. J. L. Vegad (Jawaharlal Vegad <vegadjl@yahoo.com>)

Many thanks for the July 2014 issue of the Newsletter which, as usual, was very informative. Sir, you always had the flare for editing and had already proved it over the years. NAVS had set it right choice on you sir. Please keep it up. **Dr. Rama Kumar V.** (drramakumarv@gmail.com)

Dear Dr Kohli, As usual it was wonderful to go through the July issue of NAVS Newsletter, which is no doubt a reader friendly, that too for a non-veterinarian like me. While I am unequivocal on the subject of unscrupulous export of female Buffalos, I do reiterate that a thoughtful & farsighted buffalo meat export policy should be enforced in India. I do also recall that this issue was deliberated at length, when I was a board member in APDEA as well as in the short lived, National Livestock Development Board of India, under the Department of Dairy & Animal husbandry, GOI. Since the present government is strongly anti-animal export, a board similar to National Livestock Development Board may be re-established to formulate & implement a befitting long term policy to stop such unscrupulous export!

Animesh Banerjee, Former President, Indian Dairy Association
<banerjeeanimesh@rediffmail.com>

We appreciate your immense service to the profession over the last 5 years. Let me pray and wish for best of your health and service. **Dr. K.S. Palaniswami** (<kspswami@yahoo.com>), Former Director of Research, TANUVAS, Chennai.

I found the Newsletter to be highly informative and useful for the veterinary community. I am thankful to you for inclusion of announcements of trainings and winter / summer schools in the newsletter, which will be beneficial for the aspirants of these trainings. **Dr. P.S.P. Gupta** (<pspgupta@hotmail.com>) Principal Scientist, NIANP, Bangalore.

Dear Dr. Kohli, I just enjoyed spending significant amount of time reading the Newsletter. You have been doing an outstanding job of developing this letter that keeps all Veterinarians abreast of the most interesting new developments and of course, this is a great way of finding out the accomplishments of your colleagues who we have known for the last more than 3 decades. Most interestingly, we're able to see some of the photos. I sincerely want to commend your dedicated efforts in sending this Newsletter periodically. **Dr. Vijay K. Juneja, Ph.D.** 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.
<Vijay.Juneja@ars.usda.gov> ; <http://www.arserrc.gov/>

Kudos for bringing out the NAVS Newsletter always dot on time. It is a Great job. One can understand the time you must be spending to collect so much data for each issue. Sir, I have gone through the write-up of Dr K.M.L. Pathak, Honorable President of NAVS. It is indeed thought provoking. I am raising some issues which need attention in which the NAVS, IVA and State Associations can play some positive role. **Dr. Jit Singh**; <jitp48@gmail.com>
(**Editor adds**: Please also see Chapter - 6 - **Viewpoint** - elsewhere in this issue).

Dear Prof. Dr .R.N. Kohli, Many thanks for sending the NAVS Newsletter of July, 2014. I am very happy to know that you have started a column on ‘Science, Health and Society’. It gives good piece of information on a variety of topics for the benefits of Fellows and Members of the Academy. It was interesting to read few topics i.e. Editor’s Note by Prof. Dr. Kohli, and Water use and waste management: A major role of animal resources by Prof. Dr. V. Ramkumar. The Academy Newsletter is highly appreciated by every one. I pray to God to bless Prof. R.N. Kohli, our dynamic Editor, a happy and healthy long life so that NAVS is benefitted by his long and rich experience.

Prof. Dr. Mahendra Pal , Professor of Veterinary Public Health, College of Veterinary Science, Addis Ababa University, P.B.No.34, Debre Zeit, Ethiopia. Email: palmahendra2@gmail.com

I take this opportunity to extend my cordial wishes towards your good self on successful completion of five years of your Editorship of NAVS publication. I Hope that soon I can also become member of this esteemed NAVS. **Dr Ruchi Tiwari** (<ruchi.vet@gmail.com>)

I find your NAVS Newsletter very informative and of great use in our activities. Kindly add me to your regular mailing list. **Subodh Kumar** (subodh1934@gmail.com)

NAVS Newsletter July 2014 issue was very informative. Thank you, sir.
Dr. Mohinder Oberoi, FAO

(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: **Editor, NAVS**).

4-: FROM THE PRESIDENT'S DESK

Strategies for Enhancing Milk Productivity of Indigenous Cattle



Prof. Dr. K.M.L. Pathak

Our country has about 6 lac villages which are home to 70% of human population where cattle husbandry has always been a part of social and cultural heritage. Amongst various categories of livestock keepers the marginal, small and semi-medium farmers house about 89% of cattle population. The indigenous cattle populations have been utilized for providing milk, milk products, draft power, bio-fertilizer, bio-fuel, producing bio-molecules and other products beneficial for human health besides being a source of sustained livelihood for landless and resource poor farmers.

As per XVIII Livestock census (2007), India has about 199 million cattle population which includes 166 million (83%) indigenous and 33 million (17%) crossbred and exotic cattle. Of this large population, only 23.14 million heads (11.62%) of indigenous cattle have been so far described and categorised into 44 different populations including 37 distinct and registered breeds. Indigenous cattle breeds are generally classified on the basis of their utility as milch breeds (Sahiwal, Red Sindhi, Gir and Rathi), draft breeds (Hallikar, Khillar, Nagauri, Kangayam, Red Kandhari etc.) and dual (milch and draft) purpose breeds (Tharparkar, Haryana, Kankrej, Deoni, Ongole, Dangi, Kenkatha etc). These unique breeds have been developed through dedicated efforts of livestock keepers, pastoralists and other stake- holders over a period of thousands of years.

During last few decades, the distinct biodiversity of our cattle breeds has been diluted due to changing breeding policies and adoption of a few improver breeds. Current milk production from indigenous cattle is only 2.36 kg/day at the national level. Even then the fact remains that indigenous cattle contribute significantly to the estimated (2013-14) national pool of 132.43 million tonnes of milk. Experiments conducted at various research institutes during last decade have demonstrated that many of these breeds have the genetic potential to produce 2000-3000 litres of milk in a lactation of 305 days. Since, majority of the states have draft type cattle breeds, a little improvement in their productivity will also contribute to increase in total milk production of the country.

Conservation of indigenous germplasm is equally important in light of the declining numbers over the years due to inconsistent breeding policies and consumer preference for a few breeds. Our country possesses a good infrastructure of various agencies involved in cattle improvement programme. We have more than 4000 goshalas which maintain about 20 lakh indigenous cows. In addition to 161 cattle breeding farms, 54 semen production centres, the country also processes 191 frozen semen banks, 77,765 AI centres, many veterinary hospitals/polyclinics, and dispensaries. Most of the states have animal husbandry departments and livestock development boards. Other stakeholders like NGOs, breed associations, farmer groups and pastoralists are also contributing towards breeding and conservation of indigenous cattle breeds.

Many of these goshalas with their own resources have been contributing towards conservation of Indian cattle breeds through proper breeding plans. These are also the treasure-houses of our ancient traditional knowledge related to cattle husbandry practices. have which demonstrated value addition through utilization of other by-products like dung, urine, horns etc in addition to milk and milk product. Unfortunately, many of these goshalas are still not well maintained in the ideal state and need financial and technical support.

Major constraints for breed improvement and conservation of indigenous cattle are:

- Higher age at first calving and inter calving period
- Insufficient availability of genetically superior germplasm
- Poor milk productivity
- Insufficient availability of quality feed and fodder
- Poor linkages for delivery of livestock services including veterinary and AI services
- Isolated efforts by different agencies involved in programmes related to breed improvement and conservation
- Limited financial support to goshalas, religious muths and other NGOs involved in the process of breed improvement and conservation
- Limited efforts to understand and validate scientific basis of documented ITKs like panchgavya

With the view to improve indigenous cattle, the Government of India has launched "Rashtriya Gokul Mission" through the State Implementing Agency viz. Livestock Development Boards for which Rs. 500.00 crores have been allocated during the XII Five Year Plan. The scheme will cover establishment of indigenous cattle centres viz. "Gokul Gram" near metropolitan cities, strengthen bull mother farms for conservation, field performance recording, pedigree selection, establishing breeders society "Gopalan Sangh", distribution of quality germplasm, incentives and awards to farmers (Gopal Ratan) and Breeders' Societies (Kamdhenu).

Recalling the advantages of indigenous cattle rearing in terms of its adaptability, disease resistance and milk attributes, etc. the Hon'ble Prime Minister during the 86th Foundation Day Celebration of ICAR emphasized the need for its conservation and desired that all attempts be made for enhancing its milk productivity potential. Hence, as a follow up, to deliberate the issues concerning both improvement of milk productivity and conservation of indigenous cattle germplasm, scientific advancement made in the identified disciplines will be discussed and assessed to prepare a road-map for enhancing milk productivity of Indigenous cattle. Accordingly, it is proposed to organize a one-day interactive Consultation Meet of experts and other stakeholders on "Strategies for Enhancing Milk Productivity of Indigenous Cattle". The programme will be 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 will also provide a platform to suggest suitable changes in policies, legislation, institutions framework for technology development and capacity building. **Dr. K.M.L. Pathak** (pathakkml@yahoo.co.in)

5: VET TRACKS

5-A: OBITUARY

5-A.1: Prof. Dr. R.L.N. Rao passes away in New Zealand

We were shocked to learn of the sad demise of Prof. Dr. R.L.N. Rao in New Zealand in July 2014. He was an eminent foreign fellow of our Academy and was keenly following its activities for many years. He was a renowned retired Professor of Veterinary Surgery from Hyderabad College (his alma mater) and was highly respected for his clinical acumen. He did his M.V.Sc. in Surgery from Bombay Veterinary College in 1963 and later PhD. from H.A.U. Hisar. After retirement, he shuttled between, India, USA and New Zealand for some time, and then chose to settle down in U.S.A. and New Zealand, where his children were settled. In the last couple of years, he visited India just to meet his friends and relatives. During his last visit in early 2014, he got sick for which he got some tests done here. He returned back to New Zealand confident of his recovery. Unfortunately, he lost his wife soon after reaching New Zealand. His own condition deteriorated further and the end came on 26/27 July. Dr. Rao was one of oldest and closest friends of the Editor NAVS with whom he had his last SKYPE conversation on 18 July, during which his voice was very feeble and he could hardly talk. We agreed to talk again next week. But God willed otherwise.



