

Supplementary Materials:

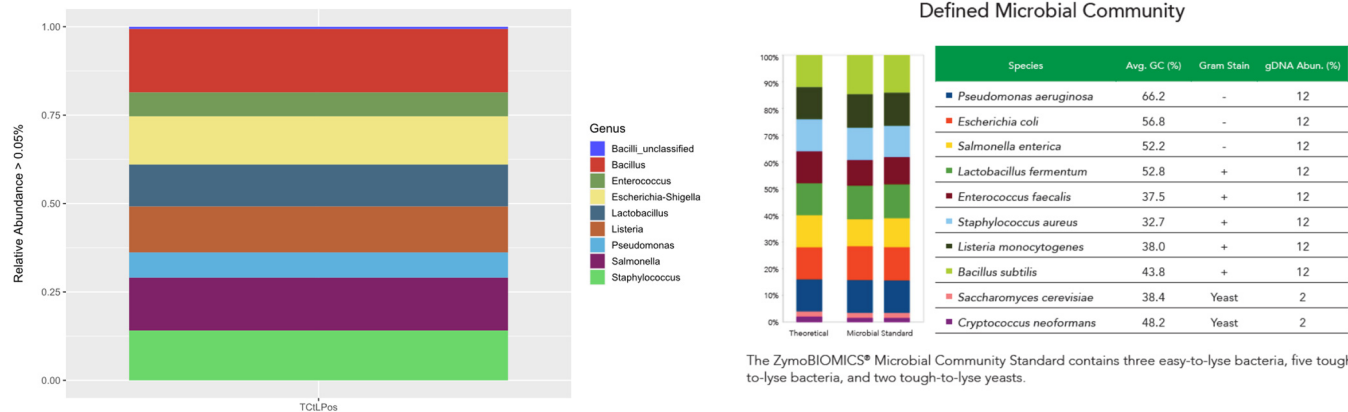
Supplementary Table S1: PCR primer's sequence

Primers' name	Primer's sequence
15FP1-CS1F (forward)	5'-ACACTGACGACATGGTTC-TACAGTGCCAGCMGCCGCGG-TAA-3'
806RP1-CS2R (reverse)	5'-TACGGTAGCAGAGACTT-GGTCTGGAC-TACHVGGGTWTCTAAT-3'

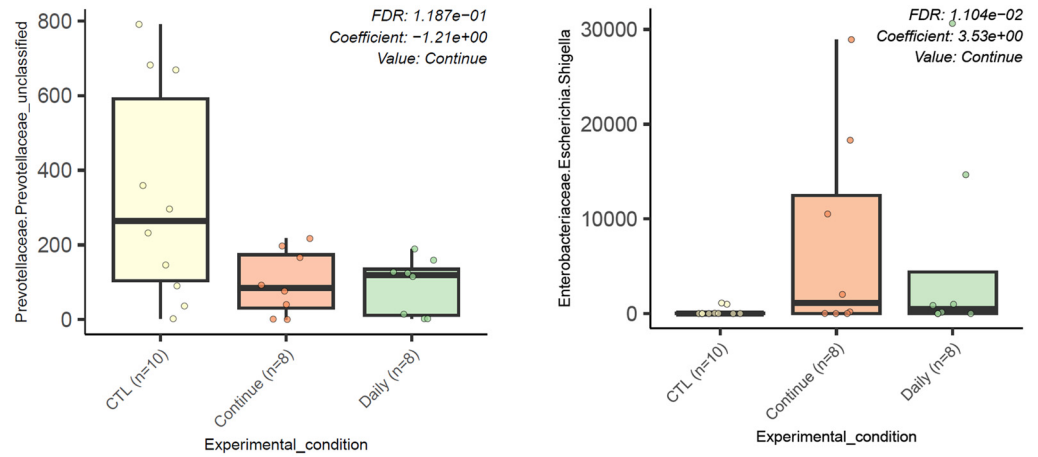
Supplementary Table S2: p values returned by the pairwise ADONIS test for Figure 2 comparison of each treatment at each timepoint.

Conditions	CTL 48h	Daily 48h	CTL 72h	Daily 72h	CTL 96h	Daily 96h	CTL 120h	Daily 120h
Continue 48h	p>0.05	p>0.05	X	X	X	X	X	X
Daily 48h	p>0.05	X	X	X	X	X	X	X
Continue 72h	X	X	0.001	0.038	X	X	X	X
Daily 72h	X	X	0.022	X	X	X	X	X
Continue 96h	X	X	X	X	0.001	0.002	X	X
Daily 96h	X	X	X	X	0.042	X	X	X
Continue 120h	X	X	X	X	X	X	0.001	0.008
Daily 120h	X	X	X	X	X	X	0.032	X

