

Table S1 Composition and nutrient levels of the basal diet(air-dry basis)

Items	Content
Ingredients	
Corn	60%
Wheat	10%
barley	5%
Soybean meal	18%
Fermented soybean meal	3%
Soybean oil	0.50%
Premix	4%
Total	100%
Nutrient levels	
Digestible Energy / (MJ/Kg)	10.04
Crude Protein	16.50%
Digestive lysine	1.10%

Table S2 Body weight and ADG of three groups in nursery piglets

Item	Control	0.02% BL	0.04% BL
Body weight at 0d (kg)	8.7 ± 0.15	8.8 ± 0.13	8.8 ± 0.12
Body weight at 14d(kg)	13.1 ± 0.20	13.7 ± 0.19	13.6 ± 0.24
Body weight at 28d(kg)	17.7 ± 0.33	18.9 ± 0.31	18.5 ± 0.40
0d to 14d ADG (g/day)	311.90 ± 5.14	349.21 ± 7.51	343.25 ± 10.60
15d to 28d ADG (g/day)	328.17 ± 10.87	373.81 ± 11.43	348.41 ± 12.25
0d to 28d ADG (g/day)	320.04 ± 7.90	361.51 ± 9.16	345.83 ± 11.32

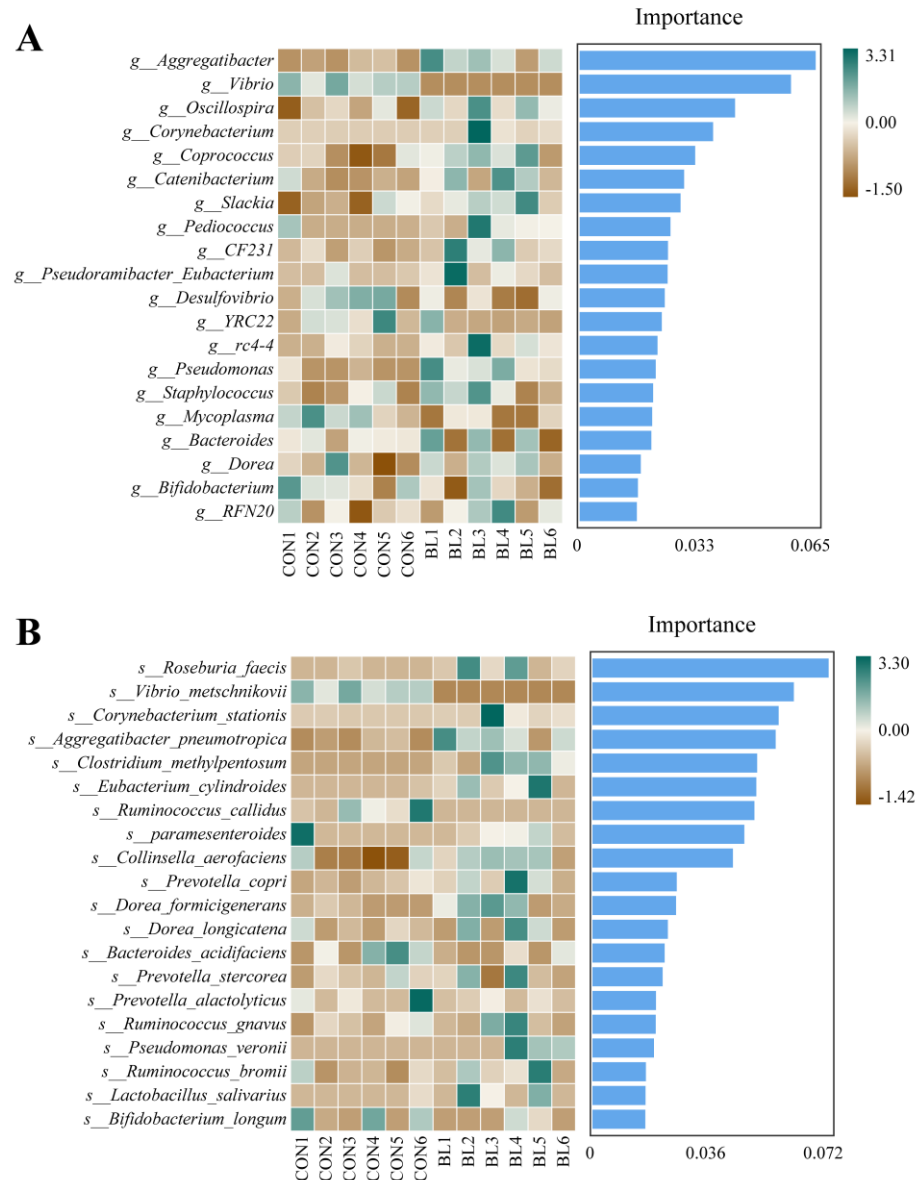


Figure S1. Random forest analysis of the relative abundance at the genus and species level. **(A)** the 20 genera with the highest level of importance; **(B)** the 20 species with the highest level of importance. n = 6.

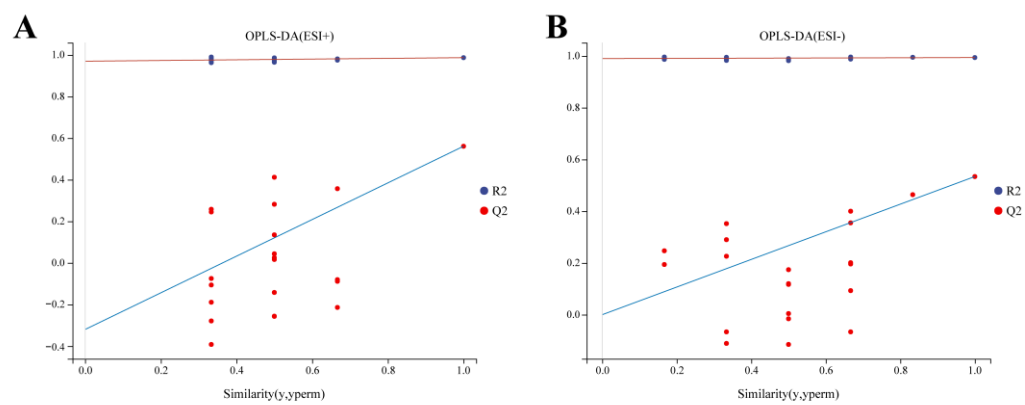


Figure S2. Permutation test of the OPLS-DA model. (A)ESI+; (B)ESI-. n = 6.