Dr. Rao loved his friends and will be remembered for the warmth and love that he used to shower upon them. ‘Believe in Truth & True Friendship’, was his favorite quotation. Dr. Rao led a simple and non-controversial life and was always smiling. He was full of life in spite of his ill health. His daughter posted the following message for his friends: “Thank you everyone for the love, well wishes and support over the past few months. Today we have said goodbye to an amazing husband, father, brother, uncle, grandfather, great grandfather and friend. We will always hold close the memories that we shared with him. Being the person he is, we know that he is and always will be smiling down on us and we ask that you always think of his smiling face when he comes into your thoughts.”

May his soul rest in peace and may God bless his family and friends with courage to face the loss.

5-A.2: Dr. Bhanu Pratap Singh is no more

We were sad to learn from colleagues in the Academy that **Dr. B.P. Singh** passed away recently. Dr. Singh was a distinguished Fellow of NAVS. A geneticist and breeder by training, he worked at Veterinary College, Mathura in various capacities. May his soul rest in peace and may God bless his family and friends with courage to face the loss.

5-A.3: Sudden Demise of Dr. SAH Abidi

With profound grief, this is to inform sad and sudden demise of **Dr. SAH Abidi**, on July 11, 2014. Prof. M. P. Yadav, Former NAVS President, was with him on that day in Delhi in a meeting from 11 AM to 2 PM. and was shocked next morning to learn of his demise in the same evening. After the said meeting, **Dr. Abidi** left for Lucknow at 2 PM. He was absolutely in good health and humor as usual. It seems he suddenly collapsed on arrival at Lucknow Airport. He was rushed to a hospital, where he expired at about 5.30 PM.

Dr. Abidi, a fishery scientist and an Ex-Member of ASRB, is regarded as a renowned academican, administrator who believed in science, moral values and expressing his opinions frankly. Scientific fraternity of NARS will always feel the vacuum created by his absence. In his death, the country has lost a very valuable scientist who always thought for the good of the nation. All his family, friends and colleagues have lost a great well wisher.

May Almighty God grant peace to the departed Soul and grant strength to the bereaved family to bear their irreparable loss.

5-B: APPOINTMENTS, TRANSFERS, PROMOTIONS AND FELICITATIONS

5-B.1: Dr. K.M.L. Pathak Gets National Research Leadership Award

Dr. Krishan Pathak, DDG (AS), ICAR, and President NAVS (I) received Research Leadership Award at the **Agriculture Today Leadership Summit 2014** held on 27 September 2014 at Taj Palace Hotel, New Delhi. The Award Prize (that includes a memento and citation) was handed over to him by Prof J.P. Kurion, Hon'ble Deputy Speaker, Rajya Sabha. The whole Indian Veterinary Profession is elated at the news and congratulates Dr. Pathak for the achievement. The Past Awardees of the Research Leadership Award include: National Dairy Research Institute (2013); National Bureau of Plant Genetic Research (2012); and National Research Institute for Equines (2011).



5-B.1: Dr. Vijay K. Juneja among thirty global Indians for NRI awards

Dr. Vijay K. Juneja, an eminent veterinarian working in USA as 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 (<http://www.arserrc.gov/>), writes to inform us that he is among the 30 global Indians that are to receive 'Mahatma Gandhi Pravasi Samman' at House of Lords, London, on 9th October 2014, at an event being organized by the NRI Welfare Society of India to mark the 145th birth anniversary of father of the nation, Mahatma Gandhi. These Awards will be presented to those Global Indians who are keeping the Flag of India High because of their outstanding services in different fields.

5-B.2: Dr. P.P. GUPTA felicitated on Zoonosis Day

Observing the World Zoonosis Day 2014 at 4th Annual Conference on Scientific Awareness on Zoonosis Disease Control Sunday 6th July, 2014, New Delhi, a Distinguished Service Award was presented to Dr. P.P. GUPTA, former Director Research, P.A.U., Ludhiana, and an eminent fellow of NAVS(I) and NAAS.

5-B.3: Dr. Mohinder Oberoi Returns to India after FAO Assignment in Nepal

August 14, 2014 was **Dr. Mohinder Oberoi's** last day of working for FAO as Sub Regional ECTAD Manager in Kathmandu, Nepal. He has been with FAO for the past nine years and was looking forward to settling down at his home in Ludhiana, India, and to continue to work as independent Animal Health Consultant. We learn with pleasure that he has since been nominated as Chairman of Research Advisory Council of the newly formed "National Institute of High Security Animal Diseases" Bhopal. Email: mohinder.oberoi@gmail.com.

5-B.4: Dr. Raghavendra Bhatta takes over as Director, NIANP, Bangalore

Consequent upon his appointment, Dr. Raghavendra Bhatta has taken over as Director, National Institute of Animal Nutrition and Physiology, Adugodi, Bangalore-560 030 w.e.f. 14th August 2014.

Dr Raghavendra Bhatta completed his B. V. Sc in 1988 and M. V. Sc. (1990) and Ph.D. (1998) in Animal Nutrition from the University of Agricultural Sciences (UAS), Bangalore. He commenced his professional career as Technical Manager with Mysore Feeds



Limited, Bangalore wherein he got acquainted with animal feed industry. He joined the Agricultural Research Services of ICAR in 1993 as Scientist at Central Sheep and Wool Research Institute, Avikanagar, Rajasthan. He has worked extensively on the nutrition of grazing sheep and goat and top feeds of semi-arid region containing plant secondary metabolites in the feeding of small ruminants at CSWRI. Since, 2003 he is working at the National Institute of Animal Nutrition and Physiology (NIANP), Bangalore. Dr. Bhatta was awarded the prestigious Japan Society for the Promotion of Science (JSPS) post doctoral fellowship (2004-2006) for the study on 'Estimation and regulation of methane emission from ruminants' at the National Institute of Livestock and Grassland Science, Japan. He

has also completed 3-months International Training Programme of National Agricultural Innovation Project (NAIP) in the area of 'Mitigation strategies for methane production from livestock' at the United States Department of Agriculture (USDA) Laboratory at Texas, USA in 2011. In 2006, he has chaired the technical session at 'International symposium on recent advances in ruminant nutrition' at the XII AAAP conference at Busan, South Korea. He was

invited to present a theme paper at the Greenhouse Gases and Animal Agriculture (GGAA) Conference at Banff, Canada in 2010. He has presented research paper at the 2nd International Conference on Greenhouse Gases and Animal Agriculture (GGAA) at, Zurich, Switzerland in 2005. Dr Raghavendra Bhatta is recognized as an expert of Indian National Committee (INC) of the International Dairy Federation (IDF) Task Force on Animal Feeding. He is an expert of the Technical Advisory Group (TAG) of the Food and Agricultural Organization (FAO) of the United Nations, Rome for the initiative on ‘Partnership on the Environmental Benchmarking of Livestock Supply Chains’ and ‘Livestock Environmental Assessment and Performance Partnership’ and attended the workshops at Rome and China. Dr Bhatta has published more than 70 publications in journals of International repute. He is a Fellow of the National Academy of Veterinary Science (FNAVS), Fellow of the Society for Applied Biotechnology (FSAB) and Fellow of the Animal Nutrition Association (FANA). Dr Raghavendra Bhatta was the Organizing Secretary of the Global Animal Nutrition Conference (Glance 2014) held at Bangalore in 2014. Email: directornianp@gmail.com ragha0209@yahoo.com

5-B.5: Dr. A.K. Srivastava elected as Chairman (North Zone) of IDA

Dr. A.K. Srivastava, Director-cum-Vice-Chancellor, National Dairy Research Institute, Karnal, was recently elected unopposed as Chairman (North Zone) of the Indian Dairy Association and has since taken over the position. In addition to his other attributes and a very distinguished career, Dr. Srivastava is also an eminent Fellow of the Academy.

5-B.6: Journal Makes Prof. Mahendra Pal an “Associate Editor”

Dr. Mahendra Pal, a NAVS Fellow & Professor of Veterinary Public Health, Addis Ababa University, Ethiopia was appointed as “Associate Editor” of the “International Journal of Livestock Research”, published monthly by Scope Med Organization.
Email: palmahendra2@gmail.com

6. VIEW POINT

(Views expressed by contributors are personal)

6.1: Career advancement scheme –a possible setback to the National Educational Policies on HRD and HRM in Agricultural Institutions in India

The Career advancement scheme (CAS), the way it is in vogue at National agricultural research system (NARS), has/ is signaling a very disheartening trend in Agricultural educational scenario in the country. There is complete stagnation in SAUs/ SVUs to recruit faculty through lateral entry at senior positions of associate professors, professors, deans, directors etc. Open advertisement and selection for the post have become merely a formality as hardly any fresh talent is inducted to man such positions. In- fact talent hunt, mobility of scientist, induction of talent through open recruitment, competitiveness, reducing inbreeding etc. have merely become slogans/ sermons that are spoken from the Podium/ Dias and sounds pleasing to the ears of the audience. In true sense recruitments have become in-house management system. Those senior persons who are considered to be from outside the State, in true sense have risen from the base cadre of assistant professors from there itself.

Being a member of Board of Management (BOM) of Rajasthan University of Veterinary and Animal Sciences (RAJUVAS), Bikaner, I have seen a very disturbing trend in the recent board meeting, where despite, all possible efforts made by the university to fill all vacancies; it has failed to recruit most of the senior positions. The University had recently advertised around 200 posts for recruitment of existing and newly created faculty positions to manage its massive developmental programs in education, research, farm services and extensive transfer of technological units in the entire State of Rajasthan. To the utter dismay for the university, the responsiveness to the posts of professors (39) and associate professors (68) was very poor. The University has failed to recruit even a single professor and hardly a few associate professors. Further, those associates professors who have been selected in- fact had not faced any serious competition being mostly the only candidate. It however, has been a sense of relief that fairly good competition was seen for the recruitment of assistant professors. Similar pattern of recruitment is seen at other universities across the country. By and large associate professor- the middle level functionary in a department serves as a link between a professor and the young ground level basic teacher-the assistant professor, is hardly available. The newly coming up institutions faces serious problems in recruiting senior faculty as hardly any one working at an established institute wants to get uprooted to accept any new challenge elsewhere.

