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Sustainable Aquaculture for a Secure Future

Title: Apparent Digestible Energy and Nutrient Digestibility Coefficients of Diet Ingredients for Pacu *piaractus brachypomus*

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Abstract: The digestible energy and apparent nutrient digestibility coefficients of common diet ingredients were determined for pacu *Piaractus brachipomus* (370.21 ± 17.56 g). fish were fed with pelleted practical diets to apparent satiation and the feces were collected by siphoning. The digestibility value for each ingredient was determined by comparison of the digestibility of a test diet with a reference diet (24.5% crude protein and 1% chromic oxide). The digestible energy values of soybean meal (SBM), fish meal (FM), corn (CN), and wheat bran (WB) were 2382, 3826, 3353, and 1784 kcal/kg, respectively. The apparent dry matter digestibility coefficients were 83.72, 90.14, 89.13, and 82.05% for SBM, FM, CN, and WB, respectively. The apparent crude protein digestibility coefficients were 75.88, 90.49, 85.06, and 61.62% for SBM, FM, CN, and WB, respectively. The apparent lipid digestibility coefficients were 63.03, 77.00, 83.01, and 82.45% for SBM, FM, CN, and WB, respectively. The digestibility of protein, lipid, and energy from SBM were somewhat low compared to values for other warmwater omnivorous fishes, but similar to values reported for pacu-caranha *P. mesopomum*. Otherwise, the nutrient and energy availability of the ingredients to *P. brachypomus* was similar to that of other fish. This information will be useful in formulating nutritious, economical diets for pacus.

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