

Table 1. The effect of Honamli goat GH1 genotypes on live weights ($\bar{x}\pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=29)	AB (n=121)	BB (n=0)	
LW ⁹⁰	23.7 \pm 0.47	24.1 \pm 0.24	-	0.442
LW ¹²⁰	28.2 \pm 0.54	28.2 \pm 0.27	-	0.981
LW ¹⁸⁰	38.9 \pm 0.82	38.3 \pm 0.41	-	0.531
LW ³⁶⁵	41.5 \pm 1.20	41.2 \pm 0.58	-	0.829

LW: live weight

Table 2. The effect of Hair goat GH1 genotypes on live weights* ($\bar{x}\pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=22)	AB (n=128)	BB (n=0)	
LW ⁹⁰	18.4 \pm 0.45	18.2 \pm 0.24	-	0.673
LW ¹²⁰	20.5 \pm 0.43	20.6 \pm 0.23	-	0.896
LW ¹⁸⁰	26.4 \pm 0.65	26.7 \pm 0.35	-	0.653
LW ³⁶⁵	27.2 \pm 0.87	27.4 \pm 0.46	-	0.872

LW: live weight

Table 3. The effect of Honamli and Hair goats GH1 genotypes on live weights* ($\bar{x}\pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=51)	AB (n=249)	BB (n=0)	
LW ⁹⁰	20.9 \pm 0.32	21.1 \pm 0.17	-	0.505
LW ¹²⁰	24.1 \pm 0.35	24.3 \pm 0.18	-	0.553
LW ¹⁸⁰	32.2 \pm 0.53	32.4 \pm 0.27	-	0.691
LW ³⁶⁵	33.5 \pm 0.80	34.2 \pm 0.40	-	0.424

LW: live weight

Table 4. The effect of Honamli goat GH1 genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=29)	AB (n=121)	BB (n=0)	
BL ⁹⁰	63.0 \pm 0.52	63.5 \pm 0.26	-	0.442
HW ⁹⁰	62.6 \pm 0.42	62.9 \pm 0.21	-	0.442
HR ⁹⁰	62.4 \pm 0.44	62.7 \pm 0.22	-	0.442
CC ⁹⁰	63.1 \pm 0.40	63.5 \pm 0.20	-	0.442
BL ¹²⁰	65.6 \pm 0.59	65.9 \pm 0.30	-	0.635
HW ¹²⁰	64.4 \pm 0.48	64.9 \pm 0.24	-	0.325
HR ¹²⁰	64.7 \pm 0.54	65.3 \pm 0.27	-	0.359
CC ¹²⁰	66.7 \pm 0.46	67.1 \pm 0.23	-	0.379
BL ¹⁸⁰	75.5 \pm 0.77	75.0 \pm 0.39	-	0.531
HW ¹⁸⁰	72.0 \pm 0.56	71.6 \pm 0.28	-	0.531
HR ¹⁸⁰	73.5 \pm 0.61	73.1 \pm 0.31	-	0.531
CC ¹⁸⁰	76.3 \pm 0.56	75.9 \pm 0.28	-	0.531
BL ³⁶⁵	78.5 \pm 1.01	78.3 \pm 0.49	-	0.829
HW ³⁶⁵	76.4 \pm 0.80	76.2 \pm 0.38	-	0.829
HR ³⁶⁵	77.5 \pm 0.83	77.3 \pm 0.40	-	0.829
CC ³⁶⁵	79.4 \pm 0.83	79.2 \pm 0.40	-	0.829

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 5. The effect of Hair goat GH1 genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=22)	AB (n=128)	BB (n=0)	
BL ⁹⁰	57.2 \pm 0.49	57.0 \pm 0.26	-	0.673
HW ⁹⁰	57.8 \pm 0.40	57.6 \pm 0.21	-	0.673
HR ⁹⁰	57.4 \pm 0.42	57.2 \pm 0.22	-	0.673
CC ⁹⁰	58.7 \pm 0.38	58.5 \pm 0.20	-	0.673
BL ¹²⁰	58.9 \pm 0.52	58.8 \pm 0.28	-	0.828
HW ¹²⁰	59.5 \pm 0.45	59.1 \pm 0.24	-	0.375
HR ¹²⁰	59.6 \pm 0.46	59.1 \pm 0.25	-	0.341
CC ¹²⁰	61.7 \pm 0.42	61.6 \pm 0.22	-	0.812
BL ¹⁸⁰	63.8 \pm 0.61	64.1 \pm 0.33	-	0.653
HW ¹⁸⁰	63.4 \pm 0.44	63.6 \pm 0.24	-	0.653
HR ¹⁸⁰	64.3 \pm 0.48	64.5 \pm 0.26	-	0.653
CC ¹⁸⁰	67.9 \pm 0.44	68.1 \pm 0.23	-	0.653
BL ³⁶⁵	66.6 \pm 0.73	66.7 \pm 0.38	-	0.872
HW ³⁶⁵	66.9 \pm 0.58	67.0 \pm 0.30	-	0.872
HR ³⁶⁵	67.7 \pm 0.60	67.8 \pm 0.31	-	0.872
CC ³⁶⁵	69.6 \pm 0.60	69.7 \pm 0.32	-	0.872

