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Sustainable Aquaculture for a Secure Future

Title: Replacing fish meal by soybean meal in giant snakehead (*Channa micropeltes*) diets

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Abstract: This study was designed to determine the maximum replacing levels of fish meal protein (FM) by soybean meal protein (SBM), defatted with phytase enzyme supplementation for *Channa micropeltes*. FM in the basal diet was replaced by SBM in the diets at replacing levels of 20, 30, 40, and 50% with 0.02% phytase supplementation. *Channa micropeltes* fingerlings (4.3 ± 0.03 g/fish) were randomly distributed into 15 tanks (100 liters/tank) with 25 individuals per tanks. Fish were fed twice a day to satiate. After 8 weeks of feeding, there were no significant differences in survival rate (SR) among the treatments, ranging between 77.3% and 80%. Compare to control treatment (FM), replacement of 20, 30 and 40% of FM by SBM did not significantly affected on growth performance, feed conversion ratio (FCR) and protein efficiency ratio (PER) while the replacing level of 50% significantly reduced these parameters, except FCR. Results also showed that there weren't significant differences in crude protein content in whole body as the dietary soybean meal replacement levels increased. From economic view, replacement of FM by SBM up to 40% in *Channa micropeltes* diets reduced feed costs/kg diet and feed costs/kg weight gain by 10.8% and 4.83%, respectively.

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