

Table S1. Phenotypic (above diagonal, $\sigma_{P_1.P_2}^2 / \sqrt{\sigma_{P_1}^2 \sigma_{P_2}^2}$) and genetic (below diagonal, $\sigma_{a_1.a_2}^2 / \sqrt{\sigma_{a_1}^2 \sigma_{a_2}^2}$) correlation between traits for milk yield traits, with trait heritability (diagonal, $\sigma_{a_1}^2 / \sigma_{P_1}^2$) from the multi-trait model [where $\sigma_{a_1}^2$ (or $\sigma_{a_1.a_2}^2$) represents the genetic variance for trait 1 (or covariance between traits 1 and 2) and similarly $\sigma_{P_1}^2$ ($\sigma_{P_1.P_2}^2$) represents the phenotypic variance (or covariance) for the traits]. Standard errors for the estimates are shown in brackets.

	FY		MY		PY	
fat yield (FY)	0.46	(0.013)	0.55	(0.006)	0.67	(0.005)
milk yield (MY)	0.32	(0.014)	0.56	(0.014)	0.88	(0.002)
protein yield (PY)	0.53	(0.012)	0.81	(0.005)	0.49	(0.013)