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# NAVS NEWSLETTER

(Quarterly)

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New Delhi



**Editor: Prof. Dr. R.N. Kohli**

**NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)**

Office: G-4, A Block, NASC, Dev Prakash Shastri Marg, New Delhi-110 012

**NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)**

*(Registered with the Registrar of Societies vide Regn. certificate No.S-2/4471 of 1993 dated 7<sup>th</sup> July 1993)*

**NEW DELHI NAVS NEWSLETTER OCTOBER, 2019**

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## **CH. 1: NAVS GENERAL INFORMATION**

### **1.1: Governing Council (2017- 2019)**

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## **MEMBERS (ELECTED)**

Dr. B.N. Tripathi, Hisar: [bntripathi1@yahoo.co.in](mailto:bntripathi1@yahoo.co.in)  
Dr. Sanjeev Kumar, Izatnagar: [skgcari@yahoo.co.uk](mailto:skgcari@yahoo.co.uk)  
Dr. Minakshi Prasad, Hisar: [minakshi.abt@gmail.com](mailto:minakshi.abt@gmail.com)  
Dr. S.K. Srivastava, Izatnagar: [sksrivastava1093@gmail.com](mailto:sksrivastava1093@gmail.com)  
Maj. Gen. Dr. M. L. Sharma, Delhi: [sharmaml@thebrookeindia.org](mailto:sharmaml@thebrookeindia.org)  
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Dr. V.D.P. Rao, Vijaywada: [raovdp@rediffmail.com](mailto:raovdp@rediffmail.com)  
Col. Dr. R. P. Garg, VSM, NCR, Noida, U.P.: email ID not available  
Dr. S.N. Singh, Bangalore: [snsingh.2006@gmail.com](mailto:snsingh.2006@gmail.com)  
Dr. S.K. Saha, Izatnagar: [subodhksaha@yahoo.com](mailto:subodhksaha@yahoo.com)  
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Dr. S.S. Randhawa, Ludhiana: [sarnarinder@gmail.com](mailto:sarnarinder@gmail.com)  
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Dr. P. N. Khanna, Delhi: [pran\\_khanna@rediffmail.com](mailto:pran_khanna@rediffmail.com)  
Dr. S. K. Tiwari, Durg: [drtiwarisurgery@gmail.com](mailto:drtiwarisurgery@gmail.com)

## **MEMBERS (PERMANENT EX-OFFICIO)**

Incumbents holding following Official Govt. of India Positions are permanent Ex-Officio members: DG RVS; *DDG (A.S.)*, ICAR; *AHC (GOI)*; and *President VCI*

### **1.2: INSTITUTIONAL/CORPORATE LIFE MEMBERS**

#### **INSTITUTIONAL LIFE MEMBERS**

LUVAS (Lala Lajpat Rai University of Veterinary & Animal Sciences), Hisar, Haryana.  
CKVU (Chattisgarh Kamdhenu Veterinary University), Raipur / Durg, Chattisgarh.  
MAFSU (Maharashtra Animal & Fisheries Sciences University), Nagpur, Maharashtra  
RAJUVAS (Rajasthan University of Veterinary & Animal Sciences), Bikaner, Rajasthan  
DUVASU (Deen Dayal Upadhadhaya Veterinary and Animal Sciences University, Mathura, U.P.  
KCVAS (Khalsa College of Veterinary & Animal Sciences), Amritsar, Punjab  
Sri Venkateshwara Veterinary University, Tirupati, A.P.  
Kamdhenu University, Gandhinagar-382010, Gujrat  
Bihar Animal Sciences University, Patna (Bihar)  
Karnataka Animal, Fishery & Veterinary Sciences University (KAFVSU), Nandinagar, Bidar (Karnataka)

## **CORPORATE LIFE MEMBERS**

M/S Indian Herbs, Saharanpur  
M/S Ayurved Limited

### **1.3: PAST OFFICE BEARERS OF THE ACADEMY**

#### **Presidents:**

- \* Dr. C.M. Singh - 1993 - 2004 (Founder President)
- Dr. S.K. Ranjhan - 2004-2007
- Dr. S.C. Adlakha - 1/7/2007 - 28-2-2008
- Dr. R.R. Shukla - 28/2/2008 - 31/10/2010
- Dr. M.P. Yadav - 31/10/2010 - 31/12/2013
- Dr. K.M.L. Pathak 1/1/2014 - 22/4/2017

#### **Vice-Presidents:**

- \*Dr. R.P.S. Tyagi -1993 - 2004
- Col. (Dr.) V.K. Bhatnagar- 2004-2007
- Dr. R.R. Shukla - 1/7/2007 - 28-2-2008
- Dr. P.N. Khanna - 28-2-2008 - 31/10/ 2010
- Col. (Dr.) V.K. Bhatnagar- 31/10/2010 - 31/12/2013
- Maj. Gen. (Dr.) Shri Kant Sharma 1/1/2014 - 22/4/2017

#### **Secretary Generals:**

- Dr. P.N. Bhatt -1993 - 2004
- \* Dr. K.L. Sahani -2004-2007
- \* Dr. B.S. Nanda - 1/7/2007 - 23-5-2008
- Dr. N.N. Pathak - 23-5-2008 - 6/7/2009
- Dr. R.N. Kohli - 6/7/2009 - 31/10/2010
- Dr. Gaya Prasad - 31/10/2010 - 31/12/2013
- Dr. Rishendra Verma - 1/1/2014 - 22/4/2017

#### **Treasurers:**

- Dr. A. Ahmad and Dr. B.S. Malik} -1993 - 2004
- Dr. P.N. Khanna - 2004-2007
- Dr. Lal Krishna - 2007 to - 22/4/2017

#### **Editors:**

- Dr. R.N. Kohli - 6/7/2009 to Present Date (Founder Editor);

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\* Since deceased

#### **1.4: CHRONOLGY OF NAVS CONVOCATIONS-CUM-CONVENTIONS**

1. First NAVS Convocation: 18<sup>th</sup> December 1996 at Vigyan Bhawan, New Delhi
2. Second NAVS Convocation: 30<sup>th</sup> January 2000 at Pragati Maidan, New Delhi
3. Third NAVS Convocation: 16<sup>th</sup> April 2002 at IVRI, Izatnagar, U.P.
4. Fourth NAVS Convocation: 7<sup>th</sup> May 2005 at GBPUAT, Pantnagar, Uttrakhand
5. Fifth NAVS Convocation: 5<sup>th</sup> May 2006 at JNKVV, Jabalpur, M.P.
6. Sixth NAVS Convocation: 28<sup>th</sup> June 2007 at KVAFSU, Bangalore, Karnataka
7. Seventh NAVS Convocation: 16 May 2008 at SKUAST, Jammu, J. & K.
8. Eighth NAVS Convocation: 23<sup>rd</sup> January 2009 at SVVU, Tirupati, Andhra Pradesh
9. Ninth NAVS Convocation: 30<sup>th</sup> October 2010 at NDRI, Karnal, Haryana.
10. Tenth NAVS Convocation: 12<sup>th</sup> November 2011 at RAJUVAS, Bikaner, Rajasthan.
11. Eleventh NAVS Convocation: 2<sup>nd</sup> November 2012 at DUVASU, Mathura, U.P.
12. Twelfth NAVS Convocation: 28<sup>th</sup> January 2014 at LUVAS, Hisar, Haryana
13. Thirteenth NAVS Convocation: 28<sup>th</sup> February 2015 at CGKV, Durg, Chhatisgarh
14. Fourteenth NAVS Convocation: 4<sup>th</sup> November, 2015 at IVRI, Izatnagar, U.P.
15. Fifteenth NAVS Convocation held on 22 October, 2016 at KCVAS, Amritsar, Punjab
16. Sixteenth NAVS Convocation held on 4-5 November 2017 at Tirupati, A.P.
17. Seventeenth NAVS Convocation held on 19-20 December 2018 at OUAT, Bhubaneswar. Odissa.
18. Eighteenth NAVS Convocation **to be held** on 26-27 December 2019 at Gandhinagar, Gujarat, on “Futuristic Technologies in Animal Health and Production”, Organized by Kamdhenu University.

#### **1.5: DECEASED NAVS FELLOWS**

##### **A REQUEST TO OUR READERS FOR HELP**

We have compiled the following tentative updated list of **deceased fellows of the Academy** which is regularly being revised with the help of our readers who are requested to kindly help us in this process by providing us the required information that may be available with them or their colleagues.

List of all the fellows can be found in the NAVS Handbook 2016 which is also posted on [www.navsindia.org](http://www.navsindia.org) Kindly email your suggestions to: [rnkohli@gmail.com](mailto:rnkohli@gmail.com).

1. Ahuja, Dr. Kanhaya Lal, Fellow Elected 1997
2. Baishya, Dr. Gajen, Fellow Elected 2005-06
3. Bajpai, Dr P.K., Fellow Elected 1996
4. Balain, Daya Singh, Fellow Elected 1996
5. Batta, Dr. Satish K, Fellow Elected 2006-07
6. Bhardwaj, Dr Madan Behari Lal, Fellow Elected 1996
7. Bhasin, Dr. Nek Ram, Honorary Fellow Elected 2011
8. Bujarbarua, Dr J.M., Fellow Elected 1996
9. Butuchaiah, G., Fellow Elected 1996
10. Chandna, I.S., Fellow Elected 2000-01
11. Chaudhary, Dr. Amrit Lal, Fellow Elected 1996
12. Gupta, Dr. Shiv Kumar, Fellow Elected 2000-01
13. George, Dr. P. O., Fellow Elected
14. Harbola, Dr P.C., Fellow Elected 1998-99
15. Jhala, Dr. V.M., Fellow Elected 1996
16. Kanwar, Lt. Gen. N.S., Fellow Elected 2010-11
17. Katoch, Dr. R.C., Fellow Elected 2005-06
18. Krishna, Gopal, Fellow Elected 2005-6
19. Krishnaswamy, Dr. S., Fellow Elected 2007-08
20. Kukreti, Dr. J.P., Hon. Fellow Elected 2012
21. Kumaran, Dr. Jay S., Fellow Elected 2007-08
22. Lal, Dr S.M., Fellow Elected 2000-01
23. Manickram, Dr R., Fellow Elected 1999
24. Mathur, Dr P.B., Fellow Elected 1996
25. Misra, Dr. Sarat Chandra, Fellow Elected 2006-07
26. Nair, Dr. P.G., Fellow Elected 1996
27. Nanda, Dr. B.S, Fellow Elected 2007-08
28. Padmanabhan, Dr.V. D., Fellow Elected 1996
29. Pandey, Dr J.N., Fellow Elected 2000-01
30. Pandey, Dr. Ramayan, Fellow Elected 1996
31. Pathak, Dr. Ramesh Chandra, Fellow Elected 1996
32. Pathak, Dr. S.C., Fellow Elected 1997
33. Prasad, Dr. Gaya, Fellow Elected 1999
34. Rajya, Dr. Bhagwan Saran. Fellow Elected 1996
35. Ramachandran, Dr S., Fellow Elected 1996
36. Rao, Dr B.U., Panda, Dr. Bhagabat, Fellow Elected 1996
37. Fellow Elected 1996
38. Rao, Dr. C. Krishna, Fellow Elected 1996
39. Rao, Dr. Rama Mohan, Fellow Elected 1996

40. Rao, Dr. R.L.N., Fellow Elected 1999
41. Rastogi, Dr Anil K., Fellow Elected 2007-08
42. Sahni, Dr K.L., Fellow Elected 1996
43. Salam, Dr. Abdus, Fellow Elected 1996
44. Sen, Dr. G. P., Fellow Elected 1996
45. Sharma, Dr. Deepak, Fellow Elected 2010-11
46. Sharma, Dr. Gopal, Fellow Elected 1996
47. Singh, Dr A. K., Fellow Elected 2005-06
48. Singh, Dr. Balwant, Fellow Elected 1996
49. Singh, Dr. Bhanu Pratap, Fellow Elected 1996
50. Singh, Dr. C.M., Founder President 1996
51. Singh, Dr. Nagendra Prasad, Fellow Elected 1996
52. Singh, Dr. Prem Pal, Fellow Elected 1997
53. Singh, Dr. Raghu Nath, Fellow Elected 1998-99
54. Singh, Dr. Ratan, Fellow Elected 1999-2000
55. Singh, Dr U. B., Fellow Elected 1996
56. Soni, Dr. Balbir Krishan, Fellow Elected 1996
57. Srivastava, Dr. G.C., Fellow Elected 2007-08
58. Tyagi, Dr. R.P.S., Fellow Elected 1996
59. Verma, S.K. Fellow Elected 1997
60. Venkatakrishnan, Dr. R., Fellow Elected 2004-05
61. Yadav, Dr. J.N.S., Fellow Elected 1999

## **NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)**

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## **2: FROM THE PRESIDENT'S DESK**

India's livestock sector is growing at a fast pace and emerged as a vibrant contributor in national economy. In the year 2015-16, the growth rate of milk production has been 6.28 per cent and total milk production has reached 156 million tonnes. It is worth mentioning that in comparison to the years 2011-14, the growth in milk production during the years 2014-17 has been 16.9 per cent. Policy makers have now realized that investments in livestock sector would pave the way for realization of PM's dream for doubling farmers' income in real terms.

