

**Proceedings of the Brain Storming Session on "Haryana Livestock and Dairy Sector: Present Status and Future Road Map" held under the Chairmanship of Dr. R. S. Paroda, Chairman, Haryana Farmers' Commission and Former DG, ICAR at National Dairy Research Institute, Karnal at 10.00 am on 9th Sept., 2010.**

The Brain Storming Session on "Haryana Livestock and Dairy Sector: Present Status and Future Road Map" was held at NDRI, Karnal under the Chairmanship of Dr. R. S. Paroda, Chairman, Haryana farmers' Commission and Former DG, ICAR. The list of officers who participated in the Brain Storming Session is enclosed as **Annexure I**.

In his opening remarks Dr. Paroda, Chairman of the Farmer's Commission highlighting the importance of Livestock mentioned that the agriculture is major livelihood in State of Haryana, but the livestock is built in the culture of Haryana. Due to pressure on the crop sector for food security, in the past there has been imbalance in allocation of resources for the development of livestock, which needs to be undone in view of the contribution of livestock to the overall economy of the country. In view of the decelerating growth rates in crop production, emphasis needs to be given to other sectors besides agriculture to ensure sustainability. There is need to bridge the gap between research and development through appropriate knowledge sharing with the stakeholders i.e. farmers in general and livestock keepers in particular. Thereafter, he flagged certain issues for discussion during the session.

1. Murrah, the world famous breed of buffalo which is native of Haryana, need to be properly characterized at molecular level, documented, conserved and improved.
2. There is also urgent need for maintenance and genetic improvement of local breeds of cattle including Haryana and Sahiwal.
3. In view of the fact that feed cost is a major component of the livestock production system, there is need to ensure the availability of quality seeds of forage crops to the farmers.
4. How can we promote value addition to the livestock produce, and link the farmers to the market to ensure global competitiveness?
5. How can small dairy units be established through cooperatives or self-help groups to empower the farmers for production of value added milk products?
6. How can the farmers be served by sharing knowledge for technology transfer without dissemination loss of the knowledge?
7. How the support services can be provided to the farmers through competent /trained technology agents located in the villages?

Thereafter, Dr. A. K. Srivastava, Director, NDRI made a presentation on the "Present Status of Livestock and Dairy Sector in Haryana". In his presentation he emphasized that the contribution of livestock sector to agriculture in Haryana was the tune of 38%, far ahead of

livestock contribution to agriculture at the national level, which stands at 28%. He further highlighted that the State had 6.16% of total buffalo population of the country. While dwelling on the dynamics of population growth he brought out that the cattle population was decreasing whereas the buffalo population had increased over last two decades. He compared the animal production scenario in Punjab, where per capita milk availability is higher (about 1 liter) as compared to Haryana as against 250 gm at all India basis. He also presented the information on egg production in both the States. Regarding the feed and fodder availability it was mentioned that in Haryana 9.21% of the total land available for agriculture (127.608 million hectares) was under fodder crops. He also brought out the challenges of enhancement of livestock productivity through application of sexed semen to control the sex in desired direction, enhance the extent of processing of milk, improve livestock support services at farmer's door steps, promote indigenous livestock breeds, promote self employment generation in dairy sector by establishment of hi-tech units and introduce Livestock insurance schemes.

Dr. K. S. Dangi, Director General, Animal Husbandry & Dairying, Haryana in his presentation highlighted that 95% of the livestock is in rural areas and 40.7% of households rear livestock in Haryana. He informed the house about the impressive livestock health and breeding infrastructure available in Haryana State. He said that by providing animal support services at the farmers' door steps, let us fix a modest target of 50% conception rate. He further highlighted that Haryana is number one in exported buffaloes and his major concern was that top 10% of the animals were exported out of the State. There was a need to develop package of practices for meat production from the surplus male/female buffaloes in the State. He informed the house that due to continuous efforts of department of Animal Husbandry & Dairying, FMD has been eradicated and the efforts are being made to focus on eradication of Brucellosis. He also appraised the house about the *in situ* conservation of Murrah buffaloes and the progeny testing programmes in the State that have resulted in production of about 1370 bulls till date and also hoped the department will be able to give 25000 bulls to the country in the next five years. He highlighted that infertility was one of the major challenge amongst buffaloes causing a total annual loss of 2500 Crores to the farming community and the department has taken a massive program to address this issue in the field through nutritional and hormonal intervention. He further informed the house that the department was making efforts to introduce AI with imported sexed semen of Holstein Friesian bulls and to test the efficacy of sexed buffalo bull semen under field conditions. Efforts are being made to get such sexed buffalo bull semen from Italy, before such facilities could be created in the State. To enhance the AI coverage from the current level of 50% of the breedable female population to 90% of the breedable population, effective training programmes are being organized for the rural youth, to provide 24 hour services at the farmer's door steps.

Dr. M. P. Yadav, Former Vice Chancellor, Sardar Ballabh Bhai Patel University of Agric.&Tech. Meerut, suggested that before the livestock improvement strategies are worked out there is need to conduct proper SWOT analysis. He emphasized to properly characterize the buffalo milk qualitatively in terms of the CLA content and the A2 type Beta-Casein and to capitalize these qualities for commercial exploitation. He suggested that livestock policy of Haryana should have two simultaneous goals short-term and long-term goals.

