

Table (1): Least Square means \pm standard error of factors affecting milk production in Sohagi sheep

Items	N	Daily Milk Yield/l	Milk pre-weaning/l	Milk post-weaning/l	Total milk/l	Lactation length/days
Season of lambing		**	**	**	**	**
February	40	0.475 \pm 0.02 ^a	33.92 \pm 1.09 ^a	22.09 \pm 1.06 ^a	56.01 \pm 1.94 ^a	118.35 \pm 2.29 ^a
June	61	0.376 \pm 0.01 ^b	27.57 \pm 0.85 ^b	11.10 \pm 0.82 ^b	38.68 \pm 1.52 ^b	102.65 \pm 1.78 ^b
October	17	0.349 \pm 0.02 ^c	25.08 \pm 1.57 ^c	11.61 \pm 1.53 ^b	36.68 \pm 2.80 ^b	103.78 \pm 3.29 ^b
Type of birth		**	**	**	**	*
Single	97	0.365 \pm 0.01 ^b	25.82 \pm 0.64 ^b	12.92 \pm 0.62 ^b	38.74 \pm 1.14 ^b	105.01 \pm 1.34 ^a
Twins	21	0.436 \pm 0.02 ^a	31.89 \pm 1.42 ^a	116.94 \pm 1.38 ^a	48.83 \pm 2.53 ^a	111.51 \pm 2.98 ^a
Age of ewe		**	ns	*	ns	ns
<2	11	0.394 \pm 0.0 ^b	28.94 \pm 1.77 ^b	14.51 \pm 1.72 ^a	43.45 \pm 3.16 ^b	109.31 \pm 3.7 ^a
>2-<3	20	0.385 \pm 0.0 ^b	28.22 \pm 1.49 ^b	13.60 \pm 1.45 ^a	41.82 \pm 2.65 ^{ab}	108.08 \pm 3.11 ^a
>3-<4	16	0.385 \pm 0.02 ^b	27.56 \pm 1.57 ^b	14.94 \pm 1.53 ^a	42.50 \pm 2.80 ^b	108.30 \pm 3.29 ^a
>4-<5	23	0.395 \pm 0.02 ^b	27.97 \pm 1.26 ^b	15.33 \pm 1.22 ^a	43.51 \pm 2.24 ^b	108.68 \pm 2.64 ^a
>5	48	0.440 \pm 0.01 ^a	31.59 \pm 0.96 ^a	16.08 \pm 0.94 ^a	47.76 \pm 1.72 ^a	106.94 \pm 2.02 ^a
μ	118	0.393 \pm 0.08	28.08 \pm 5.49	13.92 \pm 5.35	41.99 \pm 9.80	105.66 \pm 1.51

a, b, c: means in the same column within classification with different superscript for each factor differ ($p < 0.05$)

* Significant at $p < 0.05$, ** Significant at $p < 0.01$

Table (2): Correlation coefficient between lambs birth weight and weight of ewe at lambing with milk production of Sohagi sheep.

Items	Daily Milk Yield(L)	Milk pre-weaning	Milk post-weaning	Total milk	Lactation length
Birth weight	0.265**	0.147	0.243**	0.035	-0.114
Weight of dam	0.387**	0.375**	0.349**	0.351**	0.180*

Table (3): Least Square means \pm standard error of factors affecting milk composition of Sohagi sheep

