



Supplementary Material

Effect of Natural and Artificial Sucking on Performance and Mortality of Newborn Assaf Lambs

Wael Halawa¹, Raed M. Al-Atiyat^{2*}, Jamal Abo Omar¹, Faisal S. Rashaydeh³, Fath Ullah⁴, Shakirullah⁵ and Berkant Ismail Yildiz⁶

¹Animal Production, Faculty of Graduate Studies An-Najah National University, Nablus, Palestine

²Genetics and Biotechnology, Department of Animal Science, Mutah University, Karak, Jordan

³Department of Agricultural Biotechnology, Akdeniz University, 07058, Antalya, Türkiye

⁴Livestock and Dairy Development, FATA Secretariate, Warsak Road, Peshawar, Pakistan

⁵Department of Animal and Poultry Production, Faculty of Veterinary and Animal Sciences, Gomal Univeristy, Dera Ismal Khan, Pakistan

⁶Institute of Natural and Applied Sciences, Akdeniz University, Konyaaltı, 07058, Antalya, Turkey

Supplementary Table S1. Fixed factors included in growth rate from lambing to weaning (GRL-W), weight at 60 days of age (W. at 60d), Mortality rate (MR), growth rate from lambing to weaning for group 2 and group 3 (GRL-W for G2 and G3), growth rate from lambing to weaning for group 1 (GRL-W for G1), total milk yield at 60 days (TMY60).

Factor ¹	Number of records for each trait						
	GRL-W ²	W _{at 60d}	MR	GRL-W for G2 and G3	GRL-W for G1	TMY60	
Dam weight	50-60 kg	62	63	70	42	20	37
	60-70 kg	23	23	26	12	11	11
	1	9	9	10	7	2	2
Parity	2	52	52	59	33	19	31
	3	24	25	27	14	10	15
Litter Size	1	54	54	60	36	18	32
	2	31	32	36	18	13	16
Lamb Sex	F	42	43	47	23	19	
	M	43	43	49	31	12	
Suckling Method	A1	26	27	29			12
	A2	28	28	28			14
Powder Milk consumed (kg)	N	31	31	39			22
	9.68				28		
Natural milk consumed to weaning (kg)	12.40				26		
	70-79					13	
80-91						18	

* Corresponding author: ratiyat@mutah.edu.jo
0030-9923/2024/0002-0801 \$ 9.00/0



Copyright 2024 by the authors. Licensee Zoological Society of Pakistan.

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

¹F, Female; M, Male; G2, artificial suckling 24 h; G3, artificial suckling 4 times per day; G1, natural suckling. ²GRL-W, growth rate from lambing to weaning; W at 60d, weight at 60 days of age; MR, mortality rate; TMY, total milk yield at 60 days.