In view of this, Sh Narendra Modi Hon'ble Prime Minister launched National Animal Disease Control Programme (NADCP) for eradicating Foot and Mouth Disease (FMD) and Brucellosis in livestock at Mathura on 11<sup>th</sup> September, 2019. The NADCP project with an outlay of Rs 12,652 crore for a period of five years till 2024 will be entirely funded by Central Government. The project envisages at vaccinating over 500 million livestock including cattle, buffalo, sheep, goats and pigs against the FMD. The programme also aims at vaccinating 36 million female bovine calves annually in its fight against Brucellosis disease. The project has two components to control the diseases by 2025 and eradication by 2030.

Foot-and-mouth disease (FMD) is one of the most contagious viral diseases known, with potentially devastating economic, social and environmental impacts, mainly due to loss in milk production and reduction in working capability of affected animals. In addition, the milk & milk products, meat and hide are not accepted by countries free from the disease under WTO regulations, causing reduction in the export. In India, annual direct loss is estimated at Rs. 20,000 (about 3.5 bn USD) crore. Indirect loss due to trade barrier could be much more.

Controlling FMD and reducing its impact would be a significant driver to boost livestock productivity. The strategy evolved for the control of FMD varies from country to country, depending upon the country's geographical location, economic development and status of FMD incidence. In developed countries the most effective way remains the slaughter of affected and in-contact susceptible animals and restriction of animal movements. In India, FMD control cannot be achieved either by slaughter or stamping out policy as adopted by western countries. However, the control of FMD in India is a challenging task due to several factors such as i) large geographical area with different agro-climatic and socio-economic zones, ii) large array of susceptible livestock population, iii) antigenic plurality of the virus, iv) limited availability and huge cost of FMD vaccine, v) short duration of immunity, vi) unrestricted animal movement and vii) lack of legislation for compulsory reporting and vaccination.

However, before launching NADCP, Govt. of India had launched biannual vaccination based FMD Control Programme (FMD-CP) during 10<sup>th</sup> Five Year Plan (2002-2007) in three regions of the country comprising 54 districts with the total outlay of Rs. 200 crores. This involves 6 monthly FMD vaccinations, with a trivalent O, A and Asia1 vaccine, of all cattle and buffaloes for protection against FMD.

Due to initial success, The FMD-CP extended to additional 167 districts (another 80- 90 million cattle and buffalo) in 2010-11 (Phase II), and 110 districts since 2013-14 (Phase III), and 38 districts in 2015-16 (Phase IV). The states of West Bengal, Chhattisgarh, Himachal Pradesh, Madhya Pradesh and Uttarakhand are under FMDCP since 2017 (Phase V). In phase VI, rest of the states were covered.

The recently launched NADCP is a quite ambitious programme with a huge outlay which shows strong political will to combat this dreaded disease. It is a challenge for the veterinary community to implement this programme with best of their zest and zeal. However, some of the issues as well as logistics such as vaccine attributes, vaccination coverage, effectiveness of vaccination and disease emergence in a vaccinated herd need to be addressed before implementation. Further, the control programme monitoring should be in accordance with OIE and FAO guidelines as defined under Progressive Control Pathway for FMD (PCP-FMD) under GF-TAD that elaborates principles for the application of control measures in a step-wise manner. The implementation of programme would also be benefitted by OIE endorsement of our OIE-PVS tools which are essential to monitor the components essential for implementation.

Strengthening of the framework of epidemiological surveillance and intervention systems at the national level and at borders, emergency or routine diagnosis, and sanitary interventions are prerequisite for successful implementation of this programme. Two associated mechanisms are also essential if the system is to be effective. Firstly, animal identification is essential to ensure the traceability of animals and to control animal movements at the national level, including animals for export (quarantine). Secondly, there must be reliable veterinary diagnostic laboratories operating under a reliable quality control system for the tests they perform.

The execution and effective implementation of policy framework requires strong public, private and people partnerships along with series of initiatives and reforms. To achieve the target, the entire process of vaccine selection and vaccination must be continuously monitored and evaluated to ensure successful implementation of its objectives which contributes to sustainable control of FMD.

I am sanguine that successful implementation of NADCP pay rich dividends by enhancing the socio-economic benefits from livestock production through improvement in animal health with particular reference to benefit the small holder livestock farmers in terms of improvement of livelihood, economic, food and nutrition security and strengthen livestock sector as potential sources of doubling farmers' income. It is my earnest appeal to all the Veterinarians involved in this noble cause to work with zeal and zest to eradicate FMD like

what our seniors did for Rinderpest. Further, I appeal to the Govt authorities to make good of mass/social media to make aware the farmers community about the benefit of the programme and their whole hearted cooperation. It would be worthwhile to involve some celebrity for educating the masses like Sh Amitabh Bachan for Polio eradication programme.

Maj. Gen. Shrikant Sharma

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### **WVA Model Veterinarians' Oath**

I, as a Member of the Global Veterinary Profession, do solemnly swear to use my scientific knowledge, skill and training:

- To prevent, diagnose, treat and manage pain and disease in all animal species to the best of my ability in keeping with the principles of veterinary ethics and relevant law.
- To communicate and help prevent the impact of diseases in humans that originate directly from animals or via vector transmission, the use of animal products or environmental contaminants of animal origin;
- To advocate for the sustainable use of terrestrial, aerial, and aquatic animals in their diverse ecosystems through stewardship to reduce environmental impacts;
- To contribute to animal, human, and environmental health by continually developing my competencies as a health professional, acting with integrity, and promoting animal welfare.

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### **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”.

## **CH. 3. EDITOR'S NOTE**

**(FREE, FAIR & FEARLESS)**

### **3.1: Nation Celebrates the 150th Birth Anniversary of Father of the Nation - Mahatma Gandhi**

This October 2 has special significance, being the 150th Birth Anniversary of Mahatma Gandhi. There is bound to be a justified rush to pay tributes to this 'greatest Indian' - a status



he undisputedly maintains despite the opposition and dissent that he faced from many prominent Indians. Author, historian and professor, and grandson of Mahatma Gandhi, Rajmohan Gandhi writes that although Gandhi defended his positions with conviction, he knew he was not infallible. As far back as 1909 he had written in Hind Swaraj: "No man can claim to be absolutely in the right, or that a particular thing is wrong, because he thinks so." Exceptional though not limitless, Gandhi's embrace of dissent was at heart a recognition of human imperfection, he concludes.

We join the nation in paying our respectful tributes to the Mahatma.

### **3.2: Your Heart will thank you for Eating More Fat**

When you hear the word "diet", you probably picture a plate that's free from fatty foods, because for the last few decades, we've been told that eating fat makes us fat. We've been told that low-fat diets are good for lowering our cholesterol and reducing blood fat content, making them healthier for our hearts. But this thinking is now being challenged. A team of Israeli, German, and American researchers has just published a study in the Journal of Hepatology that looks at the effects of a particular high-fat diet.

You have been warned earlier against the food that goes by its common name of “Mediterranean diet” because of its high fat content, but we are recommending it despite that, because science has shown that it’s much heart-healthier than a low-fat diet, and for quite a surprising reason.

The aforesaid researchers recruited 278 overweight people, and specifically folks who carried a lot of fat around their midsections. The scientists chose this group because they thought that carrying a spare tire might be the biggest risk factor for both cardiovascular disease and diabetes. The subjects were put onto different diets for 18 months to see how each one measured up. They either followed a low-fat diet or a Mediterranean diet that featured low carbohydrates and 28 grams of walnuts per day. Both diets offered roughly the same number of calories. The researchers used MRI scans to measure the different types of fat lurking inside the subject’s bodies, and they did this before, during, and after the 18-month dieting period. They also measured a wide variety of risk factors for diabetes and cardiovascular disease. At various points during these 18 months, they asked the subjects to either do some moderate physical exercise or do no exercise at all to see what difference this would make, if any.

After the 18 months, the researchers found that their subject’s visceral fat (the stuff around the abdomen) had dropped by 25 percent, and their hepatic fat (around their livers) was even better at 29 percent. They measured a healthy 11 percent loss of fat around their hearts, and a one to two percent loss of both pancreatic and muscle fat. But it is worth remembering that these were just averages that concealed the most important findings: that those who exercised lost more weight of all kinds than those who did not, especially abdominal fat. No surprises there then, but the most interesting result they found was that losing liver fat was more important to health than losing stomach fat.

They came to this conclusion because they found that the people who lost the most hepatic fat were less likely to suffer from cardiovascular and metabolic diseases. They had lower cholesterol, lower glycated hemoglobin (a sign of insulin sensitivity), and healthier livers; which means that big bellies shouldn’t worry us as much as fat livers. Of course, it isn’t possible to know how much fat your liver is swathed in unless you happen to have an MRI scanner handy, but you can stay on the safe side by adopting the low-carb Mediterranean diet. Test subjects who did this were the ones who lost the most hepatic fat, which is why a Mediterranean diet is probably healthier than a standard low-fat diet.

Just to be clear, the folks on both diets lost almost the same amount of weight, but the Mediterranean dieters were clearly healthier when it came to their cardiovascular and metabolic risks. This comes as a surprise when you consider that the Mediterranean diet already contained a fair amount of fat in the form of olive oil before the 28 grams of walnuts were added. They were eating quite a lot of fat, but this proves not only that it was not causing them any harm, it was actually boosting their heart health. (Based on a report by Scott Davis posted on Jul 13, 2019 in Blue Heron Health News)

## **CH.4: LETTERS TO THE EDITOR**

Thank you for the July issue of NAVS Newsletter. I should admire all the pains taken by you to shape our profession in the right direction. Best Regards,  
Dr. Indranil Samanta, MVSc, PhD, NAAS Associate  
Associate Editor (Bacteriology)-BMC Veterinary Research (Springer-Nature);  
Department of Veterinary Microbiology; West Bengal University of Animal and  
Fishery Sciences; Kolkata- 700037; West Bengal, India. Cell: 09062918679;  
<isamanta76@gmail.com>

Congratulations for the wonderful and very informative July 2019 NAVS Newsletter and also I thank you sir for considering the ICAR-NIANP, Bengaluru event in the esteemed NAVS Newsletter. Thanking You. With Best Regards:  
Dr. G Krishnan; ICAR-National Institute of Animal Nutrition & Physiology,  
Hosur Main Road, Aduodi, Bengaluru-560 030, <vet.krish@gmail.com>

Thank you very much for sharing the NAVS Newsletter July 2019 and also publishing ILRI news item in your esteemed Newsletter. Recently, ILRI has signed a MoU with ICAR. I am enclosing one write-up on the event for favor of publication in the ensuing issues of your esteemed NAVS Newsletter. Hope you will consider the publication for the interest of the Veterinary Fraternity of the Country and the region. Dr. H Rahman, Regional Representative for South Asia, International Livestock Research Institute, Block-C, First Floor, NASC Complex, CG Centre, DPS Marg, Pusa, New Delhi -110 012. Mobile: +91 9483527849; Tel: +91 11 2584 7885; [r.habibar@cgiar.org](mailto:r.habibar@cgiar.org); [ilri.org](http://ilri.org)

Dear Dr Kohli: I have been procrastinating in responding to the two issues of the newsletter promptly sent to me. I am sorry. There have been some important issues that are receiving good attention. I would like to give my personal views on some:

1. The formation of separate Council to govern Veterinary and Animal Science Research has been placed before the Government several times with many ministers in office promising but it is yet to be realized. With a number of Universities functioning separately in the country it is high time that the Council is formed soon to support the research in the university because it has taken a back seat in most of these institutions. We have also a number of Research Institutes which need some boosting to render them leaders in their respective areas.