The ICAR has toiled very hard to enforce upon the State Universities to introduce uniform recruitment system in selection of academic managers including Deans/ Directors/ HOD etc. through open competition, defining means to reduce inbreeding, induction of fresh talent, mobility of scientists, introducing competitiveness etc in the system but the way CAS is being in operation, every efforts to bring educational reforms have suffered setbacks.

It is high time for the ICAR and other regulatory authorities to study the impact of CAS in our agricultural educational system in the country. A study in this context may be commissioned to compile detail scenario of the country. There is a need for ICAR to deliberate on this subject with the Vice Chancellors and other related organizations and draw a workable plan to ensure progressive policies conducive for growth.

It is also not out of place to state that other policies (that are variable from State to State) are not conducive or attractive for a scientist to move. Counting of past service, pension or PF benefits, allotment of residential accommodation, protection of salary with added perks and privileges including medical benefits, leave privileges etc. should be accounted for as if one is in continuation of his/ her service

It is earnestly suggested to the VC's to put forth their valuable input on all such issues so that collect wisdom could be developed so as to shape the system which should favor attraction and retention of talent at institutions.

(Dr. Jitendra Singh Bhatia, Former ADG (EDU), ICAR, 8, Khalsa College, GT Road, Amritsar, Punjab. Email: <bhatiajs05@rediffmail.com>; MOB-09316612588)

(Views expressed by contributors are personal)

6.2: Veterinary Education: Some Pending Issues

Sir, I have gone through the write-up of Dr K.M.L. Pathak, President of NAVS in the July 2014 issue of the Newsletter. It is indeed thought provoking. The Veterinary Council of India has done a commendable job on implementing minimum standards of veterinary education

as per regulations for the B.V.Sc. & A.H. programme. However certain issues need to be raised in professional interest since my pleadings with VCI and some of its executive members failed.

1. The foremost object of Indian Veterinary Council Act 1984 was to regulate veterinary practice and that's written in the first line of the Act itself. For that purpose VCI should have formulated regulations on minimum standards for veterinary dispensaries, hospitals and polyclinics, whether Government or private. In most of these units hardly any facilities exist for proper diagnosis and treatment and the number of quacks far exceeds the trained paravets and vets combined together. Regulations have not been made or implemented in the country to take remedial measures in this direction. We made minimum standards for undergraduate degree programme to train students in creditable techniques which they fail to apply in field because of lack of even bare minimum facilities. It amount to same if we train our soldiers with sophisticated armour and send them to fight with sticks in hand. Some may take this statement with tongue in cheek but it is a hard unpleasant fact. It is high time that VCI takes appropriate action in this regard.

2. MSVE regulations for BVSc&AH degree first came in 1993 and then in 2008. Several new vety colleges have come up or are coming up in Govt and private sector. Medical Council of India from the very beginning framed regulations on establishment of a medical college in a phased manner detailing rules and procedure for the same. its now more than 25 years of functioning of VCI and no such regulations were ever made leading to number of problems for VCI as well as those starting new colleges govt or private. The position taken by VCI is we have no regulations on lines of MCI and have only the power to recognize the degree and hence first show manpower and infrastructure for full five years of degree programme i.e. 87 teachers and cores of rupees of equipment which may be used after 2nd and 3rd year. No work no pay is a universal rule so how any college or university can pay salaries to 87 teachers even before first year admissions are made and what work will be done by more than 80% faculty when only first year teaching is there. Logically staff is required in the beginning only for first year, clinic and instructional farm..Otherwise also as per contact hrs of regulations and taking in to ICAR norms of teaching load of different categories of teachers not more than 55 are required for only BVSc &AH degree.

3. In early 1990"s VCI initiated PG programme regulations with a huge exercise. Matter lies in cold storage for the last more than two decades.

4. The issue of ICVR on lines of ICMR also appears to have gone in to ice box. The standing committee on agriculture of parliament under the chairmanship of Late K.Yerran Naidu, M.P--TDP, after a visit to Haryana and H.A.U, Hisar, more than 15 years back recommended establishment of ICVR on lines of ICMR. It seems no body is following this matter now. May be NAVS, IVA and state associations can play a positive role.

Sir, I have raised these issues in professional interest and hope will be disseminated among Fellows and members of NAVS for their wise opinion and comments as it is possible I am wrong in my expression.

(Dr. Jit Singh, Ex-Officer on Special Duty, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan. Current address: House no 49-P, Sector- 2, Rohtak (Haryana), <jitp48@gmail.com>
(Views expressed by contributors are personal)

6.3: On Need to Support Buffaloes

This note is a response to the phrases (listed below) that NAVS Editor picked up during the discussion that ensued at the "ICAR-NAVS Expert Consultation on Strategies for Breeding Buffaloes Round the Year" held in New Delhi on 4th July 2014 and posted on his personal page on a social networking site:

** Do not compare cows with buffaloes; ** Buffalo is THE ANIMAL of the Country; ** On all India basis, we are short of green fodder; ** Less is being spoken about Genetics of buffaloes; ** Mineral mixtures should be area-specific; ** A farmer wants his buffalo to be pregnant in one insemination; ** India needs over 76000 Vets.

The profession will have quite a bit to assimilate and act upon the recommendations of this consultation.

Sir, Many thanks for the crisp and positive information posted on Face Book on the importance of buffaloes in India. This is highly useful as we read that in spite of the great initiative that brought "white revolution" by Padma Bhushan (late) Dr Varghese Kurien 68% milk marketed in India is reported to be adulterated. Organised milk market covers only 15-20% of the milk produced in the country. Buffalo has a major role in milk production of India, in spite of their relatively small number in comparison to white cattle. On the 5 points raised in your posting I could gather the following information during my tenure in VCI and through opportune interactions with some great professional leaders. Kindly peruse and see if it can be of any use for dissipation to profession.

Point 1: Do Not Compare Cows with Buffaloes: ** Less is Being Spoken About Genetics of Buffaloes:

Yes, white cattle and buffaloes are two entirely different species. Work conducted in the Dept. of Anatomy, Hisar, Dept. Surgery and Dept. Nutrition, Ludhiana indicates differences in many anatomical, physiological, biochemical and genetic features. Site for some nerve blocks and surgery do vary. The source of energy for buffalo is VFA and not glucose. Buffalo has a higher fibre assimilation capacity. Its poor temperature regulating mechanism is known with sweat glands limited to axilla and groin regions. Buffalo had taken its origin from the same biological branch as has sheep.

Point 2: Buffalo is THE ANIMAL of the Country:

Origin of buffaloes is a debatable. We have Riverine Buffaloes. Swamp Buffaloes are restricted to North eastern region and it is claimed to be originating from Thailand from where "Ahoms" a tribe of Thai origin migrated to India. Traces of swamp buffaloes are seen in the buffaloes of Kerala thus confirming the mythology of the Saint "Parashuram" who reclaimed the entire coastal Kerala from "Gokarna" to "Kanyakumari". As per the mythology there was no one willing to live in the new found land. So, Parashuram travelled beyond "Vanga desh" (Bengal) and invited a community (possibly from Assam) to come and settle in his newly reclaimed land. Today one can see the following evidences,-

- a) The three piece dress of Assam is similar to the ethnic dress of Kerala
- b) There is similarity of bronze skin complexion and the mongoloid facial features
- c) The dwarf cattle like the Vechur and similar short varieties of Kerala bears similarity
- d) The bamboo, pineapple, Arica nut tree etc. and the flare for fish is similar
- e) Similar to Assam's harvest festival "Bhigu", Kerala has "Vishu".
- f) Kerala's 'lingo' Malayalam is rooted in Sanskrit though it is now influenced by Dravidian language.
- g) Traces of Swamp buffalo gene with 48 chromosomes are seen in the blood of Kerala's ethnic buffaloes.

Our planners had planned (unplanned?) a breeding policy to cross breed swamp buffaloes with Murrah buffaloes (of Pakistan and Punjab origin). Pakistan still maintains its ethnic breeds like “Neeli Ravi”, Murrah as they do the Sahiwaal, Sindhi and Tharparkar cattle. During independence day, they proudly parade these live-stock as we parade our army and armory.

Point 3: On All India Basis, We are Short of Green Fodder:

True!! We are not only short of fodder, we also had followed the following policy to reduce their availability:-

- a) At the time of independence we had 14-18 Million Hectares (MH) of pasture land. It has reduced to 11.4 MH
- b) PERMANENT PASUTRE IN INDIA AND IN SOME OTHER COUNTRIES
Brazil - 18.6 Million Hectares
S. Africa - 81.3 Million Hectares
U.K. - 11.0 Million Hectares
U.S.A. - 239.0 Million Hectares
China - 400.0 Million Hectares
India - 11.3 Million Hectares
- c) **Our exported materials include components of cattle feed like oil cake, while our five year plans point to lack of biomaterial as a major problem for vertical development of dairying**
- d) Our scientists have evolved short varieties of food grain crops reducing the volume of chaff (dry fodder which is the main bio-material for buffaloes)

Point 4: Mineral Mixtures Should Be Area-Specific:

Minerals are elements that originate in the soil and cannot be created by plants or animals. Yet to be healthy plants, animals and humans need minerals. Plants absorb minerals from the soil, and animals get their minerals directly from plants or indirectly from animal sources (for omnivores and carnivores). Minerals may be present in drinking water.

