
Two experiments were conducted to measure DE, ME, and apparent (ATTD) and standardized total tract digestibility (STTD) of P in 3 milk products (i.e., whey powder, Perlac 850, and Variolac 960) fed to weanling pigs. Whey powder contains 95.8% DM, 3,647 kcal GE/kg, 66.0% lactose, 13.0% CP, and 0.63% P; Perlac 850 contains 97.7% DM, 3,426 kcal GE/kg, 76.1% lactose, 4.3% CP, and 0.57% P; and Variolac 960 contains 98.4% DM, 3,657 kcal GE/kg, 88.9% lactose, 3.0% CP, and 0.10% P on an as-fed basis. Perlac 850 was produced by extracting most of the protein from whey powder, and Variolac 960 was produced by extracting both protein and ash from whey powder. Both Perlac 850 and Variolac 960 were produced by Arla Foods (Aarhus, Denmark). The DE and ME in the 3 milk products were measured using 32 barrows (9.2 ± 0.44 kg BW). A basal diet based on corn and soybean meal and 3 diets containing 70% of the basal diet and 30% of each milk product were prepared. Each diet was fed to 8 pigs that were housed individually in metabolism crates. The total collection method was used with 5-d adaptation and 5-d collection periods. The concentrations of DE in whey powder, Perlac 850, and Variolac 960 were 3,646, 3,253, and 3,683 kcal/kg DM (SEM = 76.4), respectively, and the ME values were 3,462, 3,081, and 3,593 kcal/kg DM (SEM = 79.9). The STTD of P in the milk products was determined using 32 barrows (11.0 ± 0.81 kg BW). Three diets containing 30% of each milk product as the sole source of P were prepared, and a P-free diet was used to estimate the basal endogenous loss of P. The ATTD of P in whey powder and Perlac 850 was greater (P < 0.05) than in Variolac 960 (84.3 and 86.1 vs. 55.9%; SEM = 2.08), but the STTD values of P were not different (91.2, 93.1, and 91.8% in whey powder, Perlac 850, and Variolac 960, respectively). The basal endogenous loss of P was 153 mg/kg DMI. In conclusion, Perlac 850 contains less energy than whey powder or Variolac 960, but the STTD of P in all 3 milk products is relatively high and not different among sources.

Key Words: milk products, digestibility, pigs