عنوان مقاله:

The effect of dietary dextrin levels on growth performance, body composition and hepatosomatic index in juvenile Siberian sturgeon, Acipenser baerii

محل انتشار:

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نویسندگان:

M. Yazdani Sadati

A. Borzoii

R. Akrami

خلاصه مقاله:

The present study was carried out to determine the ability of Acipenser baerii in utilizing carbohydrate (dextrin) as a non protein energy source substituted with animal oil. A total of ۶۵ juveniles A. baerii with an initial mean weight of ۶۸۹ ± ۶۲ g were distributed in ۱۵ fiber glass tanks. Five diets were formulated including ۰, ۵, ۱۰, ۱۵ and ۲۰% of dextrin and fed for ۸ weeks. Fish were weighed monthly and growth was evaluated in each treatment. At the end of experiment, body composition and hepatosomatic index were analyzed. There was no significant differences in body weight increase (BWI) and final weight (FW) among different groups (p>۰.۰۵). Increase of dextrin levels in diets led to an increase in feed conversation ratio (FCR) in fish fed diets containing ۱۵ and ۲۰% dextrin as compared to that in the control group and in fish fed the diet containing ۱۰% dextrin although the differences were not significant (p>۰.۰۵). The specific growth rate (SGR) in all treatments were the same (p>۰.۰۵). The highest body protein and lipid were observed in fish fed diets containing ۱۰ and ۲۰ % dextrin, respectively (p<۰.۰۵). The hepatosomatic index (HSI) showed no significant differences in experimental groups compared to the control (p>۰.۰۵). In conclusion, juvenile A. baerii can be fed diets with high levels of dietary dextrin as a non protein energy source with no deleterious effects and a partial replacement of cheap carbohydrate with lipid is suggested to obtain the necessary energy in commercial diets.

کلمات کلیدی:

Acipenser baerii, Lipid, Carbohydrate, Growth rate, Body composition :