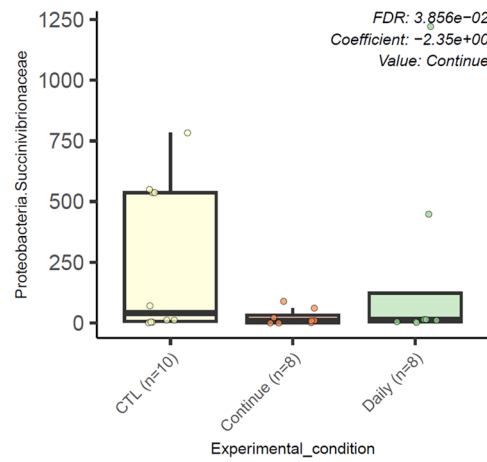
h:hours; x: no comparison made



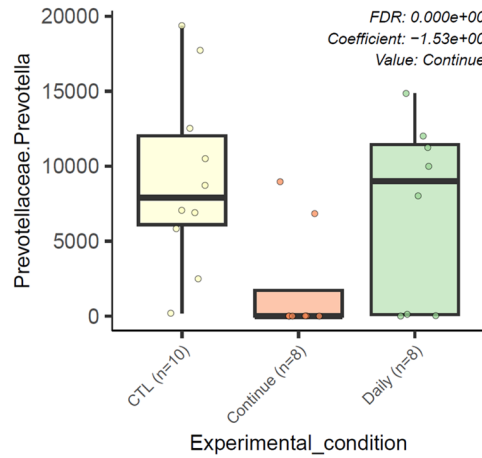
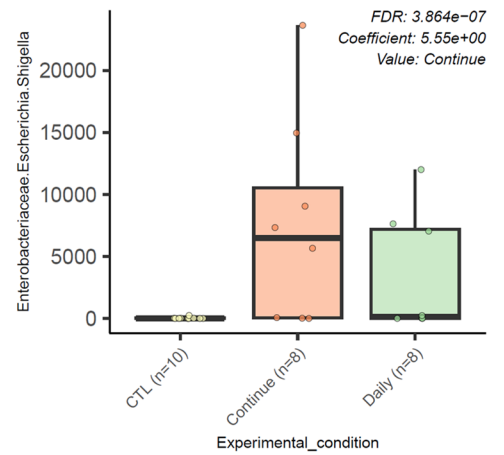
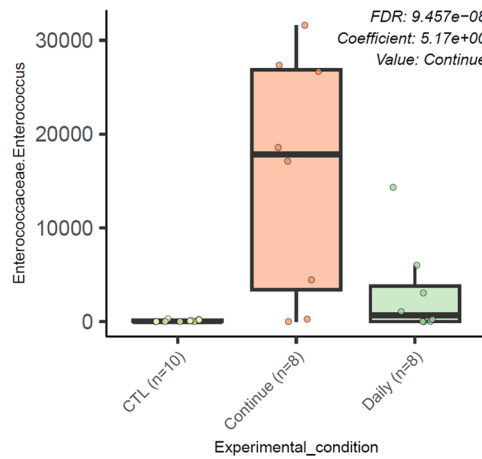
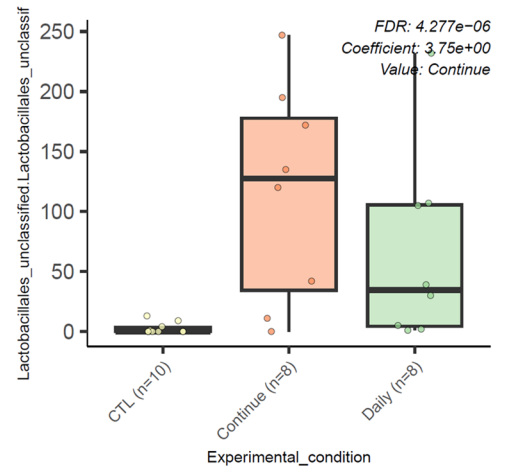
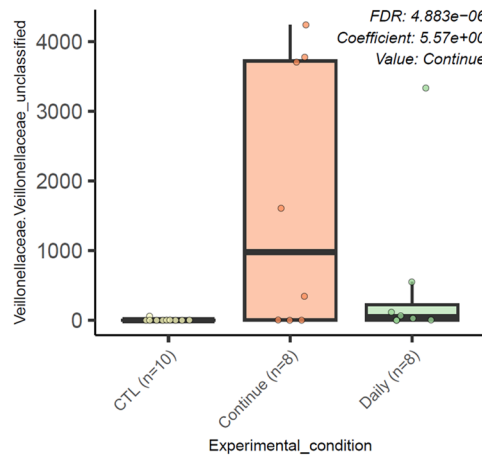
Supplementary Figure S1: Positive control composition according to manufacturer description.

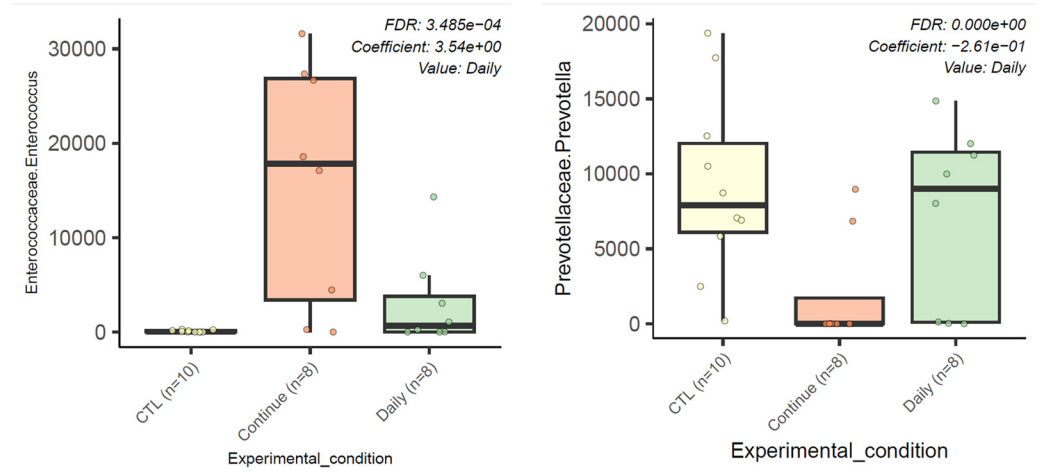


Supplementary Figure S2: Significant genera at T48 for both treatment in comparison with the control analyzed by MaAslin2

