ad libitum intake of the diets throughout the 29 d experiment, and blood was collected from 2 pigs per pen on the last day of the experiment. For the overall experimental period, no differences in ADG, ADFI, or G:F were observed among treatments (Table 1). Serum urea nitrogen (SUN), red blood cells (RBC), hemoglobin (HGB), hematocrit (HCT), and DS were also not different among treatments indicating that dietary clay did not impair N and Fe absorption. In conclusion, dietary clay does not negatively affect growth performance, nitrogen and iron status, serum values measured, or diarrhea score of weanling pigs.

Table 1. Effects of dietary clay on growth performance and N and Fe status of weanling pigs[1]

Item	Control	SM	KL	ZL	SM + KL	SM + ZL	KL + ZL	SM + KL + ZL	SEM
ADG, g/d	247	276	261	264	267	245	249	276	10
ADFI, g/d	382	413	403	407	392	377	381	411	15
G:F, g/kg	649	672	650	649	679	653	657	671	15
SUN, mg/dL	10.4	10.0	10.0	9.0	9.3	10.1	9.7	9.9	0.5
RBC, M/µL	5.9	5.8	5.9	5.9	5.8	5.9	5.9	5.9	0.1
HGB, g/dL	10.6	10.7	10.6	10.6	10.5	10.7	10.5	11.1	0.2
HCT, %	31.2	32.0	31.6	31.4	31.6	31.8	31.5	33.0	0.5
DS	1.5	1.6	1.5	1.5	1.4	1.5	1.5	1.6	0.1

[1]SM = smectite; KL = kaolinite; ZL = zeolite.

Key Words: clay, growth performance, weanling pigs

M176 Dietary clay does not negatively affect growth performance, nitrogen and iron status, or diarrhea score of weanling pigs. M. Song*[1], B. G. Kim[2], O. Osuna[3], and H. H. Stein[1], *[1]University of Illinois, Urbana, [2]Konkuk University, Seoul, Korea, [3]Milwhite Inc., Brownsville, TX.*

Clay may be included in diets fed to weanling pigs as mycotoxin binders, but it has been speculated that dietary clay may bind nutrients in the intestinal tract of pigs and increase diarrhea among pigs. The objective of this experiment was, therefore, to test the hypothesis that dietary clay does not negatively influence growth performance, serum nitrogen, serum iron parameters, and diarrhea score (DS) of weanling pigs. A total of 256 weanling pigs (initial BW: 6.49 ± 0.97 kg) were randomly allotted to 8 diets, 8 replicate pens per diet, and 4 pigs per pen in a randomized complete block design. A conventional control diet was formulated. Seven additional diets that were similar to the control diet with the exception that 0.3% clay was added to each diet were also formulated. The 7 clay treatments included 0.3% smectite (SM), 0.3% kaolinite (KL), 0.3% zeolite (ZL), 0.15% SM + 0.15% KL, 0.15% SM + 0.15% ZL, 0.15% KL + 0.15% ZL, and 0.10% SM + 0.10% KL + 0.10% ZL. No antibiotics were included in the diets. Pigs were allowed