

ABSTRACT

Ornament fish can be used as a hobby or to enjoy the beauty of ornamental fish. Ornamental fish can be cultivated and trade in the marke, price range from affordable prices to quite expensive. One of the ornamental fish that has a relatively high selling value and a relatively stable price is the goldfish (*Goldfish Carassius Auratus*). This godlfish can survive and has tolerance to water quality and a fairly godd and varied range of life. However, even though they have quite good tolerance for life, there is a need to monitor and check water quality in the area of life of goldfish. Several factors that influence the health of goldfish include the pH value of the water and the water turbidity value, wich will cause disease in the fish such as fungus, skin damage, lethargy, or even death. This research aims to create a tool that can monitor aquarium water quality parameters automatically. These parameters include water pH and water turbidity in the aquarium. This tool is equipped with two pH sensors and turbidity sensors, wich function to monitor water pH and water turbidity. This tool can monitor data at any time as long as tool is on. To determine the threshold value of water turbidity that can be tolerated by goldfish, this was done using 4 different aquariums. The results obtained from aquarium 4 (P4) with fish feeding four times a day and aquarium 3 (P3) with fish feeding three times a day had low survival rates 0% and 66,6% with turbidity value of water 687 mg/L and 595 mg/L.

Keyword : Goldfish *Carassius Auratus*, Parameters, Water Quality, Fish Viability