

Supplementary Table S1. *In vitro* 72 h cumulative gas (GP-72) and methane (CH₄-72) production and associated model parameters of the organic matter (OM) of single concentrates commonly used in dairy cattle nutrition in Thailand and Vietnam.

Parameter	Brewer's grain	Cassava waste	Coconut meal	Green bean shells	Palm kernel cake	Rice bran	Cassava (peeled tuber)	Corn grain
GP-72, mL/g OM	169.5	364.5	212.1	286.7	241.8	153.1	420.3	384.8
A1, mL/g OM	30.0	21.5	7.1	13.2	17.8	26.7	24.4	11.3
A2, mL/g OM	84.4	279.5	191.9	129.3	126.7	117.5	274.9	239.1
A3, mL/g OM	55.2	63.5	13.1	144.2	97.3	8.8	121.0	134.4
B1	0.95	0.93	15.1	3.06	3.26	2.41	2.32	3.71
B2	2.57	3.39	3.58	2.55	2.63	3.08	2.97	3.98
B3	4.24	5.36	22.70	3.45	3.77	37.25	8.10	5.22
C1, h	1.07	2.99	9.31	1.74	1.71	1.37	1.40	1.52
C2, h	7.31	8.75	9.18	12.47	13.18	9.84	13.25	12.32
C3, h	31.92	24.00	17.20	31.11	24.91	15.12	19.84	25.39
Rmax1, mL/g OM/ h	25.0	10.8	3.4	6.5	9.9	15.3	12.8	7.5
Rmax2, mL/g OM/ h	8.70	29.66	20.25	7.78	7.35	10.25	17.46	20.57
Rmax3, mL/g OM/ h	1.93	3.63	4.18	4.33	3.95	4.90	12.45	7.13
CH ₄ -72, mL/g OM	35.1	55.0	29.6	58.7	50.8	19.1	78.3	63.6
CH ₄ -:GP-72, %	20.75	15.17	13.97	19.93	20.63	12.19	18.41	16.41
A, mL/g OM	138.7	60.4	29.8	75.3	58.0	20.7	80.2	67.5
B	0.88	1.67	3.06	1.66	1.84	1.53	2.82	2.34
C, h	266.06	17.73	10.60	32.87	24.19	14.14	17.54	20.52
Rmax, mL/g OM/ h	.	2.09	2.40	1.41	1.51	0.91	3.68	2.32
Tmax, h	.	7.67	8.49	14.02	12.35	4.90	13.48	13.86

A_i = asymptote of gas or CH₄ production in phase i (i = 1,2,3 for gas and 1 for CH₄); B_i = sharpness of the switching characteristic for the profile in phase i; C_i = incubation time at which half of maximum gas or CH₄ production has been formed in phase i; Rmax_i = maximum gas production rate in phase I and Tmax = time occurrence of Rmax.