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Effects of 2,4- thiazolidinedione (TZD) on milk fatty acid profile and serum vitamins in dairy goats challenged with intramammary infusion of *Streptococcus uberis*

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SUPPLEMENTARY FILE

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2 **Supplementary Table 1.** Fatty acid (g/100 g of fatty acid methyl ester) composition of milk obtained from dairy goats
 3 containing sub-clinic mastitis (M) with thiazolidinedione (TZD) treatment (MTZD) or without TZD (MCTR), or no mastitis
 4 with TZD (CTZD) treatment or without TZD (CTRL) at day -8 relative with IMI treatment (n = 6 per treatment).

Fatty acid (g/100 g)	CTRL	Treatments			SEM
		CTZD	MCTR	MTZD	
C11:0	0.25	0.12	0.10	0.20	0.02
C12:0	7.24	6.71	6.54	6.94	0.64
C13:0	0.08	0.08	0.07	0.08	0.32
C14:0	17.12	16.06	16.88	17.26	0.78
C14:1	1.05	1.08	1.11	1.06	0.09
C15:0	1.75	1.88	1.79	1.86	0.11
C15:1	0.04	0.03	0.03	0.03	0.01
C16:0	37.88	35.15	35.11	33.90	1.34
C16:1	0.88	0.75	0.92	0.72	0.10
C17:0	0.76	0.86	0.79	0.88	0.06
C17:1	0.56	0.64	0.74	0.60	0.05
C18:0	5.99	7.46	6.45	7.14	0.76
C18:1 TRANS	0.78	0.27	0.71	0.99	0.23
C18:1 CIS	20.87	23.59	23.50	23.20	1.65
C18:2 TRANS	0.20	0.22	0.21	0.21	0.05
C18:2 CIS	1.28	1.44	1.42	1.32	0.24
C18:3 N6	0.01	0.02	0.01	0.02	0.002
C20:0	0.19	0.21	0.19	0.20	0.02
C18:3 N3	0.99	1.16	1.15	1.17	0.08
C20:1	1.37	1.43	1.48	1.45	0.11
C21:0	0.13	0.15	0.13	0.15	0.01
C20:2	0.05	0.15	0.09	0.08	0.03
C22:0	0.01	0.01	0.01	0.01	0.002
C20:3 N6	0.06	0.08	0.07	0.08	0.01
C20:3 N3	0.18	0.15	0.18	0.17	0.02
C22:1	0.002	0.001	0.002	0.002	0.002
C20:4	0.003	0.002	0.001	0.005	0.0005
C23:0	0.02	0.03	0.03	0.03	0.009
C22:2	0.09	0.09	0.01	0.08	0.008
C20:5	0.03	0.04	0.03	0.03	0.007
C24:0	0.02	0.03	0.02	0.04	0.010
C24:1	0.04	0.05	0.08	0.07	0.014
C22:6	0.05	0.05	0.05	0.04	0.014

4 **Supplementary Table 2.** Fatty acid (g/100 g of fatty acid methyl ester) composition of milk obtained from dairy goats
5 containing sub-clinic mastitis (M) with thiazolidinedione (TZD) treatment (MTZD) or without TZD (MCTR) or no mastitis
6 with TZD (CTZD) treatment or without TZD (CTRL) at day 1 relative with IMI treatment (n = 6 per treatment).

