



June 11, 2010

## **ICAR/Interbull meeting in Riga, Latvia from May 31 to June 4, 2010**

# Executive Summary

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Recently a joint annual meeting of Interbull / ICAR was held in Riga with 368 participants from 42 countries. Main issues at the Interbull Open meeting with 20 scientific reports were national and international developments in conventional genetic evaluation as well as in genomic evaluation. Business and Steering Committee meetings were held to follow up administrative matters and results presented by scientists and reviewed by the Technical Committee of Interbull. The strategic plan for future activities was also discussed to give priority to the urgent developments in the area of international genomic evaluations. It was decided to revise the fee structure for the Interbull services to accommodate also for inclusion of genomic information in future international genetic evaluations.

A joint session of ICAR and Interbull on genomics applied in livestock showed that genomic information is rapidly introduced into systems used for selection in dairy cattle. Chairman Reinhard Reents had asked A. Eggen from Illumina to inform about latest developments in SNP chip technology. Paul van Raden, USA, reported about the implications of using chips with different marker densities for genomic evaluation and Theo Meuwissen, Norway, reported about the impact of using genomic information on genetic gain and inbreeding for breeding programs. Interbull Centre Director João Dürr summarised the ongoing genomic developments within Interbull.

Implementation of genomic information in the Interbull portfolio got a large attention. As a first step, the Interbull Centre will offer a test for validation of protein yield effective August 9, 2010. Two research runs on a validation procedure have been conducted in early 2010 and the necessary refinements are incorporated in a final version that will be distributed from Interbull to national genetic evaluation centres on June 14. Results can then be sent back until July 5 and will be analysed by Interbull until August 9, 2010. The genomic evaluation systems that pass the test will then be displayed on the ICAR webpage in order to fulfil the requirements of the EC regulation 427/2006 for wide use of semen also from young sires.

Validation of all other traits of the Interbull portfolio will be added for a research run in early September 2010 for a review of the technical bodies and the Interbull steering committee in early October 2010. It is intended to offer a validation test for all traits in the future and the results will then be made public for general information.

The research runs for GMACE (MACE including genomic information) showed larger challenges than expected. It was therefore decided to first proceed with a simplified version of GMACE and test its properties, until the technical issues with the full GMACE system are solved. The research and development work on genomics at the Interbull Centre has been facilitated by support from EU and in collaboration with scientists of a number of countries. New methods are tested in a collaborative project involving Brown Swiss breed data from seven countries around the world.

It was also agreed that Interbull facilitates the exchange of genotyping information via a list of bulls, that displays in which location data on a given bull is stored. Through this list, bilateral exchange of DNA data is facilitated in order to avoid multiple genotyping of the same bull. In conjunction with these development an urgent need for standardisation of genotypic data formats was identified and Interbull / ICAR will work on standardised protocols in agreement with the providers of genotyping systems.

At the meeting results of a pilot project on international evaluations of beef cattle, Interbeef, were discussed. This project has primarily been sponsored by organizations in Ireland, France, UK and the Nordic countries and is driven by the beef working group of ICAR. A business plan for the future research and possible services is under development.

Due to the rapid developments in genomic evaluation and the applications in practical breeding programs the next meeting of Interbull will be organized as a workshop in the first quarter of 2011.

*R. Reents, J. Phillipsson and J. Dürr*