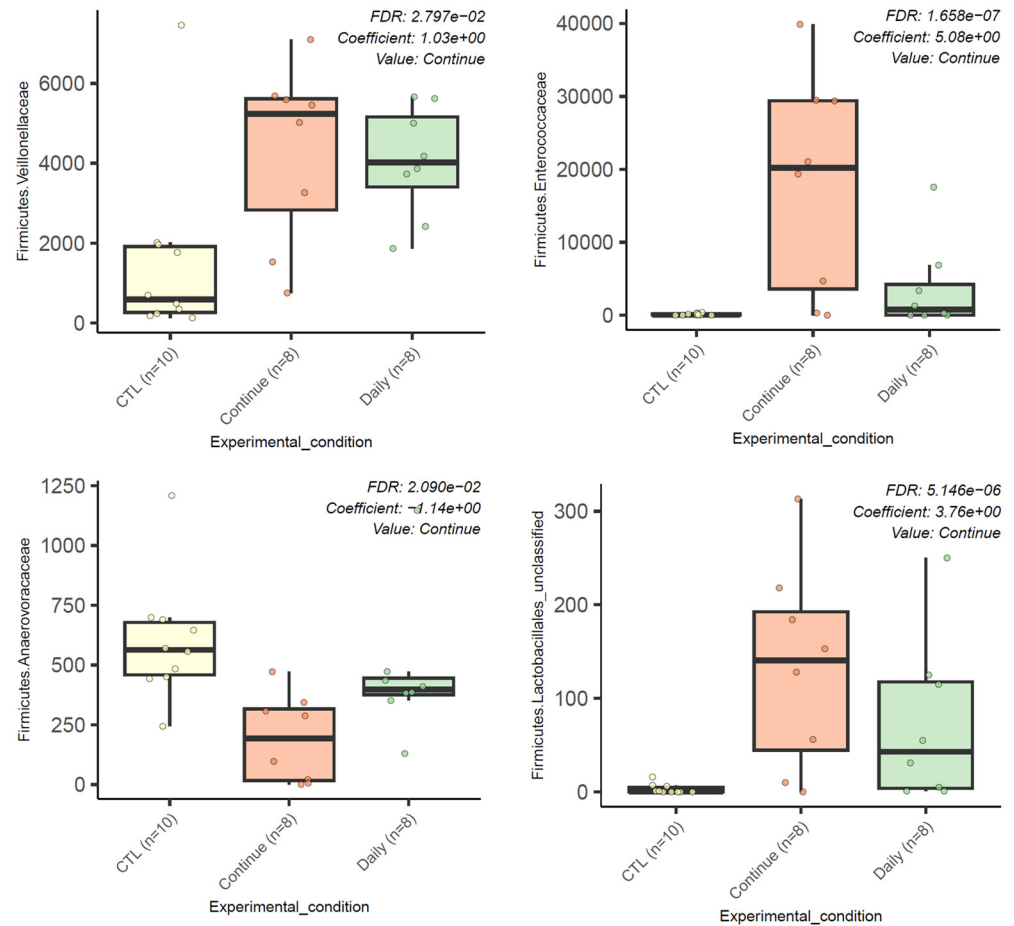


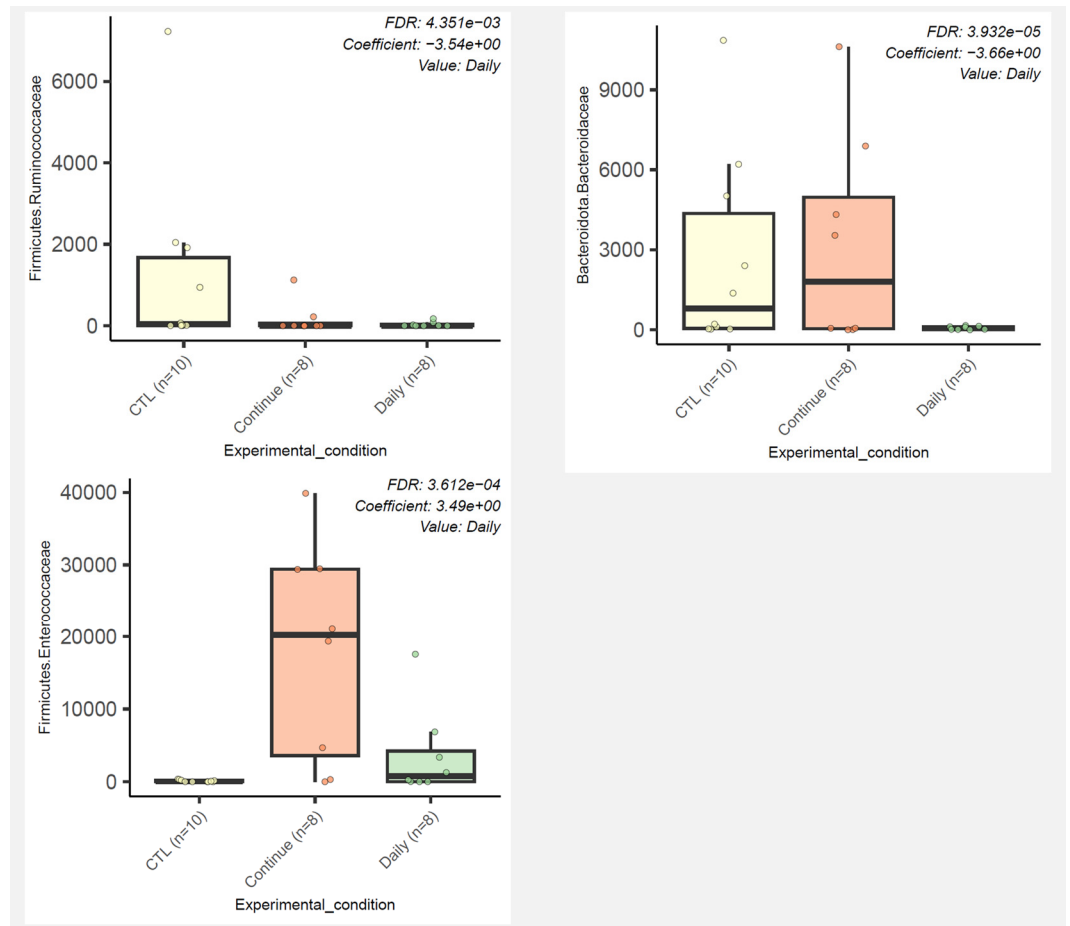
Supplementary Figure S3: Significant family T48 for both treatment in comparison with the control analyzed by MaAslin2



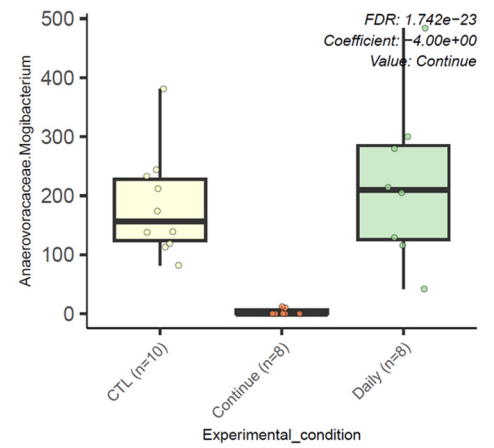
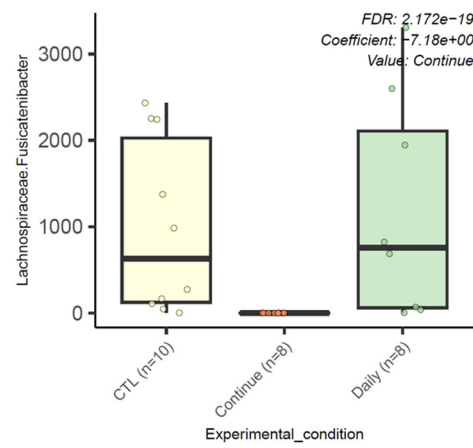
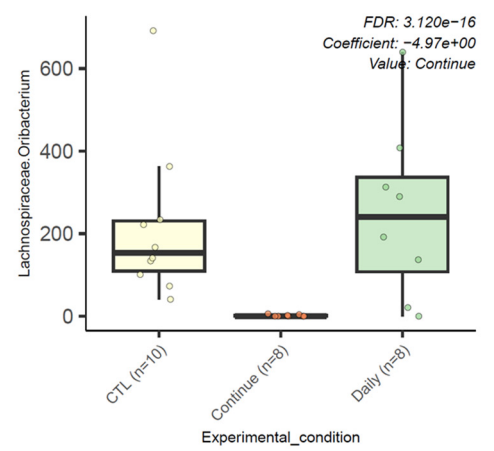
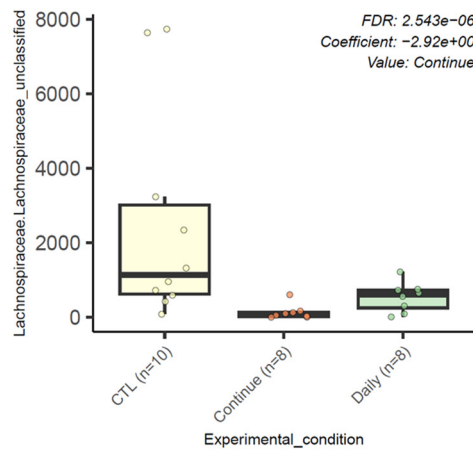
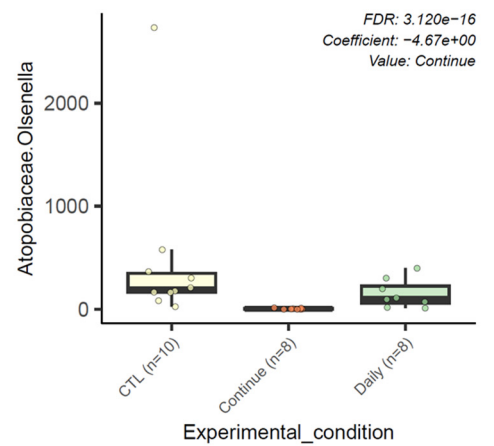
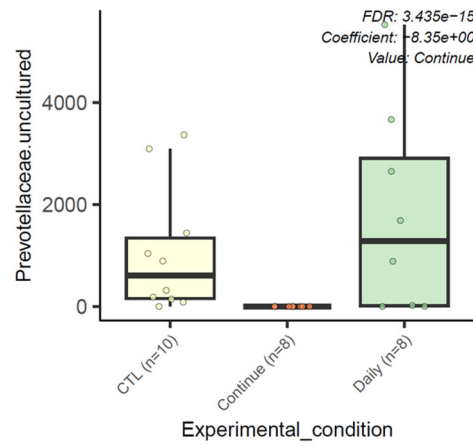


