

## Effect of Initial Stocking Density and Diet Type on Growth Indices and Survival Rate of the Caspian Kutum (*Rutilus kutum*) Larvae

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### Abstract

Effect of two initial larval stocking densities (40 and 80 larvae per liter) and two diets (concentrated diet and live food) were evaluated on growth performance indices and larval survival in the first-feeding larvae of the Caspian kutum (*Rutilus kutum*) in the experimental conditions for four weeks. Results showed that the highest weight gain (mean final weight  $56 \pm 2$  mg) was recorded in larvae fed with concentrated diet at low density ( $P < 0.05$ ). The lowest mortality rates were observed in the group fed live food; so that, it varied in a range between 85-91%. However, the specific growth rate in both groups at low and high densities was lower values compared with concentrated diet ( $P < 0.05$ ). The results can be expressed that the first feeding larvae can be cultured with concentrated diet in low larval density (40 per lit). Regarding the importance of survival rate compared to growth rate in kutum larvae, using live food (in the first two weeks) and then concentrated diet (in the next two weeks) for larviculture of kutum are proposed.

Keywords: *Kutum*, Stocking density, Live feed, Artificial food, Growth, Survival.

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