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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

FOOD CONVERSION OF TAMBAQUI CULTIVATED AT INTEGRATED PRODUCTION WITH OF FLORALTA GRASS AND PEANUT FORAGE IN SYSTEM AQUAPONIC

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The objective of this study was to measure the feed conversion of tambaqui (*Colossoma macropomum*) integrated to the cultivation of forages in a recirculation system, aquaponics. The study was conducted at the Federal University of Tocantins, Araguaína campus, in the period from july to october 2017. The design was completely randomized with four treatments and four replications. The treatments consisted in the cultivation of Floralta grass (*Hemarthria altissima* cv. Floralta), peanut forrage (*Arachis pintoi* cv. Amarillo), consortium of Floralta grass with peanut forage and control (water recirculation system without plant). Each experimental unit consisted of nurseries of 1 m^3, interconnected to a to a hydroponic system of 0.2 m^2 filled with ceramic tile, by a submersible pump of 520 L-1 hour. Juveniles of tambaqui with average weight of 2 g were distributed in the nurseries with a stocking rate of 25 fish m^{-3}, maintained without water, with an average recirculation rate of 20% of the total volume $hour^{-1}$. The animals were fed twice daily, *ad libitum,* with commercial feed containing 34% crude protein, consumption was recorded. The plants were cultivated by vegetative propagation in the hydroponic system two weeks after the occupation of nurseries. The plants were maintained without fertilization or correction, had the water of tambaqui cultivation with only source of nutrients, and submitted to monthly cuts, was maintained 30% residual biomass. The data from Feed conversion they were submitted to Tukey test at 5% significance. There was no significant difference for apparent feed conversion of juvenile tambaqui, cultivated in an integrated system the production of Floralta grass, peanut forage, consortium of Floralta grass with peanut forage and control (*p valor 0.7*), the animals had an average feed conversion of 1.3; 1.27; 1.34; 1.29 respectively, with general mean of 1.3, coefficient of variation 7.64, least significant difference in 0.3 for treatments. Under the study conditions it is concluded that the use of forages does not influence the productive performance, in the feed conversion parameter, from tambaqui.

Keywords: Aquaculture, *Colossoma macropomum*, feed intake, hydroponics, weight gain

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