

## Effect of livergol drug on growth performance and preservation of fatty liver in common carp (*Cyprinus carpio*) fed with diets containing different level of fatty

Ali Sadeghi<sup>1</sup>

Abdolreza Jahanbakhshi<sup>2\*</sup>

Saeid Tamadoni Jahromi<sup>3</sup>

Mohsen Gozari<sup>3</sup>

Mohammad Zamani<sup>4</sup>

Sajjad Pourmozaffar<sup>5\*</sup>

Reza Nahavandi<sup>6</sup>

1. Department of Fisheries, Faculty of Fisheries and Environmental Sciences, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran.

2. Offshore Fisheries Research Center, Iranian Fisheries Sciences Research Institute, Agricultural Research Education and Extension Organization (AREEO), Chabahar, Iran.

3. Persian Gulf and Oman Sea Ecology Research Center, Iranian Fisheries Sciences Research Institute, Agricultural Research Education and Extension Organization (AREEO), Bandar Abbas, Iran.

4. Department of Fisheries, Islamic Azad University Boushehr Branch, Boushehr, Iran.

5. Persian Gulf Mollusks Research Station, Persian Gulf and Oman Sea Ecology Research Center, Iranian Fisheries Sciences Research Institute, Agricultural Research Education and Extension Organization (AREEO), Bandar-e-Lengeh, Iran.

6. Animal Science Research Institute of Iran (ASRI), Agricultural Research, Education and Extension Organization (AREEO), Karaj, Iran.

\*Corresponding author:

Sajjad5550@gmail.com

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### Abstract

The purpose of this study was to evaluate the effects of livergol drug on growth indices and prevention of fatty liver disease in different levels of fat in common carp diets. In 2017, 9 diets of different nutrients were prepared with 3 levels of 0, 0.5 and 1% livergol and three levels of 5, 10 and 20% fat. The fish were fed for 180 days. After the end of breeding period, fish growth indices (end weight, weight gain, specific growth rate, and survival rate and food conversion ratio) and samples of fish liver tissue were investigated. The results of the experiment showed that the final weight, body weight gain, specific growth rate and feed conversion ratio were significant in the experimental treatments ( $P \leq 0.05$ ). While survival did not show significant difference among treatments ( $P \geq 0.05$ ). A significant increase in final weight was observed in treatments from 3 to 8 ( $P < 0.05$ ). The highest growth indices were observed in treatment 8 (fat 20% + livergol 1%). The highest liver toxicity among fish fed diets containing 5% fat was observed in control group. Additionally, treatment 3 (10% fat and without livergol) and 5 (10% fat and 1% livergol) show the highest and lowest liver toxicity among 10% fat group respectively. The results of the experiment showed that among all treatments, the highest liver toxicity among the all groups was observed in treatment 6 containing 20% fat and without livergol. The final result of the study showed that in all dietary fat treatments (5, 10 and 20%), adding livergol drug to the diet was probably due to the presence of silimarin reduced liver lesions in common carp.

**Keywords:** common carp; livergol; Growth index; fatty liver.