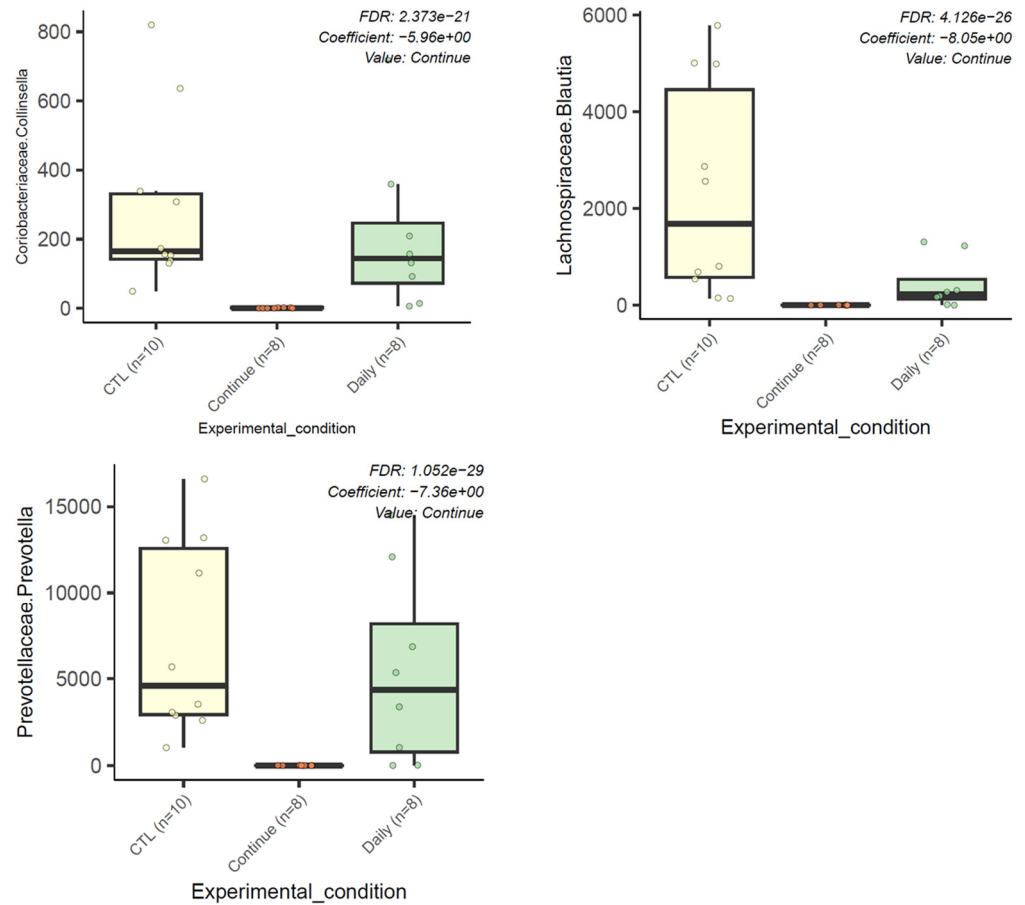
Supplementary Figure S4: Significant genera T72 for both treatment in comparison with the control analyzed by MaAslin2



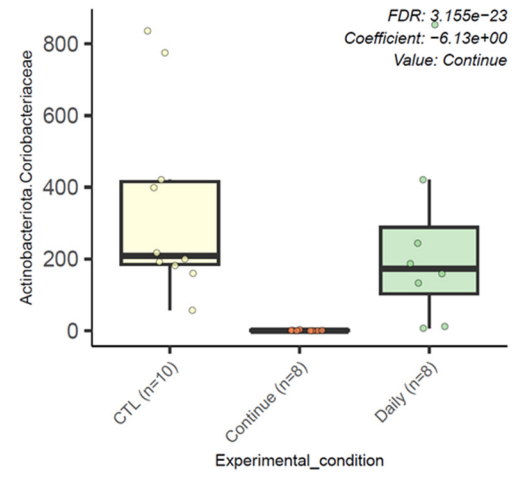
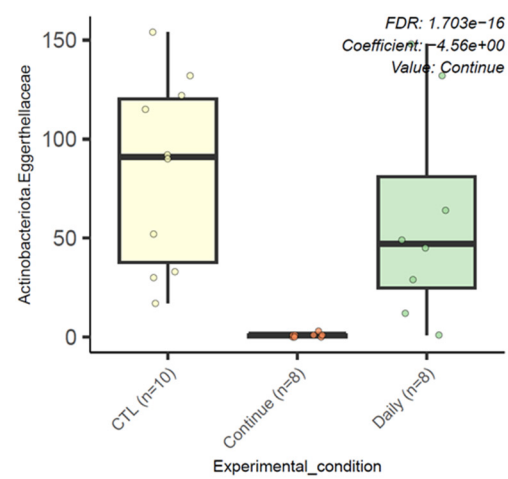
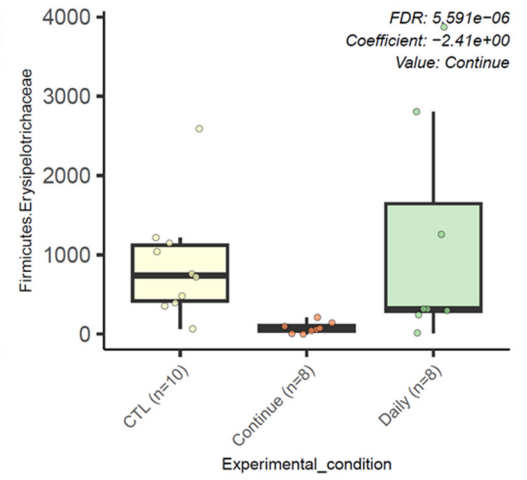
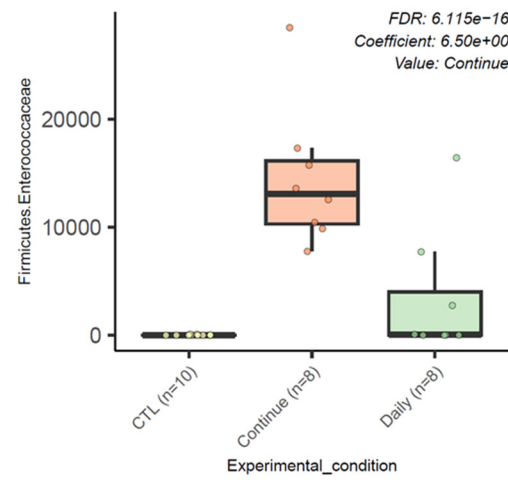
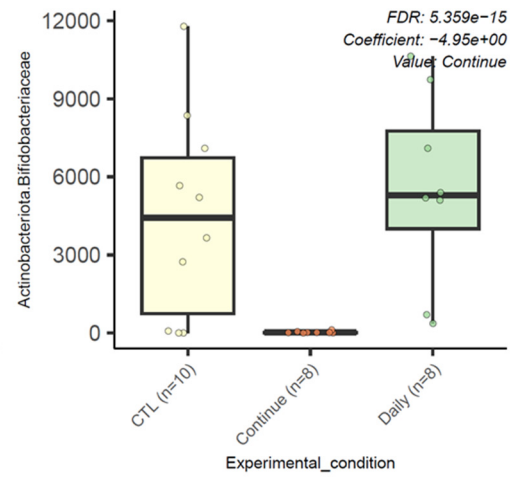
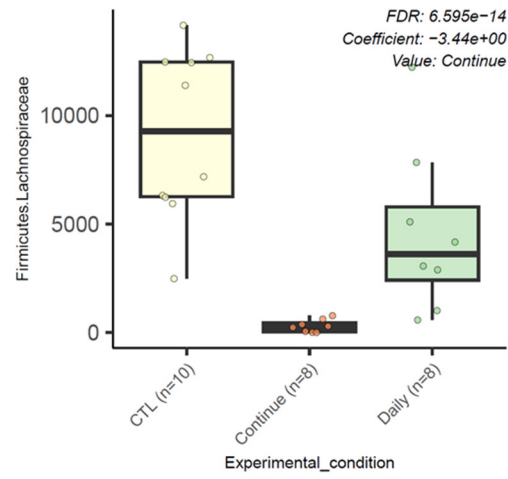