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 6. The effect of Honamli and Hair goats GH1 genotypes on linear body measurements* $(\bar{x} \pm S_{\bar{x}})$

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=51)	AB (n=249)	BB (n=0)	
BL ⁹⁰	60.0 \pm 0.35	60.2 \pm 0.18	-	0.505
HW ⁹⁰	60.1 \pm 0.29	60.3 \pm 0.15	-	0.505
HR ⁹⁰	59.8 \pm 0.30	60.0 \pm 0.15	-	0.505
CC ⁹⁰	60.8 \pm 0.27	61.0 \pm 0.14	-	0.505
BL ¹²⁰	62.1 \pm 0.39	62.3 \pm 0.20	-	0.725
HW ¹²⁰	61.8 \pm 0.33	62.0 \pm 0.17	-	0.553
HR ¹²⁰	62.0 \pm 0.36	62.2 \pm 0.18	-	0.534
CC ¹²⁰	64.0 \pm 0.31	64.3 \pm 0.16	-	0.325
BL ¹⁸⁰	69.2 \pm 0.49	69.4 \pm 0.26	-	0.691
HW ¹⁸⁰	67.4 \pm 0.36	67.5 \pm 0.19	-	0.691
HR ¹⁸⁰	68.6 \pm 0.39	68.8 \pm 0.20	-	0.691
CC ¹⁸⁰	71.8 \pm 0.36	71.9 \pm 0.18	-	0.691
BL ³⁶⁵	71.9 \pm 0.67	72.4 \pm 0.33	-	0.424
HW ³⁶⁵	71.1 \pm 0.53	71.6 \pm 0.26	-	0.424
HR ³⁶⁵	72.0 \pm 0.55	72.5 \pm 0.27	-	0.424
CC ³⁶⁵	73.9 \pm 0.56	74.4 \pm 0.28	-	0.424

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 7. The effect of Honamli goat POU1F1 genotypes on live weights * ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=11)	TT (n=139)	
LW ⁹⁰	-	23.9 \pm 0.73	24.0 \pm 0.23	0.889
LW ¹²⁰	-	27.4 \pm 0.84	28.2 \pm 0.26	0.308
LW ¹⁸⁰	-	36.6 \pm 1.27	38.6 \pm 0.40	0.141
LW ³⁶⁵	-	38.5 \pm 1.75	41.5 \pm 0.56	0.106

LW: live weight

Table 8. The effect of Hair goat POU1F1 genotypes on live weights* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=14)	TT (n=136)	
LW ⁹⁰	-	18.4 \pm 0.57	18.2 \pm 0.23	0.750
LW ¹²⁰	-	20.9 \pm 0.55	20.6 \pm 0.22	0.599
LW ¹⁸⁰	-	27.1 \pm 0.82	26.6 \pm 0.34	0.594
LW ³⁶⁵	-	27.1 \pm 1.09	27.4 \pm 0.44	0.827

LW: live weight

Table 9. The effect of Honamli and Hair goats POU1F1 genotypes on live weights* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=25)	TT (n=275)	
LW ⁹⁰	-	21.3 \pm 0.45	21.1 \pm 0.16	0.546
LW ¹²⁰	-	24.3 \pm 0.49	24.3 \pm 0.17	0.957
LW ¹⁸⁰	-	32.0 \pm 0.74	32.4 \pm 0.26	0.606
LW ³⁶⁵	-	32.6 \pm 1.08	34.2 \pm 0.38	0.156

