

Supplementary Material

Effects of silage to concentrate ratio and duration of feeding on the fatty acid composition of ovine muscle and adipose tissue

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Table S1. Least square mean proportion (g/100g total fatty acids) of the total fatty acids in *longissimus thoracis et lumborum* of pasture-fed lambs or lambs fed three different diets (100% Silage (S); 50% S: 50% Concentrate (SC); 100% Concentrate (C)) for three feeding durations (36, 54, 72 days) pre-slaughter.

Fatty acids	Indoor finishing treatment									Pasture	SEM	P values		
	S36	S54	S72	SC36	SC54	SC72	C36	C54	C72			Diet	Duration	Diet × Duration
C10:0	0.19	0.20	0.19	0.19	0.20	0.18	0.19	0.18	0.15	0.16	0.013			
C12:0	0.28 ^x	0.38 ^{Ax}	0.40 ^{Ax}	0.21 ^{abxy}	0.25 ^{ax}	0.16 ^{by}	0.16 ^{ay}	0.11 ^{Cby}	0.10 ^{Cby}	0.20 ^B	0.034	<0.001		0.020
C14:0	3.1 ^x	3.5 ^x	3.9 ^{Bx}	2.7 ^{xy}	2.8 ^y	2.2 ^y	2.3 ^{ay}	2.1 ^{aby}	1.9 ^{Bby}	2.7 ^A	0.23	<0.001		0.029
C14:1	0.10	0.11	0.12	0.08	0.08	0.06	0.51	0.07	0.05	0.09	0.139			
C15:0	0.40 ^x	0.46 ^x	0.49 ^x	0.36 ^{axy}	0.34 ^{aby}	0.28 ^{Bby}	0.31 ^{Bay}	0.28 ^{Bay}	0.24 ^{Bby}	0.41 ^A	0.026	<0.001	0.049	0.010
C15:1	0.15	0.16	0.15	0.14	0.15	0.13	0.13	0.10	0.12	0.12	0.015	0.027		
C16:0	24.1	24.6	24.9	25.2	25.0	24.5	25.0	26.0 ^B	24.8	23.9 ^A	0.44			
C16:1	1.5	1.6	1.6	1.4	1.4	1.5	1.5	1.6	1.6	1.4	0.09	0.036		
C17:0	1.1	1.1	1.1	1.0	0.85	0.95	1.0	1.1	1.0	1.0	0.048	0.018		
C18:0	18.1	17.1	17.3	17.6	18.2	18.7	16.5	16.7	16.9	18.3	0.54	0.003		
C18:1 <i>trans</i> -9	0.42	0.39	0.45	0.38	0.39	0.34	0.16	0.10 ^B	0.11 ^B	0.33 ^A	0.058	<0.001		
C18:1 <i>cis</i> -9	38.2	37.7 ^y	37.4 ^z	38.7 ^b	38.9 ^{aby}	40.9 ^{ay}	39.9 ^b	41.6 ^{abx}	43.4 ^{Aax}	39.7 ^B	0.72	<0.001	0.016	
C18:1n-7	1.3	1.3	1.3	1.4	1.3	1.4	1.6 ^A	1.6 ^A	1.6 ^A	1.2 ^B	0.044	<0.001		
C18:2n-6	4.1	3.8	3.6	3.9	3.7	3.9	4.2	3.8	4.0	3.1	0.172			
C20:0	0.12	0.13	0.12	0.11	0.23	0.11	0.10	0.08	0.10	0.12	0.033	0.038		
C18:3n-6	0.03	0.02 ^B	0.00 ^B	0.03	0.00 ^B	0.01 ^B	0.02 ^B	0.01 ^B	0.02	0.05 ^A	0.008			
C20:1n-9	0.09 ^A	0.10 ^A	0.09 ^A	0.08	0.09 ^A	0.09	0.08	0.09	0.09 ^A	0.07 ^B	0.007			
C18:3n-3	1.4 ^B	1.4 ^{Bx}	1.3 ^{Bx}	1.3 ^{Ba}	1.0 ^{Bby}	0.78 ^{Bcy}	1.2 ^{Ba}	0.77 ^{Bbz}	0.54 ^{Bcz}	2.0 ^A	0.091	<0.001	<0.001	<0.001
C18:2 <i>cis</i> -9 <i>trans</i> -11	0.81	0.82 ^x	0.87 ^x	0.81 ^a	0.64 ^{Bax}	0.49 ^{Bby}	0.61 ^{Ba}	0.44 ^{Bby}	0.31 ^{Bbz}	1.00 ^A	0.061	<0.001	<0.001	0.006
C20:2	0.02	0.04	0.04 ^A	0.03	0.04 ^A	0.03	0.03	0.04 ^A	0.05 ^A	0.00 ^B	0.010			

