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RESEARCH REPORTS

SUSTAINABLE AQUACULTURE FOR A SECURE FUTURE

Title: Effects of feeding pelleted versus non-pelleted defatted rice bran on Nile tilapia *Oreochromis niloticus* production and water quality in ponds

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Abstract: Effects of pelleted versus non-pelleted defatted rice bran on fish production and water quality were evaluated at the Aquaculture Research Station, University of Arkansas at Pine Bluff. Mixed-sex Nile tilapia (*Oreochromis niloticus*) were stocked at 2.3/m² into each of six 0.04-ha earthen ponds. Largemouth bass (*Micropterus salmoides*) were added at 0.17/m² for population control. Defatted rice bran was fed to fish at 2% body weight daily. After 169 days, tilapia harvests averaged 2,924 kg/ha in pellet-fed and 3,031 kg/ha in loose bran-fed treatments (a non-significant difference). Stocked fish comprised an average of 52% and 39%, respectively, in these treatments, and approached a significant difference (P=0.2). Average amounts of inorganic fertilizer required to maintain chlorophyll *a* levels of 100-150 mg/m³ were significantly different at 736 and 1,108 kg/ha in pelleted and loose bran treatments, respectively.

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