For estimating mineral nutrients, the soil and water of the area or locality are evaluated primarily. But this need not reflect availability to animals because:-

- a) In India grain procured from six states meet the food grain demand of the rest of the 30 states & UT's. *[70% of rice from Punjab, AP, UP & Chhattisgarh; 80% of wheat from Punjab, Haryana & MP go to grain pool]*
- b) At each yield crops absorb >21 minerals as macro (primary & secondary) and micro nutrients. Farmers routinely replenish Urea, Phosphorus and Potash (NPK)
- c) While the aforementioned 6 states exhaust their soil through multiple cropping, other states neglect staple food & convert crop able land and wetland into real estate & SEZ
- d) Production of animal based food, staple food, water based food production and animal feed are largely neglected in our food policy. [with animal feed cost going high, subsidized food grains (low quality grains from PDS) may be misused to feed animals

NOTE: Factors affecting mineral nutrients were discussed exclusively in an early issue of NAVS Newsletter.

Point 5: Farmer Wants His Buffalo to be Pregnant in One Insemination;

Under nourishment is the major issue. So is the impence of reproduction physiology. Countries like Brazil and Bulgaria had studies the Anatomy, physiology, biochemistry, nutrition and reproduction technology of Buffalo before they introduced the animal in their farming system.

Even in cattle there are considerable changes in the in the reproduction physiology following cross breeding. Delayed ovulation, metestral bleeding and libido are just a few phenomena encountered commonly in the field. Absence of team building (role identification and linkages) is a common phenomenon seen. With multiple agencies involved in nutrition, reproduction, breeding policy, in health care and delivery of service chances such anomalies going un-noticed is but natural. Today even in states who claim to be in forefront in reproduction technology a cow becomes pregnant only after 2-4 inseminations. There is more than one reason for the failure of insemination including the global phenomenon of 1-2% decrease in the success of AI. Behavior specialists recognize the importance of external stimulation for the synchronization heat and hormonal release. The absence of the pre-coital excitement that the presence and contact of the male animals provide in natural service is largely considered to be responsible for the decreasing success rate for AI. So far as buffalo in India is concerned there is a very long way to go in reproduction technology.

India has the largest number and variety of Buffaloes. In India the largest number of buffaloes is in UP and Andhra Pradesh (now 2 states)

LAST WORD: Sir Buffalo is a favoured animal and well suited in most parts of India except in the western Indian states like Maharashtra (MS) and in Kerala. Of course it is not a suitable animal for J&K or high ranges. The reason for M S & Kerala's disfavor is because most of the crop able land and wetland had been converted into real estate or industrial hot spots (urbanization going beyond 50%)

Point 6: India Needs over 76,000 Vets:

India has more than 40,000 Vets registered with VCI as on today.

Kindly see below (**BOX**) a note prepared by me (before I retired) in 2001 for Dr. PN Bhat who prepared a proposal for veterinary education during 10th plan.

As you read my note (in 2014) you may realize that nothing much has been done. Thus, a proposal on Human resource development in veterinary profession that was approved and submitted by VCI to the Government after **a three year long exercise that included several zonal meetings and national seminars has not seen the light of the day.** Even the GOI's Dept. of AH had been tepid in its approach to HRD proposal. An HRD policy and a PG regulation prepared to tide over the acute shortage of teachers and field vets is still in cold storage. Perhaps, the successive chairmen of the Education committee between then and now would be able to throw some light on this.

The Veterinary education at primary level is meant to train professional to render general veterinary service covering all aspects of health, production, clinical service, technology veterinary public health and community development. With the stagnation in growth of agriculture animal resource development and effective Veterinary Service assumes a greater role in the Indian economy and community health. The growing public awareness about environment, intensive animal rearing practices, and our growing protein needs etc. have led to greater animal-man proximity, interaction and inter-dependence. A general Veterinary professional today cannot render all the specialized services that are expected of the profession unless specialist (cadre) veterinarians are made available to support and compliment their service at the grass root level. At present our need for HIGHER training like specialist veterinary service, professional administration for planning (conservation is part of this), education and research programme remain largely unsubscribed.

From a Note Prepared in 2001

The technical manpower available in the country was approximately 34,000 (veterinarians). Majority of these were employed by (State) governments (75-80%); nearly 10% are in teaching and research job. A few thousand are in corporate sectors (National Dairy Development Board, Milk Unions, Bharatiya Agro Industries Federation, Insurance Companies) and Pharmaceuticals; a countable few are in Zoo's & wild animal facilities. The defense sector has nearly five hundred veterinarians. A few hundred are in private Veterinary practice.

Globally there has been an unprecedented expansion in the scientific vista in Veterinary professional service. However, in India, the impact of these is limited to some selected academic institutions and research stations. The situation by and large remains stagnant in field Veterinary service, where Animal Health, Production, Technology, community development and public health are closely integrated.

As per the recommendations of Agricultural Commission (in 1958?) there has to be one veterinary institution for every 5000 cattle units. As per 1992 statistics, India has 777 million livestock. Going by the conservative calculation of domestic animals these form 360-380 million **cattle units**. The requirement of primary level Veterinarian would be 70-76 thousand. For teaching staff the requirement (in 36 Veterinary colleges) would be 4095. [today, 19 more unrecognized veterinary colleges had been added with staff norm reduced. Still most of the colleges, much less the private veterinary colleges which charge Lakhs for admission do not have the minimum number of teachers, thanks to inaction of concerned statutory agencies. In the service sector control of disease, organization of research and development programme etc. require specialists. For the support systems like Veterinary biologicals, polyclinics, (district veterinary centres) epidemiological units, sperms centers, semen banks, bull mother farms, feed plants, meat plants disease control programmes etc. the current (2001) requirement would be roughly 6-10 thousand Veterinary professionals with higher training. (like P.G. diploma)

Currently there are 7000-8000 unfilled vacant positions of basic veterinarians, teachers and specialists. At the current rate of admissions it would take another 5-9 years to fill current the vacancies. Retirement rate is @ 700 veterinarians and 70-80 teachers per year. (relates to 2001)

At the current (relates to 2001) rate of admission it will take 31-32 years to meet the target of 72000 veterinarians. If the admissions are increased to approximately 3500 it may take 15-16 years to reach the target. Some urgent measure is needed to catch-up with the dearth and demand. [**the figure must change as the note was prepared in 2001**]

I agree with your suggestion that the profession will have quite a bit to assimilate and act upon the recommendations of this consultation. I wish and hope that with Dr Suresh Honnappogol, the new AHC coming in position some positive steps would follow. The newly elected VCI is expected to be in position too. LET US HOPE FOR THE BEST

(**Dr. Rama Kumar V.**, Former Secretary, Veterinary Council of India, New Delhi). (Views expressed by contributors are personal)

7. NAVS NEWS

7.1: Buffalo is India's Pride - Dr S. Ayyappan (ICAR-NAVS expert consultation on 'Strategies for Breeding Buffaloes Round-the-year')

4th July 2014, New Delhi:

Dr S. Ayyappan, Secretary, DARE and DG, ICAR inaugurated the ICAR-NAVS Expert consultation on Strategies for Breeding Buffaloes round the year this morning at NASC Complex, Pusa New Delhi. The one day consultation is being attended by experts in the animal science research including Dr K. Pradhan, Dr R.M. Acharya, Dr M.L. Madan, Dr M.K. Bujarbaruah, and former Directors of ICAR Institutes and other senior officials of the Council and Vice-Chancellors of animal science universities. Dr Ayyappan described buffalo as "India's Pride". He said that we have worlds best breeds like Murrah, Nili-Ravi, Zaffrabadi, Surti, and Banni. Buffaloes' contribution in milk production in India is more than 54%; though their population is just half in comparison to population of cattle. The buffalo is the backbone for the livelihood of small farmers and even landless labourers in rural India. Buffalo farmers are facing

problems due to reproductive issues, shortage of feed and fodder and lack of health and breeding support systems. He asked the experts to deliberate on improvement of fertility and provide clear guidelines for schemes.

Dr K.M.L. Pathak, Deputy Director General (Animal Science) and President, National Academy of Veterinary Science delivered presidential address. Lastly, experts discussed on improvement of fertility buffalo, seasonality in calving pattern, early mortality, late maturity and longer inter calving period. He said that we are looking for a road map from the Animal Science Institutes/Universities to give guidance on the above issues which are affecting productivity of livestock in general and buffaloes in particular. Earlier, Dr B.S. Prakash, ADG (AN) welcomed the delegates.

The NAVS Editor's brief post on some of the phrases that he picked up during the discussions on his personal page on a Social Media network attracted attention from some senior veterinarians, including Dr. Naresh Kumar Rakha, Dr. Rama Kumar V., Dr. Jit Singh, Dr. Sharma Kusumakar, Dr. Pradeep Kumar Kapoor, Dr. Dharamvir Malhotra, Dr. Prafulla Kumar Naik, Dr. Indranil Samanta, Dr. J.M. Nigam, Dr. Inderjeet Singh and Dr. Adarsh Kumar. Dr. Rama Kumar V., Former Secretary of V.C.I., posted a detailed rejoinder, which appears in Chapter 6 of this issue - 'View Point' - for wider information of the fraternity.

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

An expert consultation meet to discuss the advantages of indigenous cattle rearing in terms of its adaptability, disease resistance and milk attributes, etc. will be held in New Delhi to deliberate the issues concerning both improvement of milk productivity and conservation of indigenous cattle germplasm, scientific advancement made in the identified disciplines and to prepare a road-map for enhancing milk productivity of Indigenous cattle. Accordingly, it is proposed to organize a one-day interactive Consultation Meet of experts and other stakeholders on "Strategies for Enhancing Milk Productivity of Indigenous Cattle". The programme will be 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 will also provide a platform to suggest suitable changes in policies, legislation, institutions framework for technology development and capacity building. As you are aware, our Hon'ble Prime Minister during the 86th Foundation Day Celebration of ICAR had also emphasized the need for conservation of indigenous cattle and desired that all attempts be made for enhancing its milk productivity potential.

7.3: NAVS' G.C. Holds its Meeting in its Own Office

The Governing Council of the Academy met for the first time in its own office in the NASC complex for its meeting today October 1, 2014 under the chairmanship of the NAVS President Dr. K.M.L. Pathak. The office has now been equipped with essential furniture and fixtures. Earlier, only Office Bearers' meetings were held.

