

added to the diet. Eighty barrows (initial BW of 13.6 ± 0.8) were allotted to 10 diets with 8 replicate pigs per diet in a randomized complete block design with 2 blocks of 40 pigs. A basal diet containing corn and soybean meal and 4 diets containing corn, soybean meal, and each of the 4 rice co-products were formulated. The rice co-products and corn and soybean meal were the only sources of energy in the diets. Five additional diets that were similar to the initial 5 diets with the exception that they also contained 16,000 units of xylanase (Econase XT-25, AB Vista, Marlborough, UK) were also formulated. All diets also contained 1500 units of microbial phytase (Quantum Blue 5G, AB Vista, Marlborough, UK). The DE and ME and the ATTD of DM, OM, fiber, and GE in diets and ingredients were calculated using the direct method and the difference method, respectively. Results indicated that the concentrations of DE and ME (DM basis) in FFRB and DFRB increased ($P < 0.05$) if xylanase was used. Broken rice had a greater ($P < 0.05$) concentration of DE and ME than FFRB and DFRB if no xylanase was added to the diets, but if xylanase was used, no differences in ME among FFRB, brown rice, and broken rice were observed. The ATTD of DM was greater ($P < 0.05$) in ingredients with xylanase than in ingredients without xylanase and there was a tendency ($P = 0.067$) for the ATTD of OM to be greater if xylanase was used. The ATTD of NDF in FFRB was greater ($P < 0.05$) when xylanase was added than if no xylanase was used, whereas the ATTD of NDF in DFRB was not affected by the addition of xylanase. In conclusion, if no xylanase was used broken rice and brown rice have greater concentrations of DE and ME than FFRB and DFRB, and these values were not increased by microbial xylanase. However, xylanase increased the concentration of DE and ME (DM basis) in FFRB and DFRB.

Key Words: digestibility, energy, rice bran, xylanase

234 Effects of exogenous xylanase on digestibility of dry matter, organic matter, neutral detergent fiber, and energy and the concentrations of digestible and metabolizable energy in rice co-products fed to weanling pigs. G. A. Casas^{*1,2}, H. H. Stein³,
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The objective of this experiment was to test the hypothesis that the apparent total tract digestibility (ATTD) of DM, OM, fiber, and GE by weanling pigs and the concentration of DE and ME in full-fat rice bran (FFRB), defatted rice bran (DFRB), brown rice, and broken rice are improved if microbial xylanase is