EVALUATION OF COMMERCIAL DIETS ON TROPICAL GAR, *Atractosteus tropicus*, GROWTH

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The tropical gar, *Atractosteus tropicus*, is a species of commercial value in Southeastern Mexico. The methodology for its culture has been developed from controlled reproduction to grow-out. For this process we have used a commercial trout feed (Silver Cup™; 45% protein, and 16% lipid). This diet has provided good results; however, other diets are available in the market and need to be evaluated to determine if gar production can be enhanced using other feeds.

Fish used in this study were obtained from a controlled spawning in our laboratory. A total of 126 fish were selected (44 ± 2 g and 23.5 ± 0.5 cm TL). Fish were placed in fifteen tanks with capacity for 2,000 L at a density of 14 fish/tank. The experimental design consisted of a completely randomized design with one principal factor (diets). Three commercial diets for trout were evaluated: Silver Cup (SC); Purina (PU) and Malta Clayton (MC). Treatments were run in triplicates where feeding was provided two times per day using a fixed daily amount estimated as 5% tank biomass. Water quality (DO, pH and temperature) was monitored weekly and 30% water exchange was performed every three days. The experiment was run for 150 days. Weight and total length were measured monthly and survival was estimated at the same time. At the end of the experiment, specific growth rate (SGR), weight gain (WG%), food conversion rate (FCR), daily food intake (DFI), and food efficiency (FE) were estimated.

The results of this experiment indicated that significant differences existed only for SGR and FCR, were fish fed with SC had the highest values.

No significant differences were found in weight or length (P<0.5). However a trend was observed at the end of the experiment where fish fed with SC had similar weights than those fed with MC, but higher than PU showing significant differences at a P<0.1. Final weights averaged between 130 and 155 g. Survival was 100% in all treatments.

We conclude that trout-SC is the commercial diet that provides the best results for tropical gar grow-out.

![Figure 1. Average weight (± SD) of tropical gar fed with commercial diets.](image-url)