8. NATIONAL & INTERNATIONAL VETERINARY NEWS

8.1: Veterinary Council of India Reconstituted

According to a GOI Gazette Notification on Results of recent VCI Elections, the following have been appointed as the new members of the Council:

PRESIDENT

1. **Dr. Umesh Chandra Sharma**, President, Veterinary Council of India, A-Wing, 2nd Floor, August Kranti Bhawan, Bhikaji Cama Place, New Delhi – 110066.

VICE-PRESIDENT

2. **Dr. Gurdial Singh**, Vice-President, Veterinary Council of India & Dean, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar - 125 004, (Haryana).

MEMBERS

3. **Dr. Anant Devesh Kachiya Patel**, Member, VCI & Director, Department of Animal Husbandry, Government of Gujarat, Block - B, Krishi Bhawan, Sector - 10/A, Gandhinagar – 382 010, Gujarat

4. **Dr. Rajendra Kumar Rokde**, Member, VCI & Director, Department of Animal Husbandry, Government of Madhya Pradesh, Tulsi Nagar, Bhopal, Madhya Pradesh.

5. **Dr. S.K. Pandey**, Member, VCI & Director, Department of Animal Husbandry, Government of Chhattisgarh, Raipur – 462001, Chhattisgarh.

6. **Dr. Rudra Pratap Singh**, Member, VCI & Director, Department of Animal Husbandry, Government of Uttar Pradesh, Badshabagh, Gokaran Nath Road, Lucknow – 226007, U.P.

7. **Dr. G.S. Jakhar**, Member, VCI & Director, Department of Animal Husbandry, Government of Haryana, Pashudhan Bhawan, Sector – 2, Panchkula, Haryana

8. **Dr. Umesh Kumar Garg**, Member, VCI & Dean, College of Veterinary Science & Animal Husbandry, PO Rasalpur, Dist. Indore, Mhow - 453446, Madhya Pradesh.

9. **Dr. S. Yathiraj**, Member, VCI & Dean, Veterinary College, Hebbal, Bangaluru - 560024, Karnataka.

10. **Dr. Umesh Kumar Mishra**, Member, VCI & Vice Chancellor, Chhattisgarh Kamdhenu University, G.E. Road, Raipur (Chhattisgarh).

11. **Dr. K.M.L. Pathak**, Member, VCI & Deputy Director General, Indian Council of Agricultural Research, Room No. 113, Krishi Bhawan, New Delhi – 110001.

12. **Dr. Suresh S. Honnappagol**, Member, VCI & Animal Husbandry Commissioner, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India, Krishi Bhawan, New Delhi – 110001.

13. **Dr. R.K. Gupta**, Member, VCI & Assistant Commissioner (AH), Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Krishi Bhawan, New Delhi - 110001.

14. **Dr. M. Devraj**, Member, VCI & President, Karnataka State Veterinary Council, Karnataka Veterinary College Campus, Hebbal, Bangaluru - 560024, Karnataka.

15. **Dr. Balkar Singh**, Member, VCI, Vill – Munnarhri, P.O. Habri, District – Kaithal (Haryana) – 136026

16. **Dr. Ravinder Chaudhary**, Member, VCI, 8/8, Dalibagh Officer's Colony, GPO, Lucknow (Uttar Pradesh) – 226001

17. **Dr. Pardeep Lamba**, Member, VCI, H.No. 448, Defence Colony, Hisar (Haryana) – 125001
18. **Dr. T. Hari Krishna**, Member, VCI, 2-4-1099/1, Nimboliadda, Kachiguda, Hyderabad (Andhra Pradesh) – 500027
19. **Dr. Ingle Sandip Vinayakrao**, Member, VCI, MAULI, Near Shankar Nagar, Balaji Nagar, Amravati – 444607 (Maharashtra)
20. **Dr. K. Krishna Kumar**, Member, VCI, Plot No. 179, SBI Colony, Gandhinagar, Kawadiguda, Hyderabad (Andhra Pradesh) – 500080
21. **Dr. Ravinder Kumar**, Member, VCI, H.No. 49 – P, Sector- 2, Rohtak, Haryana – 124001
22. **Dr. Amit Nain**, Member, VCI, H.No. 334 Village – Bodi Wala Pitha, P.O. Khui – Khera (Tehsil and District) Fazilka (Punjab) – 152123
23. **Dr. Bhagwan Ashok Satale**, Member, VCI, At – Galnimb – Dhanora, Taluka – Gangapur, Dist Aurangabad, Maharashtra – 431109
24. **Dr. Ajay Kumar Gahlot**, Member, VCI, Gahlot Kuteer, B – 30, Nagenji Road, Pawanpuri, Bikaner (Rajasthan) – 334001
25. **Dr. Hande Salil Tukaram**, Member, VCI, C/o T.G. Hande Sir, A/P Umbraj No. 2, Taluka – Junnar, Dist. Pune, Maharashtra – 412412

MEMBER-SECRETARY

26. **Dr. Anup Bhaumik**, Secretary, Veterinary Council of India, A – Wing, 2nd Floor, August Kranti Bhawan, Bhikaji Cama Place, New Delhi -110066

8.2: Brain Storming Session (BSS) on Hydroponics Fodder Production

A brain storming session (BSS) on **Hydroponics Fodder Production in India** was organized by the National Academy of Agricultural Sciences (NAAS) at NAAS Secretariat, New Delhi, on July 05, 2014. Dr. S. Ayyappan, Secretary (DARE)-cum- DG (ICAR) chaired the session. Dr. RB Singh, former NAAS President and ASRB Chairman, was the Chief Guest. Director, IARI, Dr. H.S. Gupta, was the Convener.

The National Academy of Agricultural Science (NAAS) is also organizing the **12th Agricultural Science Congress** to be held at **National Dairy Research Institute (NDRI), Karnal from Feb 3-6, 2015**. The Congress is supported by **Indian Council of Agricultural Research (ICAR)** an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture, Government of India.

8.3: Sahiwal Cattle Breeders' Society formed in Punjab

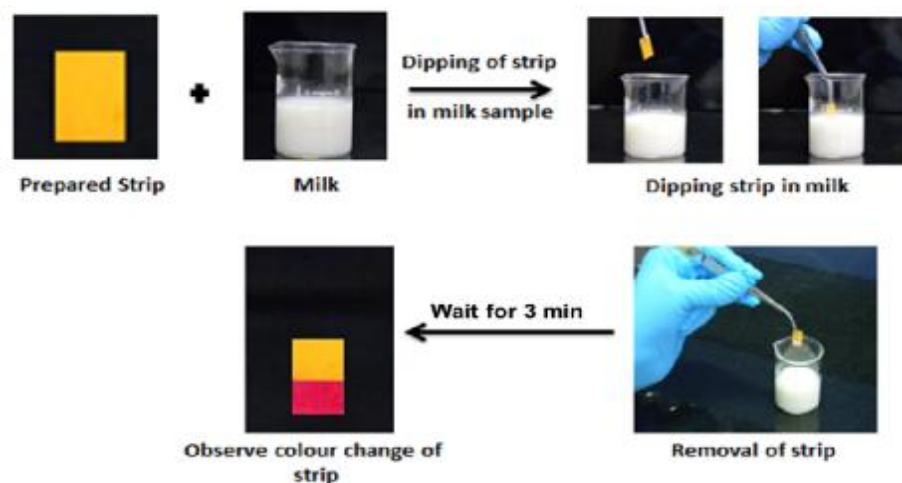
Punjab chief minister Shri Parkash Singh Badal approved to set up a Sahiwal Cattle Breeders' Society in Punjab for a vigorous campaign to bring awareness to promote the Sahiwal breed for its commercial viability. This was announced during India-Pakistan seminar on the conservation of livestock breeds organized at Chandigarh on 12th July 2014. He also asked the animal husbandry department to prepare a conservation plan to introduce the high-yielding Sahiwal breed of milch cattle on a mass scale in the state. Mohammad Aftab Ahmad Khan Wattoo, an expert in Sahiwal cattle breeding in Pakistan, who attended the seminar and made a presentation on cattle breeding in his country, assured to support and extend his cooperation for the promotion of the indigenous breed of Sahiwal in the state on the CM's pursuance. Shri Wattoo is also the president of Sahiwal Cattle Breeders Society of Pakistani Punjab. Swami Chinmayanand of the Divya Jyoti Jagrati Sansthan (Nurmahal, Jalandhar) and Shri Baldev Singh

from Namdhari Sangat also shared their expertise regarding the Sahiwal breed. Shri Badal asked the government to import semen of Sahiwal to cater to the need of the dairy farmers who intend to rear the breed in a big way.

8.4: NDRI Develops Rapid Tests to Detect Milk Adulteration

Dry reagent paper based strip tests for detection of adulteration in milk are an attractive alternative to conventional wet chemical methods. Recently, a group of scientists at National Dairy Research Institute, Karnal developed rapid paper based strip tests for detection of neutralizers, urea, glucose, hydrogen peroxide and maltodextrin in milk. The characteristics of these strip based tests are enhanced sensitivity, quick response time, longer shelf-life and low cost compared to existing wet chemistry based methods. These strips have been developed by immobilization of enzymes and other chemicals on the paper. The neutralizer and urea detection developed strips are required to be dipped in the milk sample followed by visualization of pink colour immediately in case of neutralizers and after 3 minutes in case of detection of added urea in milk. In case of pure milk, the strip retains its original yellow colour. For detection of glucose, hydrogen peroxide and maltodextrin in milk, the test involves placing a drop of milk on the strip followed by visualization of change in colour of the strip. The colour changes to deep pink within 1 minute in case of adulterated milk containing hydrogen peroxide while pink colour develops after 3 min in case of milk containing added glucose. In case of maltodextrin containing milk samples, the strip colour changes to yellowish green. In case of negative samples, the strip retains its original white colour. The sensitivity of these strips have been ascertained and is 0.04% for neutralizer, 0.06% for added urea, 0.03% for glucose, 0.005% for hydrogen peroxide and 0.05% for maltodextrin. These tests can be done at milk reception area as well as in households. They have been validated extensively and the technology is ready for commercialization. The video of tests can be accessed at Youtube.

