# The development of a system for inquiring genetic evaluation of international dairy bulls (SIGB) [1]
# I. Performance information query module of elite dairy bulls

Ji-Yi Chen [2][3] and Kuo-Hua Lee [2]

## Abstract

A system for inquiring genetic evaluation of international dairy bulls (SIGB) I. Performance information query module of elite dairy bulls was developed at website http://www.tlrihc.gov.tw. The purpose of this study was to establish a service platform providing information of international bulls to dairy farmers as a reference tool to select elite bulls to mate cows for improving dairy herd performance in Taiwan. This bull genetic evaluation module was based on dynamic web query mode to provide the user using National Association Animal Breeding code (NAAB code) to inquiry the basic information of the international certificated bulls and their traits which included milk production, type, management and linear functional type traits etc. The genetic evaluation database of SIGB integrated the international bulls genetic information from United States, Canada, Europe and other 27 countries. There were 93,598 head high-quality dairy bulls with genetic evaluation records. The bull genetic evaluation information from the United States was the highest proportion with 67,631 bulls (69.8%). The summarized mean and standard deviation and reliability (R%) of milk production (PTAM), milk fat yield (PTAF) and milk protein yield (PTAP) were 642 ± 778 kg, 32.8 ± 30.3 kg, 24.3 ± 2.8 kg and 75.1 ± 7.9%, respectively. Among the predicted transmitting ability of type traits (PTAT), udder composition (UDC), leg and feet composition (FLC), the summarized mean and standard deviation and R% were 1.45 ± 0.18, 1.31 ± 1.13, 1.58 ± 1.52 and 76.4 ± 6.7%, respectively. Management characters include somatic cell count score (SCS), productive life (PL month), daughter pregnancy rate (DPR%) and daughter calving ease (DCE%). The summarized mean and standard deviation and R% were 2.9 ± 0.2, 2.2 ± 2.6 months, 0.2 ± 1.3 and 6.8 ± 1.7 and 75.5 ± 8.0, respectively. The standard transmitting ability (STA) of the linear functional type traits which included rump angle (0.20 ± 0.96), rear legs side (-0.06 ± 0.94) and teat length (-0.09 ± 0.98) was close to the average of 0. The STA of other 15 type traits varied positive trend. This system would be able to assist dairy farmers based on cows performance to select elite bulls for corrective mating to promote genetic improvement of dairy herd milk production and their production life.

Key words: Elite dairy bull, Inquiring system, Predicted Transmitting Ability (PTA).