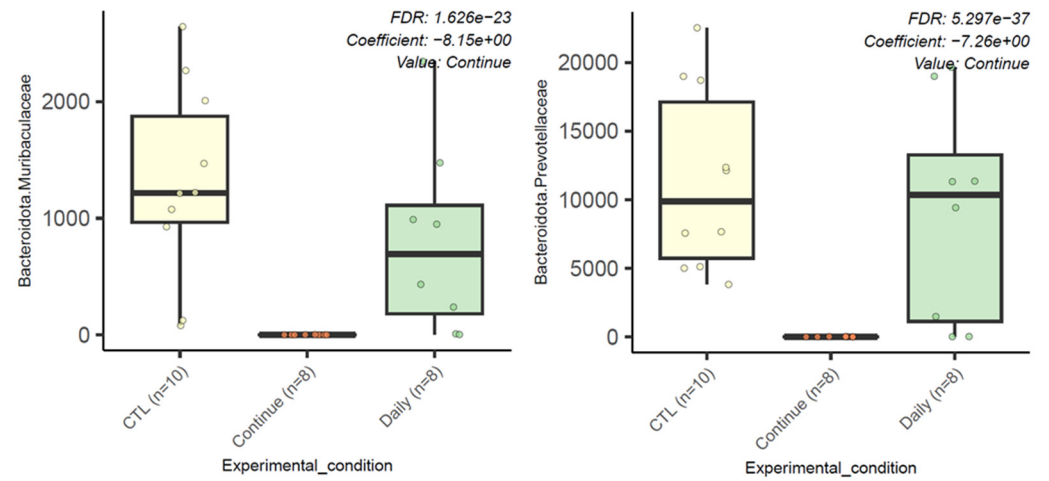
Supplementary Figure S5: Significant family T72 for both treatment in comparison with the control analyzed by MaAslin2



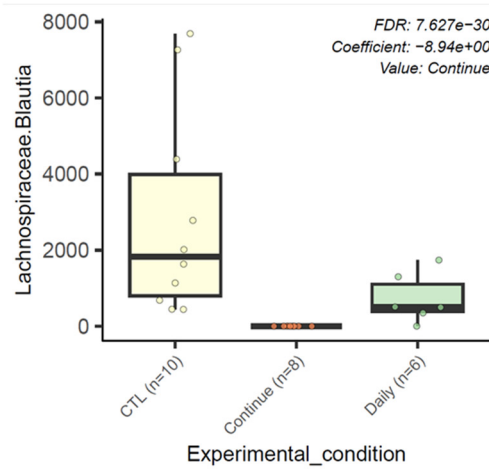
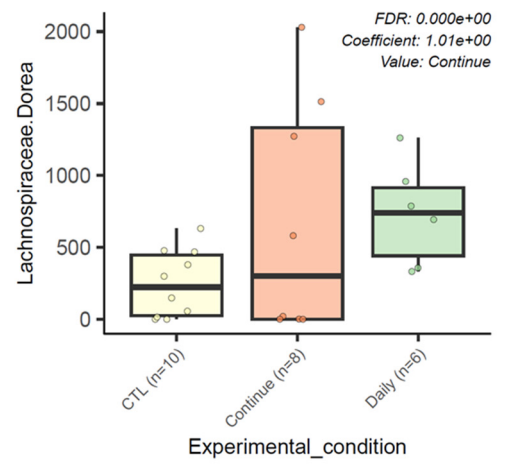
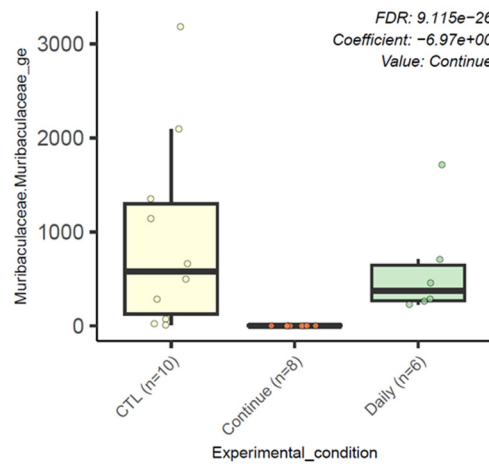
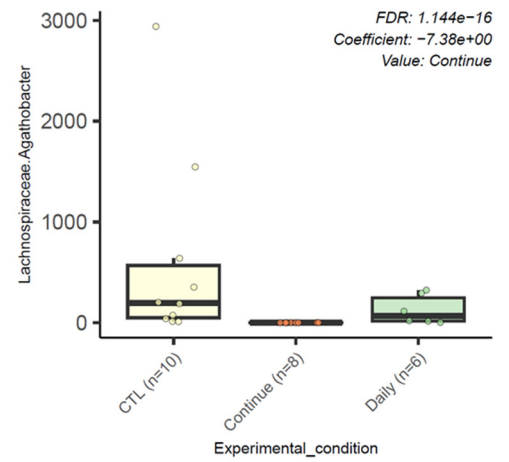
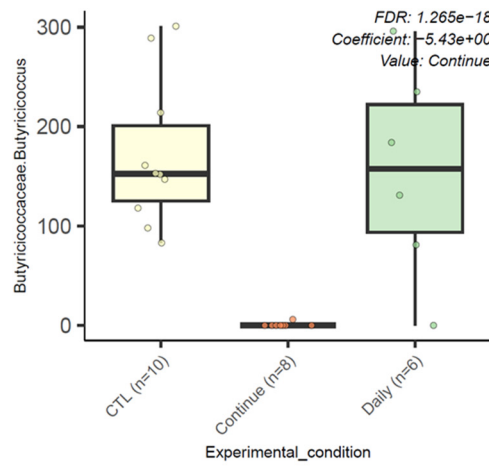