The following Figure shows steps in the detection of added urea in milk by strip based tests



8.5: NEWS FROM LUVAS, HISAR

8.5.1: ‘Act and Statutes’ of LUVAS Released Chief Minister, Haryana

On July 8, 2014 Sh. Bhupinder Singh Hooda, Hon’ble CM of Haryana released the new ‘Act and Statutes’ of LUVAS. On this occasion Maj Gen (Dr.) Shri Kant, SM, VSM (Retd), Vice-Chancellor, LUVAS was also present.

LUVAS since inception, as an independent University established by the Act No. 7 of Haryana in 2010, was following the Act and Statutes of Chaudhary Charan Singh Haryana Agriculture University (CCSHAU). In this new developed Act and Statutes of the University, details related to powers and duties of authorities of the University, Board of Studies, duties of officers, rules for appointment and promotion etc. are given.

8.5.2: LUVAS & PNB Join Hands to Impart Trainings to Farmers

MOU between LUVAS, Hisar & PNB Farmers Training Centre, Saccha Khera, Distt Jind (Haryana) for the year 2014-15 was signed for participating and delivering lectures in training programmes organized by the Centre. Farmers from all parts of Haryana come to this Centre to update their knowledge in the field of Dairy farming, Poultry farming, Pig farming and value addition of milk and meat products. Scientists of LUVAS will deliver lectures to upgrade the skill and knowledge of farmers in concerned field.

8.5.3: LUVAS enters into Memorandum of Understanding with GJU S&T



Lala Lajpat Rai University of Veterinary and Animal Sciences (LUVAS), Hisar enters into memorandum of understanding with Guru Jambheshwar University of Sci. & Tech., Hisar on September 5, 2014. The agreement was signed by Dr. R.S. Sharma, VC, GJUS&T and Maj Gen (Dr.) Shri Kant, SM, VSM (Retd), Vice-Chancellor, LUVAS. As per this agreement, students registered in respective institutes will be able to conduct research in these institutes and avail the facilities free of cost. Further, quality of research of these institutes will be improved and will benefit the livestock owners of respective States.

8.5.4: Research Achievements of LUVAS Scientists Appreciated at National Level

In the 11th annual review meeting of All India Network Programme on Bluetongue held recently at New Delhi, the research work carried out by Dr. Minakshi as Principal Investigator at Deptt. of Animal Biotechnology (ABT), LUVAS involving understanding the molecular mechanism underlying the Bluetongue infection in animals which will further help in developing novel tools for diagnosis and clinical management of the disease has been evaluated as “very good”.

Further Dr. Minakshi as Principal Investigator of Hisar Centre at Deptt of ABT, LUVAS received the 'Certificate of Appreciation' from Deputy Director General, Animal Sciences, ICAR for significant contributions in development of pentvalent Bluetongue vaccine at TANNUVAS, Chennai.

Recently LUVAS also got two patents no. 261631 and 261685 for the inventions "A novel process of detection of buffalo tissue using novel set of primers and "A novel process of detection of cattle tissue using cattle specific novel primer pair" respectively developed by the faculty of the department namely Dr. Gaya Prasad, Dr. Hari Singh and Dr. Minakshi.

8.6: NEWS FROM GADVASU, LUDHIANA

8.6.1: GADVASU VC lays foundation stones of new buildings

Veterinary University in Ludhiana continues to be on a development mode. The Vice-Chancellor recently laid the foundation stones of new buildings. Ever since the establishment of Guru Angad Dev Veterinary & Animal Sciences University ((GADVASU), a number of new Programmes/Colleges/Schools/Centres have been established to cater to the needs of livestock sector. University is developing good infrastructure for the smooth sailing of these establishments. To create more facilities Dr VK Taneja, Vice-Chancellor laid foundation stones of two different units. These are buildings of School of Animal Biotechnology, School of Public Health and Zoonoses and Small Animal referral Hospital. Department of Animal Biotechnology was establish in Jan, 2008 which was upgraded to School of Animal Biotechnology in 2010 with a broad mandate to foster Integrative & Collaborative Research in different areas of Molecular Biology for enhancing livestock health & production and to impart quality education and training for producing professionally qualified and trained human resources in the field of molecular biology and biotechnology. Similarly School of Public Health and Zoonoses was established in January, 2012 realizing the importance of safe and clean food from animals for consumers, better human health and clean environment. The school has directed its efforts in the area of food safety, quality control, environmental contaminant residues analysis and rapid detection of zoonotic diseases for promoting healthy and safe life of people and community. Realizing the need for having a separate infrastructure setup, a separate building is being constructed for the School of Public Health and Zoonoses. The new building will have state of the art laboratories, lecture/seminar halls, central instrumentation lab with self-contained facilities to fulfill the research mandates of both the schools. New building will have Food safety and Quality control lab, Water testing, Zoonotic disease diagnostic, Pesticide residue analysis, Heavy and toxic metal residue and drug residue analysis Laboratories with latest facilities. The second building was new small animal referral hospital near the Silver Jubilee Block. With the increasing number of animal patients, there was a need to construct a new small animal referral hospital with the latest facilities related to diagnostic and treatment. The new building will contain all the diagnostic facilities under one roof which will include radiology, endoscopy, ultrasound, echocardiography, clinical laboratory and operation theatres with all advanced diagnostic equipment. It will serve the best clinical teaching for the undergraduate/postgraduate veterinarians along with the best treatment to the sick animals.



Dr SPS Sangha, Dean Students Welfare-cum-Estate Officer said that the projects will be completed in 18 months and their combined cost will be about Rs. 25 Crores. Buildings will be eco-friendly with solar heated water system, rain water harvesting and equipped with ramps and lifts.

8.6.2: GADVASU Scientist at Australian Prime Minister's Function to Promote Mutual Education Tie Up

Dr. Shukriti Sharma, Assistant Professor, Department of Veterinary Medicine, Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana was invited by Australian High Commission to the launch event of New Colombo Plan. The New Colombo Plan was launched by Prime Minister of Australia Mr. Tony Abott MP at University of Mumbai during his recent visit to India. The New Colombo Plan is an initiative of Australian Government to lift knowledge of Australian students about the Indo-Pacific region including India by studying and undertaking internships in these countries. Dr. Sharma as Australia Awards Ambassador was the special invitee for the occasion. Dr. Sharma is recipient of prestigious Australian Leadership Award-2008 and has pursued his PhD in Veterinary Science at the University of Melbourne. On his return to India, Dr. Sharma was appointed 'Australian Awards Ambassador' by Australian High Commissioner to India, H E Patrick Suckling to promote Australian Awards in esteemed institutions of the country. Recently, a team comprising of Mr. Colin Reynolds and Mr. Michael Sadlon Regional Coordinator of Australia Awards for South Asia had visited GADVASU to focus on achievements of Dr. Sharma. The purpose of their visit was to showcase the benefits of Australian Awards in the development of countries of Indo-Pacific region. Dr. S.N.S. Randhawa, Director of Research apprised them of various research schemes of the University. Dr. Shukriti Sharma along with faculty members of Department of Veterinary Extension accompanied Australia Awards team to various dairy farms of state and held discussions regarding knowledge dissemination pattern adopted by GADVASU. Team highly appreciated the modus operandi of extension services provided by University to the farmers of state. The team visited the Department of Veterinary Medicine and were influenced by large number of cases presented to Teaching Veterinary Hospital of institute. They made elaborative discussions with faculty members of Veterinary Medicine department and propounded that more linkages under New Colombo Plan between Australian institutions and Indian institutions like GADVASU will be helpful as Australian students can practically examine the clinical cases of infectious diseases that are exotic to Australia.

8.6.3: Three-Week Advanced Training Course in Surgery and Radiology

A 21 days, National level advanced training course on "Current Trends in Veterinary Surgery and Imaging Techniques" under the aegis of Center of Advanced Faculty Training (CAFT), ICAR New Delhi, organized at Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, concluded on 26-September, 2014. Course Director-cum-Head of the Department of Surgery & Radiology - Dr. N.S. Saini - informs that 25 scientists from 14 states representing 19 universities of India participated in this training course. Hands on

training to the participants on the latest developments in surgery and diagnostic imaging in veterinary practice, was provided. The focus was on advances in large and small animal fracture repair by bone plating, intramedullary, interlock nailing and C-arm guided techniques for fracture fixation. Surgical management of eye diseases; Diaphragmatic hernia in cows and buffaloes, Urinary tract disorders and other soft tissue procedures were demonstrated under inhalant anesthetic procedures. GADVASU faculty and experts from other state universities such as Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu, Tamil Nadu Veterinary and Animal Sciences University, Chennai, Indian Veterinary Research Institute, Izatnagar and Pant University delivered expert lectures and conducted practical demonstrations during the training programme. Till date the Department has conducted 27 training courses on various specialized topics. Over 363 surgeons/clinicians/teachers from various State Agricultural/Veterinary/ ICAR Institutes have been trained so far.



It may be recalled that in 1994 the Indian Council of Agricultural Research (ICAR) had granted the status of Centre of Advanced Studies (CAS) in the field of Surgery and Radiology to the Department of Surgery and Radiology GADVASU, in Ludhiana. In year 2009 it was renamed as The Centre of Advanced Faculty Training (CAFT). This is the only centre, in country, in the field of Veterinary Surgery and Radiology that is providing trainings to the scientists/teachers of other universities/institutions. Coincidentally, the Editor NAVS has the distinction of being the Founder Head of this Department from 1971 to 1981 and had the privilege of having such stalwarts like Dr. Sureshwar Nath Sharma, Dr. Benaras Prasad, Dr. Ram Kumar V., and Dr. Jit Singh, among others, in his founding team of surgeons.

