The optimal true ileal digestible (TID) lysine and threonine requirement for finishing pigs from 36 to 60 and 77 to 105 kg is 67%.

The TID threonine:lysine ratio suggested by this study for pigs from 36 to 60 kg BW increased to 0.48%. Values of 0.72% TID lysine and 0.48% threonine increased ADG and G:F (linear, P < 0.05) G:F compared with pigs fed the control diet. Overall, ADG was 0.99, 1.08, 1.05, 1.01, 1.02, and 0.99 kg for pigs fed 0, 2.5, 5.0, 7.5, 10.0, and 12.5% meat and bone meal, respectively. Increasing meat and bone meal also increased (quadratic, P < 0.01) ADG, while feeding greater than 5.0% resulted in ADG similar to that of pigs fed the control diet. Overall, ADG was 0.99, 1.08, 1.05, 1.01, 1.02, and 0.99 kg for pigs fed 0, 2.5, 5.0, 7.5, 10.0, and 12.5% meat and bone meal, respectively. Increasing meat and bone meal also improved (quadratic, P < 0.01) ADG compared with pigs fed the control diet. Overall, G:F was 0.33, 0.35, 0.34, 0.34, and 0.34 for pigs fed 0, 2.5, 5.0, 7.5, 10.0, and 12.5% meat and bone meal, respectively. Increasing meat and bone meal decreased (linear, P < 0.02) ADFI; however, the greatest decrease in ADFI was observed in pigs fed greater than 5.0% meat and bone meal. Because the diets were formulated slightly below the pigs' anticipated requirements, the results suggest that the meat and bone meal used in this study was relatively high quality and had greater amino acid digestibility than expected. In conclusion, replacing a portion of soybean meal with meat and bone meal had no negative effects on pig performance.