Biofloc technology on the zootechnical performance of tilapia: effect of strain and stocking density [

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text (article)

Analítica

The necessity of new technologies for the culture of aquatic organisms is becoming more evident, and thus, the biofloc system, a technic created to perform zero or minimum water exchange, starts to become more useful not only in shrimp culture, but also in finfish culture. This research purpose was to evaluate the growth and survival of Nile tilapia or "gray" (Oreochromis niloticus - GIFT strain) and red tilapia "Red Florida" strain (Oreochromis sp.) in biofloc system stocked in different densities (400 e 800/m3) in brackish water (8‰). Sixteen 26L plastic bins (19L usefull) were used and 192 fingerlings (3,06 " 0,2 g) were stocked. A factorial experimental design was adopted (strain vs density) and a "macrocosm-microcosm" device system. For42 days, the animals were fed on a 45% CP commercial diet, three times per day. Water quality parameters and microbial community were monitored. At the end, proximate analysis of biofloc biomass was performed. The results suggested that Nile tilapia was the most appropriate for this phase (3-20 g) in biofloc system in brackish water. Furthermore, no negative effect was observed when 800 fish/m2 stocking density was considered
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