

Successful demonstration of compensatory growth in Silver pompano in coastal fish farmer's cage at Uppunda, Karnataka

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Compensatory growth (CG) in fish is a growth stage of improved growth when favourable conditions are restored, after a period of growth deprivation or stunting. Such growth deprived fingerlings are considered as ideal stocking material for fish farming due to several advantages. Stunted fingerling production is proven to ensure prolonged seed availability, especially during off seasons, production of healthy and hardy fingerlings with higher survival, and to help to maintain fish seed in transportable size. As the process of growth deprivation is adopted for removing weak and sick fry to

produce healthy larger fish seed as a stocking material for grow-out culture. For the demonstration of compensatory growth, growth deprived fingerlings of Silver pompano were produced at the marine finfish hatchery of Karwar Regional Station of ICAR-CMFRI following standard protocols. Briefly, Silver pompano fingerlings (average length 2.6 cm and weight 0.65 g) were stocked at a high stocking rates (100 numbers / m³) in rectangular FRP tanks (3 tonnes water holding capacity) and reared in 20 ppt saline water for 60 days providing pellet feed (45% crude protein; 10% crude fat; 2.5% crude fiber; 11% moisture) with pellet size of 0.8 mm and 1.2 mm at a lower feeding rate (3% of body weight). Daily 30% water exchange was carried out in the tanks. During the period of growth deprivation, the fish has grown only marginally (0.65 g to 3.2 g) with a survival of 86.5%. The seeds were transported to the farming site in FRP tanks provided with sufficient oxygen supply. Following this procedure, the fingerlings could be held in transportable size in the nursery rearing system for two months with minimum feed input.

An on-farm demonstration of the compensatory growth in the growth deprived Silver pompano was carried out in a coastal cage farm owned by Mr. Ramesh at Uppunda, Karnataka during February 2023 to July 2023 with the technical guidance of Karwar Regional Station of ICAR-CMFRI. Around 500 numbers of growth deprived pompano fingerlings (average length 3.8 cm and weight 3.2 g) were stocked in a 6 m diameter circular galvanised iron cage near the bar mouth of the Yedamavinahole river. The fish were fed with low value fish ad libitum for three times a day. Other regular cage maintenance works such as cleaning of nets, net exchange and other maintenance works were taken up by the fish farmers. Karwar Regional Station of



Farming site near Koderi, Karnataka



Final harvest from the pompano farming using growth deprived seed

ICAR-CMFRI has extended the technical knowhow for doing the demonstration farming for the farmers. After a farming period of 175 days, the fish were harvested from the cage with 73% survival and the average size of the fish was ranging from 220 to 240 g (average weight of 238 g) with a specific growth rate of 2.46% per day. A total of 87 kg of

fish was harvested during this short duration culture and an average price of ₹350/Kg was realized during marketing. The farmers were forced to do the emergency harvest during the monsoon season.