2. The formation of separate campuses for research in the Universities may not be very desirable. During my visits to some, I noticed a tendency for them to stay away from the main stream. This is to the disadvantage of undergraduate students who need to take the outcome of research to the field. There has to be good interaction between them.

3. Zoonoses are becoming bigger problems as new diseases are being recognized. Veterinarians working in the field are the first to encounter these and a lack of knowledge of these is a big setback for them. While some common ones are explained in the UG courses, it would be necessary for them to be oriented for the new ones as and when they become problems in the area.

4. The animal birth control programme in the urban areas seem to be faltering when we see the stray dogs mauling children in the streets. We need to pay more attention to this. There problem is more serious in the rural areas where there is no control and more dog bites of people and animals are reported.

5. The production of biologicals in the country is regulated by the Drugs Control Act. I wonder how effective this control in operation. The biological production facilities do not meet with the requirements of the Act, especially in the government sector. The products too are not certified. This needs some serious examination and correction.

Dr. B.S. Keshavamurthy; [bskmurthy@hotmail.com](mailto:bskmurthy@hotmail.com)

It is wonderful to see how you are keeping the tempo of NAVS moving through the great Newsletter. May God bless you sir.

Dr. Rama Kumar V.; [<drramakumarv@gmail.com>](mailto:drramakumarv@gmail.com)

I appreciate your efforts for wide coverage in the Newsletter.

Dr. Neelesh Sharma;

July 2019 Issue of the Newsletter was exceptionally good. It shows your keen involvement and dedication to the profession. Dr. [Pawan Kumar Gupta](#);

An amazing NAVS Newsletter. Best wishes to you and NAVS family on world Zoonoses Day Today: Dr. [Dayanand Garg](#);

Brief Comments about the Cover Page:

Very nice cover; Dr. [Jagdish Mittal](#);

Fantastic cover: Dr. [Utpal Das](#);

Beautiful cover: Dr. [Jit Singh](#);

Good picture of the cover page: Dr. [TejKrishan Walli](#);

Beautiful Cover Congrats to the editor: Dr. [Dwarikanath Sharma](#);

Excellent Cover: Dr. [M C Sharma](#)

**The Cover design assistance provided by Mr. Narendra Pandey, of I. D. A., is gratefully acknowledged with thanks. - Editor**

## **CH. 5: NAVS NEWS**

### **NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)**



#### **5.1: GOVERNING COUNCIL MEETING HELD ON 7th SEPTEMBER**

A meeting of the Governing Council of National Academy of Veterinary Sciences was held on September 7, 2019 at its office in NASC complex. It was attended by 13 members, including Dr. Praveen Malik, Animal Husbandry Commissioner Government of India, who was warmly welcomed by the NAVS President. Dr. Malik emphasized the importance of collaboration and cordiality among all the veterinary organizations and associations with similar objectives in the interest of overall progress of the Veterinary Profession.

Following is a summary of the proceeding of the meeting and some the important decisions taken:

1. In his opening remarks the President apprized the house about the financial position of the Academy. Presently the assets of the Academy include FDs of 82 lakhs. He requested the esteemed GC members to use their personal contacts in motivating the Veterinary Universities / Veterinary Institutions/ Pharmaceutical Firms, etc for becoming Institutional/ Corporate Life Members of the Academy. He further apprised the members about the forthcoming Convocation-cum-Scientific Seminar to be held at Kamdhenu University, Gandhi Nagar and emphasized on bringing the Status Papers on Glanders and Rabies, for which a time limit of one month was fixed. He also informed the house regarding successful conduct of National Seminar on Paravets in collaboration with Ministry of Agriculture and Farmers' Welfare.

2. Qualification of Teachers, Examiners, Paper Setters in Institutions/ Universities awarding B.V.Sc. & A.H. degree as per VCI -MSVE Regulations-2016.

The GC members were of the view that although the issue mainly related to the Veterinary Council of India, the selection in the new appointments should be made only for those candidates, who possess the basic qualification of B.V.Sc & A.H degree.

3. Qualification for posts of Head of Department and Dean in Institution/ University awarding B.V.Sc. & A.H. degree as per VCI -MSVE Regulations-2016.

This issue was discussed earlier also in GC meeting held on 03.11.2018. Like the previous agenda-item, this issue also related to VCI. However, it was felt



that a letter in this regard may be written again to Chairman, ASRB with a copy to Director, IVRI.

4. Grant of NPA to all the serving veterinarians : The GC members were of the opinion that all serving veterinarians should get NPA. Though a letter in this regard is already there from Ministry of Finance, GOI, however, its interpretation by different offices is different. A letter in this regard is to be written to the Hon'ble Minister of Fisheries, Animal Husbandry and Dairying as well as to the DG, ICAR with a request to have correct interpretation of the letter concerning NPA to the veterinarians serving in ICAR Institutions.

5. To make the Veterinary Council of India functional: Commissioner AH&D apprised the house about the latest development in this regard. Earlier also a letter in this regard was written to the then Secretary AH&D. It seems that presently no action was required by NAVS (I) in this regard.

6. Establishment of ICVR: Already a proposal for the establishment of ICVR was submitted to the then Union Agriculture and Farmers' Welfare Minister. A copy of the proposal was also sent to the PMO. However, it was felt that Union Minister of Fisheries, Animal Husbandry and Dairying may be approached to take up the issue again with PMO.

7. Recommendations of the evaluation committee for the award of Fellowships / Memberships/ Associate Memberships of NAVS (I):

The Governing Council accepted the recommendations of the Committee for screening and evaluating the applications received from aspirants for Fellowships, Memberships and Associate Memberships of NAVS (I). Further, it was unanimously decided to enhance the admission fee-cum-life time subscription as well as application processing fee as follows:

Fellowship: From the existing 6,000/- to Rs. 8,000/-;

Membership and Associate Membership: From the existing 4,000/- to Rs. 5,000/-

Application Processing Fee: From the existing Rs. 1,000/- to Rs. 1,500/-

Note: The revised admission fee-cum-life time subscription will be applicable with immediate effect.

8. Election Schedule for electing the new Governing Council:

The Governing Council authorized the President and General Secretary to finalize the Election Schedule as well as the name of the Returning Officer for conducting the elections to elect the new Governing Council of NAVS (I).

## CH.6: VET TRACK

**6.1: Dr Indranil Samanta is honored by Elsevier and Indian Academy of Sciences**

Dr. Indranil Samanta is associated with teaching and supervision of research works in Veterinary Microbiology in West Bengal University of Animal and Fishery Sciences, Kolkata for last one decade. He has authored three books entitled 'Veterinary Bacteriology', 'Veterinary Mycology', 'Pet bird diseases and care', published by NIPA (India) and 'Springer-Nature (International) and more than 140 research articles in peer reviewed journals associated with prevalence of zoonotic bacteria, antimicrobial resistance in livestock and their transmission dynamics . Recently he is awarded with 'Indian Academy of Sciences-Indian National Science Academy-The National Academy of Sciences (IASc-INSA-NASI) Summer Research Fellowship (for teachers)' and 'Certificate of Outstanding Contribution in Reviewing' by Elsevier.



**6.2: Dr. Inderjeet Singh Attends the 12th World Buffalo Congress in Istanbul, Turkey**

Dr. Inderjeet Singh, Director Animal Husbandry, Punjab, has attended the World Buffalo Congress held at Istanbul, Turkey from 18 - 20 September, 2019, where he delivered the main lecture of the first day. We feel proud for Dr Inderjeet Singh who has been working hard for so many years on buffaloes and has put India in general and Punjab in particular among the top International players in the Buffalo Science. He had good interaction with some colleagues from other buffalo rearing countries who attended the congress. He has stated that India's new strides including NADCP, Genetic Up gradation, cloning, sexed semen production, early pregnancy diagnosis research and overall buffalo productivity were appreciated at the Congress. The theme of WBC2019 was "Efficient Production for the World". We congratulate Dr. Inderjeet Singh for presenting the Indian perspective at this International event. It may be noted that last year he had also very successfully organized the Asian Buffalo Congress at CIRB, Hisar. (Also see Chapter 7, VIEWPOINT).

The world buffalo congress provides a bridge between East and West; South and North to address and interact on key issues relevant to buffalo production and research among scientific communities, national and international regulatory bodies, policymakers and consumer organizations etc. We believe that global warming, environmental and ecological degradation, depletion of natural resources, natural and manufactured hazards, and economic crises affect our modes of production, and consumption, demanding for new strategies in production systems and organizations and conduct. Next WBC will be held in China after 3 years.

## **Ch.7: VIEW POINT**

### **7.1: Implementation of the Decision to Establish Indian Council of Veterinary Research for Dovetailing Research & Development with the Department of Animal Husbandry & Dairying.**

**Rama Kumar V**

*[Science had developed and diversified so much, today, that specialist of one science can not conceive the perspectives and priorities of the other]*

1. On January 31, 1991 Government of India notified the establishment of a separate Department of Animal Husbandry & Dairying, (Gazette of India Extraordinary Part-2 Section (iii) Sub-Section (ii) No. 47) recognizing the vital role Animal Husbandry can play in development of the country.(copy enclosed).
2. When the cabinet decision for separation of Department of Animal Husbandry & Dairying was taken, it was also decided that steps be taken to dovetail the relevant research aspects with this Department.
3. Standing Committee on Agriculture of 11th Lok Sabha Chaired by Sh. Santosh Kumar Gangvar who is at present a Minister in the Cabinet, in its 11th Report had recommended the formation of Indian Council of Veterinary Research. "The Committee find that various important Research & Educational projects in Veterinary & Animal Science sector are within the purview of Dept. of Agriculture Research & Education and the committee feels that these institutions should be brought under the purview of Deptt. of Animal Husbandry & Dairying so that fruitful results could be achieved in the field of research, education and extension in a well co-ordinated manner. The Committee, therefore, recommends that the Government should seriously look into the setting up the Indian Council of Veterinary Research and Education to dovetail research and development (R&D) with the service department.
4. Action was initiated only when more than 100 Members of Parliament had submitted a memorandum to the then Minister in this regard. An argument of integrated development was put forth by ICAR who was reluctant to part with power; but the matter was found to be scientifically untenable. A number of professional societies also proved to the government that expert required for research, service or education in Veterinary Science viz-a-viz Agriculture are different and are not interchangeable and that agriculture farmers and livestock owners are getting appropriate service separately from the respective experts and not otherwise. There is no integrated agriculture service or Veterinary service in states, centre or in any part of the world. In fact in India the Veterinary service has to be rendered by veterinarians and veterinarians alone as per Indian Veterinary Council Act, 1984 (52 of 1984). The admission requirement for Veterinary college and agriculture are to totally different and are not inter changeable

5. The All India Conference of State Ministers for Animal Husbandry & Dairying held on 16th December, 1996 made some major recommendations which is enclosed as Annexure E (Contact the author for this).

