

Effects of Administration of Prebiotics alone or in Combination with Probiotics on in vitro Fermentation Kinetics, Malodor Compound Emission and Microbial Community Structure in Swine

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Supplementary Table

Table S1: Feed formula and nutrient content of fermentation substrate (fattening diet) and gestating sow diet that was fed to the sample donating gestating sows.

Ingredients (%)	Fermentation substrate	Gestation sow diet
Corn	57.24	58.69
Wheat	14.50	17.50
Soybean meal	20.81	16.81
Beef tallow	2.02	2.40
Molasses	2.00	2.00
Limestone	0.89	0.94
Calcium phosphate	1.14	0.65
Salt	0.43	0.43
Lysine	0.46	0.20
Methionine	0.23	0.10
Threonine	0.08	0.08
Vitamin-mineral mixture ¹	0.20	0.20
Total	100	100
Nutrient content (%)		
Moisture	12.78	12.85
Crude protein	16.08	14.44
Crude fat	4.52	4.94
Crude fiber	2.82	2.71
Crude ash	4.78	4.09
Calcium	0.65	0.54
Phosphorus	0.56	0.44
Total lysine	1.08	0.80
DE (Mcal/kg)	3.47	3.50

¹The Vitamin-mineral premix provided per kilogram of diet: 20,000 IU of vitamin A; 4,000 IU of vitamin D₃; 80 IU of vitamin E; 16 mg of vitamin K; 4 mg of thiamine; 20 mg of riboflavin; 6 mg of pyridoxine; 0.08 mg of vitamin B₁₂; 120 mg of niacin; 50 mg of Ca-pantothenate; 2 mg of folic acid; 0.08 mg of biotin; 15 mg of Cu (as copper sulfate); 56 mg of Zn (as zinc oxide); 73 mg of Mn (as manganese oxide); 0.3 mg of I (as potassium iodate); 0.5 mg of Co (as Co₂O₃·7H₂O); 0.4 mg of Se (as Na₂SeO₃·5H₂O).

