

**Supplementary File**

**Milk cathelicidin and somatic cell counts in dairy goats along lactation**

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**Supplementary Table 1.** Descriptive statistics of all SCC and cathelicidin values measured along lactation. Values are reported collectively for all goats, and separately for primiparous and multiparous goats.

		SCC x 10 <sup>3</sup> /mL														
		<i>All goats (n = 360)</i>					<i>Primiparous goats (n = 130)</i>					<i>Multiparous goats (n = 230)</i>				
Sampling month		Mar	May	Jul	Sep	Nov	Mar	May	Jul	Sep	Nov	Mar	May	Jul	Sep	Nov
Number of samples		72	74	72	72	70	26	26	26	26	26	46	48	46	46	44
25th Percentile		32.0	67.0	178.5	324.0	2361.0	29.5	52.0	121.3	208.3	734.0	36.5	87.0	325.8	509.5	3912.0
<b>Median</b>		<b>67.0</b>	<b>140.0</b>	<b>356.5</b>	<b>571.5</b>	<b>4366.0</b>	<b>62.0</b>	<b>87.0</b>	<b>177.5</b>	<b>322.5</b>	<b>1177.0</b>	<b>67.5</b>	<b>325.0</b>	<b>810.5</b>	<b>1015.0</b>	<b>5254.0</b>
75th Percentile		153.3	557.0	1126.0	1356.0	6341.0	110.3	177.0	318.5	425.0	2685.0	396.3	783.3	1590.0	2033.0	6715.0
<b>Mean</b>		<b>218.7</b>	<b>445.9</b>	<b>877.0</b>	<b>1092.0</b>	<b>4332.0</b>	<b>131.9</b>	<b>184.6</b>	<b>233.8</b>	<b>365.6</b>	<b>2359.0</b>	<b>267.8</b>	<b>587.5</b>	<b>1241.0</b>	<b>1503.0</b>	<b>5498.0</b>
Std. Deviation		362.4	727.2	1149.0	1223.0	2644.0	335.5	387.6	167.3	196.2	2430.0	371.3	826.5	1302.0	1363.0	2009.0
		Cathelicidin (NOD450)														
		<i>All goats (n = 360)</i>					<i>Primiparous goats (n = 130)</i>					<i>Multiparous goats (n = 230)</i>				
Sampling month		Mar	May	Jul	Sep	Nov	Mar	May	Jul	Sep	Nov	Mar	May	Jul	Sep	Nov
Number of samples		72	74	72	72	70	26	26	26	26	26	46	48	46	46	44
25th Percentile		-0.0028	-0.0191	0.0067	0.0289	0.0399	0.0042	-0.0280	-0.0092	0.0257	-0.0053	-0.0048	-0.0144	0.0147	0.0329	0.0979
<b>Median</b>		<b>0.0098</b>	<b>-0.0118</b>	<b>0.0311</b>	<b>0.0450</b>	<b>0.2263</b>	<b>0.0103</b>	<b>-0.0190</b>	<b>0.0090</b>	<b>0.0344</b>	<b>0.0678</b>	<b>0.0087</b>	<b>0.0029</b>	<b>0.0575</b>	<b>0.0602</b>	<b>0.4098</b>
75th Percentile		0.0244	0.0340	0.0857	0.0918	1.1390	0.0179	-0.0137	0.0359	0.0566	0.2760	0.0383	0.0488	0.1219	0.1171	2.6030
<b>Mean</b>		<b>0.0189</b>	<b>0.0068</b>	<b>0.1138</b>	<b>0.0823</b>	<b>0.7525</b>	<b>0.0136</b>	<b>-0.0153</b>	<b>0.0191</b>	<b>0.0411</b>	<b>0.2793</b>	<b>0.0220</b>	<b>0.0188</b>	<b>0.1674</b>	<b>0.1056</b>	<b>1.0320</b>
Std. Deviation		0.0343	0.0439	0.2811	0.1020	1.0010	0.0179	0.0355	0.0381	0.0228	0.5162	0.0407	0.0437	0.3403	0.1208	1.1120

**Supplementary Table 2.** Statistical significance of the differences in cathelicidin and SCC levels along lactation according to the Generalized Estimating Equation model.

Cathelicidin		
Sampling month	N	Different (P<0.05) from
March	72	(May) (Jul) (Sep) (Nov)
May	74	(Mar) (Jul) (Sep) (Nov)
July	72	(Mar) (May) (Nov)
September	72	(Mar) (May) (Nov)
November	70	(Mar) (May) (Jul) (Sep)
SCC		
Sampling month	N	Different (P<0.05) from
March	72	(Jul) (Sep) (Nov)
May	74	(Mar) (Jul) (Sep) (Nov)
July	72	(Mar) (May) (Sep) (Nov)
September	72	(Mar) (May) (Jul) (Nov)
November	70	(Mar) (May) (Jul) (Sep)

**Supplementary Table 3.** Details of the 2x2 analysis carried out on cathelicidin and SCC against bacteriological culture results as the gold standard.

Test	AUC (95% CI)	%Se (95% CI)	%Sp (95% CI)	True pos	False pos	False neg	True Neg
Cathelicidin ELISA	0.631 (0.578-.681)	85.71 (63.66-96.95)	40.41 (35.15-45.85)	18	202	3	137
NOD 450							
SCC 500*10 <sup>3</sup> cells/mL	0.630 (0.578-0.680)	71.43 (47.83-88.72)	54.57 (49.10-59.96)	15	154	6	185
SCC 1000*10 <sup>3</sup> cells/mL	0.458 (0.406-0.511)	23.81 (8.22-47.17)	67.85 (62.59-72.79)	5	109	16	230