8.7: Indian Dairy Association has a New Central Executive Committee (CEC)

After recently concluded elections, the following new Central Executive Committee (CEC) of the Indian Dairy Association (IDA) has assumed office:

President: Dr. N. R. Bhasin (elected unopposed)

Vice-Presidents: Mr. Arun Narke and Dr. G.S. Rajorhia;

Members: Dr. G.R. Patil, Dr. Raja Rathinam, Dr. R.S. Khanna, Mr. Arun Patil, Dr. K.S. Ramachandra, Mr. Parthibhai G. Bhatol, Mr. M.P.S. Chadha, Dr. J.V. Parekh, Dr. M.P. Mathur, Dr. S.K. Kanawjia, Mr. Sudhir Kumar Singh and Mr. Kirit K. Mehta

8.8: Bikaner Veterinary College Completes 60 Years

RAJUVAS, Bikaner, celebrated the 60th foundation day of its constituent premier institute of Veterinary Science i.e. College of Veterinary and Animal Science (CVAS) from which RAJUVAS itself has originated. The College of Veterinary and Animal Science (CVAS) was established in Bikaner on 16 August, 1954. Incidentally, the NAVS Editor, Dr. R.N. Kohli, was also one of the students of the first batch who joined that College on the aforesaid date,

graduated in 1958 and then joined the institution (his alma mater) to serve as one of its founding staff members till 1965.

8.9: Veterinary College Seeks applications for Academic Staff

Dr. Jitendra Singh Bhatia, Former ADG (EDU), ICAR, and a member of the Governing Council of NAVS, writes to inform that Khalsa College of Veterinary and Animal Sciences, in Amritsar (a private Veterinary college established under the aegis of Khalsa College Charitable Society) is seeking online applications on the college Email ID (kcvas_amritsar@yahoo.com) for the posts of Professors/ Associate Professors in Veterinary Medicine, Surgery & Radiology, Animal Reproduction & Gynecology, Public Health, LPM, LPT, Pharmacology and Parasitology. Candidates fulfilling qualification as per the VCI norms can make application. Retired teachers/ scientists can also apply. Salary and other terms and conditions will be applicable as per Khalsa College charitable Society norms. The last date for submitting applications is 20th Oct, 2014. Further details: Dr. S.K. Jand (jandsatish@gmail.com), Dr. S.S Sidhu (drsidhu@gmail.com) or Dr. Bhatia (bhatiajs05@rediffmail.com)

8.10: Recently Released Veterinary Books

8.10.1: "Nanotechnology for Animal Health and Production".

Dr. Sudhi Ranjan Garg (srgarg415@gmail.com), Professor, Department of Veterinary Public Health and Epidemiology, College of Veterinary Sciences, LLR University of Veterinary and Animal Sciences, HISAR-125004 (Haryana), writes to draw our attention to the publication of this remarkable new book edited by him. Since the subject of the book is attaining increasing importance in the veterinary profession, the list of contents of this book is being published for the benefit of veterinary professionals. The book has been written by many eminent authors from India and abroad and has been published in 2014 by Daya Publishing House® A Division of Astral International Pvt. Ltd., New Delhi -110 002.

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8.10.2: A new chapter on Bubaline Brucellosis by P.A. Zimmer in the Book Bubaline Theriogenology

"Brucellosis causes serious economic losses and is an important zoonosis. Buffaloes in many countries are known to be affected with *Brucella abortus* and less frequently with *Brucella melitensis*. Similar to cattle, *Brucella* infections are known to result in late gestation (6-9 months) abortions, infertility and latent infection of mammary gland lymph nodes with shedding of organisms in the milk, yet abortions are less common in buffaloes with the disease being endemic in most buffalo raising countries. Shedding of *Brucella* in milk creates a potential threat to human health particularly for consumers using unpasteurized milk and milk products. Diagnostic evaluations of *Brucella* infections in buffalo have utilized approaches employed in cattle with nearly similar or a slightly lower efficiency. Isolates of *Brucella* from water buffalo were less virulent compared to those from cattle suggesting some degree of resistance in buffalo towards *Brucella abortus*. [...]" For more details and other chapters in the book: <http://www.ivis.org/newsletter/archives/jun14/jun2614purohit.htm>

8.11: IDA Rajasthan State Chapter organizes Seminar at Jaipur



Indian Dairy Association Rajasthan State Chapter (RSC) organized a seminar on ‘Innovative Process Technology – The Hidden Story of Dairy Development in India’ on 28th August 2014 at Jaipur. The Seminar was inaugurated by Shri Pritam Singh, IAS, Principal Secretary to Government, Gopalan Department, Government of Rajasthan & Managing Director, R.C.D.F., Rajasthan. Dr N. R Bhasin, President, Indian Dairy Association presided over the Seminar. Shri Abhay Kumar IAS, Secretary to Government, Animal Husbandry, Fisheries & Gopalan Department, Rajasthan, Shri AK Jain, MD REIL and Shri RP Banerjee, Chairman SSP Pvt. Ltd were Guests of Honour on the occasion. Dr A. K. Srivastava, Director, National Dairy Research Institute, Karnal delivered the ‘Key Note Address’ and set the theme for the seminar. Dr Himmat Singh, Chairman IDA Rajasthan State Chapter welcomed the distinguished guests.

The seminar consisted of two technical sessions and more than 250 delegates belonging to cooperative milk unions, private dairies, dairy equipments manufacturers attended the seminar. A very impressive Souvenir was also released at the occasion. In his address **Dr NR Bhasin** recalled how dairy development had taken place in the state. He stressed on the need to reduce production costs of dairy products along with quality improvement using new and advanced technology. In his key note address, **Dr AK Srivastava** emphasized that milk was complete in all aspects and does not require any supplement to enhance its nutritional value and any such attempt may be a myth to misguide consumers. He elaborated on the status of milch animals in the state and called upon dairy professionals and decision makers to focus on selective improvement of breed, judicious and proper lactation period of animal, taking at least one calf per year, taking care of contaminants in milk, increasing individual animal productivity rather than increasing animal population, emphasis on quality milk production and value addition with increased processing efficiency. IDA RSC, on behalf of dairy professionals of the state, bestowed the ‘Leader of Dairy Industry Award to RCDF; ‘Life Time Achievement Award’ to Dr NR Bhasin; ‘Pioneer in Dairy Education Award’ to Dr A K Srivastava and ‘Legend of Dairy Industry Award’ to Shri RP Banerjee.

8.12: Bovine Breeding Programme launched

The Rashtriya Gokul Mission (National Dairy Mission) was recently launched to enhance the productivity of the indigenous breeds of India through professional farm management. The mission is a focused project under the National Programme for Bovine Breeding and Dairy Development, with an outlay of \$82 million during the Twelfth Five-Year Plan (2012-17).

The project will be implemented with the objectives of development and conservation of indigenous breeds; undertaking a breed improvement programme for indigenous cattle breeds so as to improve the genetic make-up and increase the stock; enhance milk production and productivity; upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi; and distribute disease-free high genetic merit bulls for natural service. India has 14.5 per cent of the world's cattle population with 199 million cattle, of which 83 per cent (i.e. 166 million) are indigenous. Most of the indigenous cattle (about 80 per cent) are non-descript, and only 20 per cent belong to breeds recognised by the National Bureau of Genetic Resources. There are 13 recognised buffalo breeds.

8.13: NDRI Produces a Calf from a Dead Murrah Bull's Semen

Scientists of the National Dairy Research Institute (NDRI), Karnal, have produced a male clone calf (named 'Rajat') from the somatic cells of a progeny-tested Murrah bull's frozen semen. "It is the first alive male clone of world, which is produced from the somatic frozen semen of a bull which died 10 years ago and was the best bull of NDRI ever", claimed the NDRI scientists, who used their hand guided cloning technique. The calf was born on July 23 by normal parturition. **Dr. A.K. Srivastava**, the Director-cum-Vice-Chancellor of NDRI, claimed that this technique will help meeting the shortage of around 80 million to 90 million dosage of semen in India.

9. SCIENCE, HEALTH & SOCIETY

9.1: Monitoring & Evaluation of Agricultural Research, Education and Extension for Development (AREE4D)

Monitoring and evaluation (M&E) of AREE4D is attracting the attention of funding agencies globally to justify the investments in research, education and extension vis-à-vis development and benefit to the stakeholders and society at large. However, the methodologies to be used for AREE4D are under evolution and evaluation. In order to have the latest knowledge in this upcoming area, the National Academy of Agricultural Sciences (NAAS) organized a brainstorming session (BSS) on monitoring and evaluation of AREE4D on 28th June, 2014 at the Institute of Social Science and Economic Change, Bengaluru under the Convenership of **Dr. P.G. Chengappa**, ICAR National Professor and former Vice-Chancellor, UAS, Bangalore. Experts in the field of Social Sciences made 8 presentations in two technical sessions. The presentations were followed by group discussion and concluding session.

Chief Guest **Dr. M.P. Yadav**, Secretary, NAAS, emphasized the need for monitoring and evaluation of the research and development programmes. Under the present scenario of diminishing land availability coupled with the degradation of soil, water and other natural resources, we need to produce more per unit area, for which technology backup and policy support is needed. He expressed the concern about resource crunch for agricultural universities in general. In the recent years there has been increasing realization for funding by private sector for AREE4D. Monitoring & evaluation of agricultural research, education and extension is necessary for convincing the funding agency/organization about the outcome and output of the project. Evaluation and impact assessment of the projects/schemes should be an integral component of AREE4D. At present there is lack of

knowledge and awareness about M&E of the programmes in hand in National Agricultural Research System (NARS). Realizing these lacunae, NAAS organized this BSS under the convenership of Dr. Chengappa, renowned economists and social scientist.

9.2: Benefits of Exercise: Advice from Elizabeth Scott, Editor, About.com Health

Exercise carries benefits for longevity, fitness, stress management, and overall wellness. Outdoor exercise brings unique benefits. If you're not getting as much physical activity as you could, now is the perfect time to change that by getting outside and moving! Get motivated by learning even more about the benefits of exercise. You can make it work for your particular situation by discovering new options for workouts that can fit well with your personality and lifestyle. Take advantage of good weather and make the beginning of a new workout habit that really enhances your health and provides you with some fun at the same time.

