

The development of a system for inquiring genetic evaluation of international dairy bulls (SIGB) II. module for the quickly showing inbreeding coefficient of high quality bulls ⁽¹⁾

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Abstract

The system for inquiring genetic evaluation of international dairy bulls (SIGB system at: www.tlrihc.gov.tw) was built to served as a platform for dairyman. There were completely established pedigree records of 392,324 bulls in December 2014. In the study, a module for the quickly showing inbreeding coefficient of high quality bulls was developed. As long as the dairy farmers enter NAAB code, a follow-up table would list for the pedigree of the bull and his relatives as well as their related genetic disease test and quickly show their Inbreeding Coefficients. Statistical analysis using all bulls' pedigree data showed that had were a total of 128,712 bulls from 2000 to 2013, the average Inbreeding Coefficient increased from 4.98% in 2000 to 7.34% in 2013 with an average annual increase of 0.18%. Quickly showing the Inbreeding Coefficient of an available high-quality bull for breeding a cow selected provided information to predict the Inbreeding Coefficient of next generation to reduce the inbreeding depression. The use of imported frozen semen from the high-quality bulls that could prevent the dairy group coefficient increases in advance that was an important practice for dairy breeding strategies.

Key words: High-quality bulls, Pedigree, Inbreeding coefficient.

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