200 Comparison of measured values for NE in diets and ingredients fed to pigs and values predicted from European energy systems.
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The objective of this study was to compare measured NE values in diets and ingredients fed to growing and finishing pigs with values predicted from 3 European energy systems. Sixteen diets and 6 ingredients were fed to growing and finishing pigs at 3 locations in North America and the NE of each diet and each ingredient was measured using the comparative slaughter method. The 6 ingredients were corn, conventional soybean meal, low-oligosaccharide soybean meal, soybean oil, choice white grease, soybean hulls, and wheat middlings. Regular corn-soybean meal diets and low-protein corn-soybean meal diets fortified with crystalline AA were also used. The measured NE for diets and ingredients were compared with NE values that were predicted from the French NE system (INRA), The Dutch NE system (CVB), and the Danish potential physiological energy system (PPE). Results showed that the measured values for NE of diets were lower ($P \leq 0.05$) than the values predicted from INRA and CVB. This was true for growing pigs as well as for finishing pigs, but values for finishing pigs obtained in this experiment were closer to the values predicted from INRA and CVB than the values for growing pigs. Values obtained for the diets used in this experiment were also closer to values predicted by PPE than the values predicted by INRA and CVB. For ingredients, the measured NE values were lower ($P \leq 0.05$) than the predicted values for growing pigs, regardless of which system they were compared with. However, the measured values for finishing pigs were relatively close to the predicted values from the three Europeans systems. The ranking of the 6 ingredients was similar if based on measured and predicted values. In conclusion, NE values predicted from the INRA and the CVB systems are greater than values for NE that are measured in pigs using the comparative slaughter procedure, but values for PPE are closer to measured values.

Key Words: European energy systems, net energy, pigs