LW: live weight

Table 10. The effect of Honamli goat POU1F1 genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=11)	TT (n=139)	
BL ⁹⁰	-	63.3 \pm 0.80	63.4 \pm 0.25	0.889
HW ⁹⁰	-	62.8 \pm 0.66	62.9 \pm 0.21	0.889
HR ⁹⁰	-	62.6 \pm 0.69	62.7 \pm 0.22	0.889
CC ⁹⁰	-	63.3 \pm 0.62	63.4 \pm 0.19	0.889
BL ¹²⁰	-	65.6 \pm 0.92	65.8 \pm 0.29	0.822
HW ¹²⁰	-	64.8 \pm 0.74	64.8 \pm 0.23	0.967
HR ¹²⁰	-	65.1 \pm 0.84	65.2 \pm 0.26	0.968
CC ¹²⁰	-	66.8 \pm 0.71	67.1 \pm 0.22	0.665
BL ¹⁸⁰	-	73.4 \pm 1.19	75.2 \pm 0.37	0.141
HW ¹⁸⁰	-	70.4 \pm 0.86	71.7 \pm 0.27	0.141
HR ¹⁸⁰	-	71.9 \pm 0.94	73.3 \pm 0.30	0.141
CC ¹⁸⁰	-	74.8 \pm 0.86	76.1 \pm 0.27	0.141
BL ³⁶⁵	-	76.1 \pm 1.47	78.5 \pm 0.47	0.106
HW ³⁶⁵	-	74.4 \pm 1.16	76.4 \pm 0.37	0.106
HR ³⁶⁵	-	75.5 \pm 1.20	77.5 \pm 0.38	0.106
CC ³⁶⁵	-	77.4 \pm 1.21	79.4 \pm 0.39	0.106

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 11. The effect of Hair goat POU1F1 genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=14)	TT (n=136)	
BL ⁹⁰	-	57.2 \pm 0.62	57.0 \pm 0.25	0.750
HW ⁹⁰	-	57.8 \pm 0.51	57.7 \pm 0.21	0.750
HR ⁹⁰	-	57.4 \pm 0.53	57.2 \pm 0.22	0.750
CC ⁹⁰	-	58.7 \pm 0.48	58.5 \pm 0.20	0.750
BL ¹²⁰	-	59.2 \pm 0.66	58.7 \pm 0.27	0.506
HW ¹²⁰	-	60.2 \pm 0.57	59.0 \pm 0.23	0.056
HR ¹²⁰	-	60.0 \pm 0.58	59.1 \pm 0.24	0.131
CC ¹²⁰	-	61.5 \pm 0.53	61.6 \pm 0.22	0.849
BL ¹⁸⁰	-	64.4 \pm 0.77	64.0 \pm 0.32	0.594
HW ¹⁸⁰	-	63.9 \pm 0.56	63.6 \pm 0.23	0.594
HR ¹⁸⁰	-	64.8 \pm 0.61	64.4 \pm 0.25	0.594
CC ¹⁸⁰	-	68.3 \pm 0.56	68.0 \pm 0.23	0.594
BL ³⁶⁵	-	66.5 \pm 0.92	66.7 \pm 0.37	0.827
HW ³⁶⁵	-	66.9 \pm 0.72	67.0 \pm 0.29	0.827
HR ³⁶⁵	-	67.6 \pm 0.75	67.8 \pm 0.30	0.827
CC ³⁶⁵	-	69.5 \pm 0.76	69.7 \pm 0.31	0.827

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 12. The effect of Honamli and Hair goats POU1F1 genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	CC (n=0)	TC (n=25)	TT (n=275)	
BL ⁹⁰	-	60.5 \pm 0.49	60.2 \pm 0.17	0.546
HW ⁹⁰	-	60.5 \pm 0.40	60.2 \pm 0.14	0.546
HR ⁹⁰	-	60.2 \pm 0.42	59.9 \pm 0.15	0.546
CC ⁹⁰	-	61.2 \pm 0.38	60.9 \pm 0.13	0.546
BL ¹²⁰	-	62.7 \pm 0.55	62.2 \pm 0.19	0.426
HW ¹²⁰	-	62.6 \pm 0.46	61.9 \pm 0.16	0.127
HR ¹²⁰	-	62.6 \pm 0.50	62.1 \pm 0.18	0.287
CC ¹²⁰	-	64.4 \pm 0.43	64.2 \pm 0.15	0.727
BL ¹⁸⁰	-	69.1 \pm 0.69	69.4 \pm 0.25	0.606
HW ¹⁸⁰	-	67.3 \pm 0.51	67.5 \pm 0.18	0.606
HR ¹⁸⁰	-	68.5 \pm 0.55	68.7 \pm 0.19	0.606
CC ¹⁸⁰	-	71.7 \pm 0.50	71.9 \pm 0.18	0.606
BL ³⁶⁵	-	71.1 \pm 0.91	72.5 \pm 0.32	0.156
HW ³⁶⁵	-	70.5 \pm 0.72	71.6 \pm 0.25	0.156
HR ³⁶⁵	-	71.4 \pm 0.74	72.5 \pm 0.26	0.156
CC ³⁶⁵	-	73.3 \pm 0.75	74.4 \pm 0.27	0.156

