

LEACHING OF DIETARY MALTOSE, ECONOMIC EFFICIENCY TO NILE TILAPIA (*OREOCHROMIS NILOTICUS*) FINGERLINGS

KERI ALHADI IGHWELA¹, AZIZ BIN AHMAD², A.B. ABOL-MUNAFI³

¹Faculty of Marine Resources, Al Asmarya University, Zliten Libya; ²Faculty of Science and Technology, University Malaysia Terengganu, Malaysia; ³Faculty of Fisheries and Aqua-Industry, University Malaysia Terengganu, Malaysia

Email: Keri_gwallah@Yahoo.com

EKONOMSKA EFIKASNOST DODAVANJA MALTOZE U ISHRANI MLAĐI NILSKE TILAPIJE (*OREOCHROMIS NILOTICUS*)

Apstrakt

Hrana koja se proizvodi za akvakulturu zahteva dobru stabilnost, kako bi se izbeglo njeno raspadanje u toku primene, naročito ugljenih hidrata. Pet eksperimentalnih hrana je formulirano tako da sadrže različite količine maltoze (20, 25, 30 i 35%). Postojanost maltoze u toku 15, 30, i 60 minuta ustanovljeno je u laboratorijskim uslovima. Eksperimentalni rezultati su pokazali da se natapljenost maltozom povećava sa povećanjem vremena potapanja (30 min) i bilo je 100% za hranu 20, sa 25% maltoze i 95% za hranu 30, sa 35% maltoze. Porast je bio u korelaciji sa podacima koji su dobijeni za natapanje dijetetske maltoze, a ustanovljene su značajne razlike ($p < 0,05$) u srednjim vrednostima finalne mase kao i u prirastu srednjih vrednosti masa između grupa. Riba koja je hranjena hranom koja je sadržala 35% maltoze ostvarila je najbolji prirast, ekonomsku efikasnost i relativne ekonomske efikasnosti u poređenju sa drugim ispitanim hranama.

Ključne reči: natapanje maltozom, tilapija, rast, ekonomska efikasnost

Abstract

Diets developed for aquaculture require good stability to avoid dissolution from exposure, especially carbohydrates. Five experimental diets were formulated to contain different maltose levels (20, 25, 30 and 35%). Maltose retention at 15, 30, and 60 minutes was investigated in the laboratory. The result of the experiments showed that maltose leaching increased by increasing time of immersion (30 min), and it was 100% for feed 20, containing 25% maltose, and 95% for feed 30, containing 35% maltose. The growth was correlated to the data produced from the leaching of dietary maltose, and significant differences ($P <$

0.05) in mean final weight and mean weight gain between groups have been recorded. The fish fed diet which contained 35% maltose achieved the best growth, economic efficiency and relative economic efficiency comparing with other tested diets.

Keywords: leaching maltose, Tilapia, growth, economic efficiency