The conference broadly endorsed a National Livestock Policy. Hon'ble Prime Minister announced a doubling of the existing financial allocation for this vital, sector for socio-economic development of the poor in the rural areas.

The establishment of a separate Indian Council of Veterinary Research, parallel to ICAR, to support research & extension activities was strongly recommended by the delegates.

6. The then Minister of State for Animal Husbandry & Dairying (Independent Charge), Government of India Dr. Raghuvansh Prasad Singh Ji had ordered that action be initiated for registration of the society called Indian Council of Veterinary Research.

7. The then Secretary Animal Husbandry Mr. Yogesh Chandra directed that Dr. C.M. Singh, President, Veterinary Council of India be requested to prepare a Note for the establishment of Indian Council of Veterinary Research and action be taken to give effect to the orders of the Minister for the establishment of ICVR. Dr. Singh vide his letter dated 7th November, 1996 had submitted a detailed note for the purpose as requested.

8. Standing Committee on Agriculture 12th Lok Sabha Chaired by Sri Kinjarapu Yerrannaidu in 9th Report at Recommendation No. 5 also recommended the establishment of Indian Council of Veterinary Research.

9. The Standing Committee was told that the matter had been cleared by Planning Commission.

10. On 16 January, 1998 some leading Senior Parliamentarians including an ex Prime Minister had submitted an appeal to Prime Minister Shri Atal Behari Vajpayee for the establishment of Indian Council of Veterinary Research.

11. The recommendations of creation of Indian Council of Veterinary Research presented by the Working Group on 28th August, 2001 is pending with the Planning Commission for consideration which deserve action for completion of the process of implementation without further delay on the same line as it had been done by the Ministry of Health and Family Welfare.

It may be pointed out that earlier there was one combined research Council for Indian system of Medicine and Homoeopathy named as Central Council for Research in Indian System of Medicine & Homoeopathy.

The Government of India in a policy decision taken in 1979 decided to bifurcate the combined research Council into four Research Councils namely as follows vide Gazette Notification No.V.27020/29/71-Ay. Desk-II dated 27.11.1979. (Annexure F)

The Ministry of Health & Family Welfare, Government of India has separate statutory as well as research Council's under the Department of Health & Family Welfare & Department of Indian System of Medicine & Homoeopathy. Each branch of medicine has a separate statutory Council and research Council listed as under:-

Department Research Council

Department of Health & Family Welfare  
Statutory Body Medical Council of India  
Research Council Indian Council of Medical Research  
Department of Indian System of Medicine & Homeopathy Central Council of  
Homeopathy Central Council for Research in Homeopathy  
Department of Indian System of Medicine & Homeopathy St Body Central  
Council of Indian system of Medicine.

1. Central Council for Research in Ayurveda & Siddha
2. Central Council for Research in Unani Medicine
3. Central Council for Research in Yoga & Naturopathy

The funds allocated for the schemes of Veterinary and Animal Husbandry by the ICAR will be transferred to such schemes and assets and liabilities including the employees working in Indian Council of Agricultural Research shall be appropriately allocated to the new Council. The term & conditions of service of the said employees including their existing benefits as far as practicable be protected by the new Council as has been done in the case of bifurcation of the combined Council under Ministry of Health & Family Welfare vide Gazette Notification No.V.27020/29/71 Ay. Desk -II dated 27.11.1979.

Prof.(Dr.) Rama kumar, V, Former Secretary, Veterinary Council of India, New Delhi (retd); [drramakumarv@gmail.com](mailto:drramakumarv@gmail.com) ; Source: Veterinary Educationist's Forum, 20 December 2018.

## 7.2: Rights and Duties of Persons who are enrolled on the Indian Veterinary Practitioners Register

Rama Kumar V

As Per Section 30.of Indian veterinary Council Act 1984 (52, of 84) - No person, other than a registered veterinary practitioner, shall—

(a) Hold office as veterinary physician or surgeon or any other like office (by whatever name called) in Government or in any institution maintained by a local or other authority;

(b) Practice veterinary medicine in any State:[where he is registered] Provided that the State Government may, by order, permit a person holding a diploma or certificate of veterinary supervisor, stockman or stock assistant (by whatever name called) issued by the Directorate of Animal Husbandry (by whatever name called) of any State or any veterinary institution in India, to render, under the supervision and direction of a registered veterinary practitioner. Minor veterinary services: Explanation.--"Minor veterinary services" means the rendering of preliminary veterinary aid, like, vaccination, castration, and dressing of wounds, and such other types of preliminary aid or the treatment of such ailments as the State Government may, by

notification in the Official Gazette, specify in this behalf; [This means that vaccination, castration, wound dressing, preliminary aid (ie. First aid) is already enlisted under clause (b) of section 30 of IVC Act 1984. It leaves the responsibility to state govts to enlist the Preliminary treatment aid of some ailments. This was done as the law makers in their wisdom realize the widely variant, geophysical and economic perspective of animal rearing practices and varying para-vet support needed for veterinary service needs of the domestic, non-domestic, feral or wild animals. The existence of pet and laboratory animals and birds living in land (terrestrial & arboreal) and water (fresh & sea water) has to be considered. There are many evolving technologies that can support the changing needs, life-styles, climatic variations and/or disasters that affect animals and man.

Natural breeding tracts of our indigenous breeds are mostly in rain-fed (non-irrigated) areas [without considering this aspect, some of these areas are proposed for acquisition for industry or infrastructure development. Animals have made life possible in areas like deserts and snow deserts where cropping is virtually impossible (see book on Domestic Animal Bio-diversity). Preliminary aid and treatment of some ailments in such areas (which includes areas in the back of beyond) may have to be considered on merit and technical feasibility. It is here that a variety of para-staff like compounder, veterinary supervisor, stockman or stock assistant (by whatever name called) are trained by the Directorate of Animal Husbandry (by whatever name called) of any State or by any veterinary institution in India, Remount veterinary crops (RVC), Border security force (BSF) or state and central police force (CRPF) have equines, canines and dairy animals. Zoo's too have supporting staff trained to observe, report or assist in handling herbivores, carnivores, reptiles, amphibians, primates, wild birds in captivity etc. It is here that the law makers in their wisdom have decided to delegate the listing of preliminary aids to the state govt. or institutions.

So the subjective or arbitrary classification such as "immediate supervision or direct supervision may be irrelevant. The law also prescribes that authentication of certificate and giving evidence to RVP's.[see ( c ) &(d) below] These cannot be delegated to para-staff; but they are expected to maintain case records as per the direction of the RVP.

(c) be entitled to sign or authenticate a veterinary health certificate or any other certificate required by any law to be signed or authenticated by a duly qualified veterinary practitioner;  
(d) be entitled to give evidence at any inquest or in any court of law as an expert under section 45 of the Indian Evidence Act, 1872, (1 of 1872.) on any matter relating to veterinary medicine. Further they are expected to be trained in various jobs like

compounding medicines, controlling animals, storing and upkeep of equipment, handling & restraint of animals, maintaining vety medical records, care and management of live-stock in farms, semen bank, operation theatre, diagnostic (imaging) units, clinical labs, feed technology units, stray dog control units etc. All such tasks need additional training.

Work break down of a couple of tasks are given below as an example:

**GOOD VETY. PRACTICE (sequence of medical attendance)**

- Admit a patient
- Book the patient: describing its identity; description, etc.
- Communicate with the client to elicit history
- Define/ decide the clinical tests to be done
- Examine and establish the stage of the disease, deficiency or problem
- Finalise treatment plan
- Give details of the case to owners
- Hear the clients' perspective and reaction
- Interact with/ or direct team members & para-vets staff
- Jot down the protocol to ensure accuracy [write what you do; do what you write]

**(SEQUENCE OF ACTION (protocol for A.I.))**

- Ascertain and confirm standing heat
- Decide time of A.I.
- Ensure quality of semen
- Thaw the straw
- Clean the animal's rear part(s)
- Deposition of semen it in the right place (aseptically)
- Allow rest (do not allow the animal to get excited or run)

Prof.(Dr.) Rama kumar, V, Former Secretary, Veterinary Council of India, New Delhi (retd); [drramakumarv@gmail.com](mailto:drramakumarv@gmail.com) ; Source: Veterinary Educationist's Forum, July 5, 2019.

### **7.3: Buffalo - the harbinger of prosperity in rural India\***

**Dr. Inderjeet Singh,  
Central Institute for Research on Buffaloes,  
Hisar- 125001, Haryana ([inderjeet.dr@gmail.com](mailto:inderjeet.dr@gmail.com))**

A reference to “buffalo” as a livestock species across the globe reflects India as the land of world's best and most diverse buffalo germplasm. The

world's 57% buffalo population, contributing 68% of world buffalo milk production with 13 recognized breeds and 20 other distinct populations of riverine buffalo besides swamp buffaloes in northeast describe the spectrum of buffalo portfolio the country holds. The world's best milk breed "trophy" include Murrah, Jaffarabadi, Nili Ravi, Banni, Surti, Bhadawari and Pandharpuri. Buffalo meat became the largest exported agricultural commodity during recent past and also top exporter country. Buffalo through its milk, meat, hides, bones, horns, manure contributes enormously, roughly estimated at over Rs. 5,000,000 million (approx. 77 billion USD) per annum. Employment generation for rural masses, especially women; nutritional security for majority vegetarian population with high quality 100% A2 type milk and resistance to many prevalent infectious diseases sanctify buffalo as the livestock species of national importance. Continued increasing population trend over the last few 5-yearly livestock census, in spite of large scale slaughter for domestic and export markets, reflect potential of the species for income generation in rural areas as well as periurban dairies; in contrast to decreasing populations of other important livestock species like cattle, sheep and goat. Large network of state-of-the-art frozen semen laboratories, with strict government monitoring for accreditation, is ushering in faster germplasm improvement across states. Over the years, government initiatives have been directed at breed improvement, quality bull production, strengthening AI services, improving feed and fodder resources, clean milk production and alike. National Program for Bovine Breeding and Dairy Development (NPBBDD) was launched by merging four existing schemes i.e. Intensive Dairy Development Program (IDDP), Strengthening Infrastructure for Quality & Clean Milk Production (SIQ&CMP), National Project for Cattle & Buffalo Breeding (NPCBB) and Assistant to Cooperatives with the budget provision of Rs.18,000 million for implementation during 2012-17. National Dairy Plan (Phase-I) was launched in February, 2012 with a total investment of about Rs.22,420 million to be implemented from 2011-12 to 2016-17. Central Herd Registration Scheme and livestock championships/shows are other initiatives aimed at identification of superior animals in field. Nevertheless, major challenges in livestock improvement in general and buffalo improvement in particular include shortage of feeds and fodder; low productivity of large nondescript population; livestock health coverage with disease prevention and control; knowledge gap in stakeholders and inadequacy of infrastructure for marketing, processing and value addition.

(\*Source: Buffalo Newsletter, Number 33, June 2018, Page 6; Country Report India, 9th Asian Buffalo Congress, Hisar, India)



## Ch. 8: NATIONAL & INTERNATIONAL VETERINARY NEWS

### 8.1: ILRI-ICAR Brain Storming Session on Sustainability of Livestock and Fishery Production Systems in India: Issues and Indicators

Indian Council of Agricultural Research (ICAR), International Livestock Research Institute (ILRI) and ICAR-National Dairy Research Institute (NDRI) jointly organized a Brain Storming Session on “Sustainability of Livestock and Fishery Production Systems in India: Issues and Indicators” on 20<sup>th</sup> April 2019 at ICAR-NDRI, Karnal. More than 60 researchers from various ICAR institutes had participated in the Brainstorming session to discuss and framing guidelines for sustainability in livestock and fishery production systems in the country as well as in the region.

