

Effect of two dietary lipid, protein, and carbohydrate levels on the growth, survival, and biochemical composition of gilthead sea bream larvae (*Sparus aurata*)

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Previous experiments have suggested that elevation of the dietary lipid levels from 13 to 20% does not improve the growth and survival of gilthead sea bream larvae if the levels of essential fatty acids in the diet meet the requirements of the larvae. In order to test this hypothesis and to study protein and carbohydrate utilization by the gilthead sea bream larvae, two dietary levels of lipid, protein, and carbohydrate were tested in a feeding trial. Fifteen-day-old gilthead sea bream larvae were fed four microparticulated diets that contained lipids (diet A), protein (diet B), and a mixture of glucose and glycogen (diet C) instead of α -cellulose (diet D). Larvae were fed the experimental diets together with a small amount of

rotifers cultured on baker's yeast. After 14 d of feeding, there were no significant differences ($p < 0.05$) among the treatments in growth and survival of the larvae. These results suggest that, assuming good quality of ingredients, the lowest levels of lipid, protein, and carbohydrates used in this experiment were enough to promote the good growth and survival of the larvae.

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