

**Supplemental table S3: Effects of fixed effects in models 2a-d on metabolites of calves.**

**The table includes log transformed Least-squares means (LSMeans) with corresponding SE, number of observations (n) and P-value.**

Metabolite	Model	Fixed effect	effect class	LSMeans (log transformed)	SE	n	P-value
SM C18:0	2a	mTHI-class	mTHI >= 60	0.4591	0.03203	16	**
			mTHI < 60	0.5954	0.02274	31	
		age at blood sampling (d)	1	0.4112	0.04544	8	***
			2 to 3	0.4559	0.03511	13	
			4 to 5	0.5916	0.03511	13	
6 to 7			0.6503	0.03562	13		
SM C18:1		mTHI-class	mTHI >= 60	0.02629	0.03195	16	***
			mTHI < 60	0.1666	0.02268	31	
		age at blood sampling (d)	1	-0.03402	0.04533	8	***
			2 to 3	0.02997	0.03502	13	
	4 to 5		0.1562	0.03502	13		
6 to 7	0.2337		0.03553	13			
PC ae C36:0	mTHI-class	mTHI >= 60	-0.4229	0.03736	16	***	
		mTHI < 60	-0.2591	0.02652	31		
	age at blood sampling (d)	1	-0.4688	0.05300	8	**	
		2 to 3	-0.3834	0.04095	13		
		4 to 5	-0.2726	0.04095	13		
6 to 7		-0.2392	0.04151	13			
PC ae C36:2	mTHI-class	mTHI >= 60	0.5599	0.04083	16	**	
		mTHI < 60	0.7325	0.02899	31		
	age at blood sampling (d)	1	0.4827	0.05793	8	**	
		2 to 3	0.6594	0.04476	13		
		4 to 5	0.7304	0.04476	13		
6 to 7		0.7123	0.04540	13			

PC aa C38:1	2b	mTHI-class	mTHI $\geq$ 60	-0.8152	0.1116	16	***	
			mTHI $<$ 60	-0.3187	0.1021	31		
		calving condition	no birth assistance	-0.5814	0.06794	35	n.s.	
			minor birth assistance/dystocia	-0.5525	0.1594	6		
PC ae C38:3	2c	mTHI-class	mTHI $\geq$ 60	-0.08344	0.03655	16	**	
CE(17:1)			mTHI $<$ 60	0.04971	0.02626	31		
		mTHI-class	mTHI $\geq$ 60	0.4522	0.04194	16	**	
mTHI $<$ 60			0.5952	0.03013	31			
CE(20:3)		mTHI-class	mTHI $\geq$ 60	0.3491	0.03977	16	**	
			mTHI $<$ 60	0.5175	0.02857	31		
<i>p</i> -Cresol-SO4		2d	mTHI-class	mTHI $\geq$ 60	-0.2636	0.1314	16	*
				mTHI $<$ 60	0.05451	0.1243	31	
	age at blood sampling (d)		1	-0.06854	0.08173	8	n.s.	
			2 to 3	-0.1406	0.1993	13		
			4 to 5	0.01552	0.1769	13		
			6 to 7	-0.2915	0.1313	13		
	calving condition		no birth assistance	-0.2583	0.1689	35	n.s.	
			minor birth assistance/dystocia	0.1161	0.1847	6		