Dr. R. R. B. Singh, Director, ICAR-NDRI welcomed the participants and hoped that this brainstorming session would help in finding out different factors that are associated with sustainability. He also thanked Dr. H Rahman, Regional Representative for South Asia, ILRI for choosing ICAR-NDRI for organizing the Brainstorming Session. Dr. H Rahman briefed about the programme, the genesis and overview of the brainstorming session. He informed that as per FAO estimates, there will be an increase in the



requirement of meat and fish in the tune of 80% by 2030 and around 200% by 2050 in the middle and low-income countries. He added that, this can only be achieved through intensification, structural transformation and increase fund allocation to these sectors. He also

stated that the various concerns associated with this sector that includes food and nutritional security, livelihood and economic growth, animal health and welfare, climate change, natural resource management and low budget allocation. He also convened that the discussion in the brainstorming session will help in making a roadmap that will help in arriving Zero Hunger Agenda Sustainable Development Goals (SDG) – 2030.

Dr. R. K. Singh, Director cum Vice-Chancellor, ICAR-Indian Veterinary Research Institute, Bareilly stated that the welfare and social issues are very relevant and concerned with the animal husbandry and fisheries sectors. He stresses that more care and attention should be given on these aspects to achieve sustainability in these sectors. Dr. J. K. Jena, Deputy Director General (Animal Science and fisheries), ICAR opined that we should not concentrate only on sustainable production, instead, but also concentrate more on sustainable growth. There are various factors that has to be taken into consideration like system level sustainability; farm level sustainability; understand the failures and analyzing the issues; importance should be given on food safety and zoonotic diseases; reproductive issues; and climate change and natural resource management. Dr. A. K. Srivastava, Member, ASRB

emphasized on factors that have to be considered for sustainability includes carrying capacity of the land; different types of production systems; and sustainable genetic resources and their conservation. If these three factors are taken into consideration, the impact will definitely increase the sustainability in both livestock and fishery production systems.

While inaugurating the training, Shri Chabbilendra Roul, Secretary, Fertilizers, Ministry of Chemicals and Fertilizers, Government of India, highlighted the various indicators for sustainability and systems approach in livestock and fisheries production system. He introduced the three main areas of sustainability including natural resources and climate change and socioeconomic indicators and biodiversity. Scientists or experts should assess the problem of sustainability from their own perspective and collate with the systems approach. He stressed that sustainability is one of the important aspects to be taken into consideration for the betterment of livestock and fishery production system in the country and encouraged the participants to augment their understanding of the issues and indicators associated with the sustainability of livestock and fishery production system in the country through this brainstorming meeting.

The issues of sustainability in livestock and fisheries was discussed in five sessions with nineteen presentations to prepare a road map for sustainability of livestock and fisheries in the country. The action points taken include application of modern scientific principles for enhancing productivity and



lifetime production; evaluation of the efficiency of production systems and their impact on environment and ecology in livestock and fishery production in the changing climate scenario; encouragement for commercial production, food safety, packaging of foods, effective waste disposal and to develop a choice for diverse and value-added foods; identification of non-descript population of livestock and fish and bringing them under the ambit of registered breeds; establishment of live germplasm centers and regular performance testing and evaluation; development of adoptive production systems with institutional support and effective health management strategy by following biosecurity, innovative eco-based culture practices, like the usage of probiotics, etc; GIS based carrying capacity estimation, use of bioinformatics, genomics and artificial intelligence for sustainable development in livestock and fishery sectors; development and formulation of vaccination / immunization policy considering the genetic makeup of the animals and policies on livestock and fisheries insurance, etc.

## 8.2: The ICAR and ILRI renew research partnership

The Indian Council of Agricultural Research (ICAR) and the International Livestock Research Institute (ILRI) have renewed their partnership for exploring collaborative research opportunities in livestock research to address poverty and safeguard food and nutritional security in the country. A MoU on Work plan for the period of 2019-22 was signed between them on 25 February 2019 at ICAR, Krishi Bhavan, New Delhi for taking new collaborative research projects with an increased focus on livestock research to address poverty and food and nutritional security in the country.

Dr. Trilochan Mohapatra, Secretary, DARE & DG, ICAR; Dr. Iain Wright, Deputy Director General (Integrated Sciences), International Livestock Research Institute (ILRI), Nairobi; Shri Sushil Kumar, Additional Secretary, DARE & Secretary, ICAR; Dr. J.K. Jena, DDG (Animal Sciences), ICAR; Dr. H. Rahman, Regional Representative for South Asia, ILRI at New Delhi and other dignitaries were also present during the occasion.

Dr Jena welcomed the members present on the occasion and emphasised that the signing of the MoU between the two organisations will facilitate the smooth implementation of the projects undertaken for the year



2019-22. Dr H Rahman thanked the ICAR and also informed the dignitaries about the projects that will be undertaken during the period 2019-22. The major areas of collaborative research identified in the Work Plan are Animal Disease Economics; Backyard Poultry Genomics; Methane Emission and its Mitigation; Improvement of Basal Feed Resources and Capacity Development and other

Activities. Shri. Sushil Kumar stressed on the reviewing of the collaborative project on six-monthly basis in order to mutually resolve the raised issues promptly and effectively.

During the signing ceremony, Dr Trilochan Mohapatra acknowledged the importance of livestock not only for India but also for the South Asia region and said the two organizations would work closely to support new livestock development programs that have been initiated by the Government of India to improve the livelihood security of smallholder farmers. Dr Iain said that the new plan would encourage collaboration between researchers from ILRI and ICAR to share research that would further advance the livestock sector. Dr Mohapatra and Dr Iain opined that the two organizations tend to have a long association of working together and the areas identified in the Work Plan are important and carefully selected keeping in mind the skills and expertise available with both the organizations.



During the signing of ICAR-ILRI MoU on Work Plan, the second issue of ILRI South Asia Newsletter also had been released by Dr Trilochan Mohapatra and Dr Iain Wright. This newsletter is meant to share key updates of ILRI's activities in South Asia with stakeholders, partners and donors.

### 8.3: Chairman, Uttar Pradesh Council of Agricultural Research Visits Central Avian Research Institute, Izatnagar

Dr Sanjeev Kumar, Member, GC, NAVS I) writes to inform that Capt. Vikas Gupta, Chairman, UP Council of Agricultural Research, Lucknow visited the ICAR- CARI, Izatnagar on June 28, 2019. Dr A.B. Mandal, Director of the Institute welcomed him and apprised him about research activities at the institute and also suggested areas for poultry development in the state. Dr Sanjeev Kumar coordinated the visit to the Institute including turkey farm and museum and briefed about various germplasm and genetic resources in the



Institute as well as apprised him about various ongoing research programmes and activities. Capt. Vikas Gupta showed keen interest in the institutional activities and interacted with the scientists of the Institute. He said that a new chapter has been unfolded and promised for development of poultry in the state of Uttar Pradesh based on collaborative research and development

opportunities.

### 8.4: US Delegation Visits Central Avian Research Institute, Izatnagar

A delegation visited CARI, Izatnagar on July 10, 2019, while conducting USDA-APHIS and DADF sponsored International Workshop on "Disease Rationalization" at IVRI, Izatnagar during July 8-10, 2019. The delegation comprised of Dr Mark Remick, Area Veterinary In charge; responsible for the state of Virginia, Maryland, Delaware and Washington DC, USDA-APHIS-Veterinary Services, Dr Fidel Hegngi, Senior Staff Veterinarian, Avian Health, USDA-APHIS-Veterinary Services, Dr Chakradhar Tosh, PS & OIE Designated Reference Expert, ICAR-NIHSAD, Dr Murali Bandla, Minister Counsellor,



USDA-APHIS, US Embassy, New Delhi, Ms. Deepa Dhankar, Deputy Area Director, USDA-APHIS, US Embassy, New Delhi, Ms. Rakhee Masson, US Embassy, New Delhi and 30 participants of the workshop. Dr A.B. Mandal, Director received the delegation. Dr Sanjeev Kumar coordinated their visit to the Institute including turkey farm and

museum and briefed about various germplasm and genetic resources in the Institute. Dr Sandeep Saran, PS, presented an overview of the Institute programmes. The delegates interacted with the scientists of the Institute.

### **8.5: Brain Storming Session organised by CIRB and ISBD**

The Central Institute for Research on Buffaloes (CIRB) in collaboration with Indian Society for Buffalo Development (ISBD) organised a one day brainstorming session on 'Use of cloned buffalo bull semen for breed improvement' on 29th August, 2019 at NASC, New Delhi. Addressing the inaugural session Dr. T. Mohapatra, Secretary DARE & Director General session, ICAR, New Delhi congratulated the scientific group of Dr M L Madan and his group of scientists for sustained effort in taking the technology to such levels that country wants to use the same for animal improvement by fast multiplication of the best available bulls for semen production. Different sessions on technology, its application and perspective use were chaired by Dr



M L Madan, former Vice Chancellor and DDG (AS); Dr A K Misra, Chairman ASRB; Dr J K Jena, DDG (F&AS); Dr M P Yadav, Chairman NASF and Dr P. Malik, Animal Husbandry Commissioner.

Dr P S Yadav, (CIRB), the program leader, described the state of the technology to which the groups of workers have reached in NDRI and CIRB with several bulls born as clones to the elite bulls available. Presently, both institutes have four cloned male bulls which are producing semen and their semen is being utilized for artificial insemination in the experimental herd and performing normal in all parameters of semen quality and conception and has resulted in the production of progenies growing normal and healthy. Data available on cloned bulls from the project and their semen parameters such as ejaculate volume, sperm concentration, sperm abnormalities, fresh and frozen-thawed motility, motility after thermal incubation test, acrosome integrity, plasma membrane integrity, in vitro fertilization and embryo developmental rate as well as progeny production was comparable with non-cloned bulls. The health of offspring born by cloned bull semen was also within expected parameters following AI.

Dr Yadav explained that with only 30% breedable buffalo populations covered under artificial insemination, for meeting the increased demand, we need to have approximately 8000 superior bulls to cover our females by AI. Animal cloning (SCNT) has emerged one of the best technologies with an added advantage of predetermined sex. Animal cloning is asexual mean of reproduction to produce genetically identical copy of the animal without use of sperm and without modification of their genome. The application of this

technology to current breeding strategies will have a substantial impact on selection intensity and subsequent genetic gain.

The major recommendations made at the end of discussion included that, bull for cloning should be selected on the basis of their pedigree records, the selection should be done by experts, four to six clones produced from each bull, records of semen and fertility information analyzed, and attempts be made to clone the progeny tested bull by isolating somatic cells from frozen-semen doses.

### **8.6: Prime Minister launches Rs. 12,652 crore vaccination scheme for livestock**

Prime Minister Mr. Narendra Modi launched several programmes in Mathura, Uttar Pradesh, in a bid to boost the ailing agricultural sector on September 11, 2019. He launched the National Animal Disease Control Programme (NADCP), funded by the Centre, which aims to eradicate Foot and Mouth Disease (FMD) and Brucellosis in livestock.

The whole world is battling climate change and they are searching for a role model to protect the environment. India has always had a role model in Lord Krishna. Environment and livestock have always been a very important part of India's economic thinking. By balancing nature and economic development, we are moving towards a strong and new India.

The Centre has allocated Rs. 12,652 crore for a period of five years till 2024 to bring the disease under control. By 2030, the government aims to completely eradicate the disease. The funds will be spent in vaccinating over 500 million livestock including cattle, buffaloes, sheep, goats and pigs against the FMD. Meanwhile, 36 million bovine calves will be administered vaccines to prevent Brucellosis disease.

Prime Minister also launched the National Artificial Insemination Programme and a nationwide workshop in Krishi Vigyan Kendras in all 687 districts of the country on the topic of vaccination, disease management, artificial insemination and productivity.

The Prime Minister was accompanied by Chief Minister of UP Mr. Yogi Adityanath Ji and Minister of Animal Husbandry, Dairying and Fisheries Mr. Giriraj Singh Ji.

