

## ABSTRACT

One of the agricultural sectors providing the most animal feeds in the world is aquaculture. Yeast is incorporated into aqua feed to increase fish productivity which boosts fish farming output. The goal of current research was to evaluate the impact of yeast-based protein source on oxidative response in *Pangasius pangasius*. Hundred catfish were divided into four tanks with 25 fish fingerlings each. The basal diet was given to the control group for 15 days for acclimatization in the new environment. Experimental diets were prepared using Nupro as a yeast based protein source. In experimental groups of 0%, 25%, 50% and 65%, NuPro was added as 0%, 25%, 50% and 65% respectively. These control and experimental diets were fed to the fishes for 75 days, at a rate of 4% of its body weight, three times every day. The effects on antioxidant enzymes (LPO, GST, GSH, SOD, and catalase) by various diets were not statistically significant different ( $p>0.05$ ) from one another. In 25%, LPO, CAT, GSH and GST activity was highest among all groups. Liver morphology of *Pangasius pangasius* fed with control and experimental diets showed uniform and normal shaped Hepatocytes. So, overall no statistically significant results were seen in all groups. This may indicate that no oxidative stress was seen in pangasius when fed with yeast based protein source.