Supplementary Figure

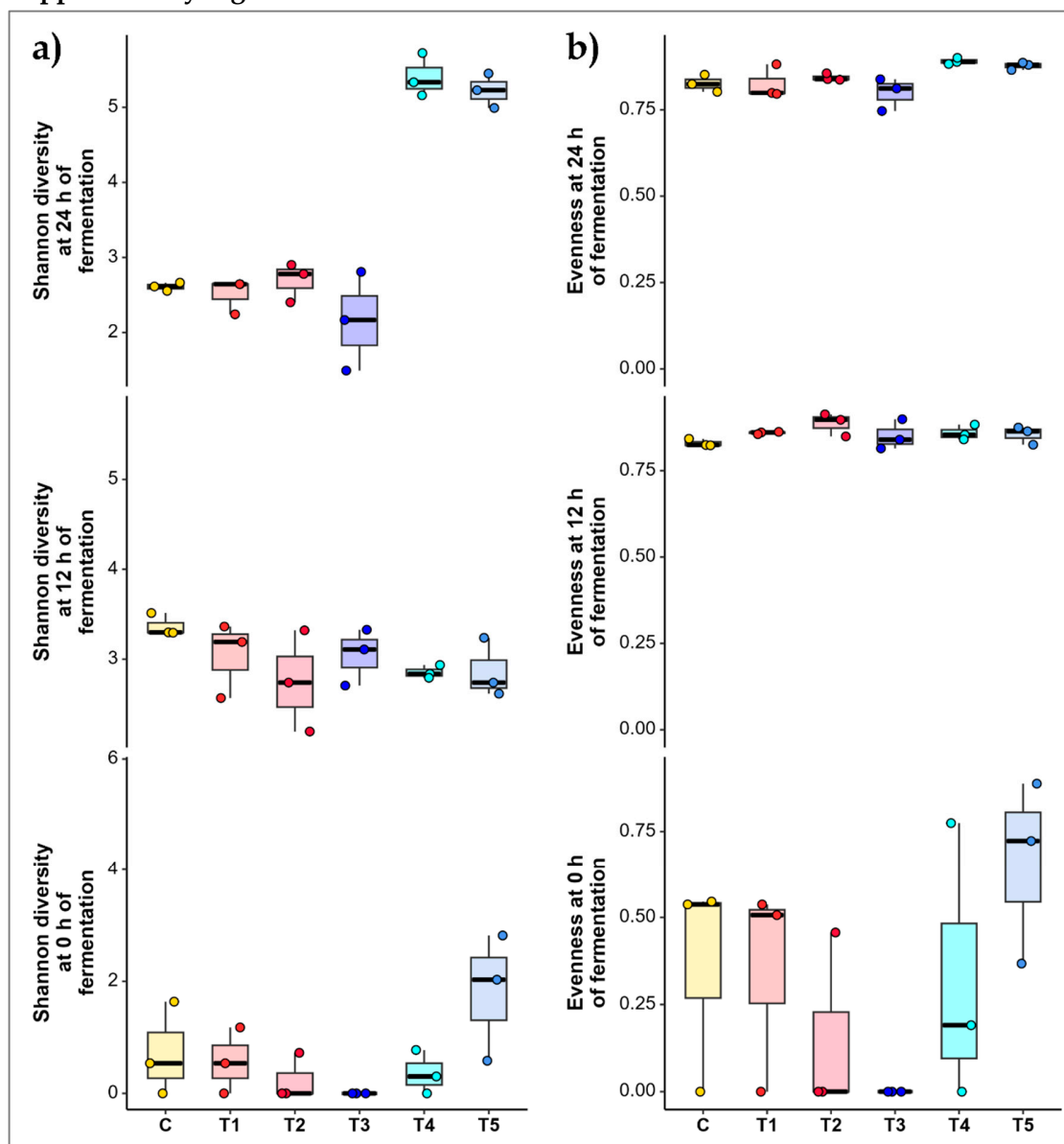


Figure S1: Microbial diversity across the treatment groups at the three time points. Shannon diversity (a) and Evenness (b) among the treatment groups. Pairwise comparisons were performed using Wilcoxon rank sum exact test combined with a correction for multiple hypothesis testing using the Benjamini–Hochberg method at a cut-off of 0.05. All pairwise comparisons were non-significant.

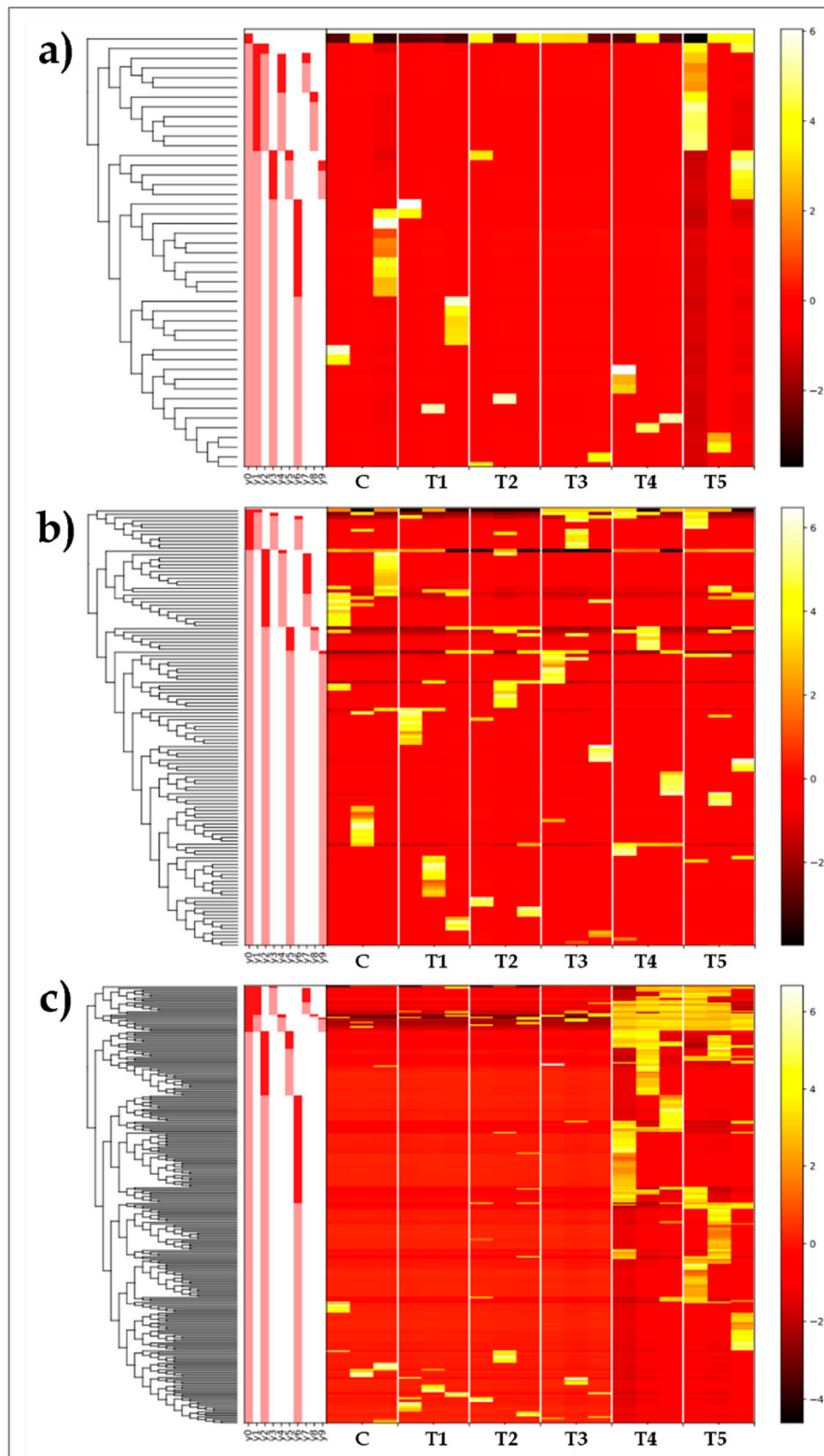


Figure S2: Balance tree analysis of the ASVs in the treatments. Dendrogram heatmap (generated using the q2-gneiss plugin in qiime2) illustrating presence of various ASVs across treatments at 0 hours (a); 12 hours (b) and 24 hours (c) of fermentation