### **8.7: LUVAS NEWS:**

**(a): First Alumni Meet of LUVAS held at Hisar, Haryana, India.**

We are pleased note from Social Media posts that the First Alumni Meet of the Veterinary and Animal Sciences University (LUVAS) was held at Hisar, India, from August 22 -- 23, 2019.



**The Auditorium" is all set to welcome the alumni of Veterinary college LUVAS. They will come to their alma mater to re-live the memories.**

Hisar Veterinary College (H V C) also has a great history before LUVAS came into existence. Part of the basic staff of HVC was from the teachers displaced from Lahore veterinary College after independence of India. With the formation of agricultural universities, it became a part of PAU for many years till Haryana came into existence, when it became a part of HAU. In 1969 there was again a vertical division of staff and students of HVC (UG & PG) when one part formed a new college in Ludhiana as a part of PAU while HVC became a part of HAU. The latter was split to constitute LUVAS (LLRUVAS) when Veterinary universities came into existence. It will be interesting for a veterinary historian to trace the details of the graduates & postgraduates of HVC from after 1947 to now. God bless this great veterinary institution.

#### **(b): National Symposium on Livestock Sustainability for Food Security in India**

Lala Lajpatrai University of Veterinary and Animal science (LUVAS) Hisar, organized a National Symposium on "Livestock Sustainability for Food Security in India" during 22-23 August, 2019 at Hisar. The symposium was held in conjunction with the First Convention of LUVAS Alumni Association.

It is gratifying to note that the then Punjab College of Veterinary Science and Animal Husbandry, started in 1947, has grown over the past decades to now emerge as an independent university. The Veterinary College has been producing graduates who have greatly contributed to veterinary and animal Husbandry development not only in Punjab and Haryana, but have provided leadership in veterinary education, research and livestock development across India and in the world.

The symposium was inaugurated by Hon'able Dr Balyan, Union Minister of State for Fisheries, Animal Husbandry and Dairying. Maj.Gen. Kharab delivered the key note while Prof M L Madan former DDG (AS) and Vice chancellor at DUVASU(UP) and PDKV(MS) as guest of honor delivered the invitational lecture on Veterinary Education for Sustainable Food Security - *the Road Ahead*. The function was presided by Dr Gurdial Singh the Vice Chancellor of LUVAS.

## 8.8: Human Medications top the list of ASPCA Animal Poison Concerns

The American Society for the Prevention of Cruelty to Animals' (ASPCA) Animal Poison Control Center (APCC) has announced that, for the 7th year in a row, human medications top the list of toxins most commonly ingested by pets. The APCC handled more than 167,000 cases in 2014 involving pets exposed to possibly poisonous substances; nearly 16% of those cases (26,407) were pets that consumed medicines intended for human use. The top 10 calls into the APCC in 2014 were 1) human prescription medications, 2) over-the-counter medications, 3) insecticides, 4) household items, 5) human foods, 6) veterinary medications, 7) chocolate, 8) plants, 9) rodenticides, and 10) lawn and garden products. The APCC provides a mobile app—APCC by ASPCA—that features a searchable database of more than 275 toxins. For more information, visit [aspca.org/apcc](http://aspca.org/apcc).

## 8.9: FORTHCOMING BOOKS:

### 1. 'Antimicrobial Resistance in Agriculture: Perspective, Policy and mitigation' by Dr. Indranil Samanta and Samiran Bandyopadhyay

This new 450 page book is being published on 2nd December 2019 by Academic Press (Elsevier) encompassing all the pertinent topics such as role of livestock, fish, agriculture and environment in AMR; phenotypical and genotypical properties of each bacterial genus associated with AMR; transmission dynamics from different resources; control **measures with alternative therapy etc.**

For Full details: <https://www.elsevier.com/books/antimicrobial-resistance-in-agriculture/samanta/978-0-12-815770-1> or Contact the author for the description, Key features, and readership of the book

Dr. Indranil Samanta, Associate Editor (Bacteriology)-BMC Veterinary Research (Springer-Nature), Assistant Professor (Sr.), Department of Veterinary Microbiology, West Bengal University of Animal and Fishery Sciences, 37, K.B. Sarani, Kolkata- 700037, West Bengal, India  
Cell / WhatsApp: +91-9062918679; [<isamanta76@gmail.com>](mailto:isamanta76@gmail.com)

### 2. Ashvasastram:

This invaluable text on Horses an extraordinary contribution of Sanathana Hindu Dharma to the world is truly a worthy possession and must for any keen Horse enthusiast and Veterinarian. To make this wonder contribution compiled by Dr. Sandeep Joshi is worth acknowledgement by world and humanity at large: July 11, 2019 (VEDIC VETS- Face Book Public Group)



## **CH. 9: DAIRY NEWS**

### **9.1: A Special Lecture on “Emerging Pathogens in Foods” organized at IDA HQ**

A Special Lecture on “Emerging Pathogens in Foods” was organized by IDA at its HQ in New Delhi on 11 July, 2019. The Special Lecture was delivered by Prof. Purnendu C. Vasavada, Professor Emeritus of University of Wisconsin, USA.



In his Lecture, Prof. Vasavada informed that new pathogens have emerged and reemerged some of which have spread worldwide. Citing the examples of *Helicobacter pylori*, *Listeria monocytogenes*, *Haemophilus influenza*, *Campylobacter*, *Yersinia enterocolitica*, he said that some strains could colonize cattle and get transmitted to human beings via raw milk. These pathogens can persist in biofilms causing food safety concerns. Foods contaminated with emerging pathogens usually look, small, and taste normal. Under cooked food products and raw milk can cause havoc among populations in any country.

### **9.2: Indian Dairy Association (IDA) invites nominations for Dr. Kurien Award and IDA Patronship & Fellowships for the Year 2019**

**Dr. Kurien Award:** The Association has instituted an award in the name of Dr. V. Kurien honour those who have contributed to the cause of dairy development in India. The award is an acknowledgement of significant services rendered towards the growth of the Indian dairy industry and to recognize the efforts of such persons who have done the industry proud. Nominations may have been made by any individual, recognized institution or organisation. The nominee must be an Indian national working in India. The award will normally be presented to one person but may be shared. Institutions are also eligible for the award. The nominations must follow the specified format, stating how the nominee qualifies for the award. Supporting documents must be given with the names and addresses of at least three persons familiar with the nominee or the nominee’s work, who may be contacted for further reference. The award carries a sum of Rs. 2,00,000/- (Two Lakh).

**PATRONSHIP:** A person who has been a life member of the Association for 10 years with outstanding academic or professional achievements in Dairy Science and/or technology and has rendered signal service to the cause of the Association and/or dairying or dairy industry for at least 20 years may be awarded the Patronship of the Association. The Number of Patron Award shall not exceed two each year. Fellow of IDA may apply for Patronship after a gap of five years as a Fellow. Supporting documents must be given with the names and addresses of at least three persons familiar with the nominee or the nominee's work, who may be contacted for further reference.

**FELLOWSHIP:** A person who is a life member of the Association for not less than 10 consecutive years, who has actively participated in the affairs of the Association and who has rendered valuable service to dairying and dairy industry by way of research, teaching, extension, administration and development may be awarded the Fellowship of the Association. Number of fellowships awarded each year shall not exceed four. Supporting documents must be given with the names and addresses of at least three persons familiar with the nominee or the nominee's work, who may be contacted for further reference.

Nominations for all these awards should be sent by email or post at the earliest but **NOT LATER THAN 30 NOVEMBER, 2019** to: Dr. G.S. Rajorhia, President, Indian Dairy Association, IDA House, Sector IV, R.K. Puram, New Delhi 110 022.  
Phone: 26170781, 26165237, 26165355. Email: [idahq@rediffmail.com](mailto:idahq@rediffmail.com)

### **9.3: 97th Foundation Day of ICAR-NDRI Bangalore Celebrated on 1st July 2019**

The 97th Foundation Day of ICAR-NDRI was celebrated on 1st July at SRS of ICAR-NDRI, Adugodi, Bengaluru under the aegis of Alumni Association, ICAR-NDRI (SRS), Bengaluru. Dr. K.P. Ramesha, Head, ICAR-NDRI (SRS) & President Alumni Association presided over the function. Prof. Alok Dhawan, Director, CSIR-Indian Institute of Toxicology Research (IITR), Lucknow was the Chief Guest and Dr. Suresh Honnappagol, Former Animal Husbandry Commissioner, Govt. of India, New Delhi was the Guest of Honour. Dr. N. Balaraman, Former Vice-Chancellor, TANUVAS, Chennai, in his Foundation Day Lecture traced the history of ICAR-NDRI and vistas of its growth over the period of 96 long years in the service of dairy sector of India. Prof. Dhawan also congratulated NDRI for its fruitful 96 years of service in the cause of dairying, and complimented the the NDRI and SRS of NDRI in developing technologies in both production and processing fields.. Dr. Suresh Honnappagol stated that NDRI was always in the forefront in dairy research & education and SRS had been contributing significantly in the area of indigenous cattle improvement and traditional dairy products of the Southern region. The Inaugural session was followed by the workshop on the theme "Quality Assurance and Safety of Dairy Products – An Update on FSSAI Regulations". The workshop was attended by about 100 delegates from various parts of the country.

#### **9.4: ICAR- NDRI Ranked First amongst Agricultural Universities**

ICAR-National Dairy Research Institute, Karnal has been ranked 'first' among 72 Agricultural Universities of India including State Agricultural Universities, four Deemed Universities of ICAR and Central Universities with agriculture faculty. The award was received on 16th July, 2019 by Dr. R.R.B. Singh, Director, ICAR-NDRI, Karnal at Delhi from Hon'ble Union Ministers for Agriculture and Farmers Welfare Shri Narendra Singh Tomar. Dr. R.R.B. Singh said it was a moment of pride for the NDRI. "The institute has achieved a landmark success for developing several technologies," he added.

#### **9.5: Dairy Sector to Boost Employment in J&K**

The Government of India will develop the dairy and animal husbandry sector to create employment opportunities in Jammu & Kashmir. Recently, Managing Director of GCMMF Dr. R.S. Sodhi met Governor Mr. Satya Pal Malik in Srinagar to apprise him of the plans for dairy development in the State. The Governor expressed the desire to strengthen the milk cooperatives in the State. Dr. Sodhi accompanied by the Board of Directors of the Jammu and Kashmir Milk Producers' Cooperative Ltd (JKMPCL), also met the Chief Secretary of the State Mr. B.V.R. Subrahmanyam for expanding the coverage of dairy sector. Amul is said to be extending support in technology, management and procurement systems. As J&K's dairy sector has been beset by challenges of low remuneration, costly milk production, competition from private dairy players, and farmers losing interest in animal husbandry for years, JKMPCL plans to ramp up its capacity to about 5 lakh LPD in the next three years, and is also looking to set up two plants for paneer and ice-cream with Central Government support.

#### **9.6: Desi cattle numbers show decline**

According to provisional 2019 livestock census report, the data of which is still under scrutiny and validation, India's indigenous cattle numbers continue to decline, despite government's efforts to promote conservation and rearing of Desi breeds through schemes like the Rashtriya Gokul Mission (RGM) etc. The country's total population of indigenous and nondescript cattle is estimated at 139.82 million. This is a 7.5 per cent drop over the previous 2012 census figure of 151.17 million and consistent with the falling trend since 1992, when it peaked at 189.37 million.

In contrast, the exotic and crossbred cattle population has jumped by 29.5 per cent, from 39.73 million in 2012 to 51.47 million in 2019. The increase is more than 238 per cent. This is a reflection of farmer preference for animals yielding more milk. A typical desi Gir, Sahiwal or Red Sindhi cow gives only 1,500-2,000 litres over a 300-305 days lactation cycle, compared to 7,000-8,000 litres by exotic breeds such as Holstein-Friesian and Jersey and 4,000-4,500 litres of crossbreds. Also, the average age of first calving/lactation for exotic/crossbred cows is only about 28 months, as against more than 40 months for desi breeds.

