Effect of dietary of prebiotic mannan oligosaccharide and β-1,3 glucan on growth performance, survival, body composition and serum lysozyme activity in Rainbow trout (*Oncorhynchus mykiss*) fingerling

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Abstract
Effect of dietary prebiotic mannan oligosaccharide and β-1,3 glucan (TechnoMos®) on growth, survival rate, body composition and serum lysozyme activity in Rainbow trout (*Oncorhynchus mykiss*) were investigated for 55 days. Basal diet were supplemented with 0 (control), 1.5, 3.0 and 4.5 g/kg TechnoMos in a totally randomized design trial in triplicate groups. 480 Rainbow trout with initially average weight 14.08 ± 0.55 g were stocked in tanks and fed up a day. There were no significant differences in growth, feeding parameters and survival rate between fish fed control and TechnoMos supplementation diets (P>0.05). No significant difference was observed in lipid and ash carcass (P>0.05), but there was a significant difference in protein and moisture carcass between treatment (P<0.05). There was no significant difference in serum lysozyme activity between fish fed TechnoMos supplementation diets (P>0.05). The experiment indicated that the prebiotic mannan oligosaccharide and β-1,3 glucan didn't influence the increase of the growth performance but the level of 1.5 g/kg TechnoMos increased serum lysozyme level and survival rate in Rainbow trout fingerling.

Keywords: Mannan oligosaccharide and β-1,3 glucan, Growth, Survival rate, Lysozyme, *Oncorhynchus mykiss*.