

## **Dietary Ergosan as a Supplemental Nutrient on Growth Performance, and Stress in Zebrafish (Danio Rerio)**

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**Abstract :** In this study, the effects of different levels of Ergosan (control group (0), 2, 4 and 6 gr Ergosan per Kg diet) as a nutritional supplement were investigated on growth indices and stress in Zebrafish for 3 months. Larvae (4-day-old after hatching) were fed with experimental diet from the beginning of feeding until adult (adolescence) (average weight: 69.3 g, length: 5.1 cm). Different levels of Ergosan had no significant effect on rate survival ( $P < 0.05$ ). The results showed that diet containing 6 gr Ergosan significantly caused the best FCR in Zebrafish ( $P < 0.05$ ). By increasing the Ergosan diet, specific growth rate increased. Body weight gain and condition factor had significant differences ( $P < 0.05$ ) as the highest and the lowest were observed in treatment 3 gr of Ergosan and control, respectively. The results showed that fish fed with experimental diet, had the highest resistance to environmental stresses compared to control, and the test temperature, oxygen, salinity and alkalinity samples containing 6 gr/kg, was significantly more resistance compared to the other treatments ( $P < 0.05$ ). Overall, to achieve high resistance to environmental stress and increase final biomass using 6 gr/kg Ergosan in diet fish Zebrafish.

**Keywords :** Ergosan, stress, growth performance, Danio rerio

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