Effects of dietary iodine supplement on sheep milk and cheese

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SUPPLEMENTARY FILE

Supplementary Table S1. Chemical composition of milk obtained from control group (Ctr) and iodine group (I); values are the mean ± SD.

	Milk	
	Ctr	I
Fat, %	7.32 ± 1.35	6.77 ± 1.66
Protein, %	6.07 ± 0.29	5.87 ± 0.15
Lactose %	4.56 ± 0.12	4.64 ± 0.08
Urea mg/dL	30.93 ± 4.73	31.46 ± 4.64
Casein %	4.77 ± 0.29	4.6 ± 0.16
Solid %	18.63 ± 1.53	17.97 ± 1.70
SCC ($\times 10^3$ cells/mL)	851 ± 315	1032 ± 530
Total bacterial count (CFU/mL)	2933 ± 11135	1186 ± 272
pH	6.69 ± 0.27	7.04 ± 0.83

Supplementary Table S2. Chemical composition of cheese obtained from control group (Ctr) and experimental group fed with dietary iodine supplementation (I); values are the mean ± SD.

	Cheese	
	Ctr	I
Fat, %	27.66 ± 1.96	28.55 ± 1.55
Protein, %	21.60 ± 0.74	20.73 ± 1.09
Humidity %	46.28 ± 1.49	47.44 ± 2.68

Supplementary Table S3. Fatty acid composition in milk and cheese obtained from control group (Ctr) and iodine group (I); the cheeses were analyzed at 0 (T0) and 60 (T60) days after cheese-making. Values are reported as mean relative percentages ± SD. TBARS values, reported as μg of malondialdehyde per g of cheese (on a DM basis), concern the extent of lipid oxidation.

	Milk		(T0)		(T60)	
	Ctr	I	Ctr	I	Ctr	I
C4:0	2.04± 1.01	2.00 ± 0.75	1.81 ± 0.35	1.85 ± 0.60	2.08 ± 1.19	1.98 ±0.53
C6:0	2.04± 0.83	2.20 ± 0.84	1.53 ± 0.34	1.29 ± 0.31	1.57 ±0.85	1.42 ± 0.43
C8:0	2.28± 0.78	2.65 ± 0.97	1.58 ± 0.33	1.14 ± 0.19	1.54 ± 0.74	1.36 ± 0.33
C10:0	7.89± 2.05	9.75 ± 3.07	4.33 ± 0.66	3.44 ± 0.46	4.40 ± 1.8	3.94 ±0.79
C11:0	0.31± 0.08	0.32 ± 0.09	ND	ND	ND	ND
C12:0	5.00± 1.14	6.18 ± 1.47	2.79 ± 0.19	2.33 ±0.18	2.91 ± 0.85	2.55 ± 0.31
C14:0	12.32± 1.75	11.295± 1.24	8.14 ± 0.52	7.96 ± 0.42	8.66 ± 1.70	8.17 ± 0.64
C14:1	0.62 ± 0.25	0.73 ± 0.11	0.49 ±0.02	0.55 ± 0.02	ND	ND
C15:0	1.20 ± 0.18	1.26 ± 0.12	0.87 ± 0.06	0,98 ± 0,03	0.91 ± 0.11	0.97 ±0.05
C16:0	23.43±2.30	23.19 ± 1.57	22.59±0.68	23.76±0.73	23.33±1.11	23.50±0.71
C16:1	0.96± 0.09	0.87 ± 0.22	0.86 ± 0.36	0.94 ± 0.41	1.07 ± 0.08	1.07 ± 0,03
C17:0	0.53± 0.09	0.46 ± 0.18	0.64 ± 0.02	0.58 ± 0.04	0.65 ± 0.06	0.58 ± 0.02
C18:0	7.97 ±1.14	6.50 ± 1.06*	16.04±0.62	16.89±1.30	16.31± 2.76	16.97± 1.94
C18:1 *trans11*	4.19± 1.58	4.95 ± 1.50	3.31 ±0.70	2.05 ± 1.07	2.17 ± 0.65	2.78 ± 1.24
C18:1 *cis9*	17.40±3.67	14.22±2.83*	29.66±1.07	30.62±1.37	28.45±4.23	28.61±1.25
C18:1 *cis11*	0.61 ± 0.14	0.53 ± 0.16	0.28 ± 0.11	0.36 ± 0.23	0.19 ± 0.02	0.16 ± 0.03
C18:2	1.84 ± 0.63	1.95 ± 0.67	2.20 ±0.26	2.22 ± 0,19	2.28 ± 0.20	2.16 ± 0.13
C18:3	0.86 ± 0.39	0.88 ± 0.36	1.12 ±0.04	1.33 ± 0.05	1.10 ± 0.18	1.33 ± 0.01
CLA c9 t11	1.73 ± 1.03	1.82 ± 0.72	0.98 ±0.33	1.31 ± 0.05	1.18 ± 0.23	1.16 ± 0.25
C20:4	ND	ND	0.15 ± 0.16	0.21 ± 0.19	0.21 ± 0.19	0.22 ± 0.19
C20:5 EPA	ND	ND	0.04 ± 0.03	0.03 ± 0.05	0.02 ± 0.03	0.00 ± 0,00
C22:5	ND	ND	0.04 ± 0.06	0.07 ± 0.06	0.02 ± 0.03	0,00 ± 0,00
TBARS	NE	NE	1.25 ± 0.32	0.75 ± 0.27	2.40 ± 0.66	2.69 ± 0.69

* $P < 0.05$ vs Ctr; ND: not determined; TBARS: thiobarbituric acid reactive substances;

NE: not evaluated