The role of pink lucantin and yellow carofil pigments in the color intensity of white Oscar *Astronotus ocellatus* fish spots

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Abstract:
The white Oscar (*Astronotus ocellatus*) with its white skin and orange spots is one of the beautiful and marketable ornamental fish species, and the color intensity of the spots greatly influences the price and acceptance of its enthusiasts. In this study, 144 white Oscar fish with an average weight of 9.37± 0.03 and a mean length of 8.24± 0.01 were grouped into 4 treatments, including Lucantin pink (200 mg per kg of food), and yellow carofil (200 mg per kilogram of food), a combination of two pigments (100 mg of each per kilogram of food) and a control agent (free of pigment) were grown under the same conditions for 27 days. At the end of the period, 6-fish of each replicate was randomly sampled to photograph the area main points of accumulation of spots (caudal peduncle) under the same light conditions. The statistical comparison of the data of the three main colors and the four sub-colors in the CS6 software showed that all the treatments were the same in terms of the color intensity of the moles of the body, but there were significant statistical differences with control (P=0.00). Due to the same price of pigments; using each or every combination to improve the color and increase marketability will meet the needs of breeders and buyers.

Keywords: Yellow Carofil, Pink Lucantin, Skin, Pigment, White Oscar, *Astronotus ocellatus*