

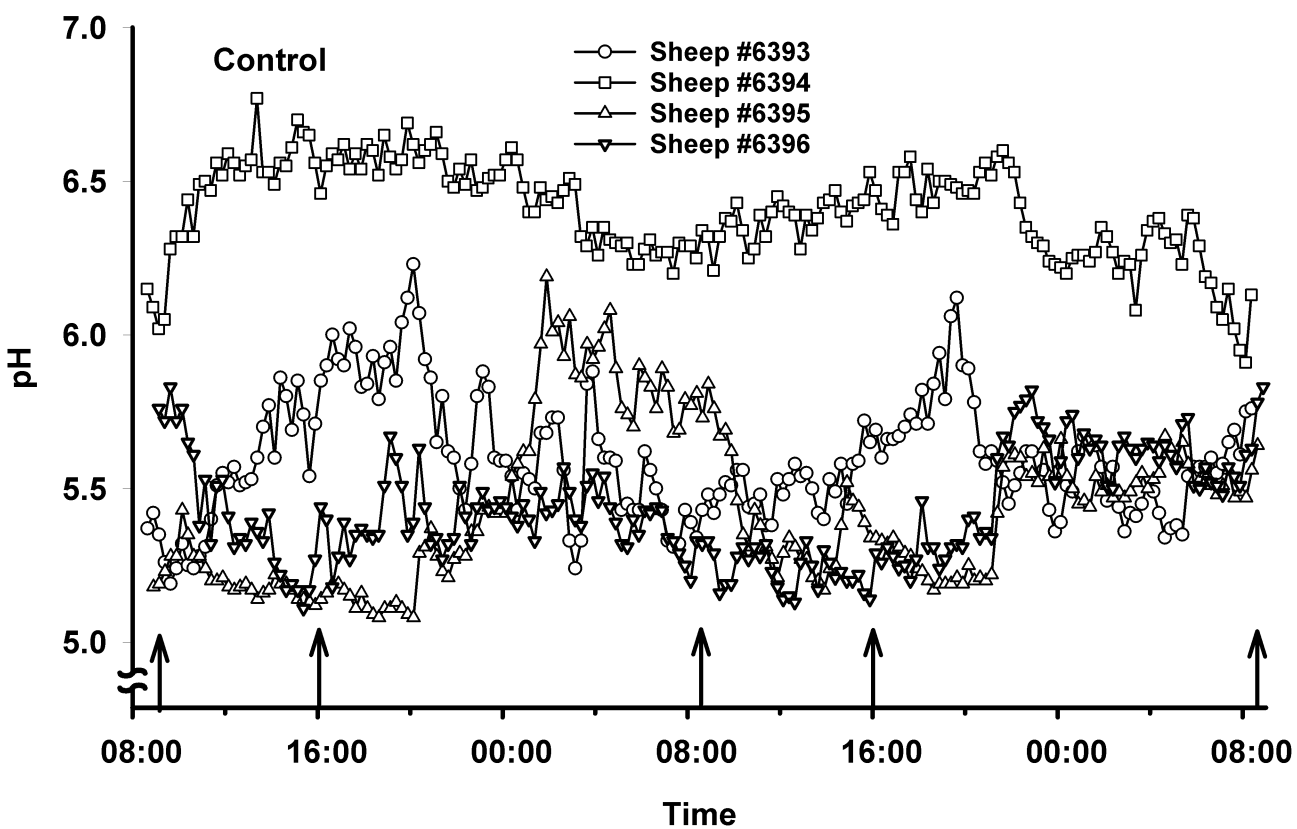
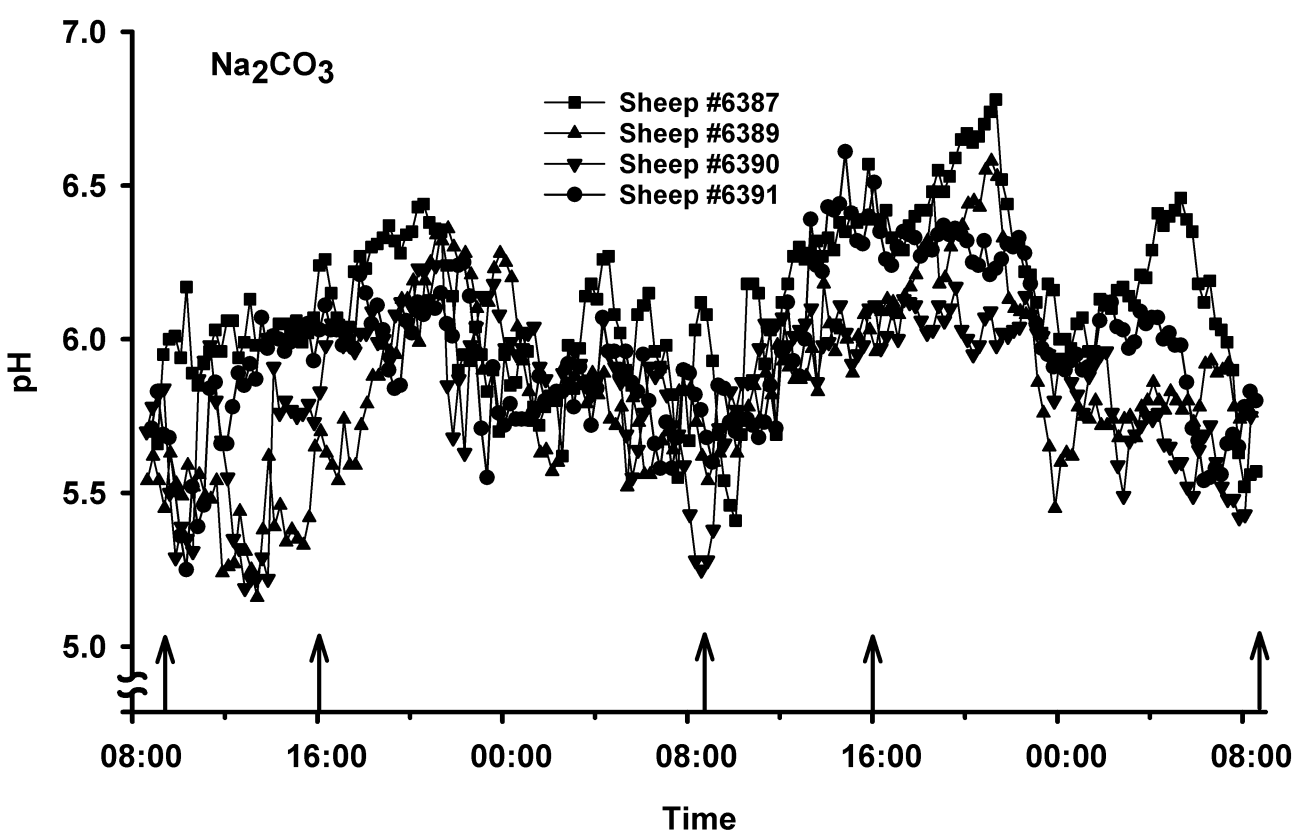
Effect of altering ruminal pH by dietary buffer supplementation on methane emissions from sheep fed forage rape

