

Table 6. Volatile fatty acid production and corresponding gas production after 24 h *in vitro* fermentation of substrates

	Hay*	MP	Dep. MP	AP HE	AP LE	CP HE	CP LE	Hay*	MP	Dep. MP	Phe. extr.	GA	Hay*	AP HE	AP LE	CP HE	CP LE	
	only	Supplement only				only	level III	level III	level IV	level IV	only	level III	level III	level III	level III	level III		
C2	323 ^a ±18	469 ^c ±14	376 ^b ±21	573 ^d ±23	587 ^d ±26	646 ^c ±18	625 ^c ±14	323 ^b ±18	348 ^c ±12	339 ^{bc} ±16	330 ^{bc} ±6	284 ^a ±9	323 ^a ±18	378 ^b ±8	378 ^b ±13	390 ^b ±10	392 ^b ±12	
C3	114 ^c ±4	157 ^e ±3	125 ^d ±9	103 ^b ±4	94 ^a ±2	98 ^{ab} ±4	97 ^a ±2	114 ^b ±4	121 ^c ±3	117 ^{bc} ±6	112 ^b ±4	94 ^a ±3	114 ^a ±4	113 ^a ±2	110 ^a ±4	111 ^a ±3	113 ^a ±3	
C4	33 ^d ±2	54 ^e ±2	29 ^c ±2	20 ^b ±1	18 ^a ±1	19 ^{ab} ±1	19 ^{ab} ±1	33 ^b ±2	39 ^c ±1	34 ^b ±2	32 ^{ab} ±1	30 ^a ±1	33 ^b ±2	30 ^a ±1	29 ^a ±1	30 ^a ±1	30 ^a ±1	
C5	3 ^d ±0	4 ^e ±0	3 ^{bc} ±0	2 ^a ±0	2 ^a ±0	3 ^{cd} ±0	3 ^b ±0	3 ^b ±0	3 ^b ±0	3 ^b ±0	3 ^b ±0	3 ^a ±0	3 ^b ±0	3 ^a ±0	3 ^b ±0	3 ^b ±0	3 ^b ±0	
Total	[µmol/100 mg DM] 475 ^a ±23	684 ^c ±17	533 ^b ±32	700 ^c ±27	702 ^c ±27	768 ^d ±28	745 ^d ±28	475 ^b ±23	511 ^c ±16	494 ^{bc} ±23	478 ^b ±9	412 ^a ±11	475 ^a ±23	525 ^b ±10	522 ^b ±18	535 ^b ±14	539 ^b ±16	
		68.11 ^a ±0.56	68.55 ^b ±0.60	70.55 ^c ±0.68	81.88 ^d ±0.39	83.55 ^e ±0.42	84.08 ^e ±0.24	83.83 ^e ±0.11	68.11 ^a ±0.56	68.03 ^a ±0.39	68.66 ^{ab} ±0.36	69.10 ^b ±0.50	69.03 ^b ±0.61	68.11 ^a ±0.56	72.08 ^b ±0.29	72.44 ^{bc} ±0.08	72.84 ^c ±0.34	72.61 ^{bc} ±0.15
C2	23.98 ^e ±0.67	22.93 ^d ±0.34	23.41 ^{de} ±0.55	14.79 ^c ±0.34	13.44 ^b ±0.41	12.76 ^a ±0.22	12.98 ^{ab} ±0.14	23.98 ^b ±0.67	23.63 ^b ±0.39	23.62 ^b ±0.50	23.35 ^{ab} ±0.50	22.73 ^a ±0.70	23.98 ^c ±0.67	21.48 ^b ±0.17	21.12 ^{ab} ±0.15	20.76 ^a ±0.32	20.87 ^a ±0.20	
C3	6.95 ^d ±0.22	7.95 ^e ±0.31	5.41 ^c ±0.08	2.88 ^b ±0.08	2.58 ^a ±0.04	2.51 ^a ±0.09	2.58 ^a ±0.07	6.95 ^c ±0.22	7.54 ^d ±0.10	6.81 ^b ±0.16	6.64 ^a ±0.13	7.29 ^c ±0.18	6.95 ^b ±0.22	5.63 ^a ±0.24	5.62 ^a ±0.07	5.54 ^a ±0.09	5.63 ^a ±0.15	
C4	6.95 ^d ±0.22	7.95 ^e ±0.31	5.41 ^c ±0.08	2.88 ^b ±0.08	2.58 ^a ±0.04	2.51 ^a ±0.09	2.58 ^a ±0.07	6.95 ^c ±0.22	7.54 ^d ±0.10	6.81 ^b ±0.16	6.64 ^a ±0.13	7.29 ^c ±0.18	6.95 ^b ±0.22	5.63 ^a ±0.24	5.62 ^a ±0.07	5.54 ^a ±0.09	5.63 ^a ±0.15	
C5	0.70 ^d ±0.02	0.54 ^c ±0.02	0.57 ^c ±0.06	0.34 ^a ±0.06	0.31 ^a ±0.01	0.42 ^b ±0.01	0.39 ^b ±0.01	0.70 ^b ±0.02	0.64 ^a ±0.01	0.68 ^b ±0.02	0.71 ^b ±0.03	0.71 ^b ±0.03	0.70 ^b ±0.02	0.59 ^a ±0.02	0.59 ^a ±0.01	0.61 ^a ±0.02	0.63 ^a ±0.01	
GP	[mL/100 mg DM] 23.64 ±0.98	36.52 ±0.65	29.22 ±5.25	40.96 ±2.57	40.06 ±2.30	43.69 ±1.92	40.05 ±2.76	23.64 ±0.98	26.65 ±1.08	24.25 ±1.12	24.72 ±0.64	22.13 ±0.81	23.64 ±0.98	28.81 ±1.07	27.88 ±1.06	29.71 ±0.47	27.61 ±0.78	
CH ₄		5.48 ±1.18	9.01 ±1.68	6.31 ±1.45	7.72 ±1.87	6.61 ±0.54	8.78 ±1.67	7.53 ±2.04	5.48 ±1.18	5.49 ±0.86	5.24 ±1.40	4.44 ±0.58	3.86 ±0.56	5.48 ±1.18	6.35 ±1.02	6.17 ±1.24	6.69 ±1.21	4.95 ±1.17

GP: total gas production, CH₄: methane production, C2: acetic acid, C3: propionic acid, C4: butyric acid, C5: valeric acid, DM: dry matter, dep.

MP: depectinized mango peels, MP: mango peels, AP: apple pectin, CP: citrus pectin, HE: high-esterified, LE low-esterified, Phe. extr.: phenolic extract, GA: gallic acid, Supplement only, Level III, and IV according to **Table 1**.

*The same hay results for statistical assessment of each group were used.