

Table S1. Significant differences in COD removal efficiency (%) between the reaction times evaluated, based on a comparative Tukey test.

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	0.4803	-7.982 a 8.943	No	0.9996
4 d vs. 2 d	12.47	4.004 a 20.93	Yes	0.0061
4 d vs. 1 d	14.66	7.091 a 22.23	Yes	0.0010
4 d vs. 0.5 d	14.87	7.300 a 22.44	Yes	0.0009
3 d vs. 2 d	11.99	2.716 a 21.26	Yes	0.0131
3 d vs. 1 d	14.18	5.718 a 22.64	Yes	0.0027
3 d vs. 0.5 d	14.39	5.926 a 22.85	Yes	0.0025
2 d vs. 1 d	2.194	-6.269 a 10.66	No	0.8909
2 d vs. 0.5 d	2.402	-6.061 a 10.86	No	0.8569
1 d vs. 0.5 d	0.2082	-7.361 a 7.777	No	>0.9999

Table S2. Significant differences based on the production of volatile fatty acids (mg VFAL) between the reaction times evaluated, based on a comparative Tukey test.

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	-1767	-2661 a -872.2	Yes	0.0013
4 d vs. 2 d	-824.0	-1804 a 155.8	No	0.1023
4 d vs. 1 d	-1028	-1922 a -133.6	Yes	0.0261
4 d vs. 0.5 d	-1796	-2776 a -816.2	Yes	0.0020
3 d vs. 2 d	942.7	48.24 a 1837	Yes	0.0394
3 d vs. 1 d	738.7	-61.34 a 1539	No	0.0705
3 d vs. 0.5 d	-29.33	-923.8 a 865.1	No	>0.9999
2 d vs. 1 d	-204.0	-1098 a 690.4	No	0.9175
2 d vs. 0.5 d	-972.0	-1952 a 7.800	No	0.0518
1 d vs. 0.5 d	-768.0	-1662 a 126.4	No	0.0944

Table S3. Significant differences based on the production efficiency of volatile fatty acids (%) between the reaction times (RT) evaluated, based on a comparative Tukey test.

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	-31.77	-55.18 a -8.368	Yes	0.0111
4 d vs. 2 d	-15.02	-40.65 a 10.62	No	0.3171
4 d vs. 1 d	-21.66	-45.07 a 1.743	No	0.0698
4 d vs. 0.5 d	-34.46	-60.09 a -8.817	Yes	0.0117
3 d vs. 2 d	16.76	-6.647 a 40.16	No	0.1799
3 d vs. 1 d	10.11	-10.82 a 31.04	No	0.4754
3 d vs. 0.5 d	-2.682	-26.09 a 20.72	No	0.9927
2 d vs. 1d	-6.646	-30.05 a 16.76	No	0.8408
2 d vs. 0.5 d	-19.44	-45.08 a 6.199	No	0.1488
1 d vs. 0.5 d	-12.79	-36.20 a 10.61	No	0.3721

Table S4. Significant differences based on the maximum generation of volatile fatty acids (mg VFA/L) between the reaction times evaluated, based on a comparative Tukey test.

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	330.0	-1677 a 2337	No	0.9726
4 d vs. 2 d	-262.0	-2460 a 1936	No	0.9915
4 d vs. 1 d	-160.7	-2167 a 1846	No	0.9982
4 d vs. 0.5 d	-366.0	-2564 a 1832	No	0.9714
3 d vs. 2 d	-592.0	-2599 a 1415	No	0.8229
3 d vs. 1 d	-490.7	-2285 a 1304	No	0.8571
3 d vs. 0.5 d	-696.0	-2703 a 1311	No	0.7311
2 d vs. 1 d	101.3	-1905 a 2108	No	0.9997
2 d vs. 0.5 d	-104.0	-2302 a 2094	No	0.9998
1 d vs. 0.5 d	-205.3	-2212 a 1801	No	0.9952

Table S5. Significant differences based on the maximum production efficiency of volatile fatty acids (%) between the reaction times evaluated, based on a comparative Tukey test.

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	-5.398	-31.75 a 20.96	No	0.9310
4 d vs. 2 d	-2.647	-29.00 a 23.71	No	0.9945
4 d vs. 1 d	-14.28	-38.34 a 9.778	No	0.2849
4 d vs. 0.5 d	-15.51	-41.86 a 10.85	No	0.2910
3 d vs. 2 d	2.751	-23.60 a 29.11	No	0.9937
3 d vs. 1 d	-8.882	-32.94 a 15.18	No	0.6571
3 d vs. 0.5 d	-10.11	-36.47 a 16.24	No	0.6287
2 d vs. 1 d	-11.63	-35.69 a 12.43	No	0.4436
2 d vs. 0.5 d	-12.86	-39.22 a 13.49	No	0.4361
1 d vs. 0.5 d	-1.229	-25.29 a 22.83	No	0.9996

Table S6. Significant differences depending on the accumulated biogas production (NmL/L_{reactor}) between the reaction times (RT) evaluated, based on a comparative Tukey test

Compared Reaction times (d)	Significant difference	95% accuracy	Significancy	Adjusted P value
4 d vs. 3 d	-126.7	-227.7 a -25.62	Yes	0.0138
4 d vs. 2 d	-62.50	-173.2 a 48.19	No	0.3955
4 d vs. 1 d	-111.1	-212.2 a -10.06	Yes	0.0301
4 d vs. 0.5 d	-176.0	-268.6 a -83.39	Yes	0.0007
3 d vs. 2 d	64.17	-36.88 a 165.2	No	0.2950
3 d vs. 1 d	15.56	-74.82 a 105.9	No	0.9771
3 d vs. 0.5 d	-49.33	-130.2 a 31.50	No	0.3280
2 d vs. 1 d	-48.61	-149.7 a 52.44	No	0.5381

2 d vs. 0.5 d	-113.5	-206.1 a -20.89	Yes	0.0159
1 d vs. 0.5 d	-64.89	-145.7 a 15.95	No	0.1350