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 13. The effect of Honamli goat MSTN genotypes on live weights* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=49)	AB (n=70)	BB (n=31)	
LW ⁹⁰	24.2 \pm 0.36	24.0 \pm 0.30	23.8 \pm 0.46	0.819
LW ¹²⁰	28.3 \pm 0.41	28.0 \pm 0.35	28.4 \pm 0.53	0.708
LW ¹⁸⁰	38.5 \pm 0.62	38.1 \pm 0.52	39.4 \pm 0.80	0.340
LW ³⁶⁵	41.9 \pm 0.88	40.4 \pm 0.73	42.4 \pm 1.13	0.214

LW: live weight

Table 14. The effect of Hair goat MSTN genotypes on live weights* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=73)	AB (n=68)	BB (n=9)	
LW ⁹⁰	18.4 \pm 0.29	18.1 \pm 0.28	18.4 \pm 0.69	0.577
LW ¹²⁰	20.7 \pm 0.28	20.4 \pm 0.27	20.8 \pm 0.66	0.647
LW ¹⁸⁰	26.9 \pm 0.42	26.4 \pm 0.40	26.9 \pm 1.00	0.603
LW ³⁶⁵	27.6 \pm 0.55	27.0 \pm 0.53	28.2 \pm 1.25	0.517

LW: live weight

Table 15. The effect of Honamli and Hair goats MSTN genotypes on live weights* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=122)	AB (n=138)	BB (n=40)	
LW ⁹⁰	21.3 \pm 0.22	21.0 \pm 0.20	21.0 \pm 0.38	0.573
LW ¹²⁰	24.4 \pm 0.24	24.1 \pm 0.22	24.6 \pm 0.41	0.455
LW ¹⁸⁰	32.5 \pm 0.36	32.1 \pm 0.33	33.2 \pm 0.62	0.221
LW ³⁶⁵	34.5 \pm 0.53	33.5 \pm 0.49	35.1 \pm 0.91	0.185

LW: live weight

Table 16. The effect of Honamli goat MSTN genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=49)	AB (n=70)	BB (n=31)	
BL ⁹⁰	63.5 \pm 0.39	63.4 \pm 0.33	63.2 \pm 0.50	0.819
HW ⁹⁰	63.0 \pm 0.32	62.8 \pm 0.27	62.7 \pm 0.41	0.819
HR ⁹⁰	62.8 \pm 0.33	62.7 \pm 0.28	62.5 \pm 0.43	0.819
CC ⁹⁰	63.5 \pm 0.30	63.4 \pm 0.25	63.2 \pm 0.39	0.819
BL ¹²⁰	65.9 \pm 0.45	65.8 \pm 0.38	65.7 \pm 0.58	0.963
HW ¹²⁰	65.1 \pm 0.36	64.6 \pm 0.30	64.7 \pm 0.46	0.528
HR ¹²⁰	65.5 \pm 0.41	64.9 \pm 0.34	65.2 \pm 0.53	0.536
CC ¹²⁰	67.2 \pm 0.34	67.0 \pm 0.29	66.9 \pm 0.44	0.780
BL ¹⁸⁰	75.1 \pm 0.58	74.7 \pm 0.49	76.0 \pm 0.75	0.340
HW ¹⁸⁰	71.7 \pm 0.42	71.4 \pm 0.36	72.3 \pm 0.54	0.340
HR ¹⁸⁰	73.3 \pm 0.46	72.9 \pm 0.39	73.9 \pm 0.59	0.340
CC ¹⁸⁰	76.1 \pm 0.42	75.8 \pm 0.35	76.7 \pm 0.54	0.340
BL ³⁶⁵	78.9 \pm 0.74	77.6 \pm 0.61	79.3 \pm 0.95	0.214
HW ³⁶⁵	76.6 \pm 0.59	75.7 \pm 0.49	77.0 \pm 0.75	0.214
HR ³⁶⁵	77.8 \pm 0.61	76.7 \pm 0.50	78.1 \pm 0.78	0.214
CC ³⁶⁵	79.7 \pm 0.61	78.7 \pm 0.51	80.1 \pm 0.78	0.214

