

# Amino acid digestibilities in different samples of rice bran for growing pigs

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An experiment was carried out to determine the apparent ileal amino acid (AA) digestibilities in five different samples of rice bran (RB) of various origins. The NDF content (DM basis) of the RB samples were as follows: A, 26.4%; B, 26.0%; C, 34.3%; D, 2.1%; and E, 25.5%. Six barrows, average initial BW 36.5 kg, were fitted with a simple T-cannula at the distal ileum, and thereafter fed one of six experimental diets according to a 6 × 6 Latin square design. Five diets were formulated to contain 23.1% RB (each of the five samples of RB), 53.8% corn and 19.9% soybean meal (SBM). In addition, a basal diet containing 71.0% corn and 26.3% SBM was formulated with these two ingredients providing the only dietary CP. All diets contained approximately 18% CP. Chromic oxide was used as the digestibility marker. The daily dietary allowance during each period was provided at 4% (wt/wt) of the individual BW measured at the beginning of each experimental period.

Each experimental period comprised 11 d. Following a 7-d adaptation to the diet, feces were collected for 48 h and ileal digesta for 24 h. The apparent ileal digestibilities of AA in the RB samples were calculated using the difference method. The digestibilities of most AA were lowest in RB-B and highest in RB-A and RB-D. The average of the digestibilities of the indispensable AA was 77.5% in RB-A; 58.4% in RB-B; 69.5% in RB-C; 75.8% in RB-D and 74.2% in RB-E. Lysine digestibility ranged from 62.6 to 82.2% and were different ( $P < .05$ ) only between RB-A and-B. For the indispensable AA, except lysine and tryptophan, there was a trend towards a negative correlation between apparent ileal digestibility values and the NDF content in RB. However, none of these relationships were significant ( $P > .05$ ).

## Implications:

Rice bran is produced in great quantities as a by-product of the rice milling industry. Nutritional evaluation is necessary for inclusion of RB in diets for pigs. This research was supported by Cargill.