Genomic prediction and genetic correlations estimated for milk production and fatty acid traits in Walloon Holstein cattle via random regression models

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SUPPLEMENTARY FILE

Supplementary Table S1. Descriptive statistics of test-day records for milk production and fatty acids (g/dL of milk) traits in first lactation Walloon Holstein cows.

Traits[1]	Mean	SD[1]	CV[1] (%)	Minimum	Maximum
Milk yield (kg)	23.32	5.63	24.15	3.40	78.00
Fat yield (kg)	0.91	0.21	23.07	0.10	2.83
Protein yield (kg)	0.78	0.19	24.35	0.11	2.51
Fat content (%)	3.95	0.54	13.59	2.28	8.87
Protein content (%)	3.39	0.29	8.71	1.91	4.95
C16:0 (x100)	1.26	0.23	18.84	0.67	1.91
C18:1 *cis*-9 (x100)	0.78	0.14	17.98	0.48	1.45
LCFA (x100)	1.59	0.25	16.27	1.00	2.70
SFA (x100)	2.80	0.45	16.31	1.27	4.48
UFA (x100)	1.23	0.20	16.29	0.66	3.19

[1]C16:0 = palmitic acid; C18:1 *cis*-9 = oleic acid; LCFA = long-chain fatty acids; SFA = saturated fatty acids; UFA = unsaturated fatty acids; SD = standard deviation; CV = coefficient of variation.

Supplementary Table S2. Structure of full, training and validation data sets with the total number of test-day records and number of genotyped animals for prediction analysis.

Dataset	Phenotypes	Genotypes
Full	302,684 test-days	14,915 test-days
	63,875 cows	2,865 cows
	3,707 sires	525 sires
	50,855 dams	1,153 dams
Training	285,507 test-days	14,043 test-days
	60,292 cows	2,695 cows
	3,556 sires	374 sires
	48,350 dams	834 dams
Validation	17,177 test-days	872 test-days
	3,583 cows	170 cows
	151 sires	151 sires
	3,478 dams	319 dams