Items	N	Fat	Protein	Lactose	Total Solid	Solid not fat	Milk energy	N	Somatic Cell Count
Season of lambing		**	**	**	**	**	**		**
Feb	80	3.73 \pm 0.15 ^c	4.65 \pm 0.09 ^a	4.83 \pm 0.05 ^a	13.90 \pm 0.20 ^b	10.15 \pm 0.12 ^a	3.38 \pm 0.14 ^b	80	134.277 \pm 42.51 ^b
June	49	4.79 \pm 0.18 ^b	+3.29 \pm 0.10 ^b	4.27 \pm 0.06 ^b	13.09 \pm 0.24 ^c	8.17 \pm 0.14 ^c	2.78 \pm 0.14 ^c	47	315.136 \pm 51.07 ^a
October	75	6.23 \pm 0.18 ^a	4.63 \pm 0.11 ^a	4.32 \pm 0.07 ^b	15.85 \pm 0.25 ^a	9.57 \pm 0.15 ^b	4.57 \pm 0.17 ^a	74	320.140 \pm 52.05 ^a
Type of birth		**	*	*	**	ns	*		ns
Single	167	5.48 \pm 0.12 ^a	4.34 \pm 0.07 ^a	4.37 \pm 0.04 ^a	14.90 \pm 0.16 ^a	9.42 \pm 0.10 ^a	3.80 \pm 0.10 ^a	165	295.928 \pm 34.02 ^a
Twins	37	4.35 \pm 0.21 ^b	4.04 \pm 0.12 ^b	4.56 \pm 0.07 ^a	13.66 \pm 0.27 ^b	9.16 \pm 0.16 ^b	3.32 \pm 0.17 ^b	36	217.108 \pm 58.14 ^a
Weeks of lactation		**	**	**	**	**	**		ns
W2	12	2.18 \pm 0.35 ⁱ	3.80 \pm 0.20 ^{bcd}	5.17 \pm 0.12 ^a	11.60 \pm 0.47 ^e	9.35 \pm 0.27 ^{abc}	2.30 \pm 0.29 ^{cf}	11	310.344 \pm 102.94 ^{ab}
W4	11	2.63 \pm 0.37 ^{hi}	3.225 \pm 0.21 ^d	4.91 \pm 0.13 ^{ab}	11.48 \pm 0.49 ^e	8.62 \pm 0.29 ^{bc}	2.27 \pm 0.29 ^{cf}	11	338.708 \pm 102.94 ^{ab}
W6	12	2.70 \pm 0.35 ^{ghi}	3.74 \pm 0.20 ^{cd}	4.83 \pm 0.12 ^{ab}	12.28 \pm 0.47 ^e	9.22 \pm 0.27 ^{abc}	2.58 \pm 0.29 ^{def}	12	35.96 \pm 97.51 ^b
W8	15	4.26 \pm 0.31 ^{efg}	3.94 \pm 0.18 ^{cd}	4.51 \pm 0.11 ^{bcd}	13.41 \pm 0.42 ^{cde}	9.11 \pm 0.25 ^{bc}	3.77 \pm 0.29 ^{bc}	14	191.038 \pm 90.36 ^{ab}
W10	15	4.82 \pm 0.31 ^{def}	4.40 \pm 0.18 ^{abc}	4.42 \pm 0.11 ^{cd}	14.40 \pm 0.42 ^{bcd}	9.47 \pm 0.24 ^{abc}	4.01 \pm 0.29 ^{bc}	14	285.024 \pm 89.98 ^{ab}
W12	14	6.10 \pm 0.33 ^{cd}	4.48 \pm 0.19 ^{abc}	4.22 \pm 0.12 ^d	15.51 \pm 0.44 ^{ab}	9.35 \pm 0.26 ^{abc}	4.28 \pm 0.29 ^{abc}	14	265.466 \pm 91.15 ^{ab}
W14	14	6.79 \pm 0.32 ^{ab}	4.16 \pm 0.18 ^{abcd}	4.19 \pm 0.11 ^d	15.84 \pm 0.43 ^{ab}	8.65 \pm 0.25 ^c	4.81 \pm 0.30 ^{ab}	13	149.039 \pm 92.97 ^{ab}
W16	7	6.35 \pm 0.45 ^{cde}	4.93 \pm 0.26 ^a	4.12 \pm 0.16 ^{cd}	16.10 \pm 0.61 ^{ab}	9.71 \pm 0.36 ^{ab}	4.67 \pm 0.43 ^{abc}	7	442.677 \pm 127.22 ^{ab}
W18	2	9.42 \pm 0.84 ^a	4.915 \pm 0.48 ^{abc}	3.36 \pm 0.30 ^e	18.37 \pm 1.12 ^a	9.04 \pm 0.66 ^c	6.21 \pm 0.79 ^a	2	104.720 \pm 234.93 ^b
μ	204	4.93 \pm 1.18	4.34 \pm 0.67	4.53 \pm 0.42	14.51 \pm 1.57	9.54 \pm 0.93	3.54 \pm 1.12	201	269.085 \pm 328.99

a, b, c, d: means in the same column within classification with different superscript for each factor differ ($p < 0.05$) - *

Significant at $p < 0.05$, ** Significant at $p < 0.01$

Table(4): Regression coefficients and standard errors of age and weight of ewe at lambing on milk composition.

Items	Fat	Protein	Lactose	Total solid	Solid not fat	Somatic cell count	Milk energy
Intercept	11.92±1.27	3.94±0.80	2.990.37	19.43±1.46	7.53±0.79	848.24	7.07±0.55
Age of ewe	0.10±0.09	0.18±0.04**	0.01±0.02	0.28±0.10**	0.18±0.06**	-17.16	0.04±0.04
Weight of ewe	-0.20±0.3**	-0.01±0.01	0.04±0.01**	-0.17±0.03**	0.03±0.02	-12.95**	-0.09±0.01**

Table(5): Correlation coefficient between daily milk yield and milk characteristics

Items	Fat	Protein	Lactose	Total solid	Solid not fat	Somatic cell count	Milk energy
Daily milk yield	-0.62**	-0.16*	0.58**	-0.48**	0.16*	-0.13*	-0.48**
Fat		0.36**	-0.67**	0.88**	-0.04	0.24**	0.99**
Protein			0.11	0.73**	0.81**	0.08	0.36**
Lactose				-0.32**	0.57**	-0.24**	-0.67**
Total solid					0.42	0.20	0.88
Solid non fat						-0.03	-0.04
Somatic cell count							0.24
Milk energy							

* Significant at $p < 0.05$, ** Significant at $p < 0.01$