C22:0	0.05	0.05	0.03	0.03	0.07	0.02	0.04	0.03	0.03	0.04	0.013			
C20:3n-6	0.19	0.19 ^B	0.19	0.19	0.19	0.17	0.19	0.15	0.17	0.13 ^A	0.017			
C20:3n-3	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.02	0.01	0.014	0.398	
C20:4n-6	2.1	2.0	2.0	1.8	2.2	1.7	1.8	1.3	1.6	1.5	0.21	0.033		
C22:2	0.03	0.04	0.03	0.02	0.01 ^B	0.00 ^B	0.01 ^B	0.00 ^B	0.00 ^B	0.04 ^A	0.013	<0.001	0.058	
C20:5n-3	0.97	1.13 ^x	0.96 ^x	0.96 ^a	0.74 ^{aby}	0.51 ^{Bby}	0.93 ^a	0.55 ^{Bby}	0.39 ^{Bby}	0.94 ^A	0.088	<0.001	<0.001	<0.001
C22:5n-3	1.0	1.3 ^{Ax}	1.1 ^x	1.1 ^a	0.89 ^{aby}	0.70 ^{by}	1.0 ^a	0.69 ^{by}	0.59 ^{Cbz}	0.91 ^B	0.083	<0.001	<0.001	0.005
C22:6n-3	0.27	0.31 ^x	0.31 ^x	0.29 ^a	0.27 ^{ab}	0.22 ^{Bby}	0.32 ^a	0.20 ^{Bby}	0.15 ^{Bc}	0.34 ^A	0.029	0.003	0.001	0.004
∑SFA	47.4	47.6	48.4 ^x	47.5	47.9	47.0 ^{xy}	45.7	46.6	45.1 ^y	46.9	0.78	0.004		
∑MUFA	41.8 ^y	41.3 ^y	41.2 ^z	42.2 ^{by}	42.3 ^{aby}	44.4 ^{ay}	43.9 ^{bx}	45.3 ^{abx}	47.1 ^{Aax}	43.0 ^B	0.70	<0.001	0.015	0.094
∑PUFA	10.9	11.1	10.4	10.3	9.7	8.5	10.4	8.0	7.8	10.1	0.69	0.002	0.017	
P/S	0.23	0.23	0.22	0.22	0.20	0.18	0.23	0.17	0.17	0.22	0.017	0.038	0.055	
∑n-6 PUFA	6.4	6.0	5.8	5.9	6.1	5.7	6.2	5.3	5.8	4.8	0.49			
∑n-3 PUFA	3.6	4.2 ^x	3.7 ^x	3.6 ^a	2.9 ^{Bby}	2.2 ^{Bby}	3.5 ^a	2.2 ^{Bby}	1.7 ^{Bby}	4.3 ^A	0.26	<0.001	<0.001	0.001
n-6/n-3	1.8 ^{Ba}	1.5 ^{by}	1.6 ^{Babz}	1.7 ^{Bc}	2.1 ^{Bbx}	2.6 ^{Bay}	1.8 ^{Bc}	2.4 ^{Bbx}	3.5 ^{Bax}	1.1 ^A	0.13	<0.001	<0.001	<0.001

^{a,b,c} Within diet, means bearing different letters were significantly different due to feeding duration (36 vs 54 vs 72 days) ($P < 0.05$).

^{x,y,z} Within feeding duration, means bearing different letters were significantly different due to diet (S vs SC vs C) ($P < 0.05$).

^{A,B} Means bearing different letters were significantly different from Pasture treatment (obtained using Bonferroni adjustment) ($P < 0.05$).

∑SFA: C10:0+C12:0+C14:0+C15:0+C16:0+C17:0+C18:0+C20:0+C22:0+C24:0. ∑MUFA: C14:1+C15:1+C16:1+C18:1 *trans*-9+C18:1 *cis*-9+C18:1n-

7+C20:1n-9. ∑PUFA: C18:2n-6+C18:3n-6+C18:3n-3+ C18:2 *cis*-9 *trans*-11 +C20:2+C20:3n-6+C20:4n-6+C20:5n-3+C22:5n-3+C22:6n-3. P/S: PUFA/SFA.

∑n-6 PUFA: C18:2n-6+C18:3n-6+C20:3n-6+C20:4n-6. ∑n-3 PUFA: C18:3n-3+C20:5n-3+C22:5n-3+C22:6n-3. n-6/n-3: n-6 PUFA/n-3 PUFA