Fatty acid (g/100 g)	Treatments			SEM	
	CTRL	CTZD	MCTR		MTZD
C11:0	0.09	0.10	0.06	0.11	0.02
C12:0	6.35	6.91	6.22	5.87	0.64
C13:0	0.10	0.06	0.06	0.08	0.32
C14:0	15.95	16.33	15.86	15.50	0.78
C14:1	0.76	0.91	0.86	0.82	0.09
C15:0	1.50	1.61	1.61	1.56	0.11
C15:1	0.05	0.02	0.03	0.03	0.01
C16:0	34.00	33.22	32.70	33.74	1.34
C16:1	0.64	0.74	0.63	0.68	0.10
C17:0	0.82	0.79	0.84	0.77	0.06
C17:1	0.76	0.73	0.81	0.81	0.05
C18:0	8.39	8.01	8.71	8.13	0.76
C18:1 TRANS	1.37	1.18	1.28	1.10	0.23
C18:1 CIS	24.24	24.17	25.62	25.84	1.65
C18:2 TRANS	0.20	0.17	0.17	0.15	0.05
C18:2 CIS	1.79	1.24	1.09	1.34	0.24
C18:3 N6	0.01	0.01	0.01	0.01	0.002
C20:0	0.18	0.22	0.21	0.20	0.02
C18:3 N3	1.33	1.26	1.21	1.22	0.08
C20:1	1.40	1.55	1.47	1.39	0.11
C21:0	0.10	0.12	0.12	0.11	0.01
C20:2	0.12	0.09	0.11	0.12	0.03
C22:0	0.02	0.01	0.01	0.02	0.002
C20:3 N6	0.07	0.08	0.08	0.08	0.01
C20:3 N3	0.18	0.16	0.15	0.18	0.02
C22:1	0.007	0.007	0.01	0.01	0.002
C20:4	0.0001	0.0001	0.0001	0.0001	0.0001
C23:0	0.03	0.03	0.03	0.03	0.009
C22:2	0.10	0.09	0.09	0.10	0.008
C20:5	0.03	0.05	0.05	0.04	0.007
C24:0	0.02	0.01	0.03	0.01	0.010
C24:1	0.09	0.07	0.09	0.09	0.014
C22:6	0.02	0.03	0.03	0.02	0.014

7 **Supplementary Table 3.** Fatty acid (g/100 g of fatty acid methyl ester) composition of milk obtained from dairy goats
8 containing sub-clinic mastitis (M) with thiazolidinedione (TZD) treatment (MTZD) or without TZD (MCTR) or no mastitis
9 with TZD (CTZD) treatment or without TZD (CTRL) at day 4 relative with IMI treatment (n = 6 per treatment).

Fatty acid (g/100 g)	Treatments			SEM	
	CTRL	CTZD	MCTR		MTZD
C11:0	0.08	0.10	0.10	0.12	0.02
C12:0	6.42	6.92	6.52	6.79	0.64
C13:0	0.07	0.05	0.08	0.06	0.32
C14:0	15.70	16.40	15.16	16.35	0.78
C14:1	0.72	0.90	0.75	0.91	0.09
C15:0	1.50	1.51	1.45	1.56	0.11
C15:1	0.03	0.03	0.02	0.04	0.01
C16:0	32.06	32.38	31.23	32.45	1.34
C16:1	0.72	0.72	0.66	0.77	0.10
C17:0	0.88	0.76	0.86	0.80	0.06
C17:1	0.80	0.81	0.85	0.81	0.05
C18:0	8.39	7.24	9.24	8.17	0.76
C18:1 TRANS	1.65	1.25	1.24	2.14	0.23
C18:1 CIS	24.96	25.33	26.45	23.66	1.65
18:2 TRANS	0.20	0.12	0.18	0.23	0.05
C18:2 CIS	1.96	1.79	1.87	1.87	0.24
C18:3 N6	0.014	0.010	0.012	0.009	0.002
C20:0	0.18	0.19	0.20	0.19	0.02
C18:3 N3	1.39	1.25	1.27	1.19	0.08
C20:1	1.26	1.55	1.30	1.31	0.11
C21:0	0.12	0.08	0.12	0.11	0.01
C20:2	0.05	0.06	0.08	0.03	0.03
C22:0	0.02	0.01	0.01	0.02	0.002
C20:3 N6	0.06	0.07	0.08	0.07	0.01
C20:3 N3	0.18	0.15	0.14	0.15	0.02
C22:1	0.012	0.008	0.008	0.010	0.002
C20:4	0.0001	0.0001	0.0001	0.0001	0.0001
C23:0	0.013	0.022	0.030	0.010	0.009
C22:2	0.09	0.08	0.09	0.08	0.008
C20:5	0.03	0.05	0.05	0.05	0.007
C24:0	0.03	0.02	0.03	0.03	0.010
C24:1	0.07	0.09	0.11	0.10	0.014
C22:6	0.01	0.03	0.02	0.05	0.014