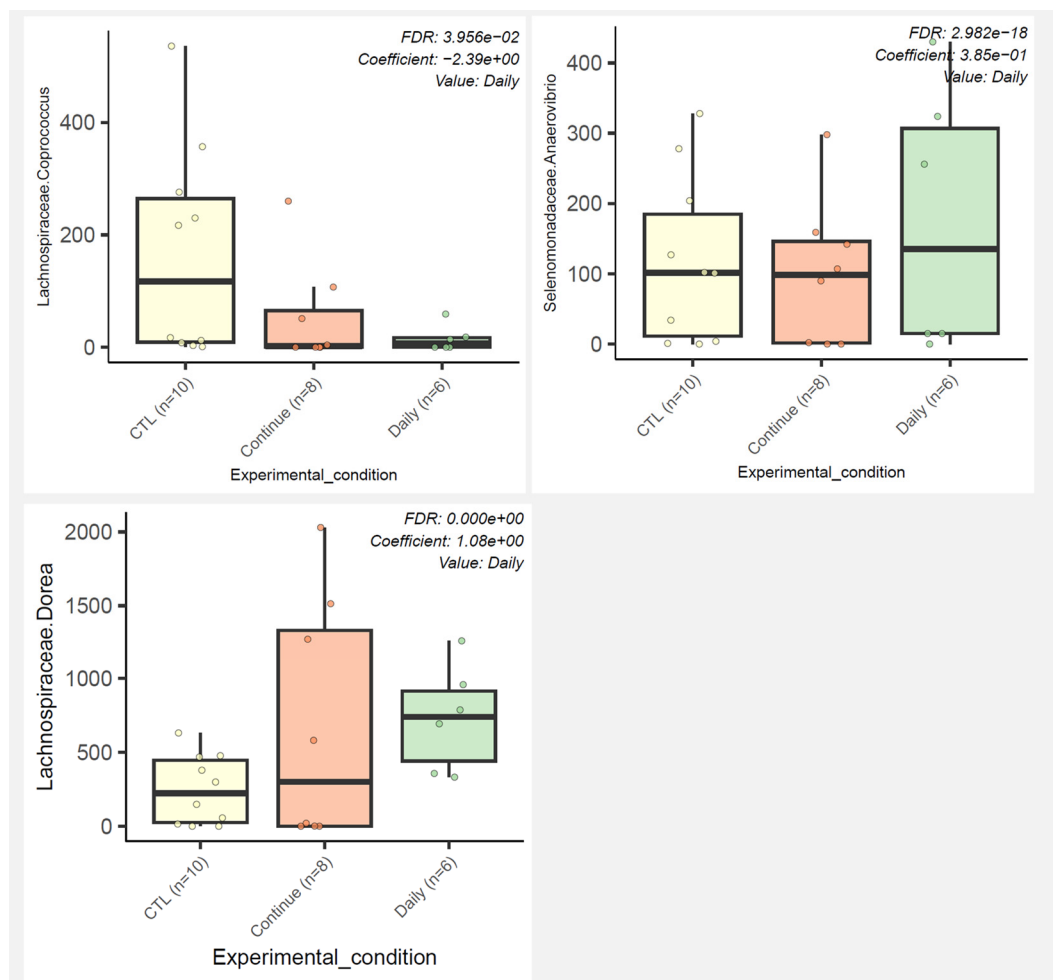
Supplementary Figure S6: Significant genera T96 for both treatment in comparison with the control analyzed by MaAslin2



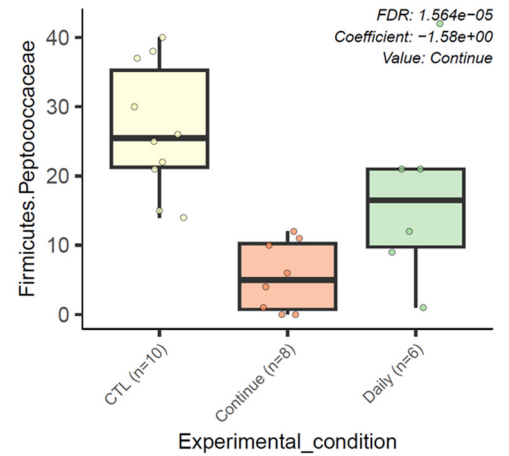
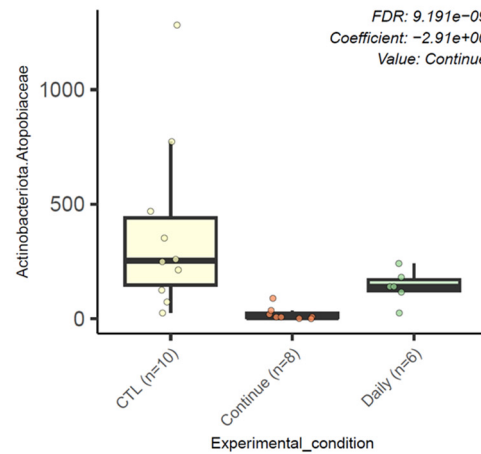
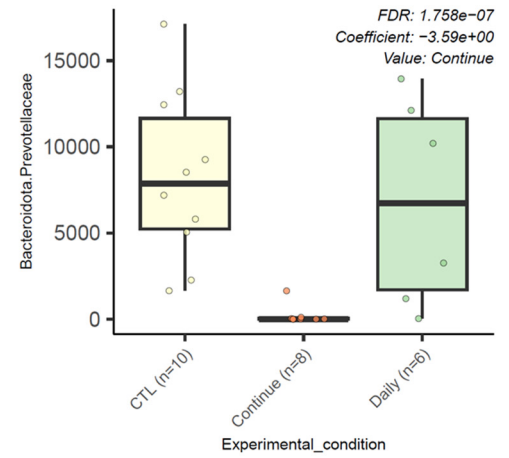
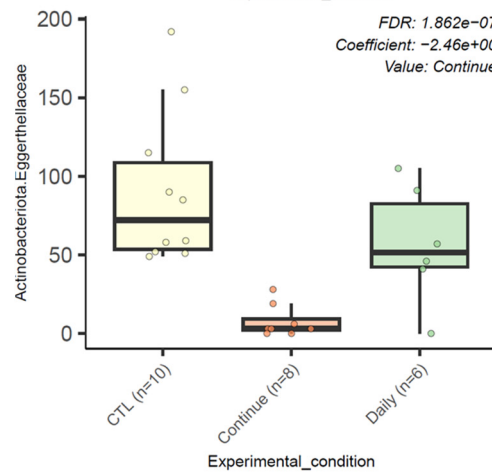
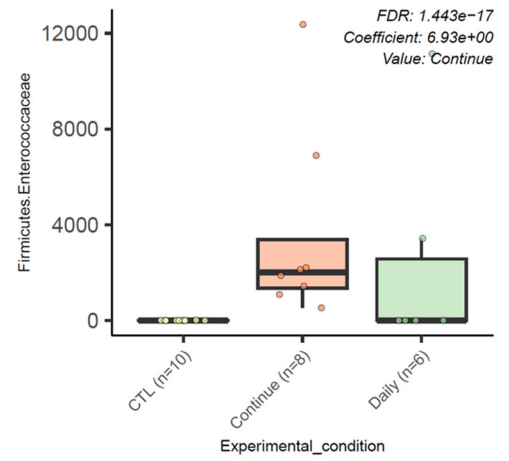
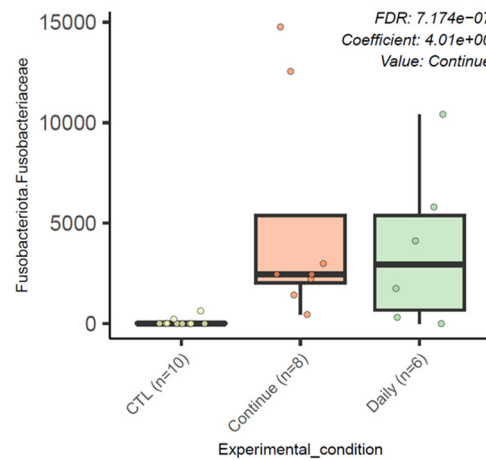


