

PROCESSING TRAITS OF EUROPEAN CATFISH (*SILURUS GLANIS*) FROM OUTDOOR FLOW- THROUGH AND INDOOR RECYCLING AQUACULTURE UNITS

ZDENEK ADAMEK^{1*}, IULIA GRECU², ISABELLE METAXA², LAURENT
SABARICH³, JEAN-PAUL BLANCHETON³

¹University of South Bohemia, Research Institute of Fish Culture and Hydrobiology,
389 25 Vodňany, Czech Republic, ²Dept. of Aquaculture, Dunarea de Jos University,
Galati, Romania, ³IFREMER, Station expérimentale d'aquaculture, Palavas les flots,
France

*Corresponding author's e-mail address: adamek@ivb.cz

OSOBIŇE OBRADNE SOMA (*SILURUS GLANIS*) IZ SPOLJAŠNJIH PROTOČNIH I UNUTRAŠNJIH RECIRKULACIONIH UZGOJNIH JEDINICA

Abstract

Wels (European) catfish, *Silurus glanis* L., is a high valued fish of European pond aquaculture. Recently, the quality of its flesh, suitability of very good growth performance in high stocking densities and ability to ingest artificial pelleted diets, led to its wider utilisation under conditions of intensive warm-water farming units including recycling systems. The evaluation of processing yields was performed using fish cultured in two different farming units – (1) outdoor pond aquaculture system (PAS) with flow-through regime (24.6±0.2°C) and (2) the indoor tank aquaculture system (TAS) with recirculation regime (26.0±1.0°C). Despite no significant differences appeared in their processing traits, the condition coefficients (based on eviscerated body weight) were significantly higher in PAS fish. However these coefficients were almost identical when calculated from the total weight of fish. Visceral, ventral and dorsal fat deposits were significantly higher in TAS fish in comparison to PAS fish and also in females as compared to males.

Acknowledgement: The study was supported by the ASEFAF project (France) and by the USB RIFCH projects CENAQUA CZ.1.05/2.1.00/01.0024 and GA JU 047/2010/7.

Abstrakt

Evropski som, *Silurus glanis* L., je visoko vredna riba koja se gaji u Evropskim rubnjacima. U poslednje vreme, kvalitet njegovog mesa, pogodnost veoma dobrih performansi rasta u velikoj gustini nasada, kao i sposobnost korišćenja peletirane veštačke hrane, dovela je do povećanog obima gajenja u intenzivnim toplovođenim uzgojnim jedinicama, uključujući i recirkulacione sisteme. Procena prinosa prerade je obavljena ispitivanjem prerađenog proizvoda ribe gajene u 2 različita sistema: (1) ribnjačkom jezeru na otvorenom (PAS) sa protočnim režimom ($24.6 \pm 0.2^\circ\text{C}$) i (2) u tankovima u zatvorenom sistemu (TAS) sa recirkulacionim režimom ($26.0 \pm 1.0^\circ\text{C}$). Iako nije bilo značajnih razlika u osobinama obrade, koeficijent kondicije (zasnovan na telesnoj masi bez viscere) je bio značajno viši kod riba iz PAS sistema. Ovi su koeficijenti bili gotovo identični kada bi se preračunali iz ukupne težine ribe. Visceralni, ventralni i dorzalni depoziti masti su bili značajno viši u riba iz RAS sistema u odnosu na ribe iz PAS, kao i kod ženki u poređenju sa mužjacima.

Zahvalnica: Istraživanje su podržali sledeći projekti: ASEFAF project (France) i USB RIFCH projects CENAQUA CZ.1.05/2.1.00/01.0024 i GA JU 047/2010/7.