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 17. The effect of Hair goat MSTN genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=73)	AB (n=68)	BB (n=9)	
BL ⁹⁰	57.3 \pm 0.31	56.9 \pm 0.30	57.2 \pm 0.76	0.577
HW ⁹⁰	57.8 \pm 0.26	57.5 \pm 0.25	57.8 \pm 0.62	0.577
HR ⁹⁰	57.4 \pm 0.27	57.1 \pm 0.26	57.4 \pm 0.65	0.577
CC ⁹⁰	58.7 \pm 0.24	58.4 \pm 0.23	58.7 \pm 0.58	0.577
BL ¹²⁰	58.8 \pm 0.33	58.7 \pm 0.32	59.1 \pm 0.80	0.877
HW ¹²⁰	59.2 \pm 0.29	59.0 \pm 0.28	59.8 \pm 0.70	0.534
HR ¹²⁰	59.3 \pm 0.30	59.1 \pm 0.29	59.8 \pm 0.71	0.505
CC ¹²⁰	61.6 \pm 0.27	61.5 \pm 0.26	61.8 \pm 0.65	0.798
BL ¹⁸⁰	64.2 \pm 0.39	63.8 \pm 0.38	64.3 \pm 0.94	0.603
HW ¹⁸⁰	63.8 \pm 0.28	63.4 \pm 0.28	63.8 \pm 0.68	0.603
HR ¹⁸⁰	64.6 \pm 0.31	64.3 \pm 0.30	64.7 \pm 0.74	0.603
CC ¹⁸⁰	68.2 \pm 0.28	67.9 \pm 0.27	68.2 \pm 0.68	0.603
BL ³⁶⁵	66.9 \pm 0.46	66.5 \pm 0.44	67.4 \pm 1.04	0.517
HW ³⁶⁵	67.2 \pm 0.37	66.8 \pm 0.35	67.6 \pm 0.83	0.517
HR ³⁶⁵	68.0 \pm 0.38	67.6 \pm 0.36	68.4 \pm 0.86	0.517
CC ³⁶⁵	69.8 \pm 0.38	69.4 \pm 0.37	70.3 \pm 0.87	0.517

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference

Table 18. The effect of Honamli and Hair goats MSTN genotypes on linear body measurements* ($\bar{x} \pm S_{\bar{x}}$)

Trait	Genotype (Mean \pm SE)			p-value
	AA (n=122)	AB (n=138)	BB (n=40)	
BL ⁹⁰	60.4 \pm 0.24	60.1 \pm 0.22	60.1 \pm 0.41	0.573
HW ⁹⁰	60.4 \pm 0.20	60.1 \pm 0.18	60.1 \pm 0.34	0.573
HR ⁹⁰	60.1 \pm 0.21	59.8 \pm 0.19	59.8 \pm 0.35	0.573
CC ⁹⁰	61.1 \pm 0.18	60.8 \pm 0.17	60.8 \pm 0.32	0.573
BL ¹²⁰	62.3 \pm 0.27	62.2 \pm 0.25	62.3 \pm 0.46	0.969
HW ¹²⁰	62.1 \pm 0.22	61.8 \pm 0.21	62.1 \pm 0.38	0.470
HR ¹²⁰	62.4 \pm 0.24	61.9 \pm 0.22	62.3 \pm 0.42	0.304
CC ¹²⁰	64.3 \pm 0.21	64.2 \pm 0.19	64.2 \pm 0.36	0.820
BL ¹⁸⁰	69.6 \pm 0.34	69.1 \pm 0.31	70.1 \pm 0.58	0.221
HW ¹⁸⁰	67.6 \pm 0.25	67.3 \pm 0.23	68.1 \pm 0.42	0.221
HR ¹⁸⁰	68.8 \pm 0.27	68.5 \pm 0.25	69.3 \pm 0.46	0.221
CC ¹⁸⁰	72.0 \pm 0.24	71.7 \pm 0.22	72.5 \pm 0.42	0.221
BL ³⁶⁵	72.7 \pm 0.44	71.9 \pm 0.41	73.2 \pm 0.76	0.185
HW ³⁶⁵	71.7 \pm 0.35	71.1 \pm 0.33	72.1 \pm 0.60	0.185
HR ³⁶⁵	72.7 \pm 0.36	72.0 \pm 0.34	73.1 \pm 0.62	0.185
CC ³⁶⁵	74.6 \pm 0.37	73.9 \pm 0.34	75.0 \pm 0.63	0.185

BL: body length, HW: height at withers, HR: height at rump, CC: chest circumference