10 **Supplementary Table 4.** Fatty acid (g/100 g of fatty acid methyl ester) composition of milk obtained from dairy goats
 11 containing sub-clinic mastitis (M) with thiazolidinedione (TZD) treatment (MTZD) or without TZD (MCTR) or no mastitis
 12 with TZD (CTZD) treatment or without TZD (CTRL) at day 7 relative with IMI treatment (n = 6 per treatment).

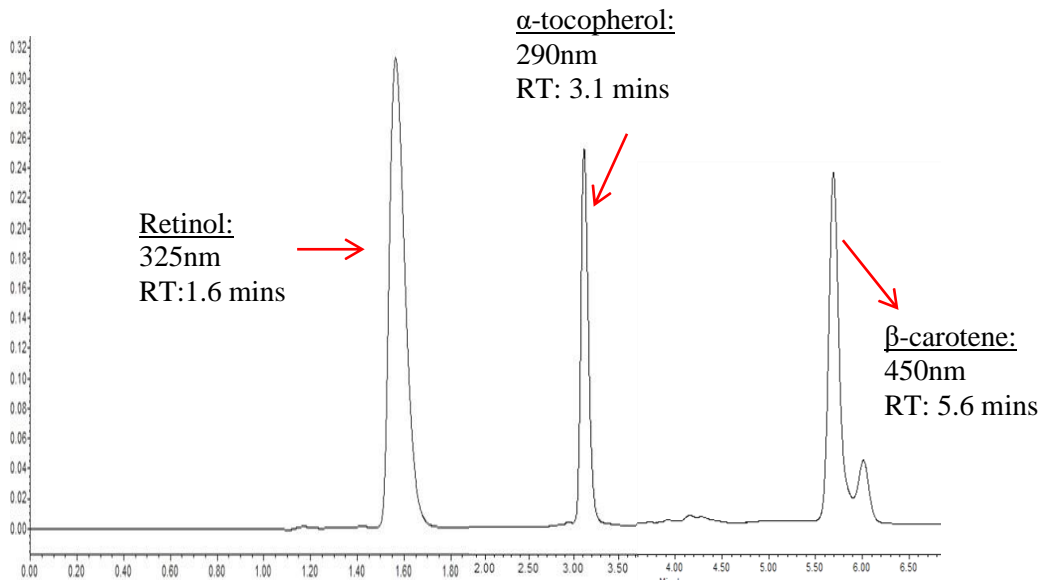
Fatty acid (g/100 g)	Treatments				SEM
	CTRL	CTZD	MCTR	MTZD	
C11:0	0.07	0.07	0.08	0.05	0.02
C12:0	5.99	6.26	6.12	5.76	0.64
C13:0	0.17	0.08	0.10	0.12	0.32
C14:0	15.54	15.23	14.73	16.07	0.78
C14:1	0.75	0.88	0.73	0.88	0.09
C15:0	1.57	1.64	1.49	1.60	0.11
C15:1	0.04	0.03	0.03	0.03	0.01
C16:0	33.80	31.32	32.51	35.08	1.34
C16:1	0.44	0.58	0.64	0.62	0.10
C17:0	0.61	0.67	0.66	0.58	0.06
C17:1	0.74	0.74	0.74	0.69	0.05
C18:0	8.39	8.80	9.76	8.44	0.76
C18:1 TRANS	1.03	1.36	1.17	0.94	0.23
C18:1 CIS	23.71	25.78	25.05	23.13	1.65
18:2 TRANS	0.20	0.19	0.10	0.08	0.05
C18:2 CIS	2.13	1.96	2.22	1.95	0.24
C18:3 N6	0.01	0.01	0.01	0.01	0.002
C20:0	0.24	0.23	0.22	0.22	0.02
C18:3 N3	1.60	1.57	1.50	1.45	0.08
C20:1	1.47	1.56	1.27	1.37	0.11
C21:0	0.11	0.11	0.10	0.10	0.01
C20:2	0.13	0.15	0.07	0.15	0.03
C22:0	0.02	0.02	0.02	0.02	0.002
C20:3 N6	0.09	0.09	0.08	0.08	0.01
C20:3 N3	0.20	0.16	0.20	0.17	0.02
C22:1	0.008	0.003	0.010	0.008	0.002
C20:4	0.0001	0.0001	0.0001	0.0001	0.0001
C23:0	0.03	0.02	0.02	0.03	0.009
C22:2	0.11	0.10	0.11	0.09	0.008
C20:5	0.06	0.07	0.05	0.06	0.007
24:0	0.05	0.03	0.04	0.04	0.010
C24:1	0.10	0.10	0.10	0.10	0.014
C22:6	0.03	0.05	0.05	0.02	0.014