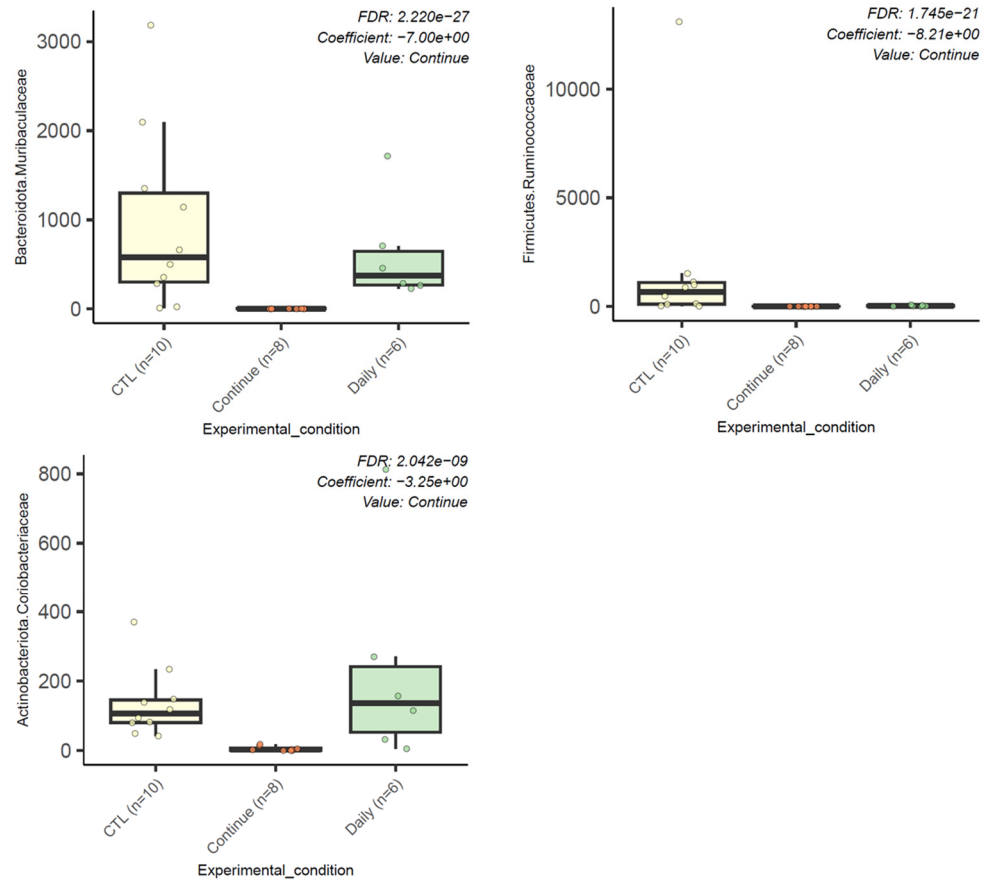
Supplementary Figure S7: Significant family T96 for both treatment in comparison with the control analyzed by MaAslin2



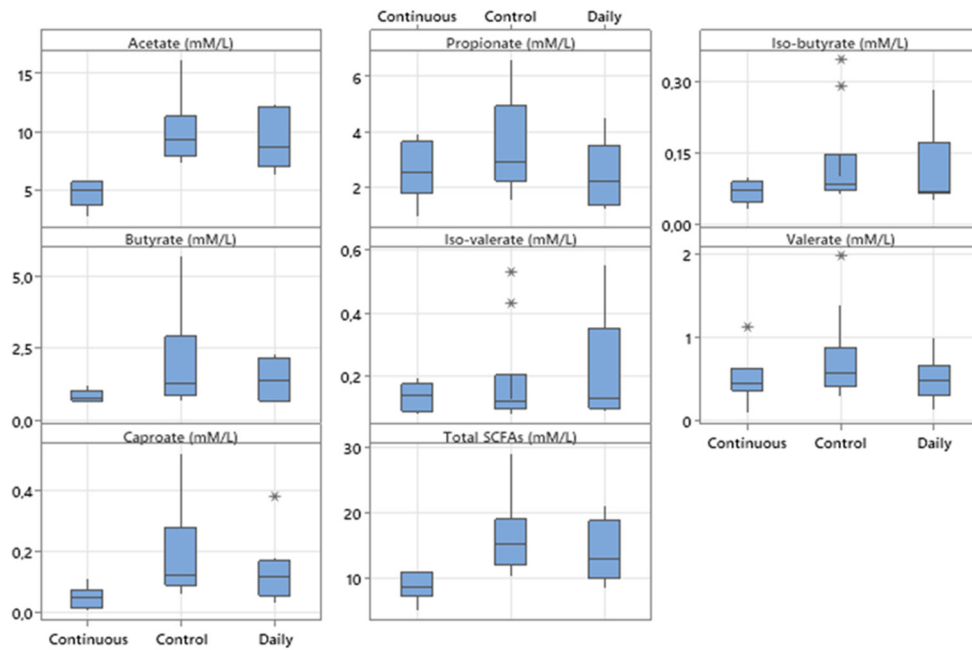


Supplementary Figure S8: Significant genera T120 for both treatment in comparison with the control analyzed by MaAslin2

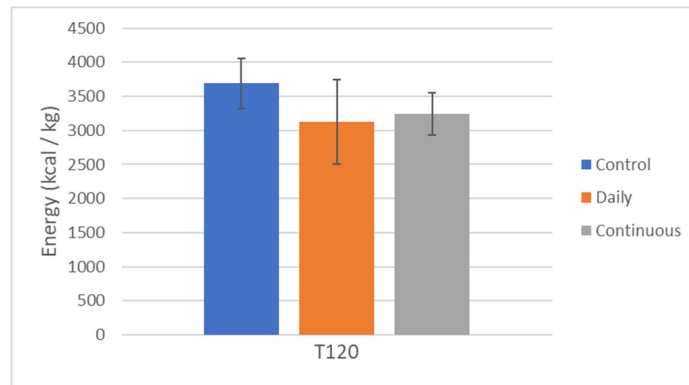




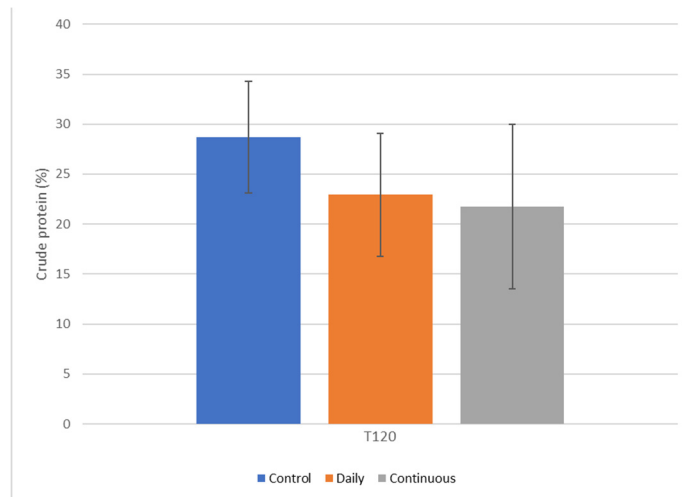
Supplementary Figure S9: Significant family T120 for both treatment in comparison with the control analyzed by MaAslin2