**9.7: Government's new idea to boost rural economy: Cow start-ups:** Cow-centric start-ups are the Narendra Modi government's new idea to revive the rural economy, and the Rashtriya Kamdhenu Aayog, formed just four months ago under the interim budget, is making efforts to make it work. The government plans to encourage entrepreneurs who are willing to establish new start-ups for marketing of cow-based products and to adopt new technology and expertise, Rashtriya Kamdhenu Aayog's Chairman Mr. Vallabh Bhai Kathuria said. The commission also plans to provide cow shelters, or gaushalas, with assistance — either in the form of new technology or finance or credit facility — to rear cows and bring cow-based products to the market, looking to meet the challenge of creating new jobs in the rural economy. The commission has drawn up plans to ensure availability of at least one cow in each rural household, said Mr. Kathuria. The Rashtriya Kamdhenu Aayog was allocated Rs. 500 crore in the interim budget, with a mandate to ensure indigenous cattle preservation.

With rural youth migrating to big cities in large numbers in search of jobs, the Modi government now wants to introduce cow rearing as a supplementary factor, beside agriculture, to boost the rural economy. For this, the government will not only provide economic assistance to entrepreneurs in the form of credit facility, but also help them in marketing their Cow-based products and easing their access to the market places.

According to Mr. Kathuria, enough isn't being done to popularize and expand new techniques like making of soaps and mosquito repellent from cow urine and transforming cow dung into organic fertilizer and handmade paper. Some NGOs are working on marketing of cow-based products on a minuscule level, but the commission now wants to introduce the start-up culture in this domain and strive for large scale marketing and distribution of cow-based products. Big entrepreneurs can also participate in this plan by setting up bio gas plants operated on cow urine. The government will extend soft loan facility to co-operatives and self-help groups for this, with a 12-year repayment schedule and low interest rates.

**9.8: Anand Agricultural University (AAU) makes lactose-free milk using indigenous technology to develop:**

India is the world's largest milk producer, but ironically some people cannot digest milk or its products, a condition commonly known as lactose intolerance. Using indigenously developed technology, scientists at Anand Agricultural University (AAU) have made lactose-free milk. At present, most dairy majors in the country are dependent on synthetically developed enzymes imported from countries like Denmark to prepare lactose-free milk. Most of them are also dependent on the imported technologies to prepare this milk by mixing the chemically synthesized enzymes. The technology developed at AAU in its laboratory under 'Make in India' project, if scaled up by the dairy unions, can completely stop dependence on imports. Amul has already welcomed this new innovation. Dr. R.S. Sodhi, Managing Director, GCMMF said that we

would surely like to be the first one to use this technology which is available next door. Earlier, the problem was the availability of lactose free milk. Now, there is so much demand that we have to ensure that there is enough supply. At most of the major or minor outlets, lactose-free milk has become a must

### **9.9: Stringent law needed to check milk adulteration, says Shri Giriraj Singh**

The Centre has expressed concern over adulteration in milk and asked cooperatives to suspend those who are found to be engaged in such bad practices. Minister of Animal Husbandry, Dairying and Fisheries Shri Giriraj Singh said there is a need to make stringent laws to check adulteration in milk. Addressing a conference, he said that the government would review the current quality standards applicable for the dairy industry. There is also plan to regulate cattle feed industry, as it is also considered as a source of chemical contamination in milk.

### **9.10: KMF started milk fortification with vitamin A and D**

Karnataka Milk Federation (KMF) is procuring on an average of 76 lakh liters of milk daily from the farmers of state and making payment of 18 crores of rupees daily to state dairy farmers. Milk procured from the farmers is processed into various milk & milk products and marketed under the brand “Nandini” for last 4 decades. The Report of the expert group of ICMR in 2012 and the recent survey by ‘National Nutrition Monitoring Bureau (NNMB)’ have stated that Indian population has deficiencies of Vitamin A and D, amongst both young children and adults, particularly in urban areas. Vitamin A & D deficiency in India is an issue related to vision, bone health etc Hence Food Safety and Standards Authority of India (FSSAI), Govt. of India has issued orders to fortify the milk, since milk is consumed by all sections of the society, and fortification of milk with Vitamin ‘A’ and ‘D’ is a good strategy to address micronutrient malnutrition. Fortification of milk with Vitamin ‘A’ and ‘D’ is necessary in India to overcome the widespread deficiencies found in 70-80% of population.

As of now, KMF is marketing 40 lakh litres of Milk across the state through our district milk unions per day, In this context, KMF has taken a pioneering step and started fortification of Nandini Toned Milk, Double Toned Milk, Special Toned milk and Standardized Milk with Vitamin A & D with the support of NDDB and TATA trust to overcome the hidden hunger of people with no additional cost to consumers of Nandini milk. Fortified milk is marketed with FSSAI endorsed ‘+F logo’ across the state under the brand name ‘Nandini’ covering large population of Karnataka.

## 10. SCIENCE, HEALTH & Society

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### 10.1: Ten Medical Myths We Should Stop Believing; Doctors, too.

Researchers identified nearly 400 common medical practices and theories that were contradicted by rigorous studies. Here are some of the most notable findings.

You might assume that standard medical advice was supported by mounds of scientific research. But researchers recently discovered that nearly 400 routine practices were flatly contradicted by studies published in leading journals.

Of more than 3,000 studies published from 2003 through 2017 in JAMA and the Lancet, and from 2011 through 2017 in the New England Journal of Medicine, more than one of 10 amounted to a “medical reversal”: a conclusion opposite of what had been conventional wisdom among doctors.

“You come away with a sense of humility,” said Dr. Vinay Prasad of Oregon Health and Science University, who conceived of the study. “Very smart and well-intentioned people came to practice these things for many, many years. But they were wrong.”

Some of those ideas have been firmly dislodged, but not all. Now Dr. Prasad and his colleagues are trying to learn how widespread are discredited practices and ideas.

Here are 10 findings that contradict what were once widely held theories.

- Peanut allergies occur whether or not a child is exposed to peanuts before age 3.

Pediatricians have counseled parents to keep babies away from peanuts for the first three years of life. As it turns out, children exposed to peanuts before they were even 1 year old have no greater risk of peanut allergies.

- Fish oil does not reduce the risk of heart disease.

At one point, the notion that fish fats prevented heart trouble did seem logical. People whose diets contain a lot of fatty fish seem to have a lower incidence of heart disease. Fatty fish contains omega-3 fatty acids. Omega-3 supplements lower levels of triglycerides, and high levels of triglycerides are linked to an increased risk of heart disease. Not to mention that omega-3 fatty acids seem to reduce inflammation, a key feature of heart attacks.

But in a trial involving 12,500 people at risk for heart trouble, daily omega-3 supplements did not protect against heart disease.

- A lifelike doll carried around by teenage girls will not deter pregnancies.

These dolls wail and need to be “changed” and “cuddled.” The idea was that girls would learn how much work was involved in caring for an infant. But a randomized study found that girls who were told to carry around “infant simulators” actually were slightly more likely to become pregnant than girls who did not get the dolls.

- Ginkgo biloba does not protect against memory loss and dementia.

The supplement, made from the leaves of ginkgo trees, was widely used in ancient Chinese medicine and still is promoted as a way to preserve memory. A large federal study, published in 2008, definitively showed the supplement is useless for this purpose. Yet ginkgo still pulls in \$249 million in sales. Did people just not get the message?

- To treat emergency room patients in acute pain, a single dose of oral opioids is no better than drugs like aspirin and ibuprofen.

Yes, opioids are powerful drugs. But a clinical trial showed that much safer alternatives relieve pain just as well among emergency room patients.

- testosterone treatment does not help older men retain their memory.

Some men have low levels of testosterone and memory problems, and early studies had hinted that middle-aged men with higher testosterone levels seemed to have better preserved tissue in some parts of their brains. Older men with higher testosterone levels also seemed to do better on tests of mental functioning.

But a rigorous clinical trial showed that testosterone was no better than a sugar pill in helping older men avoid memory loss.

- To protect against asthma attacks, it won't help to keep your house free of dust mites, mice and cockroaches.

The advice from leading medical groups has been to rid your home of these pests if you or your child has asthma. The theory was that allergic reactions to them can trigger asthma attacks. But intensive pest management in homes with children sensitized to mouse allergens did nothing to reduce the frequency of their asthma attacks, researchers reported in 2017.

- Step counters and calorie trackers do not help you lose weight.

In fact, the reverse is true. Among 470 dieters followed for two years, those who wore devices tracking the steps they took and calories they burned actually lost less weight than those who just followed standard advice.

- Torn knee meniscus? Try physical therapy first, surgery later.

An estimated 460,000 patients in the United States get surgery each year to fix knee cartilage that tears, often because of osteoarthritis. The tear is painful, and many patients fear that if it is not surgically treated, the pain will linger.

But when patients with a torn meniscus and moderate arthritis were randomized to six months of physical therapy or surgery, both groups improved, and to the same extent.

- If a pregnant woman's water breaks prematurely, the baby does not have to be delivered immediately.

Sometimes, a few weeks before a woman's due date, the membrane surrounding her fetus ruptures and amniotic fluid spills out. Obstetricians worried that bacteria could invade what had been a sterile environment around the fetus, causing infection. Better to deliver the baby immediately, doctors thought.

But a clinical trial found that if obstetricians carefully monitor the fetus while waiting for labor to begin naturally, the fetus is at no greater risk for infection. And newborns left to gestate were healthier, with less respiratory distress and a lower risk of death, than those who were delivered immediately after a break.

(By Gina Kolata, July 1, 2019)

## 10.2: Menstrual cups found to be a safe alternative to traditional sanitary products

A review of 43 studies with data from more than 3,300 people globally finds that menstrual cups are a safe alternative to other sanitary products. Four of the studies compared leakage using menstrual cups versus other products, including tampons and pads, and found no significant differences. Women using cups also didn't experience more harmful side effects, although some women did develop rashes or had trouble using a cup if they also had an intrauterine device. Nearly 200 brands of menstrual cups exist, and they're also about 95% cheaper than using other products. But information about them isn't easily available: Only about a third of educational websites that offer information on puberty and menstruation contained information about menstrual cups, prompting researchers to suggest that details ought to be made more widely available.

STAT: Morning Rounds <[newsletter@statnews.com](mailto:newsletter@statnews.com)>

## 10.3: Nearly 3 million pregnant women and newborns die yearly: WHO

A new WHO report finds that although fewer pregnant women and newborns are dying prematurely, some 2.8 million of them die every year. Between 2000-2017, the ratio of maternal deaths per 100,000 births dropped by 38% worldwide. At the same time, nearly 300,000 women died during or after pregnancy in 2017, and most of these deaths were in low-income settings and were preventable. When it comes to child mortality, the overall rate for children under 5 decreased by nearly 60% since 1990, although the share of neonatal deaths within this group increased. According to the report, the current pace of progress will mean that many countries won't meet the UN's 2030 goals for



maternal and childhood mortality — more than 1 million women will die if the targets aren't met, as will some 10 million children under the age of 5.

STAT: Morning Rounds <[newsletter@statnews.com](mailto:newsletter@statnews.com)>

#### **10.4: Current medical education may not sufficiently train doctors on nutrition**

A review of 24 studies from all around the world finds that nutritional education is not well-incorporated into the medical school curriculum. The findings could mean that doctors in training are not sufficiently trained to help patients with nutrition-related care, which often affects other aspects of health. The studies included in the review asked recent medical school graduates about their nutrition knowledge and attitudes about receiving related information at school, and many students reported that they didn't get enough such information during their education. In at least one study, fewer than half the students who were tested on their nutrition knowledge received a passing grade. One limitation: Many of the studies included in the review had small sample sizes, which could undermine how broadly applicable the findings are.

