Supplementary File

Microbial Community Dynamics and Biogas Optimization in Full-Scale Anaerobic Digesters Across South Korea

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Table S1. The metadata of Group 1 biogas plants used for canonical correlation analysis (CCA).

Samples	TAN (mg/L)	ΔAlkalinity[1] (g/L)	pH	Water content (%)	VS (mg/L)	SCOD (mg/L)	TKN (mg/L)	TP (mg/L)	TVFA (mg/L)
Plant A-SP	2604	32.3	4.4	78.74	177690	70267	5787	1738	9839
Plant A-SU	4032	37.4	4.3	82.41	145070	85000	12432	2673	8370
Plant A-F	7800	44.8	4.3	75.43	189390	75200	13500	2985	17619
Plant A-W01	4928	81.7	4.9	81.45	166000	53400	5936	1048	3233
Plant E-SP	6272	41.1	5.0	79.15	169150	47067	6347	2503	12470
Plant E-SU	9184	29.5	4.1	83.84	137150	78667	6459	1291	7270
Plant E-F	6980	22.0	4.2	83.15	153300	55760	11856	1789	17871
Plant E-W01	11872	36.5	4.9	79.45	171910	88000	5264	1229	3783
Plant B-SP	4662	11.0	5.3	91.16	74300	35900	6459	721	17510
Plant B-SU	3990	21.4	4.9	92.02	68030	118167	9436	1021	25315
Plant B-F	3374	6.7	6.0	94.73	37990	10240	5292	1140	31164
Plant B-W01	4004	14.3	5.6	91	66180	52400	4004	818	9996
Plant D-SP	300	10.6	4.1	89.81	88033	85250	4555	706	9334
Plant D-W12	3000	16.5	4.0	89.1	91320	34989	1680	342	9461
Plant D-W01	3000	16.5	4.1	90.05	58610	73800	3696	593	7389
Plant C-SP	1500	13.0	4.0	90.53	80262	70414	4779	781	10636
Plant C-W01	2700	12.1	4.0	91.94	68660	75200	3472	597	7122
Plant G-SP	700	16.8	4.5	88.68	119724	39133	6347	1354	10954
Plant G-W12	4100	18.5	4.1	84.1	111050	77980	4172	1358	4953
Plant G-W01	4000	18.5	4.1	80.84	170580	2400	6104	1247	4438
Plant F-W12	4800	9.9	6.4	94.3	48710	42400	5348	955	27899

ΔAlkalinity[1] = $\text{Alkalinity}_{out} - \text{Alkalinity}_{in}$

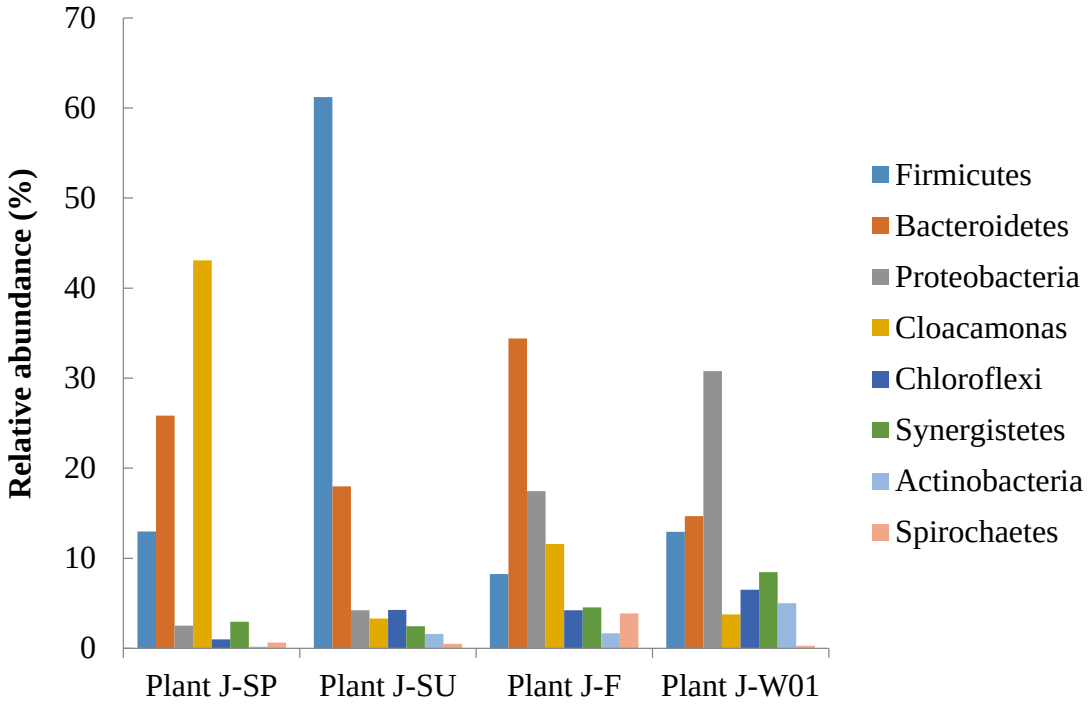

Figure. S1. Seasonal diversity of bacterial community structure in Plant J.; SP: spring, SU: summer, F: fall, W01: winter January.