Dr. S. L. Goswami, informed the house that the studies carried out at NDRI had revealed that all the breeds of buffaloes studied so far, had A2 type quality of milk. He also informed the house that the techniques of cloning developed at NDRI have resulted in birth of three live cloned buffalo calves and it could be very effectively used for faster multiplication of superior germplasm of desired sex.

Dr. R.K. Sethi, Director, CIRB informed that CIRB is running a progeny testing programme both at farm and field level under Network project involving several ICAR Institutes and State Agriculture Universities. He also informed that the conception rate of 47%, based on 30000 Als has been achieved, against the target of 50%. The Institute is also exploring the possibilities of use of surplus buffaloes male calves for meat production.

Dr. B. K. Joshi, Director, NBAGR emphasized the need of *in situ* conservation for genetic improvement of cattle in Goushalas which had a large number of Haryana cattle. He also emphasized the application of molecular approaches for genetic improvement of cattle and buffaloes.

DR. T. K. Walli suggested that the complete feed block technology could be adopted at village level through establishment of feed block machine at community level. As a matter of policy, the burning of crop residues and export of oil seed cakes should be stopped to make these ingredients available for livestock feeding. There is also need to work on the varieties of wheat for better straw quality.

Dr. B.S. Prakash informed that the technologies of oestrus synchronized and fixed AI, developed at the Institute and tested at the field level with the help of Animal Husbandry and Dairying, Department of Haryana, should now be tested on large number of animals.

Dr. Dilip Gosain, Head, KVK informed that earlier NDRI used to run a 45 days training programme on "Veterinary first-aid and AI" to rural youth for providing the livestock support services at the field level but the same was discontinued.

These issues were deliberated in detail by all members participating in the Brain Storming Session. Dr. R.S. Paroda in his concluding remarks summarized the consensus reached during the session as under:

- There is a need to bring out “Haryana Agriculture Policy” which should also include the “Comprehensive livestock policy”. A working group should be constituted on livestock to develop the strategy paper, with vision of next 20 years.
- There is need to allocate the funds for R&D for livestock sector, commensurate with its contribution to GDP.
- NDRI & Animal Husbandry Department in collaboration, should work out proper modules for the training of para-vets in AI to meet the future demands for suitably technical trained persons in A.H. Sector.
- NDRI should think of restarting the National Dairy Diploma programmes to meet the future demands of technical manpower for dairy industry.
- NDRI should collaborate with Department of Animal Husbandry & Dairying, Haryana, in the ongoing trials with imported sex semen.
- There is need to develop long term strategies for breeding, feeding, management and marketing issues for livestock sector and there is a need to organize the dairy farmers into societies/self help groups to have organized dairy sector, NDRI should develop suitable modules for the same.
- There is also a need to impose inter-state quarantine for the said purpose.
- NDRI should submit a project on “Comparative Studies on production and cost of milk production scenario in Haryana and Panjab” for funding to the Department of Animal Husbandry & Dairying, Haryana
- Department of Animal Husbandry & Dairying in collaboration with NBAGR should arrange DNA finger printing of elite buffaloes yielding 13 litres or more milk per day.
- It was strongly felt that such meetings between Research organizations and State development agencies should be frequently, preferable on six monthly basis, be organized.

Meeting concluded with thanks to chair and participants for their valuable contributions.

**List of Officers participated in Brain Storming Session**

1. Dr. R. S. Paroda, Chairman, Haryana Farmers Commission, Hisar
2. DR. R. S. Dalal, Member-Secretary, Haryana Farmers' Commission, Hisar
3. Dr. K. S. Dangi, Director General, Animal Husbandry & Dairying.
4. Dr. M.P. Yadav. Former Vice-Chancellor, Sardar Ballabh Bhai Patel University of Agric.&Tech. Meerut.
5. Dr. A. K. Srivastava, Director, NDRI, Karnal
6. Dr. B. K. Joshi, Director, NBAGR, Karnal
7. Dr. R. K. Sethi, Director, CIRB, Hisar
8. Dr. Gurmeet Singh, Deputy Director, AH&D (Haryana), Karnal
9. Dr. Gajender Singh Jakhar, Chief Coordinator, Frozen Semen Technology, AH&D(Haryana), Panchkula,
10. Dr. S. L. Goswami, Joint Director (Research), NDRI, Karnal
11. Dr. T. K. Walli, 92, Sector 13, Urban Estate, Karnal
12. Dr. H.P. Tripathi, 1511, Sector 9, Urban Estate, Karnal
13. Dr. B.S. Prakash, Head, DCP Division, NDRI, Karnal
14. Dr. R.S. Gandhi, Head, DCB Division, NDRI, karnal
15. Dr. S.S. Kundu, Head, DCN Division, NDRI,Karnal
16. Dr. A.A. Patel, Head, DT Division, NDRI, Karnal
17. Dr. Rameshwar Singh, Head, DM, NDRI
18. Dr. A.K. Chakravarty, I/C ABRC, NDRI, Karnal
19. Dr. A.S. Harika, I/C FM Section, NDRI, Karnal
20. Dr. Shiv Prasad, I/C LPM, NDRI, Karnal
21. Dr.D.S. Sohi, I/C ATIC, NDRI, Karnal
22. Dr. D.K. Gosain, Training Organ, KVK, NDRI,Karnal
23. Dr. J.P. Dhaka, PS, DES&M Divn, NDRI, Karnal
24. DR. K.P.S. Tomer, Sr. Veterinary Officer, NDRI, Karnal
25. Dr. (Ms.) Smita Sirohi, PS, DES&M Divn., NDRI, Karnal and Coordinator