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Y. Terawaki, A. Nomura, H. Nagata, S. Yamaguchi, Y. Gotoh, Vincent
Ducrocq

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Y. Terawaki

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A. Nomura

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,

H. Nagata

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,

S. Yamaguchi

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,

Y. Gotoh

3

and

V. Ducrocq

4

1

Rakuno Gakuen University, 582 Midori_machi Bunkyo_dai, 069-8501 Ebetsu, Japan,

2

Hokkaido Dairy

Cattle Milk Recording and Testing Association, 4-1-1 Chuo_ku, 060-0004 Sapporo, Japan,

3

Holstein Cattle

Association of Japan, Hokkaido Branch, 15_5 Kita_ku, 001-8555 Sapporo, Japan,

4

INRA, UMR 1313,

Génétique Animale et Biologie Intégrative, 78352 Jouy en Josas, France;

terawaki@rakuno.ac.jp

Sire effects on functional longevity were compared depending on the proportion of cows having a type score (POTS) in the herd. The data was provided by the Hokkaido Dairy Milk Recording. The study period was from January 1, 1991 to December 31, 2007. Records of cows still alive at the end of the study period were considered as censored. Cows having a first calving before January 1, 1991 or after September 30, 2007 were excluded from the analysis. The final data set had 1,176,931 cow records. Longevity was defined as the number of days from first calving to culling or censoring date (LPL). The records were divided into 9 subsets depending on POTS (A:0%, B:0-10%, C:10-20%, D:20-30%, E:30-40%, F:40-50%, G:50-60%, H:60-80%, I:>80%) in the herd. Sire effects on LPL were estimated using the Survival Kit (V5.0) software. Sire variance was smallest (0.017) in subset B and largest (0.034) in subset I. A total of 505 sires appeared in these two subsets. Rank correlation between sire effects estimated in each subset was 0.364. Regression coefficient of sire effects in subset B on sire effects in subset I was 0.245. Three groups of 271, 63 and 15 sires were created by requiring 10, 100 or 500 daughters' uncensored records, respectively, in each subset. For these groups, regression coefficients of sire effects estimated in subset B on sire effects estimated in subset I were 0.311, 0.476 and 0.615, respectively. The corresponding rank correlations were 0.482, 0.754 and 0.764. These results show that the genetic component of LPL strongly differs between herds with low or high proportion of cows with a type score in Japan