

**IMPACT OF *PEDIOCOCCUS ACIDILACTICI*, *SACCHAROMYCES CEREVISIAE*  
AND YANG ON GROWTH, MORPHOMETRIC PARAMETERS AND INTESTINAL  
PARAMETERS OF THE COMMON CARP (*Cyprinus carpio* L.)**

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This study was conducted to investigate the effect of commercial available probiotics (*Pedio-coccus acidilactici* CNCM I-4622 MA 18/5M and *Saccharomyces cerevisiae* var. *boulardii* CNCM I-1079) and prebiotic: YANG (inactivated yeast cells) on the growth parameters and morphometric features of the common carp. Fish were reared for 8 weeks in a recirculation system (RAS). A total of 120 fish of mean weight  $28.5 \pm 5$ g were randomly distributed into four experimental groups having three replicates ( $n=10$ /fish tank) and fed with four supplemental diets: D1 (fish fed with control only), D2, D3 and D4 fed with supplemental diet with addition of 1 g/kg of *P. acidilactici*, *S. cerevisiae* and YANG, respectively, at 3% of their body weight. Growth parameters were determined in terms of final body weight (FBW), percent weight gain (WG %) and survival rate (SR%) of fingerlings. Morphometric parameters were measured including total body length (TL), width (W), head length (HL), dorsal fin (DF), pelvic fin (PF) and caudal fin (CF). Fish fed with D2 and D4 showed the highest FBW, HL, CF, and WG% compared to those fed with D1 and D3. Nonetheless, none of these differences were statistically significant at  $p < 0.05$ . In conclusion, *P. acidilactici*, *S. cerevisiae* and YANG have no impact on growth or morphometric parameters of the common carp fingerlings in RAS. At the same time, we found that the mucus layer and villi parameters in the intestines show differences amongst the fingerlings of the different feeding groups. Villus width in fish fed with YANG were significantly ( $p < 0,0001$ ) higher followed by *S. cerevisiae*, *P. acidilactici*, and the control respectively. Furthermore, the mucus thickness was significantly higher in fish fed with *P. acidilactici* followed by YANG, *S. cerevisiae* and the control, respectively.