

**Supplement table 1.** Pearson's correlation assay between chemical composition of rice and its by-products and AMEn of broiler.

Item	AMEn	DM	CP	EE	NDF <sup>1</sup>	ADF <sup>1</sup>	Starch	Ash	Ca <sup>2</sup>	P <sup>2</sup>
AMEn	1									
DM	0.638**	1								
CP	-0.861**	-0.708**	1							
EE	-0.824**	-0.715**	0.971**	1						
NDF1	-0.964**	-0.686**	0.923**	0.907**	1					
ADF1	-0.975**	-0.679**	0.931**	0.912**	0.981**	1				
Starch	0.918**	0.722**	-0.985**	-0.963**	-0.954**	-0.970**	1			
Ash	-0.888**	-0.709**	0.980**	0.967**	0.936**	0.949**	-0.990**	1		
Ca	-0.797**	-0.758**	0.948**	0.949**	0.884**	0.896**	-0.947**	0.954**	1	
P	-0.891**	-0.759**	0.985**	0.965**	0.947**	0.950**	-0.988**	0.986**	0.967**	1

\* represent significance ( $p<0.05$ ), \*\* means extremely significant differences ( $p<0.01$ ).

<sup>1</sup>NDF means neutral detergent fiber, ADF means acid detergent fiber.

<sup>2</sup>Ca represent calcium, P means total phosphorus.

**Supplement table 2.** Basal amino acid losses analysis by NFD method. (%)

Item	14-day-old		28-day-old	
	AA losses	SD	AA losses	SD
<b>Indispensable AA</b>				
Arg	0.74	0.10	0.82	0.05
His	0.82	0.11	0.91	0.06
Ile	0.79	0.22	0.87	0.39
Leu	0.83	0.15	0.91	0.27
Lys	0.84	0.09	0.92	0.19
Met	0.14	0.09	0.16	0.04
Phe	0.80	0.23	0.89	0.32
Thr	0.80	0.29	0.87	0.15
Trp	0.55	0.15	0.59	0.13
Val	0.79	0.11	0.86	0.14
<b>Dispensable AA</b>				
Ala	0.71	1.01	0.84	0.59
Asp	0.82	0.16	0.89	0.19
Cys	0.39	0.14	0.34	0.19
Glu	0.85	0.12	0.92	0.09
Gly	0.81	0.08	0.87	0.07
Pro	0.82	0.11	0.89	0.17
Ser	0.79	0.58	0.89	0.17
Tyr	0.51	0.17	0.57	0.20

Basal amino acid losses analyzed by NFD method in 14-day-old broilers and 28-day-old broilers.

Data were expressed as mean±SD.