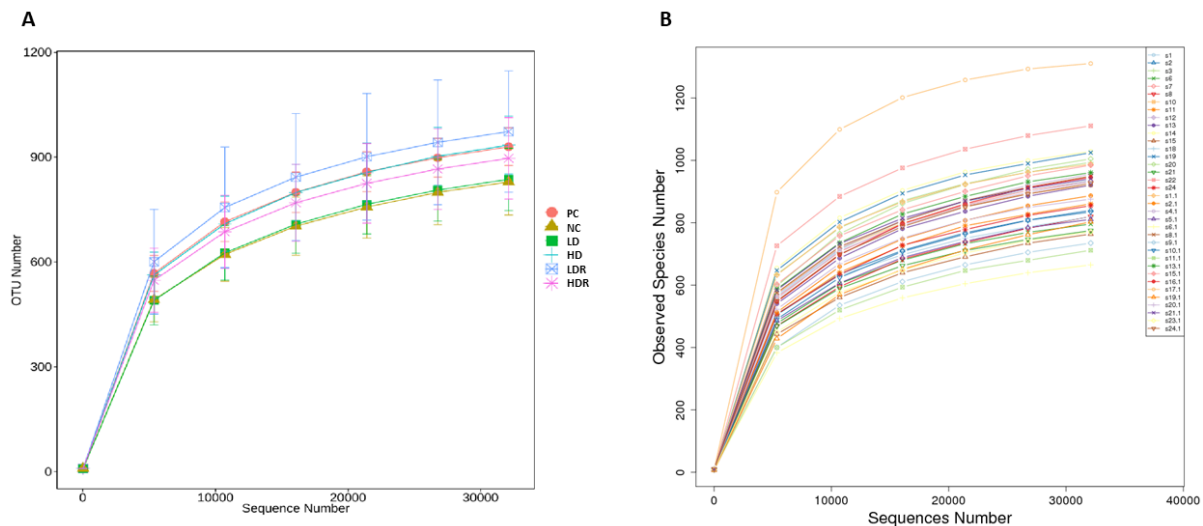


Article

# A Novel Corn-Expressed Phytase Improves Daily Weight Gain, Protein Efficiency Ratio and Nutrients Digestibility and Alters Fecal Microbiota in Pigs Fed with Very Low Protein Diets

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## Supplementary Figures



**Figure S1.** Fecal rarefaction curve analysis for pigs fed with low-protein diets supplemented with a corn-expressed phytase. The rarefaction curves from fecal samples collected show the number of operational taxonomic units (OTU) found as a function of the number of reads sampled when data were analyzed based on (A) dietary groups and (B) individual pigs. Pigs are grouped based on their dietary treatments: PC (positive control): normal protein, adequate Ca and available

phosphorous (aP), no corn-expressed phytase (CEP) added; NC (negative control): low protein, adequate Ca and aP, no CEP added; LD: NC + CEP added at low dose, i.e. 2,000 FTU/kg of diet; HD: NC + CEP added at high dose, i.e. 4,000 FTU/kg of diet; LDR: LD with reduced calcium (Ca) and phosphorus (P); HDR: HD with reduced Ca and P. Each line represents an individual pig.  $n = 6$  for each dietary group.

**Table S1.** Digestibility of calcium, phosphorous and nitrogen of pigs fed with low-protein diets supplemented with a corn-expressed phytase.

	Diets <sup>1</sup>						SEM <sup>2</sup>	<i>p</i> - value
	PC	NC	LD	HD	LDR	HDR		
<b>Calcium</b>								
AFD <sup>3</sup> , %	65.59 ± 10.34 <sup>a</sup>	67.38 ± 8.39 <sup>ab</sup>	75.71 ± 7.94 <sup>abc</sup>	80.82 ± 5.23 <sup>c</sup>	76.03 ± 4.68 <sup>bc</sup>	80.97 ± 8.53 <sup>c</sup>	1.41	< 0.01
<b>Phosphorus</b>								
AFD <sup>3</sup> , %	55.95 ± 9.05 <sup>a</sup>	62.21 ± 9.82 <sup>ab</sup>	69.90 ± 9.55 <sup>bcd</sup>	80.21 ± 4.44 <sup>d</sup>	69.42 ± 6.63 <sup>bd</sup>	75.87 ± 7.04 <sup>cd</sup>	1.67	< 0.01
<b>Nitrogen</b>								
AFD <sup>3</sup> , %	80.42 ± 6.32	74.50 ± 9.99	78.61 ± 4.83	82.23 ± 3.74	73.98 ± 8.53	77.70 ± 7.57	1.11	0.22

<sup>1</sup>PC (positive control): normal protein, adequate Ca and available phosphorous (aP), no corn-expressed phytase (CEP) added; NC (negative control): low protein, adequate Ca and aP, no CEP added; LD: NC + CEP added at a low dose, i.e. 2,000 FTU/kg of diet; HD: NC + CEP added at high dose, i.e. 4,000 FTU/kg of diet; LDR: LD with reduced calcium (Ca) and phosphorus (P); HDR: HD with reduced Ca and P. Values are means ± standard deviations.  $n = 8$  for each dietary group. <sup>2</sup>SEM: standard errors of means; <sup>3</sup>AFD: apparent fecal digestibility; <sup>a-d</sup> Within a row, values without a common superscript letter differ ( $p \leq 0.05$ ).