

**PROCEEDINGS and RECOMMENDATIONS**

***IX Annual Conference of Indian Society of Animal Genetics & Breeding***

**and**

***National Symposium  
On  
Livestock Genomics in Productivity Enhancement for Food  
Security***

***July 3 – 4, 2008***

**at**

***NASC Complex, DPS Marg, New Delhi-110 012***

***Organizers:***

***Indian Society of Animal Genetics & Breeding***

***CIRB, Hisar, Haryana (India) &***

***NBAGR, Karnal, Haryana (India)***

**PROCEEDINGS AND RECOMMENDATIONS OF THE IX ANNUAL CONFERENCE OF INDIAN SOCIETY OF ANIMAL GENETICS & BREEDING AND NATIONAL SYMPOSIUM ON LIVESTOCK GENOMICS IN PRODUCTIVITY ENHANCEMENT FOR FOOD SECURITY DURING JULY 3 – 4, 2008 AT NASC COMPLEX, NEW DELHI (INDIA)**

***Inaugural Session***

The IX Annual Conference of ISAG&B and National Symposium was inaugurated on 3<sup>rd</sup> July, 2008. Dr. Mangala Rai, Secretary, DARE and Director General, ICAR as Chief Guest. Prof. P.N. Bhat, Patron, ISAG&B was the Guest of Honour and Dr. K.M. Bujarbaruah, Deputy Director General (Animal Science), ICAR presided over the function.

Dr.R.K.Sethi, Director, CIRB & the Organizing Secretary welcomed the dignitaries and delegates. Dr.D.S.Chawla, Secretary, ISAG&B gave brief introduction about the Society while Dr.T.J.Rasool, ADG (AP&B) and President, ISAGB introduced the theme of the symposium. The Chief Guest in his inaugural address highlighted the importance of increasing productivity and also emphasized that since genes do not have any species specific barrier hence, application of genomic tools needs to be seen in view of the success stories in other species. The Souvenir and Compendium of Abstracts of the Symposium was released by the Chief Guest.

Dr.P.N. Bhat highlighted on whole animal cloning in conjunction with genomics to rapidly achieve the goals. He emphasized that the achievements of crossbreeding in cattle should not be ignored in spite of the limitations.

Dr. K.M. Bujarbaruah emphasized the need for better cohesion and understanding between the animal breeders and the geneticists to achieve higher productivity and better disease resistance. He also elaborated the importance of genome sequencing, expression arrays, SNP maps and QTL identification in disease resistance.

Dr. B.K.Joshi, Director, NBAGR and Co-Organizing Secretary proposed the vote of thanks.

## ***Technical Sessions***

The symposium had four (4) technical sessions, two poster sessions and a plenary session. The Technical Session - I “Animal Breeding – Challenges & Scope (Cattle & Buffaloes)” was chaired by Dr. R.M. Acharya and Co-chaired by Dr.C.S.Prasad, ADG (AN&P), ICAR. Dr.Dharmeshwar Das presented the lead paper y followed by invited papers and the oral presentations.

Dr. K.M. Bujarbaruah chaired the Technical Session – II “Animal Breeding - Challenges & Scope (Other Species)”. Dr. R.M. Acharya presented the lead paper followed by three (3) invited papers and oral presentations covering sheep, goat and poultry. The Technical Session – III “Livestock Genomics – Status, Opportunities and Strategies” was chaired by Dr. P.N. Bhat. This session had 2 lead papers, one by Dr. Satish Kumar from CCMB, Hyderabad and the other by Dr .R. K. Vijh from NBAGR, Karnal which were followed by four (4) invited and oral presentations.

Technical Session IV “Comparative and Functional Genomics in Animal Production and Health” was chaired by Dr. M.P. Yadav and co-chaired by Dr. Lal Krishna. The session had one lead paper presentation by Dr. S.L. Goswami, two (2) invited and oral presentations on production and health aspects. Two poster sessions, one on Animal Breeding and the other on Genomic research findings were also held.

The Plenary Session was jointly chaired by Dr. K.M. Bujarbaruah and Dr. P.N. Bhat. The panelists during the session were Dr. T.J. Rasool, Dr. S.L. Gowsami, Dr.R.S. Khatri and Dr. Arjava Sharma and rapporteured by Dr.R.K. Sethi and Dr.B.K.Joshi.

The rapporteurs of Technical sessions presented the session–wise recommendations. After thoughtful discussion, following recommendations were drawn:

1. A National Database and Animal Information Management system should be developed.
2. Animal identification and performance recording under field conditions needs to be effectively implemented.
3. SNPs developed for Bos Taurus cattle be validated in Indian Cattle and buffalo specific SNPs be identified and their utility for MAS established.

4. Establish resource population for cattle, buffalo, sheep and goat to facilitate gene mapping and validating QTL markers for production traits and disease resistance.
5. Human resource in statistical genomics and bioinformatics may be generated through training of scientists in reputed laboratories abroad.
6. Establish consortia of laboratories under ICAR set up to facilitate research in the area of nutrigenomics (in large and small ruminants).
7. For conservation and improvement of indigenous breeds, a network approach should be developed and implemented in collaboration with various stakeholders.
8. Breeding policy for improving prolificacy, growth and fibre production in different breeds of goats & sheep be formulated.
9. Use of non-conventional and locally available feed/fodder resources and agricultural by-products should be promoted through effective extension program.
10. Feed/fodder/seed banks should be established by concerned State Departments to meet the general and emergent requirements during draughts and flood.

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