

Genomic Selection: Promise, experience, expectation

Johann Sölkner¹, Birgit Gredler¹, Hermann Schwarzenbacher², Johann Tanzler³,
Anamarija Frkonja¹, Gabor Meszaros¹ and Christa Egger-Danner²

Abstract

In February 2008 a project on genomic selection for Fleckvieh in Austria was started. The goals of the project were (i) the development of genomic evaluation procedures for Fleckvieh, (ii) the comparison of methods, (iii) check the utility of the technology to improve low heritability traits and (iii) the establishment of routine genomic selection including the logistics. Within the project 2000 bulls were genotyped using the Illumina 50k bead chip. Surprisingly, similar results were obtained when conceptionally very different methods (prune - bundle) were applied. As an outcome of the project first official

genomic breeding values for Fleckvieh were released in August 2011 and the new system is about to replace the traditional progeny testing system. Genomic selection proved to be efficient and is being implemented while the methodology is still not fully developed. In the meantime a new project commenced including also Pinzgauer, Tirol Grey and Brown Swiss.

Keywords

Animal breeding, Fleckvieh, genomic selection, Simmental

¹ Department für Nachhaltige Agrarsysteme, Institut für Nutztierwissenschaften, Gregor Mendel Straße 33, A-1180 WIEN
² ZuchtData EDV-Dienstleistungen GmbH, Dresdner Straße 89/19, A-1200 WIEN
³ Arbeitsgemeinschaft österreichischer Fleckviehzüchter, Pater Werner Deibl Straße 4, A-3910 ZWETTL
* Ansprechpartner: Johann SÖLKNER, johann.soelkner@boku.ac.at

