

Taste preference of hybrid grouper (*Epinephelus fuscoguttatus*♀ × *Epinephelus lanceolatus*♂) for nucleoside and nucleotides

ABSTRACT

This study was conducted to determine the taste preference of hybrid grouper (*Epinephelus fuscoguttatus* × *Epinephelus lanceolatus*) for nucleoside (inosine - INO) and nucleotides (inosine-5'-monophosphate - IMP and guanosine-5'-monophosphate - GMP), which are commonly used as feeding stimulants in fish diets. Behavioural assay was conducted by feeding the fish with the agar gel pellets that contained the taste substances and observing their feeding response through video recording. Preference Index (PrfInd; minimum = 0, maximum = 1) was calculated to evaluate the fish preference for the taste substances tested. Data so collected suggested that INO, IMP, and GMP were generally preferable by the hybrid grouper. However, INO was the most potential FS for both S and L sizes (19.7 ± 1.4 g and 162.3 ± 50.5 g in BW, mean \pm S.D.) hybrid grouper based on its functional dosage. In the S size fish, INO attained high PrfInd at both 0.1% and 1% (0.84 and 1) concentration levels, while IMP and GMP attained high PrfInd at 1% (both 1) but low PrfInd (0.6 and 0.13, respectively) at 0.1%. In the L size fish, INO also attained very high PrfInd at 0.01% (0.87) but IMP and GMP were not (0.13 and 0). In addition, improvement in the taste acceptance to INO of the hybrid grouper was evident in this study. The S size fish rejected INO at 0.01% (PrfInd = 0) but the L size fish accepted it very well (0.87). These results suggested that the supplementation level of INO in the practical diets for the hybrid grouper can be decreased with the fish growth during the grow-out period.