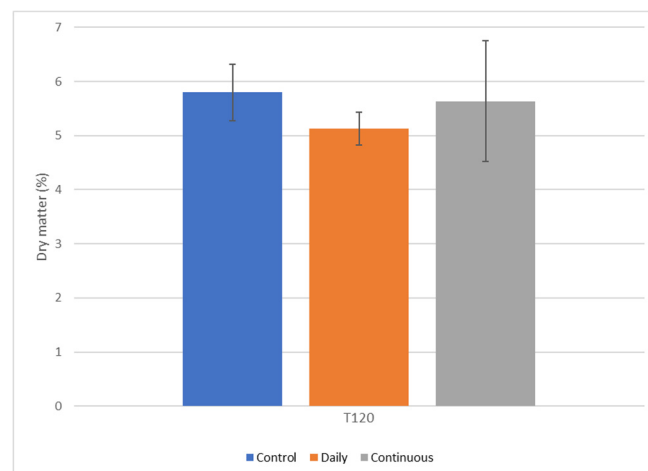
Supplementary Figure S10: SCFA analyzes in mM/mL



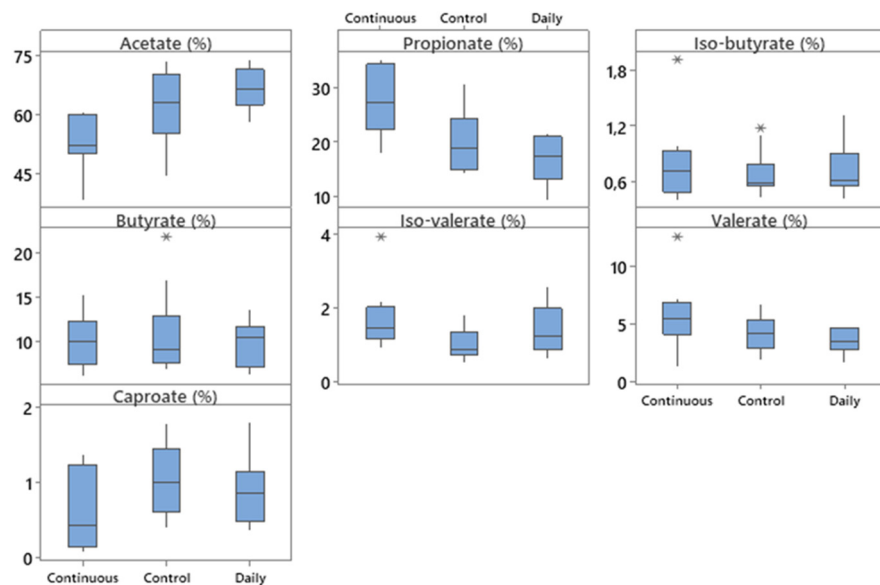
Supplementary Figure S11: Energy concentration in the sample at T120 in kcal/kg of bioreactor dry matter. The ANOVA test showed no significant result. ($p = 0.14$)



Supplementary Figure S12: Percentage of crude protein in the sample at T120. The ANOVA test showed no significant result. ($p = 0.10$)



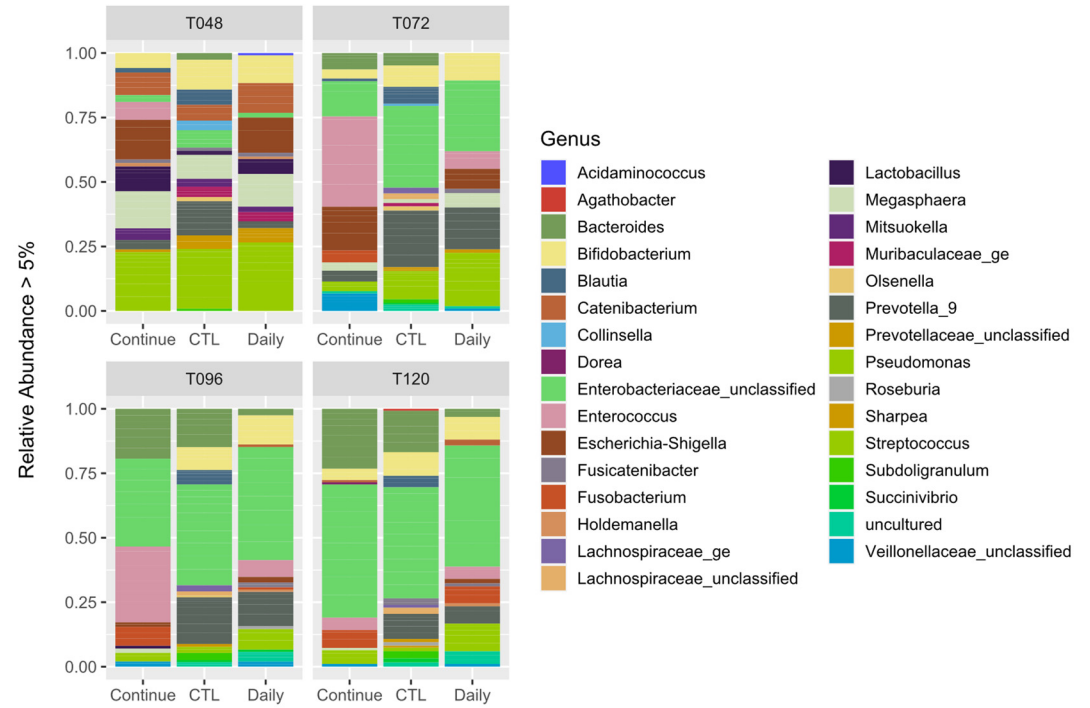
Supplementary Figure S13: Percentage of dry matter in the sample at T120. The ANOVA test showed no significant result. ($p = 0.15$)



Supplementary Figure S14: SCFA analyzes in %

Supplementary Table S3: PCR reagent from Invitrogen SuperFi DNA polymerase kit

Réactifs	Concentration finale
SuperFi Buffer [5x]	1x
Enhancer [5x]	1x
dNTPs [10 mM]	0.2 mM
Forward primer [20 µM]	0.6 µM
Reverse primer [20 µM]	0.6 µM
BSA [20 mg/mL]	0.4 mg/mL
SuperFi TAQ polymerase [2 U/µL]	0.02 U/µL
H ₂ O PCR	N/A



Supplementary Figure S15. Microbiota composition according to the time and probiotic use