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Animal

Supplementary Figure S1 Daily ruminal pH value of fistulated sheep fed forage rape, with or without Na₂CO₃ supplemented, measured using pH bolus at an interval of 15 min during the CH₄ measurement period of P04. The arrows indicate the feeding time.

Supplementary Table S1 Area (pH x hour) below a certain level of daily ruminal pH value of fistulated sheep (n=4 per treatment for each period) fed forage rape supplemented with sodium carbonate (Na₂CO₃: SC) or unsupplemented control diet (C), measured using pH monitoring boluses.



Supplementary Figure S1 Daily ruminal pH value of fistulated sheep fed forage rape, with or without Na₂CO₃ supplemented, measured using pH bolus at an interval of 15 min during the CH₄ measurement period of P04. The arrows indicate the feeding time.

Supplementary Table S1 Area (pH x hour) below a certain level of daily ruminal pH value of fistulated sheep (n=4 per treatment for each period) fed forage rape supplemented with sodium carbonate (Na₂CO₃: SC) or unsupplemented control diet (C), measured using pH monitoring boluses.

	Treatment		SEM	P value
	C	SC		
pH<5.5				
P01	0.59	0.52	0.197	0.80
P02	0.39	0.44	0.225	0.88
P03	0.42	0	0.155	0.11
P04	1.78	0.21	0.580	0.11
P05	0.63	0.06	0.385	0.34
P06	0.61	0.16	0.248	0.25
P07	0.30	0.21	0.122	0.63
pH<5.8				
P01	4.27	3.47	0.943	0.57
P02	3.17	2.53	1.112	0.70
P03	2.92	0.10	0.730	0.03
P04	5.89	1.36	1.545	0.08
P05	2.81	0.7	1.063	0.21
P06	3.84	1.51	1.226	0.23
P07	2.95	3.15	0.953	0.89
pH<6.0				
P01	8.40	6.85	1.416	0.47
P02	6.54	5.24	1.828	0.63
P03	6.43	0.69	1.132	0.01
P04	9.30	3.42	2.363	0.13
P05	6.00	2.29	1.845	0.20
P06	7.29	3.45	2.183	0.26
P07	6.10	6.86	1.720	0.77
pH<6.2				
P01	13.09	10.93	1.716	0.41
P02	10.59	8.98	2.368	0.65
P03	10.86	2.53	1.267	<0.01
P04	12.91	6.87	3.188	0.23
P05	9.57	5.00	2.823	0.30
P06	10.93	6.78	3.101	0.38
P07	9.78	11.24	2.385	0.68

The SC diet contained 0, 0, 5, 5, 8, 8, 0% Na₂CO₃ of forage dry matter in Periods 01 to 07 (P01 to P07), respectively.