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#### **10.5: Heart infections tied to opioid drug use doubled in the past 14 years**

Those who abuse drugs are at an increased risk of an infection of the heart, known as infective endocarditis, and new research finds that the ongoing opioid epidemic in the U.S. may have led to a doubling in the condition's prevalence. Looking at data from 2002-2016 and nearly 1 million people who were hospitalized with infective endocarditis, researchers found that the prevalence of the condition in drug abusers increased from 8% at the beginning of the study period to 16% in 2016. These increases happened around the U.S., although states in the Midwest saw the highest jumps. Those with infective endocarditis related to drug abuse were also predominantly younger, white men who were from poorer backgrounds. "We believe these findings are alarming from a public health standpoint and outline the need for an immediate tailored action plan," the study authors write.

STAT: Morning Rounds <[newsletter@statnews.com](mailto:newsletter@statnews.com)>

#### **10.6: Ukraine Reports Tetanus and Measles**

**Tetanus:** Five cases, one death: Ukraine health officials are reminding the public to ensure they are vaccinated against tetanus as five cases, including one death in 2019 to date. Two of the five patients are children. Cases were recorded in Kyiv region, Mykolaiv region, Vinnytsia region, Lviv region and Transcarpathia. Fortunately, the number immunized against tetanus has increased—in 2016, the vaccination rate of tetanus to children up to one year was only 21 percent, while in 2018 this figure reached 69.3 percent. However,

as Ukrainian officials note, there is no herd immunity for tetanus as it is not a contagious disease-therefore everyone needs

**Measles: More cases in 1st six months than all of 2018:**

Ukraine reports more measles in 1st six months this year than all of 2018.

According to the national vaccination calendar, vaccine for the prevention of tetanus in children is required at the age of 2, 4, 6 and 18 months (four vaccinations). At age 6 and 16, revaccination is required. In the future, the adult should be revaccinated every 10 years with the ADP-M vaccine, which forms the immunity against diphtheria and tetanus. The only way to protect yourself from tetanus is by vaccination. Immunity after the disease quickly disappears, and there is a chance of re-infection, so vaccination is required, even if you are ill. (NewsDesk@infectiousdiseasenews)

## **10.7: Seven Deadly Sins of Food for High Blood Pressure**

You don't need us to tell you that high blood pressure is bad news. It's common knowledge, but do you know what you should be doing about it?

There's a ton of research out there which tells us what to eat and what to avoid to keep our blood pressure healthy, but it can often be hard to find among all the 'noise' that exists.

Ads and articles for diet fads and superfoods are often 'here today and gone tomorrow'. There's a constant churn of information in the advice industry that's often there just to get attention.

If you can manage to keep these things out of your mouth (especially if you have high blood pressure) you'll be well on your way to getting a healthier cardiovascular system.

1- Alcohol - Ever had a friend tell you that one glass of wine is good for you, then look on in disbelief as they fill a glass for you that almost holds the entire bottle? Friends like that are great, but a large global study published in UK medical journal, The Lancet has confirmed that actually, there is no safe level of alcohol consumption.

2- Frozen foods- Freezing freshly-picked vegetables is perfectly okay, and if that's all supermarkets were packing in their freezer aisles then you'd be fine. A bag full of rock-solid veg is a great buy for your body, but you'll want to avoid the less innocent packages that also lurk in the cabinets—if you know what's good for you.

There are plenty of pre-prepared meals laced with salt, sugar and a laundry list of chemicals which masquerade as food, so with some of them you might be better off eating the package they came in instead of food! You'd like to think that they're simply good food that's been frozen at the perfect moment, but they're often sullied with preservatives and flavorings straight out of the laboratory. So, check the label before you put anything in your shopping cart.

**3- Canned foods-** In 1974, canned foods were recovered from the wreck of the Bertrand, a steamboat which went down in the Missouri river in 1895. When cans were opened the contents may not have smelled or tasted great, but after 109 years, analysts couldn't find a single microbe growing inside them. Even after all that time, the food was still edible!

Canned food is convenient, cheap, and it lasts a long time, but the foods themselves are often processed before they're sealed into their airtight containers, which means many of them come with a heavy dose of salt and sugar.

If you do have to eat from a can then you can make it a healthier experience by washing the contents thoroughly, as most of the sodium content is dissolved in the water.

**4- Prepared "Mediterranean" foods-** When you hear the word 'Mediterranean diet' you probably think of sun-kissed vineyards, lush salads, fresh fish and fine cheeses. And that's what manufacturers want you to think. It's a label that helps them sell frozen, canned, boxed and freeze-dried foods that come loaded with extra chemicals, sodium, and sugar and which have also had the vitamins and other nutrients cooked out of them.

'Always check the label' if you can, but if you can't then just avoid the stuff altogether, just to be on the safe side.

**5- Instant foods and food additives-** Oatmeal wasn't born 'instant'. It gets that way because it's rolled and flattened between cylinders, pre-cooked, sweetened and flavored. In other words, it's processed to within an inch of its nutritional life and then packaged to look as if it's natural and good for you.

Many other foods suffer a similar fate, so any time you see the word "quick" in the title, be on your guard. Be suspicious of food additives like stock cubes and sauces that can sit in your fridge or cupboard 'forever' without going off. They usually come with extra sodium that should be avoided if you have hypertension.

**6- Carbonated soft drinks-** Many people consume canned and bottled sodas without a second thought. They're almost everywhere you look, in vending machines, offered as part of 'meal' deals at fast-food outlets and they take up entire aisles in the grocery store. They're also cheap, so it's no wonder they're popular, but they're also drinkable junk food that can harm your health.

A can of something like Sprite or Coke contains eight teaspoons, or 33g of sugar, which is ludicrous! Far better to drink water, which is what your body was designed for. But drink these all day and the sodium content (14.7mg) will help to dehydrate you as well as play havoc with your blood pressure.

Switching to diet soft drinks may seem like the healthy alternative, but they often contain aspartame, sucralose and other artificial sweeteners too, substances that have been shown to cause weight gain (how ironic!), diabetes and more. Your high blood pressure will not thank you for indulging in fizzy pop.

**7- "Energy" Drinks-** You can think of these as the 'evil twins' of regular carbonated drinks (which are pretty evil to begin with). Manufacturers throw everything they can think of into energy drinks; caffeine, sugar, taurine,

aspartame, and more. Some people have suffered from heart failure drinking these chemical cocktails in a can, while others experience symptoms of addiction and suffer from anxiety, agitation and sleep disturbances from drinking them.

Energy drinks can't really give you energy. They can only give you the illusion of energy, a false sensation that comes from sugar and adrenaline spikes that always end in a slump and the desire for more.

The big lie is that these denatured substances are food. They're pseudo-foods that taste nice and last a long time, but beyond this they have little to offer the body and are often harmful. If you want to experience how much of a hold they can have on you then try doing without them for a few days and see if you don't feel like an addict suffering from withdrawal!

Real food shouldn't do this to you. It should leave you feeling level, calm, and satisfied. Stick to foods that really are foods, that haven't been altered, added to, or taken away from, and see how much better you feel.

(Christian Goodman | Jul 14, 2019; Blue Heron Health News)

### **10.8: India Bans E-cigarette to Stop New Addiction**

Prime Minister Narendra Modi on September 29, 2019 said e-cigarettes have been banned to ensure this new form of intoxication does not destroy the demographically young country. In his monthly radio programme, Mann Ki Baat, Modi said a "myth" has been spread that e-cigarettes pose no danger. He said that these cigarettes do not spread odour as harmful fragrant chemicals are added to them. The latter pose a health hazard.

### **10.9: FDA 'should have acted sooner' on e-cigarettes, agency head tells Congress**

Speaking in front of a House subcommittee hearing, FDA acting Commissioner Ned Sharpless told lawmakers that the agency "should have acted sooner" to regulate the e-cigarette industry. He said the agency would "catch up," including by releasing a guidance document in the coming weeks to "dramatically impact" the flavored e-cigarettes market. Among the actions under agency consideration: sending warning letters to companies marketing flavored vaping products and fining companies for failure to remove products from shelves. Juul also made headlines ahead of the hearing: The e-cigarette giant said it plans to suspend advertising in the U.S., and that it won't lobby against a proposed ban on flavored vaping products. [newsletter@statnews.com](mailto:newsletter@statnews.com)

## 11. 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](mailto:rnkohli@gmail.com)

11.1: 36th Annual Conference of Indian Association of Veterinary Pathologists (IAVP), **Selesih, Aizawl, 796014, Mizoram, India, 6th to 8th November, 2019**, alongwith 10th Annual Meeting of Indian College of Veterinary Pathologists (ICVP) and National Symposium on “Advances in Veterinary Pathology for Fostering One Health , Food Security and Environmental Protection”. Jointly Organized by and Venue: Department of Veterinary pathology, College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Selesih, Aizawl, 796014, Mizoram, India in association with the Indian Association of Veterinary Pathologists and Indian College of Veterinary Pathologists.

11.2: International Conference on “Advancements in Veterinary Sciences for Wild Life Conservation”, **Hyderabad, India, 13th to 15th November, 2019**, alongwith the 13th Annual Meeting of the Association of Indian Zoo and Wildlife Veterinarians (AIZWV); O organized by and Venue: CSIR- Centre for Cellular and Molecular Biology (CCMB), For details contact: Mobile: 91-7674843969; 91-9885370644; Email: [advetcon2019@gmail.com](mailto:advetcon2019@gmail.com)

11.3: 43rd Annual Congress of Indian Society for Veterinary Surgery, **Hisar, Haryana, India, November 14-16, 2019**. along with National Symposium on “Recent Advances on Amelioration of Anaesthetic and Surgical Stress in Farm and Companion Animals”. **Venue:** Department of Surgery and Radiology, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004 For details please contact: Dr Ashok Kumar, Organizing Secretary, Mobile: No. 91-9416044143; Phone: 01662-256122; Email: [isvshisar2019@gmail.com](mailto:isvshisar2019@gmail.com)

11.4: 18<sup>th</sup> Convocation-cum-Scientific Convention of NAVS (I), **Gandhinagar, Gujarat, December 26-27, 2019** on “Futuristic Technologies in Animal Health and Production”, Organized by Kamdhenu University. Contact for details: Dr. D. B. Patil, Director of Research, Kamdhenu University, **Phone : 079-232-20714** ; Email: [dr@ku-guj.com](mailto:dr@ku-guj.com);

11.5: Feed Tech Expo, **GADVASU, LUDHIANA, 7- 8 February 2020**; For details contact: Email: [feedtechexpo@gmail.com](mailto:feedtechexpo@gmail.com); Web: [www.feedtechexpo.com](http://www.feedtechexpo.com)

11.6: International Conference on Virology - **VIROCON, 18-20, February, 2020**; Organized by Indian Virological Society. Theme: Evolution of Viruses and Viral diseases.

For details Contact: Organizing Secretary Dr. V.K. Baranwal, +91 9818756899, or Co-organizing Secretaries: [virology.ivs.net.in](mailto:virology.ivs.net.in); [www.virocon2020.com](http://www.virocon2020.com)

11.7: 48<sup>th</sup> Dairy Industry Conference, **20 - 22, February, 2020, Birla Auditorium, Jaipur, Rajasthan**. Organized by IDA (North Zone) on the Theme: "Dairying for Health and Wealth". For More Information: [jaipur48dic@yahoo.com](mailto:jaipur48dic@yahoo.com).

11.8: 36th World Veterinary Association Congress 2020, **6-8 April, 2020**, in **Auckland, New Zealand**. It will be hosted in conjunction with the highly successful NZVA Annual Conference and will bring veterinarians from all over the world to Auckland to share ideas, learn and to have fun. The congress will explore and seek solutions to some of the biggest animal health and welfare challenges facing all species in the fast changing world.

The WVAC 2020 programme will focus primarily on clinical veterinary medicine, veterinary public health, animal welfare and academic research across all domestic species. Other topics to be covered include companion animal nursing, large animal veterinary technicians and equine. At the World Veterinary Association Congress 2020 in Auckland there will be a specific space for academic posters where researchers and clinicians can share their findings in a poster session.

Contact for details: <https://www.wvac2020.com/>

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