13 **Supplementary Table 5.** Fatty acid (g/100 g of fatty acid methyl ester) composition of milk obtained from dairy goats
 14 containing sub-clinic mastitis (M) with thiazolidinedione (TZD) treatment (MTZD) or without TZD (MCTR) or no mastitis
 15 with TZD (CTZD) treatment or without TZD (CTRL) at day 12 relative with IMI treatment (n = 6 per treatment).

Fatty acid (g/100 g)	Treatments			SEM	
	CTRL	CTZD	MCTR		MTZD
C11:0	0.10	0.10	0.08	0.12	0.02
C12:0	7.00	6.41	6.31	6.94	0.64
C13:0	0.09	0.05	0.06	0.06	0.32
C14:0	17.72	15.74	16.52	17.75	0.78
C14:1	0.88	0.95	0.96	0.99	0.09
C15:0	1.41	1.54	1.52	1.49	0.11
C15:1	0.01	0.02	0.01	0.04	0.01
C16:0	36.81	32.84	36.55	35.88	1.34
C16:1	0.43	0.66	0.57	0.65	0.10
C17:0	0.58	0.70	0.64	0.62	0.06
C17:1	0.64	0.73	0.65	0.62	0.05
C18:0	6.03	7.28	6.28	6.13	0.76
C18:1 TRANS	0.69	1.09	1.02	0.93	0.23
C18:1 CIS	21.84	25.64	23.14	22.04	1.65
C18:2 TRANS	0.09	0.09	0.15	0.18	0.05
C18:2 CIS	1.61	1.83	1.83	1.90	0.24
C18:3 N6	0.01	0.01	0.01	0.01	0.002
C20:0	0.18	0.23	0.20	0.18	0.02
C18:3 N3	1.24	1.43	1.26	1.36	0.08
C20:1	1.51	1.76	1.59	1.43	0.11
C21:0	0.09	0.11	0.08	0.10	0.01
C20:2	0.11	0.15	0.11	0.14	0.03
C22:0	0.02	0.01	0.02	0.02	0.002
C20:3 N6	0.07	0.09	0.07	0.07	0.01
C20:3 N3	0.18	0.18	0.20	0.19	0.02
C22:1	0.002	0.003	0.008	0.008	0.002
C20:4	0.0001	0.0001	0.0001	0.0001	0.0001
C23:0	0.03	0.03	0.03	0.02	0.009
C22:2	0.10	0.11	0.11	0.10	0.008
C20:5	0.04	0.07	0.05	0.06	0.007
C24:0	0.04	0.04	0.04	0.04	0.010
C24:1	0.09	0.09	0.09	0.10	0.014
C22:6	0.04	0.03	0.01	0.03	0.014

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Supplementary Figure 1. The determination of lipid-soluble vitamin in HPLC



37 **Supplementary Figure 2.** The determination of retinoic acid in HPLC
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