

Table 3 - Least square mean values (S.E.) for milk production traits for *DGAT1* genotypes in a German Holstein cow data set

<i>DGAT1</i> genotype ^a	Milk yield		Milk fat content		Milk fat yield		Milk protein content		Milk protein yield	
	[kg]		[%]		[kg]		[%]		[kg]	
model ^b	I	II	I	II	I	II	I	II	I	II
<i>K/K</i>	605.1 (49.0)	690.0 (70.2)	0.088 (0.0178)	0.1057 (0.0253)	32.45 (1.93)	37.26 (2.77)	0.0286 (0.0082)	0.038 (0.0119)	22.66 (1.46)	26.22 (2.08)
<i>A/K</i>	743.0 (22.2)	774.7 (35.6)	-0.0175 (0.008)	-0.0117 (0.0128)	29.33 (0.87)	31.06 (1.4)	0.0011 (0.0037)	0.0062 (0.006)	24.95 (0.66)	26.4 (1.05)
<i>A/A</i>	997.3 (24.5)	987.5 (28.1)	-0.2411 (0.0089)	-0.2438 (0.0101)	21.09 (0.96)	20.5 (1.11)	-0.0482 (0.0041)	-0.0501 (0.0047)	29.42 (0.73)	28.92 (0.84)
<i>p</i>	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.13
<i>1/3</i>		799.4 (104.8)		-0.1435 (0.0379)		21.19 (4.14)		-0.0081 (0.0178)		26.06 (3.12)
<i>1/4</i>		812.0 (116.9)		-0.1234 (0.0422)		23.24 (4.62)		0.0125 (0.0198)		28.27 (3.48)
<i>2/2</i>		809.3 (153.1)		0.0341 (0.0553)		36.58 (6.05)		-0.0084 (0.026)		26.27 (4.55)
<i>2/3</i>		907.7 (48.9)		-0.0888 (0.0176)		30.14 (1.93)		-0.0217 (0.0083)		28.62 (1.45)
<i>2/4</i>		770.2 (75.3)		-0.0585 (0.0272)		26.94 (2.97)		0.0005 (0.0127)		25.82 (2.24)
<i>2/5</i>		691.3 (74.1)		0.0253 (0.0268)		31.12 (2.93)		0.0329 (0.0125)		25.85 (2.2)
<i>3/3</i>		731.4 (36.1)		-0.0666 (0.013)		24.83 (1.42)		-0.0112 (0.0061)		23.6 (1.07)
<i>3/4</i>		820.5 (40.1)		-0.0799 (0.0145)		27.35 (1.58)		-0.0103 (0.0068)		26.68 (1.19)
<i>3/5</i>		712.0 (45.2)		0.009 (0.0163)		30.08 (1.78)		0.0061 (0.0076)		24.23 (1.34)
<i>4/4</i>		1162.6 (86.8)		-0.126 (0.0313)		36.48 (3.43)		-0.0238 (0.0147)		36.83 (2.58)
<i>4/5</i>		813.5 (66.5)		-0.0102 (0.024)		32.75 (2.62)		0.0158 (0.0112)		28.58 (1.97)
<i>5/5</i>		778.5 (108.0)		0.0292 (0.039)		34.58 (4.27)		-0.0074 (0.0183)		25.35 (3.21)
<i>p</i>		0.0003		<0.0001		0.022		0.0112		0.0033

^a Allele coding: K: *DGAT1* 232K, A: *DGAT1* 232A; 1, 2, 3, 4, 5: alleles at the *DGAT1* promoter VNTR; ^b model I: sub model see eq. 2 in Methods, model II: full model see eq. 2 in Methods