9.3: 3D Brain View May Help Treat Alzheimer's, Parkinson's

In a breakthrough that may help in developing drugs for Alzheimer's and other neurological disorders, researchers have developed a 3D view of an important receptor in the brain. This receptor allows us to learn and remember, and its dysfunction can result in a wide range of neurological diseases including Alzheimer's, Parkinson's, schizophrenia and depression. The unprecedented view gives scientists new insight into how the receptor – called the NMDA receptor – is structured. And importantly, the new detailed view gives vital clues for developing drugs to combat neurological diseases and conditions. “This is the most exciting moment of my career,” said Eric Gouaux, a senior scientist with Oregon Health and Science University in the US. “The NMDA receptor is one of the most essential, and still sometimes mysterious, receptors in our brain. Now, with this work, we can see it in fascinating detail,” he said. The findings were published online in the journal Nature.

9.4: New heart drug may significantly reduce cardiovascular deaths

A new heart medication has been shown to cut instances of heart failure mortality by a fifth, and is expected to be on the market as early as next year. Named LCZ696, the new drug is still in the trial phase, but has been shown to dramatically reduce cardiovascular deaths and the risk of hospitalisation for people with chronic heart failure. The drug is being developed by Swiss pharmaceutical company Novartis, and was recently put to the test in the largest trial ever undertaken in heart failure, involving more than 8,400 patients. Compared to an existing heart drug - Enalapril, LCZ696's effects were so significant and so overwhelmingly positive throughout this trial, that a team of independent investigators ended the trials early. This is the first time in 25 years that a new drug has been proven to be more effective than existing heart medications. (<http://sciencealert.com.au/news/20140109-26100.html>)

9.5: Heart Attacks and Drinking Warm Water:

An article on the above subject recommends drinking warm water after your meal. The Chinese and Japanese drink hot tea with their meals, not cold water. May be it is time for those who like to drink cold water while eating to adopt their habit. It seems nice to have a cup of cold drink after a meal, but the cold water will solidify the oily stuff that you have just consumed. It will slow down the digestion. Once this 'sludge' reacts with the acid, it will break down and be absorbed by the intestine faster than the solid food. It will line the intestine. Very soon, this will turn into fats and may even lead to cancer. It is best to drink hot soup or warm water after a meal. While describing the common symptoms of heart

attack it is stated that left arm hurting is not seen in every heart attack. Be aware of intense pain in the jaw line. You may never have the first chest pain during the course of a heart attack. Nausea and intense sweating are also common symptoms. 60% of people who have a heart attack while they are asleep do not wake up. Pain in the jaw can wake you from a sound sleep. Let's be careful and be aware to have a better chance to survive the unfortunate event. (Health Digest)

9.6: Risk of fungal infections from Ornamental plants to immune-compromised persons:

In recent years, fungi have emerged as an important cause of morbidity as well as mortality in immuno-competent and immuno-compromised hosts. Fungi occur as saprobe in our environment. The respiratory tract is the principal portal of entry of many fungal infections including Aspergillosis. Many species of *Aspergillus* are recovered from the soils of potted plants kept in houses. *Aspergillus fumigatus* and other species of *Aspergillus* are known to produce serious disease in humans and animals. It is emphasized that immune-compromised persons should avoid digging of soil in the ornamental plants. However, the use of face mask while working on ornamental plants can certainly minimize the inhalation of *Aspergillus* spores. (Source: Personal communication from Professor Mahendra Pal, on the basis of his published work: Pal, M. (2004): *Aspergillus fumigatus* isolated from ornamental plants in India. *Revista Iberoamericana De Micologia* 21:218; and Pal, M. (2007): *Veterinary and Medical Mycology*, First edition, Indian Council of agricultural Research, New Delhi)

9.7: Eating Fruits on an Empty Stomach

Dr Stephen Mak believes on natural healing in the body against illnesses. Following is from his article on fruits.

We all think eating fruits means just buying fruits, cutting it and just popping it into our mouths. It's not as easy as you think. It's important to know how and *when* to eat. What is the correct way of eating fruits? **IT MEANS NOT EATING FRUITS AFTER YOUR MEALS! FRUITS SHOULD BE EATEN ON AN EMPTY STOMACH.** If you eat fruit like that, it will play a major role to detoxify your system, supplying you with a great deal of energy for weight loss and other life activities. Let's say you eat two slices of bread and then a slice of fruit. The slice of fruit is ready to go straight through the stomach into the intestines, but it is prevented from doing so. In the meantime the whole meal rots and ferments and turns to acid. The minute the fruit comes into contact with the food in the stomach and digestive juices, the entire mass of food begins to spoil. So please eat your fruits on an *empty* *stomach* or before your meals! You have heard people complaining — every time I eat watermelon I burp, when I eat durian my stomach bloats up, when I eat a banana I feel like running to the toilet, etc — actually all this will not arise if you eat the fruit on an empty stomach. The fruit mixes with the putrefying other food and produces gas and hence you will bloat! According to Dr. Herbert Shelton who did research on this matter all fruits become alkaline in our body, If you have mastered the correct way of eating fruits, you have the Secret of beauty, longevity, health, energy, happiness and normal weight. When you need to drink fruit juice - drink only *fresh* fruit juice, NOT from the cans. Don't even drink juice that has been heated up. Don't eat cooked fruits because you don't get the nutrients at all. You only get to taste. Cooking destroys all the vitamins. But eating a whole fruit is better than drinking the juice. If you should drink the juice, drink it mouthful by mouthful slowly, because you must let it mix with your saliva before swallowing it. You can go on a 3-day fruit fast to cleanse your body. Just eat fruits and drink fruit juice throughout the 3 days and you will be surprised when your friends tell you how radiant you look!

9.8: Scientists and Religion

Surveys and in-depth interviews with scientists revealed that while 65 percent of U.K. scientists identify as nonreligious, only 6 percent of Indian scientists identify as nonreligious. In addition, while only 12 percent of scientists in the U.K. attend religious services on a regular basis—once a month or more—32 percent of scientists in India do. (<http://phys.org/news/2014-09-indian-scientists-significantly-religious-uk.html#jCp>)

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: Silver Jubilee Convention of Indian Society of Animal Production and Management; 9 October 2014 at Vanbandhu College of Veterinary Sci. & Animal Husbandry, Navsari, Gujrat

Silver Jubilee Convention of Indian Society of Animal Production and Management and National Seminar on “Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-Friendly Economic Producers” will be held on 9 October 2014 at Vanbandhu College of Veterinary Sci. & Animal Husbandry, Navsari, Gujrat

10.2: “Celebrating the Achievements of Global Indians” 9 October 2014 at House of Lords, London.

To Mark the 145th birth anniversary of father of the nation, Mahatma Gandhi, NRI Welfare Society of India is “Celebrating the Achievements of Global Indians” on 09th October, 2014 in House of Lords, London. One of the highlights of the event will be presentation of “Mahatma Gandhi Pravasi Samman” to “30 Global Indians” who are keeping the flag of India high because of their outstanding services in different fields.

10.3: XXXVIII Annual Congress of Indian Society for Veterinary Surgery: 15th - 17th October 2014, Bikaner, Rajasthan

XXXVIII Annual Congress of Indian Society for Veterinary Surgery and International Symposium on New Horizons of Camel Surgery and Large Ruminant Surgery on 15th to 17th October 2014, being organized by Department of Veterinary Surgery and Radiology, College of Veterinary Science, Rajasthan University of Veterinary and Animal Sciences, Bikaner, Rajasthan. For details log on to: www.isvs2014bikaner.com.

10.4: The World Congress on Controversies, Debates & Consensus in Veterinary Medicine: Prague, Czech Republic - October 23-26, 2014

Contact for details: Congress Med Ltd. 5 Druyanov Street, Klal Building/ Floor 19, Tel Aviv 6314305, Israel. Tel. +972 73 706 6950; Fax. +972 3 725 6266;
<http://www.congressmed.com/covet/index.php/contact>; E-mail: covet@congressmed.com

10.5: International Conference on Challenges and Opportunities in Animal Health: DUVASU, Mathura, U.P. Oct 30 - Nov. 1, 2014.

XXVIII Annual Convention of Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases (IAVMI) & International Conference on “Challenges and Opportunities in Animal Health at the Face of Globalization and Climate Change” will be held on 30 Oct. - 1 Nov., 2014 at Pandit Deen Dayal Upadhyay Pashu Chikitsa Vigyan Vishwa Vidhyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura, U.P.-281001 (INDIA). It is being organized by Department of Veterinary Microbiology & Immunology, DUVASU in association with Department of Biotechnology and Microbiology, GLA University, Mathura (U.P.).

10.6: 19th All India Homoeopathic Congress 2014: Ahmedabad, December 27-28 2014

A mail from Dr. Swaminarayan's seeks participation at the All India Homoeopathic Congress (AIHCON) 2014. This will be the 19th Congress of Homoeopathic Medical Association of India (HMAI), organised by Gujarat State branch & hosted by Ahmedabad Unit of HMAI. The theme for AIHCON 2014 will focus on “HOMOEOPATHY FOR HEALTHY TOMORROW”. The Organising Team of 19th AIGCON 2014 is immensely honoured to be hosting this event at Ahmedabad, the heart of Gujarat on 27-28 December 2014. HMAI is bringing together the Homeopathic fraternity from Kashmir to Kanyakumari and Kutch to Kolkata. Impact Speakers of national and international repute will discuss new research, & clinical experiences of homoeopathic management in various diseases including Non Communicable Diseases (NCDs) to chart road map for healthy tomorrow. While trying to match the high standards, the organisers aim to make this conference an outstanding opportunity for the young as well stalwart clinicians, researchers & academicians in homoeopathy to showcase their work, get valuable feedback and learn from their peers, seniors and experts. For submission of abstract for scientific papers/poster presentation and to get further details of AIHCON 2014: log on to www.hmaiseminar.info. You may also provide your valuable suggestions to make this event a memorable one to hmaicongress@gmail.com

10.7: 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**. The Congress is supported by **Indian Council of Agricultural Research (ICAR)** an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture, Government of India. 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

10.8: 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)

10.9: 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 by organizing this inaugural South edition at Belgaum. It is being organized by **Karnataka Small Scale Industries Association (KASSIA)** in association with **MM Activ Sci-Tech Communications**. 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>](mailto:agrovision.south@mmactiv.in); and samanth.anikar@mmactiv.in

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